

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

Chinook Middle School, 4891 West 27th Avenue, Kennewick, Washington

Dear Keith:

On Friday, April 7, 2017, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 34 drinking water samples for lead and copper analysis from Chinook Middle School (School) located at 4891 West 27th Avenue in Kennewick, Washington. Initial sampling identified 19 fixture locations with copper concentrations above guidance levels. Fulcrum returned to the School on May 20, and August 15, 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 April 7, 2017. Initial results identified 19 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 and installed filters on fixtures that did not respond to the aggressive flush. Fulcrum returned on May 20, and August 15, 2017 and collected samples to evaluate the success of

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



the remediation. Follow-up samples yielded results below the EPA 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, at this time Fulcrum does not recommend any additional sampling. However, consistent with industry practice and the intent of WAC 246-366A, Fulcrum recommends that the District complete re-sampling of the building within the next five years (before December 2021). See Figure 1-A and 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 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-A and 1-B in Attachment A of this letter. A site-specific sampling and analysis plan (SSSAP) that provides a building specific summary of the location, number, and sampling frequency of water fixture locations is located in Attachment B. Initial analytical results are summarized in Table 1 located in Attachment C of this letter. Laboratory analytical results from the initial sampling event are located in Attachment D of this letter.

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

Remedial Sampling

Sample locations from the remedial sampling event are presented in Figure 1-A and 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 19 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 aggressive flushes of the fixtures. The District installed filters on fixtures that did not respond to an aggressive flush. Fulcrum returned on the morning following the aggressive flush and filter installation, May 20, and August 15, 2017, to collect follow-up samples.

Analytical results from remedial sampling indicated the aggressive flush and filter installation 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 $15 \mu g/L$. A total of 19 initial samples contained copper above the EPA action level of $1,300 \mu g/L$. The District completed an aggressive flush of the fixtures identified with elevated copper and installed filters on fixtures that did not respond to aggressive flushing Follow-up sampling yielded results below the action level, confirming the remediation was successful. Following remedial 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 November 2021).

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

Sincerely,

Amanda Enbysk, GIT Environmental Geologist

Cmanda Carpyall

Ryan K. Mathews, CIH, CHMM Principal

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PS 12-1-2021

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ALANA MATHEWS



ATTACHMENT A

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





AREA D AREA A

LEGEND

KF-## - Kitchen faucet

CF-## - Classroom faucet

CDF-## - Classroom drinking fountain

OF-## - Office faucet

WC-## - Water cooler fountain

BF-## - Bottle filler fountain

NF-## - Nurse's faucet

Sample location: faucet

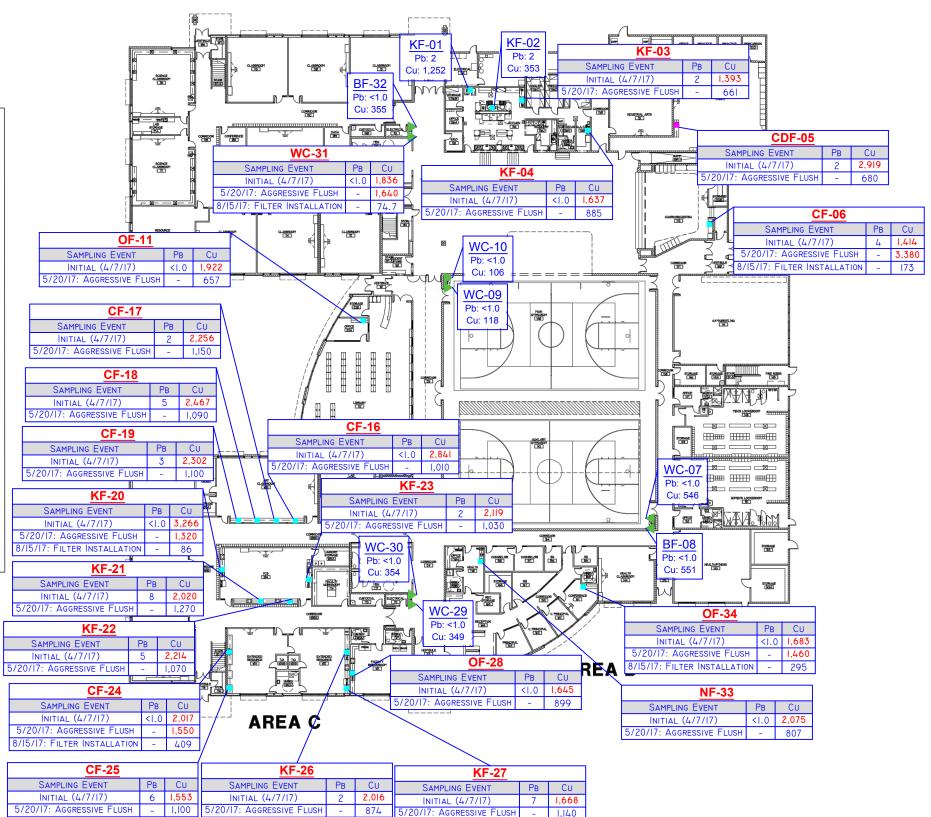
Sample location: drinking fountain at sink

Sample location: faucet and drinking fountain at same sink

Sample location: water cooler fountain

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

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



DRAWING PROVIDED BY KENNEWICK SCHOOL DISTRICT

Kennewick, Washington



<u>LEGEND</u>

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

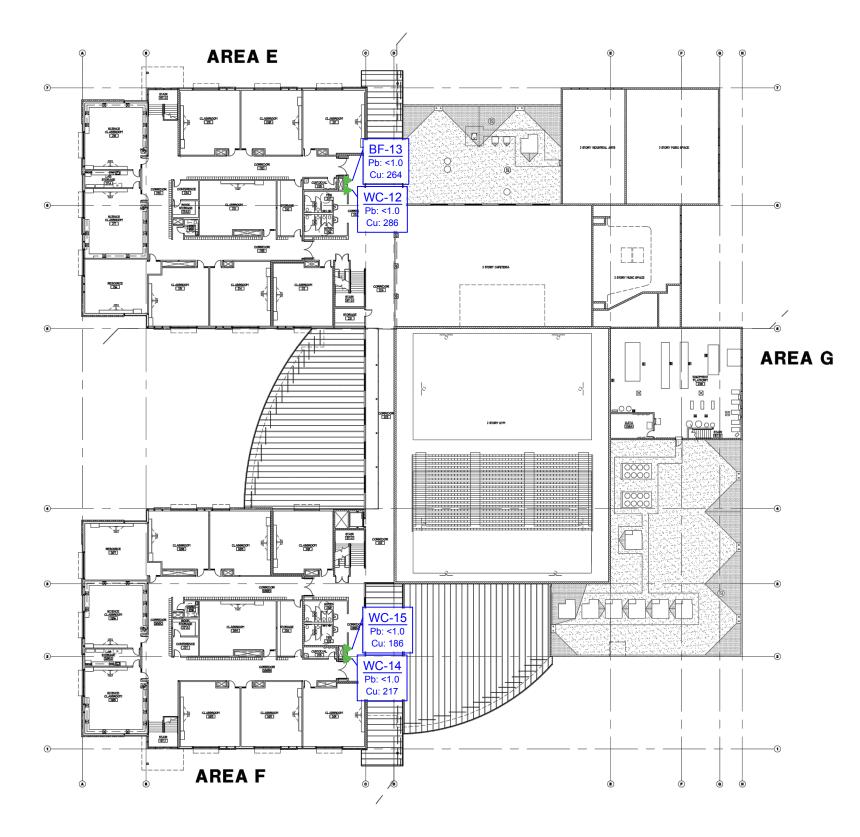
- Sample location: drinking fountain at sink

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 $\mu g/L$.

-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

Kennewick, Washington



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 specific summary of the location, number | | | | - |
|--|----------------|-----------------------------|-------------------------------|----------------|
| Campus/Building: <u>Chinook Middle S</u> WA | chool | Address: <u>60</u> | 011 West 10 th Pla | ce, Kennewick, |
| ☐ Elementary | ool 🗆 H | ligh School | ☐ Administration | on |
| Date of Construction: 2017 | | Modernizations | = | |
| Fixture Type | Locations | Fixture Styles ¹ | Samples | Ratio |
| Drinking fountain/water cooler (DF/WC) | 12 | 2 | 12 | 100% |
| Kitchen Fixture (KF) | 4 | 4 | 4 | 100% |
| Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF) | 14 | 3 | 13 | 93% |
| Classroom drinking fountain at sink (CDF) | 1 | 1 | 1 | 100% |
| Nurse's Office/Health Room (NF) | 1 | 1 | 1 | 100% |
| Teacher's Lounges/Work Rooms (OF) | 3 | 1 | 3 | 100% |
| TOTALS | 35 | | 34 | 97% |
| Fixture styles are approximate based | d on sampler's | observations | | |
| Lead Sampler: <u>Amanda Enbysk</u> | | | Date: <u>4/7/201</u> | |
| Sample Prefix: <u>CHK</u> – <u>4717</u> - <u>School Code</u> Date | | | | er |
| Laboratory: R. J. Lee Group, Columb | oia Basin Ana | <u>lytical</u> Deliver | ry Date: <u>April</u> | 7, 2017 |
| Comments: | | | | /al |



ATTACHMENT C

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





Table 1: Initial Sampling Analytical Results

| Table 1. Illitial Sampling Analytical Results | | Lead | Copper |
|--|-----------------------------|---------|---------|
| Sample Identification and Location | Fixture Type | Results | Results |
| | | (µg/L) | (µg/L) |
| CHK4717-P-KF-01: Kitchen, south wall vat fill hook | Kitchen Faucet | 2 | 1,252 |
| CHK4717-P-KF-02: Kitchen, vat fill center | Kitchen Faucet | 2 | 353 |
| CHK4717-P-KF-03: Kitchen, West wall food prep sink | Kitchen Faucet | 2 | 1,393 |
| CHK4717-P-KF-04: Kitchen, à la carte | Kitchen Faucet | <1.0 | 1,637 |
| CHK4717-P-CDF-05: Band Room | Classroom Drinking Fountain | 2 | 2,919 |
| CHK4717-P-CF-06: Choir Room | Classroom Faucet | 4 | 1,414 |
| CHK4717-P-WC-07: Auxiliary Gym, left fixture | Water Cooler Fountain | <1.0 | 546 |
| CHK4717-P-BF-08: Auxiliary gym, right fixture | Bottle Filler Fountain | <1.0 | 551 |
| CHK4717-P-WC-09: Main gym, left fixture | Water Cooler Fountain | <1.0 | 118 |
| CHK4717-P-WC-10: Main gym, right fixture | Water Cooler Fountain | <1.0 | 106 |
| CHK4717-P-OF-11: Library Workroom | Office Faucet | <1.0 | 1,922 |
| CHK4717-P-WC-12: Area E, 2nd floor, left | Water Cooler Fountain | <1.0 | 286 |
| CHK4717-P-BF-13: Area E, 2nd floor, right | Bottle Filler Fountain | <1.0 | 264 |
| CHK4717-P-WC-14: Area F, 2nd floor, left | Water Cooler Fountain | <1.0 | 217 |
| CHK4717-P-WC-15: Area F, 2nd floor, right | Water Cooler Fountain | <1.0 | 186 |
| CHK4717-P-CF-16: Room 109, leftmost fixture | Classroom Faucet | <1.0 | 2,841 |
| CHK4717-P-CF-17: Room 109, left of center | Classroom Faucet | 2 | 2,256 |
| CHK4717-P-CF-18: Room 109, right of center | Classroom Faucet | 5 | 2,467 |
| CHK4717-P-CF-19: Room 109, rightmost fixture | Classroom Faucet | 3 | 2,302 |
| CHK4717-P-KF-20: Room 104, east wall | Classroom Faucet | <1.0 | 3,266 |
| CHK4717-P-KF-21: Room 104, north wall, right fixture | Classroom Faucet | 8 | 2,020 |
| CHK4717-P-KF-22: Room 104, north wall, left fixture | Classroom Faucet | 5 | 2,214 |
| CHK4717-P-KF-23; Room 104, west wall | Classroom Faucet | 2 | 2,119 |
| CHK4717-P-CF-24: Room 103, right fixture | Classroom Faucet | <1.0 | 2,017 |
| CHK4717-P-CF-25: Room 103 left fixture | Classroom Faucet | 6 | 1,553 |
| CHK4717-P-KF-26: Room 102, left fixture | Classroom Faucet | 2 | 2,016 |
| CHK4717-P-KF-27: Room 102, right fixture | Classroom Faucet | 7 | 1,668 |
| CHK4717-P-OF-28: Faculty Breakroom | Office Faucet | <1.0 | 1,645 |
| CHK4717-P-WC-29: Main Entrance, left fixture | Water Cooler Fountain | <1.0 | 349 |
| CHK4717-P-WC-30: Main Entrance, right fixture | Water Cooler Fountain | <1.0 | 354 |
| CHK4717-P-WC-31: South Entrance, left fixture | Water Cooler Fountain | <1.0 | 1,836 |
| CHK4717-P-BF-32: South Entrance, right fixture | Bottle Filler Fountain | <1.0 | 355 |
| CHK4717-P-NF-33: Health Room/Nurse's Office | Nurses Faucet | <1.0 | 2,075 |
| CHK4717-P-OF-34: Main Office, Conference Room | Office Faucet | <1.0 | 1,683 |
| CHK4717-P-WC-35: Laboratory Blank | Distilled Water Blank | <1.0 | <10 |
| CHK4717-P-WC-36: Laboratory Spike | Lead and Copper Spike | 15 | 1,339 |
| EPA Action Level | | 15 | 1,300 |

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

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



Table 2: pH and Temperature Data Summary

| Sample Identification and Location | Fixture Type | pH Flush | Temperature Flush(°C) | pH Sample | Temperature Sample(°C) |
|--|---------------------------|-------------|--------------------------|--------------|---------------------------|
| CHK4717-P-KF-04: Kitchen, à la carte | Kitchen Faucet | 7.48 | 21.0 | 7.65 | 21.9 |
| CHK4717-P-BF-08: Auxiliary gym, right fixture | Bottle Filler Fountain | 7.46 | 20.6 | 7.62 | 18.7 |
| CHK4717-P-OF-11: Library Workroom | Office Faucet | 7.54 | 20.8 | 7.52 | 20.0 |
| CHK4717-P-CF-16: Room 109, leftmost fixture | Classroom Faucet | 7.52 | 23.6 | 7.49 | 21.1 |
| CHK4717-P-KF-20: Room 104, east wall | Classroom Faucet | 7.58 | 24.4 | 7.73 | 21.6 |
| CHK4717-P-CF-24: Room 103, right fixture | Classroom Faucet | 7.63 | 23.8 | 7.82 | 21.0 |
| CHK4717-P-OF-28: Faculty Breakroom | Office Faucet | 7.68 | 24.3 | 7.8 | 21.4 |
| CHK4717-P-BF-32: South Entrance, right fixture | Bottle Filler Fountain | 7.76 | 20.9 | 7.58 | 21.0 |



| | | | | | | | | | | | Samp | le Identi | fication | | | | | | | | | | |
|---------------------------------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|------------------------|
| Sampling Event | KF-03 | KF-04 | CDF-05 | CF-06 | OF-11 | CF-16 | CF-17 | CF-18 | CF-19 | KF-20 | KF-21 | KF-22 | KF-23 | CF-24 | CF-25 | KF-26 | KF-27 | OF-28 | WC-31 | NF-33 | OF-34 | Laboratory Blank (-35) | Laboratory Spike (-36) |
| Initial (4/7/2017) | 1,393 | 1,637 | 2,919 | 1,414 | 1,922 | 2,841 | 2,256 | 2,467 | 2,302 | 3,266 | 2,020 | 2,214 | 2,119 | 2,017 | 1,553 | 2,016 | 1,668 | 1,645 | 1,836 | 2,075 | 1,683 | <1.00 | 1,339 |
| Aggressive Flush (5/20/2017) | 661 | 885 | 680 | 3,380 | 657 | 1,010 | 1,150 | 1,090 | 1,100 | 1,320 | 1,270 | 1,070 | 1,030 | 1,550 | 1,100 | 874 | 1,140 | 899 | 1,640 | 807 | 1,460 | 4.70 | 1,300 |
| Filter Installation (8/15/2017) | - | - | - | 173 | - | - | - | - | - | 86 | - | - | - | 409 | ı | - | - | - | 74.7 | - | 295 | < 0.500 | 1,400 |
| 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 μg/L means microgram per liter or parts per billion (ppb).

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



ATTACHMENT D

Initial Analytical Results





RJ Lee Group, Inc. | Columbia Basin Analytical Laboratories

2710 North 20th Avenue, Pasco WA 99301 Tel: (509) 545-4989 | Fax: (509) 544-6010

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

Subject: Chemical Analysis Report

Columbia Basin Analytical Laboratories received 36 sample(s) on 04/07/17 for analysis. These sample(s) have been assigned a login order number of W704042. 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 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 initially analyzed at a 1:10 dilution.

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:

04/21/17

Project Coordinator II, M. Fernanda Pincheira

Date

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

Report Template: GenMetalReportFull v2.6 special dec

Approved: 04/20/17 16:30

Report Time Stamp:

04/21/17 13:06

10

D



Ryan Mathews Laboratory Report RJ Lee Group No.: W704042

Fulcrum Environmental COC No.: 162017

Samples Received: 04/07/17
406 N. 2nd St.

Yakima, WA 98901

Samples Received: 04/20/17
Analysis/Prep Date: 04/20/17
Report Date: 04/21/17

Client Project:No Project

Lead

| Sample Name: | CHK4717- | P-KF-01 | | | Date Received | d: 04/07/17 |
|-----------------|----------|---------------------|------------------|---------------|--------------------|--------------------|
| RJ Lee Grp. ID: | W704042- | <u>01</u> Ma | trix: Potable Wa | ter | Date Analyze | d: 04/20/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 1.252 | 0.100 | 100 | D |

Sample Name: CHK4717-P-KF-02 Date Received: 04/07/17

R I Lee Crp. ID: W704042-02 Matrix: Potable Water Date Analyzed: 04/19/17

0.002

0.001

EPA 200.8

| KJ Lee Gip. ID. W/ | 0 1 0 1 2-02 | ati ix. Potable wa | tei | Date Analyze | u. 04/19/1/ |
|--------------------|------------------------------------|--------------------|---------------|--------------------|-------------|
| Analyte | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Copper | EPA 200.8 | 0.353 | 0.010 | 10 | D |
| Lead | EPA 200.8 | 0.002 | 0.001 | 10 | D |

Sample Name: CHK4717-P-KF-03 Date Received: 04/07/17

R.J. Lee Grn. ID: W704042-03 Matrix: Potable Water Date Analyzed: 04/20/17

| - 1 | to Lee Gip. ID. | | 1 Otable Wa | Duterimmyzet | 1. 01/20/1/ | |
|-----|-----------------|-----------|------------------|---------------|--------------------|------------|
| | Analyte | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| | Copper | EPA 200.8 | 1.393 | 0.100 | 100 | D |
| | Lead | EPA 200.8 | 0.002 | 0.001 | 10 | D |

Sample Name: CHK4717-P-KF-04 Date Received: 04/07/17 RJ Lee Grp. ID: W704042-04 Matrix: Potable Water Date Analyzed: 04/20/17

| J | KJ Lee Grp. ID: W 704042- | <u> </u> | itrix: Potable Wai | ter | Date Analyzed | 1: 04/20/1/ |
|---|---------------------------|-----------|--------------------|---------------|--------------------|-------------|
| | Analyte | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| | Copper | EPA 200.8 | 1.637 | 0.100 | 100 | D |
| | Lead | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| | | | | | | |

Sample Name: CHK4717-P-CDF-05 Date Received: 04/07/17

RJ Lee Grp. ID: W704042-05 Matrix: Potable Water Date Analyzed: 04/20/17

| K | J Lee Grp. ID: W704042-0 | <u>)5 </u> | itrix: Potable Wat | ter | Date Analyze | d: 04/20/17 |
|---|---------------------------------|---|--------------------|---------------|--------------------|--------------------|
| | Analyte | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| | Copper | EPA 200.8 | 2.919 | 0.100 | 100 | D |
| | Lead | EPA 200.8 | 0.002 | 0.001 | 10 | D |

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



| Sample Name: | CHK4717- | P-CF-06 | | | Date Received | : 04/07/17 |
|---------------------------------|-----------------------|-----------------------|-------------------|---------------|--------------------------------|------------|
| RJ Lee Grp. ID: | W704042-0 | 06 M a | atrix: Potable Wa | ter | Date Analyzed | : 04/20/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 1.414 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.004 | 0.001 | 10 | D |
| ample Name: | CHK4717- | P-WC-07 | | | Date Received | : 04/07/17 |
| RJ Lee Grp. ID: | W704042-0 | <u>)</u> 7 M a | atrix: Potable Wa | ter | Date Analyzed | : 04/19/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 0.546 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| Sample Name: RJ Lee Grp. ID: | CHK4717- W704042-0 | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 0.551 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: RJ Lee Grp. ID: | CHK4717- W704042-0 | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | er | EPA 200.8 | 0.118 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: LJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 0.106 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: 3J Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | er | EPA 200.8 | 1.922 | 0.100 | 100 | D |
| | | | | | | |

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| ample Name: | CHK4717- W704042- | | 04vive D-4-1-1-W- | 4 | Date Received | |
|--|--|---|---|---|--|---|
| Angles | | Method | atrix: Potable Wa | | Date Analyzed Dilution | Qualifiers |
| Analyt | ie | Method | (mg/L) | PQL (mg/L) | Factor | Quanners |
| | | | ν υ , | | | _ |
| Coppe | | EPA 200.8 | 0.286 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: | CHK4717- | | | | Date Received | |
| J Lee Grp. ID: | W704042- | | atrix: Potable Wa | | Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifier |
| Coppe | er | EPA 200.8 | 0.264 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: J Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | iter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifier |
| | | | (8) | \ \ \ \ / | | |
| Сорре | er | EPA 200.8 | 0.217 | 0.010 | 10 | D |
| Coppe Lead | | EPA 200.8 EPA 200.8 | , , , | , , | 10 10 | D D |
| Lead | | EPA 200.8 -P-WC-15 | 0.217 | 0.010 0.001 | | D l: 04/07/17 |
| Lead | CHK4717- W704042- | EPA 200.8 -P-WC-15 | 0.217 < 0.001 | 0.010 0.001 | 10 Date Received | D l: 04/07/17 l: 04/19/17 |
| Lead Imple Name: J Lee Grp. ID: | CHK4717- W704042- te | EPA 200.8 P-WC-15 15 M : | 0.217 < 0.001 atrix: Potable Wa | 0.010 0.001 | Date Received Date Analyzed Dilution | D l: 04/07/17 l: 04/19/17 |
| Lead Imple Name: J Lee Grp. ID: Analyt | CHK4717- W704042- te | EPA 200.8 -P-WC-15 15 Machine Method | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) | 0.010 0.001 etter PQL (mg/L) | Date Received Date Analyzed Dilution Factor | D: 04/07/17 1: 04/19/17 Qualifier |
| Lead Imple Name: J Lee Grp. ID: Analyt Coppe Lead Imple Name: | CHK4717- W704042- te | EPA 200.8 -P-WC-15 15 Method EPA 200.8 EPA 200.8 -P-CF-16 | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 | 0.010 0.001 etter PQL (mg/L) 0.010 0.001 | Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 |
| Lead Imple Name: J Lee Grp. ID: Analyt Coppe Lead Imple Name: | CHK4717- W704042- te er CHK4717- W704042- | EPA 200.8 -P-WC-15 15 Method EPA 200.8 EPA 200.8 -P-CF-16 | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 | 0.010 0.001 etter PQL (mg/L) 0.010 0.001 | Date Received Date Analyzed Dilution Factor 10 10 Date Received | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 1: 04/20/17 |
| Lead Imple Name: J Lee Grp. ID: Analyt Coppe Lead Imple Name: J Lee Grp. ID: | CHK4717- W704042- te er CHK4717- W704042- | EPA 200.8 P-WC-15 15 Method EPA 200.8 EPA 200.8 EPA 200.8 P-CF-16 16 M: | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 atrix: Potable Wa Result | 0.010 0.001 tter PQL (mg/L) 0.010 0.001 | Date Received Date Analyzed Dilution Factor 10 10 Date Received Date Analyzed Dilution | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 1: 04/20/17 |
| Lead Imple Name: J Lee Grp. ID: Coppe Lead Imple Name: J Lee Grp. ID: Analyt | CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 -P-WC-15 15 Method EPA 200.8 EPA 200.8 -P-CF-16 16 Method | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 atrix: Potable Wa Result (mg/L) | 0.010 0.001 tter PQL (mg/L) 0.010 0.001 tter PQL (mg/L) | Date Received Date Analyzed Dilution Factor 10 10 Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 1: 04/20/17 Qualifier |
| Lead Imple Name: J Lee Grp. ID: Coppe Lead Imple Name: J Lee Grp. ID: Analyt Coppe Lead Ample Name: Analyt | CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 P-WC-15 15 Method EPA 200.8 EPA 200.8 EPA 200.8 P-CF-16 16 Method EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 atrix: Potable Wa Result (mg/L) 2.841 | 0.010 0.001 tter PQL (mg/L) 0.010 0.001 tter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 10 10 Date Received Date Analyzed Dilution Factor 100 | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 Qualifier D D 1: 04/20/17 |
| Lead Imple Name: J Lee Grp. ID: Coppe Lead Imple Name: J Lee Grp. ID: Analyte Coppe Lead Analyte Analyte | CHK4717- W704042- te CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 P-WC-15 15 Method EPA 200.8 EPA 200.8 EPA 200.8 P-CF-16 16 Method EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 atrix: Potable Wa Result (mg/L) 2.841 < 0.001 | 0.010 0.001 tter PQL (mg/L) 0.010 0.001 tter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 10 10 Date Received Date Analyzed Dilution Factor 100 100 Date Received | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 Qualifier D D 1: 04/20/17 Qualifier D D 1: 04/07/17 |
| Lead ample Name: J Lee Grp. ID: Coppe Lead ample Name: J Lee Grp. ID: Analyte Coppe Lead ample Name: J Lee Grp. ID: | CHK4717- W704042- te CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 P-WC-15 15 Method EPA 200.8 EPA 200.8 P-CF-16 16 Method EPA 200.8 EPA 200.8 | 0.217 < 0.001 atrix: Potable Wa Result (mg/L) 0.186 < 0.001 atrix: Potable Wa Result (mg/L) 2.841 < 0.001 atrix: Potable Wa Result (mg/L) | 0.010 0.001 tter PQL (mg/L) 0.010 0.001 tter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 10 10 Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Date Analyzed Date Analyzed | D 1: 04/07/17 1: 04/19/17 Qualifier D D 1: 04/07/17 Qualifier D D 1: 04/20/17 |

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| Sample Name: | CHK4717- | P-CF-18 | | | Date Received | : 04/07/17 |
|---------------------------------|----------------------|---------------|-------------------|---------------|--------------------------------|------------|
| RJ Lee Grp. ID: | W704042- | 18 M a | atrix: Potable Wa | ter | Date Analyzed | : 04/20/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 2.467 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.005 | 0.001 | 10 | D |
| Sample Name: | CHK4717- | P-CF-19 | | | Date Received | : 04/07/17 |
| RJ Lee Grp. ID: | W704042- | 19 M a | atrix: Potable Wa | ter | Date Analyzed | : 04/20/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 2.302 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.003 | 0.001 | 10 | D |
| Sample Name: RJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 3.266 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| Sample Name: RJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | er | EPA 200.8 | 2.020 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.008 | 0.001 | 10 | D |
| Sample Name: RJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Coppe | er | EPA 200.8 | 2.214 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.005 | 0.001 | 10 | D |
| Sample Name: RJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | er | EPA 200.8 | 2.119 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.002 | 0.001 | 10 | D |



| Sample Name: | CHK4717- | | D . 11 xx | | Date Received | |
|---|-----------------------------|---|--|--|---|------------------------------------|
| RJ Lee Grp. ID: | W704042-2 | | ntrix: Potable Wa | 1 | Date Analyzed | |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Conne | | EPA 200.8 | 2.017 | 0.100 | 100 | D |
| Coppe Lead | | EPA 200.8 | < 0.001 | 0.100 | 100 | D D |
| Sample Name: | CHK4717- | | 01001 | 0,001 | Date Received | |
| RJ Lee Grp. ID: | W704042-2 | | ntrix: Potable Wa | ter | Date Analyzed | |
| Analyt | te | Method | Result | PQL | Dilution | Qualifiers |
| | | | (mg/L) | (mg/L) | Factor | |
| Сорре | er | EPA 200.8 | 1.553 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.006 | 0.001 | 10 | D |
| Sample Name: | CHK4717- | P-KF-26 | | | Date Received | : 04/07/17 |
| RJ Lee Grp. ID: | W704042-2 | 26 M a | trix: Potable Wa | ter | Date Analyzed | : 04/20/17 |
| Analyt | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | apr | EPA 200.8 | 2.016 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.002 | 0.001 | 10 | D |
| ample Name: RJ Lee Grp. ID: | CHK4717- W704042-2 | | ntrix: Potable Wa | tar | Date Received Date Analyzed | |
| Analyt | | Method | Result | PQL | Dilution | Qualifiers |
| • | | | (mg/L) | (mg/L) | Factor | |
| Сорре | er | EPA 200.8 | 1.668 | 0.100 | 100 | D |
| Lead | | EPA 200.8 | 0.007 | 0.001 | 10 | D |
| ample Name: 2J Lee Grp. ID: | CHK4717- W704042-2 | | ntrix: Potable Wa | tar | Date Received Date Analyzed | |
| | | 20 1116 | itiia. I otabic wa | | Date Many Zeu | • 01/20/1/ |
| <u> </u> | | Method | Result | | Dilution | Qualifiers |
| Analyt | | | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Analy | te | | | PQL | | Qualifiers D |
| <u> </u> | er | Method | (mg/L) | PQL (mg/L) | Factor | |
| Analyt Coppe Lead | t e er | Method EPA 200.8 EPA 200.8 | (mg/L) 1.645 | PQL (mg/L) 0.100 | Factor | D D |
| Analyt Coppe Lead ample Name: | er | Method EPA 200.8 EPA 200.8 P-WC-29 | (mg/L) 1.645 | PQL (mg/L) 0.100 0.001 | 100 10 | D D |
| Analyt Coppe | cr CHK4717- W704042-2 | Method EPA 200.8 EPA 200.8 P-WC-29 | 1.645 < 0.001 htrix: Potable Wa | PQL (mg/L) 0.100 0.001 ter | 100 10 Date Received Date Analyzed Dilution | D D : 04/07/17 |
| Analyt Coppe Lead ample Name: &J Lee Grp. ID: | CHK4717- W704042-2 | Method EPA 200.8 EPA 200.8 P-WC-29 Ma | (mg/L) 1.645 < 0.001 atrix: Potable Wa | PQL (mg/L) 0.100 0.001 | 100 10 Date Received Date Analyzed | D D : 04/07/17 : 04/19/17 |

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| ample Name: RJ Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
|--|--|---|--|---|---|---|
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| Сорре | er | EPA 200.8 | 0.354 | 0.010 | 10 | D |
| Lead | | EPA 200.8 | < 0.001 | 0.001 | 10 | D |
| ample Name: 3J Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifier |
| Coppe Lead | | EPA 200.8 EPA 200.8 | 1.836 < 0.001 | 0.100 0.001 | 100 10 | D D |
| ample Name: J Lee Grp. ID: | CHK4717- W704042- | | atrix: Potable Wa | ter | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| | | | | | | |
| Coppe | | EPA 200.8 | 0.355 | 0.010 | 10 | D |
| Lead ample Name: J Lee Grp. ID: | CHK4717- W704042- | EPA 200.8 P-NF-33 33 Ma | < 0.001 | 0.001 | 10 Date Received Date Analyzed | D 1: 04/07/17 1: 04/20/17 |
| Lead | CHK4717- W704042- | EPA 200.8 P-NF-33 | < 0.001 | 0.001 | 10 Date Received | D 1: 04/07/17 1: 04/20/17 |
| Lead ample Name: J Lee Grp. ID: | CHK4717- W704042- te | EPA 200.8 P-NF-33 33 Ma | < 0.001 atrix: Potable Wa Result | 0.001 | Date Received Date Analyzed Dilution | D l: 04/07/17 |
| Lead ample Name: J Lee Grp. ID: Analy | CHK4717- W704042- te | EPA 200.8 P-NF-33 33 Method | < 0.001 atrix: Potable Wa Result (mg/L) | 0.001 ter PQL (mg/L) | Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/20/17 Qualifiers |
| Lead ample Name: J Lee Grp. ID: Analy Coppe Lead ample Name: | CHK4717- W704042- te | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 P-OF-34 | < 0.001 atrix: Potable Wa Result (mg/L) 2.075 | 0.001 ter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/20/17 Qualifier D D 1: 04/07/17 |
| Lead ample Name: J Lee Grp. ID: Analy Coppe Lead | CHK4717- W704042- te er CHK4717- W704042- | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 P-OF-34 | < 0.001 atrix: Potable Wa Result (mg/L) 2.075 < 0.001 | 0.001 ter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 100 10 Date Received | D l: 04/07/17 l: 04/20/17 Qualifier D D l: 04/07/17 l: 04/20/17 |
| Lead ample Name: J Lee Grp. ID: Analy Coppe Lead ample Name: J Lee Grp. ID: | CHK4717- W704042- te er CHK4717- W704042- | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 EPA 200.8 AP-OF-34 Mathod Mathod Mathod Mathod | < 0.001 atrix: Potable Ware Result (mg/L) 2.075 < 0.001 atrix: Potable Ware Result | 0.001 ter PQL (mg/L) 0.100 0.001 ter PQL (mg/L) 0.100 | Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution | D l: 04/07/17 l: 04/20/17 Qualifier D D l: 04/07/17 l: 04/20/17 |
| Lead ample Name: J Lee Grp. ID: Coppe Lead ample Name: J Lee Grp. ID: Analyt | CHK4717- W704042-: te CHK4717- W704042-: | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 P-OF-34 34 Method | < 0.001 Atrix: Potable Ware Result (mg/L) 2.075 < 0.001 Atrix: Potable Ware Result (mg/L) | 0.001 PQL (mg/L) 0.100 0.001 tter PQL (mg/L) | Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/20/17 Qualifier D D 1: 04/07/17 1: 04/20/17 Qualifier |
| Lead ample Name: J Lee Grp. ID: Coppe Lead ample Name: J Lee Grp. ID: Analyte Coppe Lead ample Name: | CHK4717- W704042-: te CHK4717- W704042-: | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 EPA 200.8 P-OF-34 34 Method EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 | < 0.001 Atrix: Potable Waresult (mg/L) 2.075 < 0.001 Atrix: Potable Waresult (mg/L) 1.683 | 0.001 ter PQL (mg/L) 0.100 0.001 ter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/20/17 Qualifier D D 1: 04/07/17 Qualifier D D 1: 04/20/17 |
| Lead ample Name: J Lee Grp. ID: Coppe Lead ample Name: J Lee Grp. ID: Analyte Coppe Lead ample Name: | CHK4717- W704042- te CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 EPA 200.8 P-OF-34 34 Method EPA 200.8 EPA 200.8 EPA 200.8 EPA 200.8 | < 0.001 atrix: Potable Wa Result (mg/L) 2.075 < 0.001 atrix: Potable Wa Result (mg/L) 1.683 < 0.001 | 0.001 ter PQL (mg/L) 0.100 0.001 ter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution Factor | D 1: 04/07/17 1: 04/20/17 Qualifier D D 1: 04/07/17 1: 04/20/17 Qualifier D D 1: 04/07/17 Qualifier D D 1: 04/07/17 |
| Lead ample Name: J Lee Grp. ID: Coppe Lead ample Name: J Lee Grp. ID: Analyte Coppe Lead ample Name: J Lee Grp. ID: | CHK4717- W704042- te CHK4717- W704042- te CHK4717- W704042- | EPA 200.8 P-NF-33 33 Method EPA 200.8 EPA 200.8 P-OF-34 34 Method EPA 200.8 EPA 200.8 | < 0.001 Atrix: Potable Waresult (mg/L) 2.075 < 0.001 Atrix: Potable Waresult (mg/L) 1.683 < 0.001 Atrix: Potable Waresult (mg/L) 1.683 < 0.001 | 0.001 tter PQL (mg/L) 0.100 0.001 tter PQL (mg/L) 0.100 0.001 | Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Dilution Factor 100 10 Date Received Date Analyzed Date Analyzed Date Analyzed | D l: 04/07/17 Qualifiers D D l: 04/07/17 Qualifiers D D l: 04/20/17 Qualifiers |

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Sample Name: CHK4717-P-WC-36 Date Received: 04/07/17

R.I.Lee Grp. ID: W704042-36 Matrix: Potable Water Date Analyzed: 04/20/17

| 1 | G Lee Grp. ID: W /04042- | <u>50 IVIa</u> | itrix: Potable wai | ter | Date Analyzed | 1: 04/20/1/ |
|---|---------------------------------|----------------|--------------------|---------------|--------------------|-------------|
| | Analyte | Method | Result (mg/L) | PQL (mg/L) | Dilution Factor | Qualifiers |
| | Copper | EPA 200.8 | 1.339 | 0.100 | 100 | D |
| | Lead | EPA 200.8 | 0.015 | 0.001 | 10 | D |

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

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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

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るかって上が たっち レムーもしたっち (また上十十一下で3 これでますーやーステー01 Send Invoice ATTENTION TO: ニーコロータカ午が下 20-20~よれ七年か ON 12-4-11-12-06 ローしているもれたも 35-45-86-88 もっていても上げまり もっかっていたかけ Instructions Chain of Custody Special Custody Lab Use Report Results Only ᅙ Client Sample ID Address: Date Logged In: Project No.: Company Name: Fulcom Environmenta City, State, Zip: Company: Kennewick School Dobrict Email: Relinquished By (Print Name): Relinquished By (Print Name): Amonda Phone: City, State, Zip: Company Name: Relinquished By (Signature) Name: ax Results To: mail Results To: Call with Verbal Results: Company: Vame: ddress: Kym Fulcrum Environmental Consulting RYAN MATHEWS (509) 574-0839 406 N 2nd Street Maythews GANGLINCK, WA Main gym Yakima, WA, 98901 rmathews@efulcrum.net, cc: aenbysk@efulcrum.net anxilian gym, BF (right) Bundroom drink fourtoin a la corta tood prep awiliay gym, left Choir room fancet Litchen, west wall foodpap jostfill hook on 5 wall litera 4/7/17 Litchen, vat fill curter Maingym, left Sample Description oxice right Logged In By: Client No: Fax: Fax: Date: 4/7/17 Relinquished To: Method of Shipment Relinquished To: Method of Shipment: (509) 575-8453 Sample 00700 Start Time: Time: Stop 1050 Wipe Area / Air Sample Only Multiple Sources #s: Purchase Order No.: Analysis Key Turnaround Chemistry EPA 200.8, Pb and Cu Chain of Drinking Request Custody Chain of Custody Water HNO3 4 C Unpres Received By (Print Name): Anna Weble Relinquished To: DOH Source #: Standard Company Name: System ID #: Sample Purpose: Information Regulatory Received By (Print Name): Company Name: 25 (se Gyrour Received By (Signature): reservation: ample Purpose: A 🗆 Analysis Requested Na₂SO₄ NaOH H₂SO₄ HCI Yes GW=Groudwater WW=Wastewater Other 🗆 If 'No,' No. of Business Days: Accreditation (please list below) Client Job No.:) 62017 DW=Drinking Water SW=Surface Water Method of Shipment: Relinquished To: と Pres. Upon Receipt (Y/N) Preservation 2 Matrix G=Glass P=Plastic A=Air (filter or tube) Container Time: PE Container Type 1050 pΗ No. Containers

RJ LEE GROUP

DELIVERING SCIENTIFIC RESOLUTION

724.325.1776 Phone 724.733.1799 Fax

2710 North 20th Avenue Pasco, WA 99301 509.545.4989 Phone 509.544.6010 Fax

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

Columbia Basin Analytical Laboratories

| ATTENTION TO | Rych roject No.: | Mathews Client No: | | | | | Purchase Order No.: | | | | Clien | Client Job No.: | LJob No.: 162C | 1,000 NO: 162017 |
|----------------------|------------------------------------|---|---------------------|--------------------|--------------|---------------------------|-----------------------|---------------------------------------|--------------------|---------------|--------|-------------------------|--------------------------------|------------------------------------|
| Lab Use Only | Project No.: Date Logged in: | Client No: Logged in By: | | | | | Turnaround Request | Standard Yes | No | = | No, No | No,' No. of Business Da | If 'No,' No. of Business Days: | No,' No. of Business Days: |
| | Name: RYAN MATHEWS | | | | | | | Sample Purpose: Information | Information 🗆 | Regulatory - | Ϋ́ | ٠. | ٠. | Accreditation (please list below): |
| age | пу: | Fulcrum Environmental Consulting | | | | | Drinking | System ID #: | | | | | | |
| | City, State, Zip: Yakima, | Yakima, WA, 98901 | | | | | _ | Multiple Sources #s: | # S: | | | | | |
| ts | 09) 574 | -0839 Fax: | (509) 575-8453 | 453 | | | | Sample Purpose: A 🗆 | A 🛭 B 🗀 Other | er 🗆 | | | | |
| ē | h Vert | | | | | | | Preservation: | 3 | n | | | | Container: |
| | Email Results To: | rmathews@efulcrum.net, cc: aenbysk@efulcrum.net | @efulcrum.n | let | | | Chamistry | Unpres H ₂ SO ₄ | WW=I | WW=Wastewater | _ | · | · | SW=Surface Water |
| | Fax Results To: | | | | | | Analysis Key | | S=Soil | S=Soil/Sludge | | O=Oil | O=Oil | O=Oil W=Wipe |
| | Name: | | | | | | Allarysis Ney | Other Na SO | | act | | X=Other | X=Other | er . |
| | Company: Kennewyck Street District | L Shoot District Email: | | | | | | Other Hagova | | | | | | |
| Send Invoice | Address: | | | | | | | Analysi | Analysis Requested | | | /N) | /N) | /N) |
| ō | City, State, Zip: Yem | Removick, w.A | | | | | _ | | | | | t (Y, | | 1 |
| | Phone: | Fax: | | | | | nd Cu | | | | | ceip | tior | tior |
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| Chain of | Relinquished By (Signature) | 1 - | Date: 4/2 | | Time: 1050 | Õ | Chain of | Received By (Signature): | gnature): | dia | 3 | Date f | Date Julos 114 | Date P Time: |
| Custody | Company Name: Fulcium Environment | name: Immensive theybe | Method of Shipment: | hipment: | | | Custody | Company Name: (00 | int Name): | Second | 2 | Metho | Method of Ship | Method of Shipment: |
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| Custody | Company Name: | Name): | Method of Shipment: | d Io: Shipment: | | | Custody | Company Name: | e: e: | | | Metho | Method of Ship | Method of Shipment: |

RJ LEE GROUP
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Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

Washington
Columbia Basin Analytical Laboratories
2710 North 20th Avenue

724.325.1776 Phone 724.733.1799 Fax

Pasco, WA 99301 509.545.4989 **Phone** 509.544.6010 **Fax**

ATTENTION TO: KyCA なとうつーターや上午大社 CHK4717-8-6-24 Send Invoice CHX4+17-8- WC-30 のまれてててる スメナイトーターカイスより たったって上上がた ンギスナーナーアースーとろ CHK447-P- NF-33 いとしてしてしてよる大人 Instructions コメナエナーターのアー3つ SC-30-3-4-14XH7 Lab Use Chain of Special Results Report Chain of Custody Custody Only 7 5 Client Sample ID Date Logged In: Project No.: Address: Company: Ke inversible School District Email: City, State, Zip: Phone: Name: Fax Results To: City, State, Zip: Name: Company Name: Relinquished By (Print Name): Relinquished By (Signature): Company Name: Fulculus Environmenta Relinquished By (Print Name): Amonda English Relinquished By (Signature): Wand Email Results To: Call with Verbal Results: Address: company: Fulcrum Environmental Consulting 406 N 2nd Street (509) 574-0839 RYAN MATHEWS *mathews* Kennewick, WA 5. antrance, left Main extrance, right Main entrance, lett Yakima, WA, 98901 rmathews@efulcrum.net, cc: aenbysk@efulcrum.net 5. entrance, right BF Faculty breaknown, April C Room 103, S. fixture Rom 10t, west wall Health/nurse's office Room Ish, N. fixture Room 103, N. Fixture Room 102, S. fixture Sample Description Client No: Logged In By: Fax: Fax: 七七十 Relinquished To: Date: Method of Shipment: Relinquished To: Date: 471A Method of Shipment: 509) 575-8453 Sample Date 0400 Start e Sample Time Time: Ime: Stop 1660 Wipe Area / Air Volume Sample Only Multiple Sources #s: Purchase Order No.: Turnaround Analysis Key Chemistry EPA 200.8, Pb and Cu Drinking Request Chain of Custody Chain of Water FONH Unpres H₂SC Standard: DOH Source #: System ID #: Received By (Print Name): Received By (Signature) Sample Purpose: A 🗆 Received By (Signature): Company Name: ample Purpose: Information Received By (Print Name): H₂SO₄ Analysis Requested Na₂SO₄ NaOH ЮН Yes N_O WW=Wastewater GW=Groudwater Other -Hung high Relinquished To: Regulatory -If 'No,' No. of Business Days Date ON PAIR Time: 0=01 Accreditation (please list below) Client Job No.: DW=Drinking Water SW=Surface Water Method of Shipment: Method of Shipment: Relinquished To: 2 Pres, Upon Receipt (Y/N) Preservation 162017 Sugar Matrix G=Glass W=Wipe P=Plastic Container A=Air (filter or tube) Container Type W 8 рΗ 앜 No. Containers

DELIVERING SCIENTIFIC RESOLUTION

724,325,1776 Phone

509,545,4989 Phone 509,544,6010 Fax Pasco, WA 99301 2710 North 20th Avenue

724.733.1799 Fax

Monroeville, PA 15146 350 Hochberg Road Pennsylvania - HQ

Columbia Basin Analytical Laboratories

Washington

LEE

| ATTENTION TO: Lab Use PONLY ONLY Report Results To OC Send Invoice | roject No.: late Logged lame: ompany: oddress: ity, State, Zi hone: all with Ver mail Results T lame: lame: lame: lame: ddress: dddress: dddress: dddress: | Client No: Logged In By: nsulting 01 Fax: rum.net, cc: aenbysk | (509) 575-8453 @efulcrum.net | 453 | | | Purchase Order Turnaround Request Drinking Water Sample Only Chemistry Analysis Key | Standard: Yes Sample Purpose: Inforr System ID #: DOH Source #: Multiple Sources: #s: Sample Purpose: A = Preservation: Unpres H ₂ SO ₄ 4°C HCI HNO ₃ NaOH Other Na ₂ SO ₄ Analysis Req | Regulatory | Client Job No.: If 'No,' No. of Business Days: atory Accreditation (please list below): Accreditation (please list below): Continuater SW=Surface Water P=Plarater DW=Drinking Water G=Gl W=W X=Other A=Air | Page ease list belo | | ilter or |
|--|--|---|---|---------------------|------------|---------------------------|---|---|----------------|--|--------------------------------------|----------------|----------|
| Special Instructions | | | | | | | 0 8, Pb an | | | oon Rec | eservat Matrix | iviali1) | ntainer |
| Clien | Client Sample ID | Sample Description | Sample Date | Sample Time Start S | Stop | Wipe Area / Air Volume | EPA 20 | | | Pres. Up | Pr | | Cor |
| * HANA | CHK4+1+- 6-0F-34 | Main of five, confunce room | 北/七/1 | 9000 | 9 | | X | | | ح - | - & | 3 P - | 0 |
| 4 PAYE | 7+X4+17-P-WC-36 | and flow noon 201 | P | 7 | | | • | | | - | - | - | |
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| | Relinquished By (Print Name): Company Name: | | Relinquished To: Method of Shipment: | d To: Shipment: | | | Custody | Received By (Print Name): Company Name: | ime): | Relinqu Metho | Relinquished To: Method of Shipment: | nent: | |

RJ LEE GROUP

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

Columbia Basin Analytical Laboratories

Washington

724.325.1776 Phone 724,733.1799 Fax

2710 North 20th Avenue Pasco, WA 99301 509.545.4989 Phone 509.544.6010 Fax



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-Chinook MS

Work Order Number: 1705257

May 22, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 31 sample(s) on 5/22/2017 for the analyses presented in the following report.

Drinking Water Metals by EPA Method 200.8

This report consists of the following:

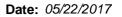
- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

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

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward Project Manager





CLIENT: Fulcrum Environmental Work Order Sample Summary

Project: Kennewick SD Drinking Water-Chinook MS

Work Order: 1705257

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---------------|-------------------|---------------------|--------------------|
| 1705257-001 | CHK52017-P-KF-03 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-002 | CHK52017-P-KF-04 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-003 | CHK52017-S-KF-04 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-004 | CHK52017-T-KF-04 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-005 | CHK52017-P-CDF-05 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-006 | CHK52017-P-CF-06 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-007 | CHK52017-P-OF-11 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-008 | CHK52017-S-OF-11 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-009 | CHK52017-T-OF-11 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-010 | CHK52017-P-CF-16 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-011 | CHK52017-P-CF-17 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-012 | CHK52017-P-CF-18 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-013 | CHK52017-P-CF-19 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-014 | CHK52017-P-KF-20 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-015 | CHK52017-S-KF-20 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-016 | CHK52017-T-KF-20 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-017 | CHK52017-P-KF-21 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-018 | CHK52017-P-KF-22 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-019 | CHK52017-P-KF-23 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-020 | CHK52017-P-CF-24 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-021 | CHK52017-P-CF-25 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-022 | CHK52017-P-KF-26 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-023 | CHK52017-P-KF-27 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-024 | CHK52017-P-OF-28 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-025 | CHK52017-P-WC-31 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-026 | CHK52017-P-NF-33 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-027 | CHK52017-P-OF-34 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-028 | CHK52017-S-OF-34 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-029 | CHK52017-T-OF-34 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-030 | CHK52017-P-WC-35 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |
| 1705257-031 | CHK52017-P-WC-36 | 05/20/2017 8:30 AM | 05/22/2017 9:56 AM |



Case Narrative

WO#: **1705257**Date: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

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:

1705257-001A 220412: Prep Comments for EPA200.8, Sample 1705257-001A: Turbidity: 0.03 NTU 1705257-002A 220413: Prep Comments for EPA200.8, Sample 1705257-002A: Turbidity: 0.01 NTU 1705257-005A 220414: Prep Comments for EPA200.8, Sample 1705257-005A: Turbidity: 0.16 NTU 1705257-006A 220415: Prep Comments for EPA200.8, Sample 1705257-006A: Turbidity: 0.23 NTU 1705257-007A 220416: Prep Comments for EPA200.8, Sample 1705257-007A: Turbidity: 0.25 NTU 1705257-010A 220417: Prep Comments for EPA200.8, Sample 1705257-010A: Turbidity: 0.13 NTU 1705257-011A 220418: Prep Comments for EPA200.8, Sample 1705257-011A: Turbidity: 0.19 NTU 1705257-012A 220419: Prep Comments for EPA200.8, Sample 1705257-012A: Turbidity: 0.06 NTU 1705257-013A 220420: Prep Comments for EPA200.8, Sample 1705257-013A: Turbidity: 0.08 NTU 1705257-014A 220421: Prep Comments for EPA200.8, Sample 1705257-014A: Turbidity: 0.06 NTU 1705257-017A 220422: Prep Comments for EPA200.8, Sample 1705257-017A: Turbidity: 0.16 NTU 1705257-018A 220423: Prep Comments for EPA200.8, Sample 1705257-018A: Turbidity: 0.27 NTU 1705257-019A 220426: Prep Comments for EPA200.8, Sample 1705257-019A: Turbidity: 0.12 NTU 1705257-020A 220430: Prep Comments for EPA200.8, Sample 1705257-020A: Turbidity: 0.18 NTU 1705257-021A 220431: Prep Comments for EPA200.8, Sample 1705257-021A: Turbidity: 0.22 NTU 1705257-022A 220432: Prep Comments for EPA200.8, Sample 1705257-022A: Turbidity: 0.30 NTU 1705257-023A 220433: Prep Comments for EPA200.8, Sample 1705257-023A: Turbidity: 0.13 NTU 1705257-024A 220434: Prep Comments for EPA200.8, Sample 1705257-024A: Turbidity: 0.59 NTU 1705257-025A 220435: Prep Comments for EPA200.8, Sample 1705257-025A: Turbidity: 0.33 NTU 1705257-026A 220436: Prep Comments for EPA200.8, Sample 1705257-026A: Turbidity: 0.81 NTU 1705257-027A 220437: Prep Comments for EPA200.8, Sample 1705257-027A: Turbidity: 0.26 NTU 1705257-030A 220438: Prep Comments for EPA200.8, Sample 1705257-030A: Turbidity: 0.01 NTU 1705257-031A 220439: Prep Comments for EPA200.8, Sample 1705257-031A: Turbidity: 0.01 NTU



Qualifiers & Acronyms

WO#: 1705257

Date Reported: 5/22/2017

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



Work Order: 1705257

Date Reported: 5/22/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-001 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-03 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 661 0.500 µg/L 1 5/22/2017 11:56:44 AM

Lab ID: 1705257-002 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-04 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 885 0.500 μg/L 1 5/22/2017 12:00:46 PM

Lab ID: 1705257-005 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CDF-05 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 680 0.500 µg/L 1 5/22/2017 12:04:47 PM



Work Order: 1705257

Date Reported: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-006 Collection Date: 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-06 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17121 Analyst: TN

Copper 3,380 0.500 μg/L 1 5/22/2017 12:08:49 PM

Lab ID: 1705257-007 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-OF-11 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17121 Analyst: TN

Copper 657 0.500 μg/L 1 5/22/2017 12:12:50 PM

Lab ID: 1705257-010 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-16 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 1,010 0.500 µg/L 1 5/22/2017 12:24:57 PM



Work Order: 1705257 ate Reported: 5/22/2017

Date Reported: 5

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-011 Collection Date: 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-17 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 1,150 0.500 µg/L 1 5/22/2017 12:28:58 PM

Lab ID: 1705257-012 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-18 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 1,090 0.500 μg/L 1 5/22/2017 12:32:59 PM

Lab ID: 1705257-013 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-19 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

Drinking Water Metals by EPA Method 200.8 Batch ID: 17121 Analyst: TN

Copper 1,100 0.500 µg/L 1 5/22/2017 12:37:01 PM



Work Order: 1705257

Date Reported: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-014 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-20 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17121 Analyst: TN

Copper 1,320 0.500 μg/L 1 5/22/2017 12:41:02 PM

Lab ID: 1705257-017 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-21 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17121 Analyst: TN

Copper 1,270 0.500 $\mu g/L$ 1 5/22/2017 12:45:03 PM

Client Sample ID: CHK52017-P-KF-22 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17121 Analyst: TN

Copper 1,070 0.500 µg/L 1 5/22/2017 12:49:05 PM



Work Order: 1705257

Date Reported: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-019 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-23 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 1,030 0.500 µg/L 1 5/22/2017 3:50:32 PM

Lab ID: 1705257-020 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-24 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17128 Analyst: TN

Copper 1,550 0.500 $\mu g/L$ 1 5/22/2017 4:06:36 PM

Lab ID: 1705257-021 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-CF-25 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 1,100 0.500 µg/L 1 5/22/2017 4:10:37 PM



Work Order: 1705257

Date Reported: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-022 Collection Date: 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-26 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 874 0.500 µg/L 1 5/22/2017 4:14:38 PM

Lab ID: 1705257-023 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-KF-27 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17128 Analyst: TN

Copper 1,140 0.500 μ g/L 1 5/22/2017 4:18:39 PM

Client Sample ID: CHK52017-P-OF-28 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 899 0.500 μg/L 1 5/22/2017 4:30:45 PM



Work Order: 1705257

Date Reported: **5/22/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Lab ID: 1705257-025 Collection Date: 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-WC-31 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17128 Analyst: TN

Copper 1,640 0.500 µg/L 1 5/22/2017 4:34:47 PM

Lab ID: 1705257-026 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-NF-33 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 807 0.500 μg/L 1 5/22/2017 4:38:48 PM

Lab ID: 1705257-027 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-OF-34 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17128

Analyst: TN

Copper 1,460 0.500 µg/L 1 5/22/2017 4:42:49 PM



Work Order: 1705257

Date Reported: 5/22/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water-Chinook MS

Client Sample ID: CHK52017-P-WC-35 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17128 Analyst: TN

Copper 4.70 0.500 μg/L 1 5/22/2017 4:46:51 PM

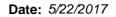
Lab ID: 1705257-031 **Collection Date:** 5/20/2017 8:30:00 AM

Client Sample ID: CHK52017-P-WC-36 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17128 Analyst: TN

Copper 1,300 0.500 $\mu g/L$ 1 5/22/2017 4:50:52 PM





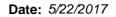
Work Order: 1705257

QC SUMMARY REPORT

CLIENT: Fulcrum Environmental

| Project: | | SD Drinking Water-C | hinook M | S | | Drinking Water Metals by EPA Method 200 |
|------------|-------------------|--------------------------------|----------|-----------|-------------|---|
| Sample ID | MB-17128 MBLKW | SampType: MBLK Batch ID: 17128 | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36319 Analysis Date: 5/22/2017 SeqNo: 696099 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | ND | 0.500 | | | |
| Sample ID | LCS-17128 | SampType: LCS | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36319 |
| Client ID: | LCSW | Batch ID: 17128 | | | | Analysis Date: 5/22/2017 SeqNo: 696100 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 98.3 | 0.500 | 100.0 | 0 | 98.3 85 115 |
| Sample ID | 1705257-019ADUP | SampType: DUP | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36319 |
| Client ID: | CHK52017-P-KF-23 | Batch ID: 17128 | | | | Analysis Date: 5/22/2017 SeqNo: 696102 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,020 | 0.500 | | | 1,029 0.430 30 |
| Sample ID | 1705257-019AMS | SampType: MS | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36319 |
| Client ID: | CHK52017-P-KF-23 | Batch ID: 17128 | | | | Analysis Date: 5/22/2017 SeqNo: 696103 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,220 | 0.500 | 200.0 | 1,029 | 96.8 70 130 |
| Sample ID | 1705257-019AMSD | SampType: MSD | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36319 |
| Client ID: | CHK52017-P-KF-23 | Batch ID: 17128 | | | | Analysis Date: 5/22/2017 SeqNo: 696104 |
| Analyte | | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | | 1,180 | 0.500 | 200.0 | 1,029 | 75.0 70 130 1,223 3.63 30 |

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Work Order: 1705257

QC SUMMARY REPORT

CLIENT: Fulcrum Environmental

| | SD Drinking Water-C | hinook M | IS | | Drinking Water Metals by EPA Method 200 |
|----------------------------------|----------------------|----------|-----------|-------------|--|
| Sample ID MB-17121 | SampType: MBLK | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36308 |
| Client ID: MBLKW | Batch ID: 17121 | | | | Analysis Date: 5/22/2017 SeqNo: 695842 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | ND | 0.500 | | | |
| Sample ID LCS-17121 | SampType: LCS | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36308 |
| Client ID: LCSW | Batch ID: 17121 | | | | Analysis Date: 5/22/2017 SeqNo: 695843 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 101 | 0.500 | 100.0 | 0 | 101 85 115 |
| Sample ID 1705251-001ADUP | SampType: DUP | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36308 |
| Client ID: BATCH | Batch ID: 17121 | | | | Analysis Date: 5/22/2017 SeqNo: 695845 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 134 | 0.500 | | | 137.0 2.29 30 |
| Sample ID 1705251-001AMS | SampType: MS | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36308 |
| Client ID: BATCH | Batch ID: 17121 | | | | Analysis Date: 5/22/2017 SeqNo: 695846 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 343 | 0.500 | 200.0 | 137.0 | 103 70 130 |
| Sample ID 1705251-001AMSD | SampType: MSD | | | Units: µg/L | Prep Date: 5/22/2017 RunNo: 36308 |
| Client ID: BATCH | Batch ID: 17121 | | | | Analysis Date: 5/22/2017 SeqNo: 695847 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 328 | 0.500 | 200.0 | 137.0 | 95.7 70 130 342.5 4.19 30 |
| | | | | | |

Page 14 of 19 Original



Sample Log-In Check List

| С | lient Name: | FE | Work Order Numb | per: 1705257 | |
|------------|-----------------|--|-----------------|---------------------|--------------|
| Lo | ogged by: | Erica Silva | Date Received: | 5/22/2017 | 7 9:56:00 AM |
| <u>Cha</u> | nin of Cust | <u>ody</u> | | | |
| 1. | Is Chain of C | ustody complete? | Yes 🗸 | No 🗌 | Not Present |
| 2. | How was the | sample delivered? | <u>FedEx</u> | | |
| Log | <u>ı In</u> | | | | |
| _ | Coolers are p | present? | Yes 🗸 | No 🗌 | NA \square |
| | | | | | |
| | | tainer/cooler in good condition? | Yes 🗸 | No 🗆 | |
| 5. | | ls present on shipping container/cooler? nments for Custody Seals not intact) | Yes L | No 🗸 | Not Required |
| 6. | Was an atten | npt made to cool the samples? | Yes 🗸 | No 🗌 | na 🗆 |
| 7. | Were all item | s received at a temperature of >0°C to 10.0°C* | Yes 🗸 | No 🗌 | NA \square |
| 8. | Sample(s) in | proper container(s)? | Yes 🗸 | No 🗌 | |
| 9. | Sufficient sar | mple volume for indicated test(s)? | Yes 🗸 | No \square | |
| 10. | Are samples | properly preserved? | Yes 🗹 | No 🗌 | |
| 11. | Was preserva | ative added to bottles? | Yes 🗸 | No 🗌 | NA \square |
| | | | | | HNO3 |
| 12. | Is there head | space in the VOA vials? | Yes 📙 | No 📙 | NA 🗸 |
| 13. | Did all sampl | es containers arrive in good condition(unbroken)? | Yes 🔽 | No 📙 | |
| 14. | Does paperw | ork match bottle labels? | Yes 🗸 | No 🗌 | |
| 15. | Are matrices | correctly identified on Chain of Custody? | Yes 🗸 | No 🗌 | |
| 16. | Is it clear wha | at analyses were requested? | Yes 🗸 | No 🗌 | |
| 17. | Were all hold | ling times able to be met? | Yes 🗹 | No 🗌 | |
| Spe | ecial Handl | ing (if applicable) | | | |
| - | | otified of all discrepancies with this order? | Yes | No 🗌 | NA 🗸 |
| | Person | Notified: Date | | | |
| | By Who | m: Via: | eMail Ph | one 🗌 Fax | ☐ In Person |
| | Regardi | ng: | | | |
| | Client Ir | nstructions: | | | |
| 19 | Additional rer | marks: | | | |
| | | o 003A, 004A, 008A, 009A, 015A, 016A, 018A, 019 | A | | |
| | HINU3 (| U UUSA, UU4A, UUOA, UUSA, UTSA, UTBA, UTBA, UTB | 'A | | |

Item Information

| | Item # | Temp °C |
|--------|--------|---------|
| Cooler | | 6.4 |
| Sample | | 6.0 |

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

| ^Please coordinate with the lab in advance | | | × | | | × |
|--|--|---|---|--|--|--|
| TAT → SameDay^ NextDay^ 2 Day 3 Day STD | | Received | Reco | | Date/Time | Refinquished |
| [A]: ASAF | Date/Time 2012/2017 00/51/ | Received | | 4, 1200 | 5/20/2017; | Refinquished W |
| | 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. | ical on behalf of the Client named | h Fremont Analyt Agreement. | o this Agreement wind backside of this | orized to enter into rms on the front a | 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. |
| Phase reserve all more served | 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 L | Return to Client | Sample Disposal: |
| Special Remarks: | Turn-around times for samples | O-Phosphate Fluoride Nitrat | Bromide | Chloride Sulfate | Nitrite | ***Anions (Circle): Nitrate |
| o Sb Se Sr Sn Ti Tl U V Zn | Co Cr Cure Hg K Mg Mn Mo Na Ni Pb | Individual: Ag Al As B Ba Be Ca Cd | TAL | 8 Priority Pollutants | MTCA-5 RCRA-8 | **Metals Analysis (Circle): |
| | 8 | | - | 4 | -cr-16 | 10 CHK5 1017-6 |
| HOLD; expreserved | | | | | = | のれるとけてして |
| HOLD; unpreserved | | | | | -0F-11 | 0-5-410897HJ8 |
| THE PART OF THE PA | 8 | | | | F | 704153014-17-01-11 |
| ्रा । जन्म के कि कि अंक्षा के प्राप्त के कि | 8) | | | | F-06 | 90-37-6-CE-01 |
| | <i>⊗y</i> | | | | COF-05 | これなかりナーヤー |
| HOD; impreserved | | | | | T-KT-04 | 1-1- Floresyny |
| HOLD; unpreserved | Spe | | | | F.04 | |
| | 8 | | | | 10-1 | 2 CAK 6307- 8- KF-04 |
| | 0 | | DW | 5/20/2017 0830 | KF-03 5/2 | 104753017-19- |
| Comments | ************************************** | LOS (EOS SEO) SAM | Sample Type (Matrix)* | Sample Date Time | Sam | Sample Name |
| GW = Ground Water, SW = Storm Water, WW = Waste Water | ng Water, | SD = Sediment, SL = Solid, W = Water, DW = | S = Soil, | O = Other, P = Product, | AQ = Aqueous, B = Bulk, | *Matrix Codes: A = Air, AQ |
| efulcrum.net | | PM Email: | Fax: 509.575.8453 | Fax: | 509.574.0839 | Telephone: |
| - 1 | Ryan Mathews | Report To (PM): | | 3901 | Yakima, WA, 98901 | City, State, Zip: |
| Kennywik. WA | ridale school | Location: | | and Street | 406 North Second Street | Address: |
| bysk | 200000000000000000000000000000000000000 | Project No: | | Fulcrum Environmental Consulting | Fulcrum Environ | Client: |
| Page: of: | line it so pout water | | | 352-3790 352-7178 | Tel: 206-352-3790 Fax: 206-352-7178 | Seattle, WA 98103 |
| Laboratory Project No (internal): 110525 6 | Date: 5/20/201/ | | | yucar | Analy | |
| 19 | | | | | | |
| ecord and Laboratory Services Agreement | istody Record and La | Chain of Custody R | | 3 | | |

| | | | | * | | | | | < |
|--|--|---|--|---|--------------------------------------|----------------------------------|----------------------------------|-------------------|--|
| TAT → SameDay^ NextDay^ 2 Day 3 Day STD | | Date/Time | | Received | | | Date/Time | Date | Veililidaistiea |
| | 017 095d | 5 2 Date/Time | | x Received | | Ö | Date/Ime 190/7017, 1960 | 2)000/2 | med M |
| suppr 2 | 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. | nt named above, that | ılf of the Clie | alytical on beha | h Fremont Argreement. | reement with | nt and back | thorized to ente | 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. |
| The second secon | 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.) | s unless otherw | Disposal by Lab (Samples will be held for 30 day assessed if samples are retained after 30 days.) | nb (Samples will mples are retair | Disposal by La assessed if sar | | Return to Client | Sample Disposal: |
| Special Remarks: | Turn-around times for samples | Nitrate+Nitrite | Fluoride | O-Phosphate | Bromide | Sulfate | Chloride | Nitrate Nitrite | ***Anions (Circle): Nit |
| Sb Se Sr Sn Ti Tl U V Zn | Cr Fe Hg K Mg Mn Mo Na Ni Pb | Ca Cd Co | l As B Ba Be | Individual: Ag Al | :S TAL | Priority Pollutants | RCRA-8 Pr | | **Metals Analysis (Circle): MTCA-5 |
| | ≫ | ⊗ | 3. | | 4 | ~ | 2 | CF-24 | 10 CHK62017-P-CF- |
| The second of th | ⊗ | 80 | | | | | 10 mm | KF-23 | |
| | 3 | 8 | | | | | | RE-37 | -8- +10897HJ |
| | | 8 | | | | | | 14-21 | CHKS 2017- P- KG |
| + | | | | | | | | KF-20 | CHK530A-T-KF- |
| HOLD; LANGE. | | | | | | | | - KF-30 | CHK53017-8-KF-30 |
| | Ø | \otimes | | | | | | -KF-20 | 4C+K53017-P-KF- |
| | 8 | 8 | | | - | | | -CF-19 | CHK52017-P. |
| | (A) | 8 | The second of th | | _ | | 4 | 4-18 | CHK52017-8-CF- |
| | | ⊗ | | 1,22 | DW | 0830 | 5/20/2017 | 4-17 | CHX53017-P-LF- |
| Comments | Copy Copy Copy Copy Copy Copy Copy Copy | 74, 12 30, 18 0 2 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | 150 life 4 | 100 (B. 1 4. 100) C. 10 C. | Sample Type (Matrix)* | Sample | Sample Date | | Sample Name |
| SW = Storm Water, WW = Waste Water | GW = Ground Water, | DW = Drir | SL = Solid, W = Water, | SD = Sediment, SL = | S = Soil, | er, P = Product, | B = Bulk, O = Other, | AQ = Aqueous, B = | *Matrix Codes: A = Air, |
| :fulcrum.net | rmathews@efulcrum.net; cc: aenbysk@efulcrum.net | 1 | PM Email: | | Fax: 509.575.8453 | Fax: | 39 | 509.574.0839 | Telephone: |
| | VS | PM): | Report | | | 70 20 20 20 20 40 | A, 98901 | Yakima, WA, 98901 | City, State, Zip: |
| WA | M5, Kennewich | 2 | Location: | | | et | 406 North Second Street | 406 North | Address: |
| manda Enbysk | 00 | | Project No: | | | onsulting | Fulcrum Environmental Consulting | Fulcrum En | Client: |
| 22 | WATES. | Project Name: KSO Ormky | Projec | | | 8 | Fax: 206-352-7178 | | Seattle, WA 98103 |
| | | | | | | 0 | Tel: 206-352-3790 | | 3600 Fremont Ave N. |
| Laboratory Project No (internal): 1705257 of | 5/20/2017 | Date: | | | | | lytica | Ana | |
| cord and Laboratory Services Agreement | Record and La | Chain of Custody Re | Chain | | | | 3 | remo | |

| | | | × | | | × |
|--|--|--|--|--|----------------------------------|---|
| TAT → SameDay^ NextDay^ 2 Day 3 Day STD | Date/Time T/ | The state of the s | Received | | Date/Time | veilildaislied |
| 1 | 12/2017 0956 | 2 | × | 1200 | 100 Hac/00/4 | x made Mex |
| Shipage I | above, mar i nave verified Chent's | H DEHAH OF THE CHEHL HAHRED | greement. | backside of this A | ns on the front and | agreement to each of the terms on the front and backside of this Agreement. Refraguished |
| | assessed if samples are retained after 30 days.) I represent that I am authorized to enter into this Agreement with Eremont Analytical on bobble of the Client agreed to the I begin that I begin to the | days.) | assessed if samples are retained after 30 days.) | assessed if san | ized to enter into th | I represent that I am author |
| Person Inclination. | received after 4:00pm will begin | /s unless otherwise n | (Samples will be held for 30 day | | ent | |
| ial Remarks: | Turn-around times for samples | phate Elipsida | Bromide | ride Sulfate | Nitrite Chloride | ***Anions (Circle): Nitrate |
| Sb Se Sr Sn Ti Tl U V Zn | ù Fe Hg K Mg Mn Mo Na Ni Pb | Ag Al As B Ba Be Ca Cd | TAL Individual: | Priority Pollutants | TCA-5 RCRA-8 | **Metals Analysis (Circle): MTCA-5 |
| | 8 | | - | ~ | -WC-35 V | 10 CAK 5 3017 - P- |
| | | | | | F-34 | · CHK63017-T-0F-34 |
| HOW) unpor. | | | | The state of the s | OF-34 | 8 CHKS2017 - S- |
| | 8 | | | | 0F-34 | 7 CHK52017-P-OF-34 |
| And the second of the second o | ⊗ | | | | P-NF-33 | 6 CHK52017-P-1 |
| | 8 | | | | P-WC-31 | 5 CHX52017- P-4 |
| | 8 | | | | P-0F-28 | 4CKK52017-P-C |
| | 8 | | | | 46 | またーナナーカーナーのととから |
| | 8 | | | | F-26 | 2 CHK52017-P-AF-26 |
| | 9 | | DW | 2017 0830 | -CF-25 5/20/2017 | 1C+X52017-P-C |
| Comments | Me (C) 4 00 3 1M 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | Sample Sa | Sample Time | Sample Date | Sample Name |
| rm Water, WW = Waste Water | DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water | SL = Solid, W = Water, | t, S = Soil, SD = Sediment, | O = Other, P = Product, | AQ = Aqueous, B = Bulk, O | *Matrix Codes: A = Air, AQ = A |
| ulcrum.net | rmathews@efulcrum.net; cc: aenbysk@efulcrum.net | PM Email: | Fax: 509.575.8453 | Fax: 5 | 509.574.0839 | Telephone: |
| | | Report To (PM): | | 1 | Yakima, WA, 98901 | City, State, Zip: |
| Konewick, WA | the School | | A STANDARD OF THE STANDARD | Street | 406 North Second Street | Address: |
| manda Fnhvsk | [620] 4.069] Collec | Project Name: | | ntal Consulting | Fulcrum Environmental Consulting | Client: |
| | VAS DESCRIPTION TO THE TOP AND | | | 2-7178 | Fax: 206-352-7178 | Seattle, WA 98103 |
| Page: 2 of: 4 | | | | -3790 | Tel: 206-352-3790 | 3600 Fremont Ave N. |
| Laboratory Project No (internal): 1705257 of | Date: 5/20/2017 | | | cal | Analytica | |
| ecord and Laboratory Services Agreement | stody Record and Lak | Chain of Custody R | | 7 | remor | |
| | | 2 | | | | |

| 182-3728 182-37 | | fmomt | Chain of Custody Record and Laboratory Services Agreement |
|--|---|---|--|
| Project Name | | Analytical | 5/20/2017 Laboratory Project No (internal): 170 5257 |
| Fulcam Environmental Consulting Fulcam Environmental Environ | 3600 Fremont Ave N | | + of + |
| Felicinal Environmental Consulting Fract 28: Valiena, MA 98901 Fax: 289.575.6833 Fax: 289.575.6843 Fax: | Seattle, WA 98103 | Fax: 206-352-7178 | KSD Danky water - Cherook Ms |
| Take Zip: Vakima, WA, 98901 Fax: 995.75.8433 PAR Enail: Para 9 | Client: | Fulcrum Environmental Consulting | 16261子、2巻 Collected by: Amanda Enbysk |
| Rez. 2ip: Yakima, WA, 98901 Fax: 509.375.8453 PM Fmall: | Address: | 406 North Second Street | channol middle school |
| ### Sumple Date Time (Marra): Sample Date Time (Marra): A A A & B & B & Ca Ca Ca Ca Callede): MITCA-5 RCDA-8 Priority Pollutants: TA. Individual: Ag A A & B & B & Ca Ca Ca Callede): Mitrate: Nitrite Choride Suifaste Bromide Of Posposibly Jab (Surples and Suspenses day: 10 cach of the terms on the front and backside of this Agreement with Fermont Analytical on behalf of the Client named above, that I have verified Client's Agreement with Fermont Analytical on behalf of the Client named above, that I have verified Client's Received Received Sciences of the Control of the Client named above, that I have verified Client's Received Received Sciences of the Control of the Client named above, that I have verified Client's Received Receive | City, State, Zip: | Yakima, WA, 98901 | Ryan Mathew |
| Sample S | Telephone: | | PM Email: |
| Sample Sample Date Time (Marrio)* SC | *Matrix Codes: A = Air, A | Q = Aqueous, B = Bulk, O = Other, P = Product, | SD = Sediment, SL = Solid, W = Water, |
| Double Circle : MTCA-5 RCRA-8 Priority Pollutants TAL Individuol: Ag Al As B Ba Be Ca Cd Co Co Fee Hg K Mg Mn Mo Na NI Pe Circle : Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Turn-around times for samples Received Samples are retained after 30 days; Interest of the terms on the front and backside of this Agreement. Received Samples Cacho Co | Sample Name | Sample | SOCIO A SOCIO CON TORNICO DE PROPERTO DE P |
| 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 Date/Time Selection of the terms on the front and backside of this Agreement. Received Date/Time Received Date/Time Received Date/Time Received Date/Time Received Date/Time Received Received Received Date/Time Received Date/Time Received Date/Time Received Date/Time Received Received Received Received Received Received Received Received Received Date/Time Received Date/Time Received Date/Time Received Rec | 1 CHK52017-P- | 3 6 5/20/2017 0830 | 8 |
| nalysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Fe Hg K Mg Mn Mo Na Ni Pacticial: Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite Client Supplies are retained after 20 days.] Ithat I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's to each of the terms on the front and backside of this Agreement. Received Supplies are retained after 20 days.] Date/Time Received Supplies are retained after 20 days. | 2 | | |
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| Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Bc Cd | 5 | | |
| nalysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Fe Hg K Mg Mn Mo Na Ni Pb Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite osal: Psposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.) It 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 pate/Time. Received TUTD-around times for samples received after 4:00pm will begin on the front and backside of this Agreement. Received Pe Hg K Mg Mn Mo Na Ni Pb Client of Client named above, that I have verified Client's Date/Time. Date/Time Received Pe Hg K Mg Mn Mo Na Ni Pb Client named above, that I have verified Client's Date/Time. Date/Time Received Pe Hg K Mg Mn Mo Na Ni Pb Client named above, that I have verified Client's Date/Time. | 6 | | |
| Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Fe Hg K Mg Mn Mo Na Ni Pb Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Pollutants of 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 to each of the terms on the front and backside of this Agreement. Date/Time Received Pate/Time Pa | 7 | | |
| malysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Ge Hg K Mg Mn Mo Na Ni Pb Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Property Pollutants Tall Individual: Ag Al As B Ba Be Ca Cd Co Cr Ge Hg K Mg Mn Mo Na Ni Pb Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Property Pollutants for samples of the function of the for 30 days unless otherwise noted. A fee may be on the following business day. It that I am authorized to enter into this Agreement Analytical on behalf of the Client named above, that I have verified Client's Date/Time Received Date/Time Pate/Time P | 00 | | |
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| Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite received after 4:00pm will begin obsal: Return to Client Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.) It 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 to each of the terms on the front and backside of this Agreement. Date/Time Dat | **Metals Analysis (Circle) | MTCA-5 RCRA-8 | Individual: Ag Al As B Ba Be Ca Cd Co Cr Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V |
| Return to Client Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.) It 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 to each of the terms on the front and backside of this Agreement. Date/Time Date/ | | Nitrite Chloride | Turn-around times for samples |
| t 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 to each of the terms on the front and backside of this Agreement. Date/Time | Sample Disposal: | | s unless otherwise noted. A fee may be |
| Date/Time Date/Time Date/Time Received Received Date/Time Received Date/Time National Content of the Process of the Pr | I represent that I am audagreement to each of the | horized to enter into this Agreement with F terms on the front and backside of this Agre | Analytical on behalf of the Client named above, that I have verified Client's |
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| APIDAGE COORDINATE WITH THE PROPERTY OF THE PR | × | pare/ line | eceived Date/Time |



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: KSD Drinking Water - Chinook MS

Work Order Number: 1708167

August 16, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 17 sample(s) on 8/16/2017 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

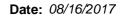
All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward Project Manager CC:

Amanda Enbysk





CLIENT: Fulcrum Environmental Work Order Sample Summary

Project: KSD Drinking Water - Chinook MS

Work Order: 1708167

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---------------|------------------|---------------------|--------------------|
| 1708167-001 | CHK81517-P-CF-06 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-002 | CHK81517-S-CF-06 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-003 | CHK81517-T-CF-06 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-004 | CHK81517-P-KF-20 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-005 | CHK81517-S-KF-20 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-006 | CHK81517-T-KF-20 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-007 | CHK81517-P-CF-24 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-008 | CHK81517-S-CF-24 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-009 | CHK81517-T-CF-24 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-010 | CHK81517-P-WC-31 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-011 | CHK81517-S-WC-31 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-012 | CHK81517-T-WC-31 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-013 | CHK81517-P-OF-34 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-014 | CHK81517-S-OF-34 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-015 | CHK81517-T-OF-34 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-016 | CHK81517-P-WC-35 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |
| 1708167-017 | CHK81517-P-WC-36 | 08/15/2017 7:30 AM | 08/16/2017 9:26 AM |



Case Narrative

WO#: **1708167**Date: **8/16/2017**

CLIENT: Fulcrum Environmental

Project: KSD Drinking Water - Chinook MS

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:

1708167-001A 231898: Prep Comments for EPA200.8, Sample 1708167-001A: Turbidity: 0.57 NTU 1708167-004A 231902: Prep Comments for EPA200.8, Sample 1708167-004A: Turbidity: 0.01 NTU 1708167-007A 231903: Prep Comments for EPA200.8, Sample 1708167-007A: Turbidity: 0.06 NTU 1708167-010A 231904: Prep Comments for EPA200.8, Sample 1708167-010A: Turbidity: 0.01 NTU 1708167-013A 231905: Prep Comments for EPA200.8, Sample 1708167-013A: Turbidity: 0.18 NTU 1708167-016A 231906: Prep Comments for EPA200.8, Sample 1708167-016A: Turbidity: 0.01 NTU 1708167-017A 231907: Prep Comments for EPA200.8, Sample 1708167-017A: Turbidity: 0.01 NTU



Qualifiers & Acronyms

WO#: 1708167

Date Reported: 8/16/2017

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



Work Order: 1708167

Date Reported: **8/16/2017**

CLIENT: Fulcrum Environmental

Project: KSD Drinking Water - Chinook MS

Lab ID: 1708167-001 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-CF-06 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17922 Analyst: TN

Copper 173 0.500 μg/L 1 8/16/2017 2:49:38 PM

Lab ID: 1708167-004 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-KF-20 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17922
Analyst: TN

Copper 85.9 0.500 μ g/L 1 8/16/2017 2:33:32 PM

Lab ID: 1708167-007 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-CF-24 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

Drinking Water Metals by EPA Method 200.8 Batch ID: 17922 Analyst: TN

Copper 409 0.500 µg/L 1 8/16/2017 2:53:39 PM



Work Order: 1708167

Date Reported: **8/16/2017**

CLIENT: Fulcrum Environmental

Project: KSD Drinking Water - Chinook MS

Lab ID: 1708167-010 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-WC-31 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17922

Analyst: TN

Copper 74.7 0.500 μg/L 1 8/16/2017 3:05:44 PM

Lab ID: 1708167-013 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-OF-34 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17922 Analyst: TN

Copper 295 0.500 µg/L 1 8/16/2017 3:09:46 PM

Client Sample ID: CHK81517-P-WC-35 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>

Batch ID: 17922

Analyst: TN

Copper ND 0.500 μg/L 1 8/16/2017 3:13:47 PM



Work Order: 1708167

Date Reported: 8/16/2017

CLIENT: Fulcrum Environmental

Project: KSD Drinking Water - Chinook MS

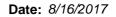
Lab ID: 1708167-017 **Collection Date:** 8/15/2017 7:30:00 AM

Client Sample ID: CHK81517-P-WC-36 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 17922 Analyst: TN

Copper 1,400 0.500 μg/L 1 8/16/2017 3:17:49 PM





Work Order: 1708167

QC SUMMARY REPORT

CLIENT: Fulcrum Environmental

| | ivironmental ng Water - Chinook M | 1S | | | Drinking Water Metals by EPA Method 200. |
|-----------------------------|--------------------------------------|-------|-----------|-------------|--|
| Sample ID MB-17922 | SampType: MBLK | | | Units: µg/L | Prep Date: 8/16/2017 RunNo: 38041 |
| Client ID: MBLKW | Batch ID: 17922 | | | | Analysis Date: 8/16/2017 SeqNo: 731139 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | ND | 0.500 | | | |
| Sample ID LCS-17922 | SampType: LCS | | | Units: µg/L | Prep Date: 8/16/2017 RunNo: 38041 |
| Client ID: LCSW | Batch ID: 17922 | | | | Analysis Date: 8/16/2017 SeqNo: 731140 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 103 | 0.500 | 100.0 | 0 | 103 85 115 |
| Sample ID 1708167-004ADUP | SampType: DUP | | | Units: µg/L | Prep Date: 8/16/2017 RunNo: 38041 |
| Client ID: CHK81517-P-KF-20 | Batch ID: 17922 | | | | Analysis Date: 8/16/2017 SeqNo: 731142 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 82.4 | 0.500 | | | 85.90 4.11 30 |
| Sample ID 1708167-004AMS | SampType: MS | | | Units: µg/L | Prep Date: 8/16/2017 RunNo: 38041 |
| Client ID: CHK81517-P-KF-20 | Batch ID: 17922 | | | | Analysis Date: 8/16/2017 SeqNo: 731143 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 290 | 0.500 | 200.0 | 85.90 | 102 70 130 |
| Sample ID 1708167-004AMSD | SampType: MSD | | | Units: µg/L | Prep Date: 8/16/2017 RunNo: 38041 |
| Client ID: CHK81517-P-KF-20 | Batch ID: 17922 | | | | Analysis Date: 8/16/2017 SeqNo: 731144 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 279 | 0.500 | 200.0 | 85.90 | 96.4 70 130 290.1 4.03 30 |

Original Page 8 of 11



Sample Log-In Check List

| CI | ient Name: | FE | | | Work Ord | der Number: | 1708167 | | |
|-------------|-----------------|------------------|---|-----------|------------|-------------|--------------|----------------|---|
| Lo | ogged by: | Clare Grig | gs | | Date Rec | eived: | 8/16/2017 | 9:26:00 AM | |
| <u>Cha</u> | in of Custo | ody | | | | | | | |
| 1. | Is Chain of C | ustody comp | olete? | | Yes | ✓ | No 🗌 | Not Present | |
| 2. | How was the | sample deliv | vered? | | <u>UPS</u> | | | | |
| <u>Log</u> | In | | | | | | | | |
| _ | Coolers are p | resent? | | | Yes | ✓ | No 🗌 | NA □ | |
| ٥. | Cooloro aro p | 7000111. | | | . 00 | | | | |
| 4. | Shipping con | tainer/cooler | in good condition? | | Yes | ✓ | No 🗌 | | |
| 5. | | | n shipping container/cooler? custody Seals not intact) | | Yes | | No 🗌 | Not Required 🗹 | |
| 6. | Was an atten | npt made to | cool the samples? | | Yes | ✓ | No 🗌 | NA 🗌 | |
| 7. | Were all item | s received a | at a temperature of >0°C to | 10.0°C* | Yes | ✓ | No 🗌 | na 🗆 | |
| 8. | Sample(s) in | proper conta | ainer(s)? | | Yes | ✓ | No 🗌 | | |
| 9. | Sufficient san | nple volume | for indicated test(s)? | | Yes | ✓ | No 🗌 | | |
| 10. | Are samples | properly pre | served? | | Yes | ✓ | No \square | | |
| 11. | Was preserva | ative added t | to bottles? | | Yes | ✓ | No 🗌 | NA 🗌 HNO3 | |
| 12. | Is there head | space in the | VOA vials? | | Yes | | No 🗌 | NA 🗹 | |
| 13. | Did all sample | es container | s arrive in good condition(ur | nbroken)? | Yes | ✓ | No 🗌 | | |
| 14. | Does paperw | ork match be | ottle labels? | | Yes | ✓ | No 🗌 | | |
| 15. | Are matrices | correctly ide | entified on Chain of Custody | ? | Yes | ✓ | No 🗌 | | |
| 16. | Is it clear wha | at analyses v | were requested? | | Yes | ✓ | No 🗌 | | |
| 17. | Were all hold | ling times ab | le to be met? | | Yes | ✓ | No 🗌 | | |
| <u>Spe</u> | cial Handli | ing (if app | olicable) | | | | | | |
| 18. | Was client no | otified of all o | discrepancies with this order | ? | Yes | | No 🗌 | NA 🗹 | |
| | Person | Notified: | | Date | | | | | |
| | By Who | m: | | Via: | eMail | Phone | Fax [| In Person | |
| | Regardi | | | | | | | | |
| | Client In | structions: | | | | | | | |
| 19. | Additional rer | marks: | | | | | | | 1 |
| <u>ltem</u> | Information | | | | | | | | |
| | | Item # | Temp °C | ; | | | | | |

Cooler Sample

2.2

2.4

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

| Ave 810: | Amalytical N. Tel: 206-352-3790 Fax: 206-352-7178 Fulcrum Environmental Consulting 406 North Second Street Yakima, WA, 98901 | Tel: 206-352-3790 Fax: 206-352-7178 Im Environmental Con Vorth Second Street Na. WA, 98901 | sulting | | difference of the second | P P P | Project Name: Project No: Location: | | e: 8/15/2017 Drinking Water - Chii 162017.28 Dook Middle School, Kenr | MSD Drinking Water - Chinook MS 162017.28 Co Chinook Middle School, Kennewick, WA | <u></u> | Page: of: |
|--|---|---|---|---------------------------------------|--|--|---|--|---|---|--|--|
| City, State, Zip: | Yakima, WA, 98901 | 98901 | | | Section Common or | Re | Report To (PM): | L | athews | | | |
| Telephone: | 509.574.0839 | SEC. 188 | Fax: 50 | Fax: 509.575.8453 | 7.113 | PN | PM Email: | 1 | vs@efulcrum | rmathews@efulcrum.net; cc: aenbysk@efulcrum.net | ysk@efulcru | rum.net |
| *Matrix Codes: A = Air, AQ = A | AQ = Aqueous, B = Bulk, | k, O = Other, | | P = Product, S = Soil, SD = Sediment, | | SL = Solid, W = Water, | | DW = Drinking Water, | _ | ound Water, S | W = Storm W | SW = Ground Water, SW = Storm Water, WW = Waste Water |
| Sample Name | s | Sample Date | Sample Time (i | Sample Type (Matrix)* | \$ (60) (50) (50) (50) | 1 Solito | \$\\ \text{2.5} \\ \text{2.5} \ | Control of the contro | 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 13 (1) 13 (10 (10 (10 (10 (10 (10 (10 (10 (10 (10 | Though I have been seen as the | LING TO RECORDED Comments |
| -47-8-419187HJ | 06 | 8/15/2017 | 730 | - | | | | ⊗ | | | <i>≫</i> | |
| 2 CHK8/8/7-5-CF | CF-06 | | | - | | | | | | | ま | Hold; unpr |
| 3CHK81517 -T-CF-06 | 4-06 | | | | | | | | | | | ← |
| 4 C#81517-P-KF-20 | 20 | | | | × 144 0 | 7 | | 8 | | | ≫ | the series of th |
| 5 CHK81517-5-KF-20 | F-20 | | | | | | | | | | ま | 4010; mpc. |
| CHK81517-T-KF- | =- 70 | | | 9 | To the | The Part of the Pa | | | - C - C - C - C - C - C - C - C - C - C | | _ | |
| , Ctk 81517-8-CF-24 | -24 | | - 0 | | 200 | 20 St. 10 TO | 100 | ⊗ ^ | | 9 | 8 | |
| 8 CAK81817-5-CF-24 | F-24 | | | | | | | | | | # | HOLD; impor. |
| 16-47-T-CF-24 | 76-1 | - | | | • | | 160 | | 3 | | | |
| 10CHKB1517-P-WC-31 | 25-31 | 2 | < | 2 | Section of the second | 0.0 | | 8 | | | ⊗ × | |
| **Metals Analysis (Circle): | MTCA-5 RCRA-8 | Ď | Priority Pollutants | TAL | Individual: Ag | Al As B | Ba Be Ca Cd | d Со Ст <mark>(ССС)</mark> ∓е нв | | K Mg Mn Mo Na | Ni Pb Sb | b Se Sr Sn Ti Tl U V Zn |
| ***Anions (Circle): Nitrate Sample Disposal: | Nitrite Return to Client | Chloride D | Sulfate isposal by Lab ssessed if sam | Bromide (Samples will | Sulfate Bromide O-Phosphate Disposal by Lab (Samples will be held for 30 days.) assessed if samples are retained after 30 days.) | ate Fluoride days unless other ys.) | ride Nit | Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.) | | Turn-around times for samples received after 4:00pm will begin on the following business day. | 10 | Special Remarks: |
| 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. | rized to enter in ms on the front | nto this Agre | eement with de of this Ag | Fremont Augreement. | nalytical on b | ehalf of the | Client name | d above, that | I have verif | ied Client's | | |
| Relinquished MC | 8/15 | 11me 14; 1600 | 8 | | Received | () | | Date/Time | 0/201 | 2017 0926 | 90 | 1x1: 4xx |
| Relinquished | Date/Time | me | | | Received | | | Date/Time | | | TAT | TAT → SameDay^ NextDay^ 2 Day 3 Day STD |

| Address: City, State, Zip: Telephone: | 406 North Second Street Yakima, WA, 98901 509.574.0839 Fe | eet Fax: 509.575.8453 | 5.8453 | Location: Report To (PM): PM Email: | | Chinook Middle School, Kennewick, WA Ryan Mathews rmathews@efulcrum.net; cc: aenbysk@efulcrum.net | VA k@efulcrum.net |
|--|---|---|--|--|--|---|--|
| *Matrix Codes: A = Air, AQ = A | AQ = Aqueous, B = Bulk, O = Other, | P = Product, | sil, SD = Sediment, | Solid, W = Water, | ng Water, | Water, SW = | SW = Storm Water, WW = Waste Water |
| CHK81517-5-WC-31 | Sample Dat | Sample | TOS ESTORES | asoline Sydiocal System | Metals | | |
| CAK81517 - T-WC-31 | Sample Date C-3 8/15/2017 | Sample Time | 100 (E) (S) (B) (S) (S) (B) (S) (S) (S) (S) (S) (S) (S) (S) (S) (S | Asoline Indiodal Successifie | | | HOLD; wp. |
| CAK81617-P-0F-34 | | Sample Time 730 | LOG IE. | Andro Cal | | | who. |
| CHK81517-5-0F-34 | 4- | Sample Time 730 | \$05 (E) | Asoline Francisco Seserite | National State of Sta | | NAS |
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| -2M-8-41918XF | 474- | Sample Time 730 | 1000 (1) | Prido da de se la la suita de la suita della de la suita della del | National State of Sta | | Ab. |
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| 6 1 | 8/15/201 | Sample Ty Time (Mai | Individual: A | As B Ba Be C | TE ST. | Mo Na Ni | Sn Ti Ti U V |
| **Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg ***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite Polisposal: 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.) I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have | C-3 8/15/2017 C-3 8/15/2017 C-3 | Sample Type Time (Matri 7 730 DW 7 730 TW Priority Pollutants E Sulfate Disposal by Lab (Sam assessed if samples in the priority Pollutants But Disposal by Lab (Sam assessed if samples in the priority Pollutants But Disposal by Lab (Sam assessed if samples in the priority Pollutants But Disposal by Lab (Sam assessed if samples in the priority Pollutants But Disposal by Lab (Sam assessed if samples in the priority Pollutants But Disposal by Lab (Sam assessed if samples in the priority Pollutants) | Time (Matrix)* JOY STO GO AND STORY OF AND S | Al As B Ba Be Ca Cd Fluoride Nitr Pluoride Nitr Sys unless otherwise notes | Republication of the following above, that I have veri | Mo Na Ni Mo Na Ni Stort sample Super will beg business day. | SO TITIUV |