

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

Park Middle School, 1011 West 10th Avenue, Kennewick, Washington

Dear Keith:

On Thursday, December 22, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 34 drinking water samples for lead and copper analysis from Park Middle School (School) located at 1011 West 10th Avenue in Kennewick, Washington. Initial sampling identified six fixture locations with copper concentrations above guidance levels. Fulcrum returned to the School on February 25, 2017 to collect samples after remediation of the fixtures and laboratory results found concentrations to be below guidance levels. Sampling was completed as part of a District-wide project and all analysis was completed by Washington State Department of Ecology (Ecology) accredited laboratories.

Summary

The purpose of initial sampling was to evaluate current drinking water quality conditions with respect to lead and copper as a result of the increased national and local interest related to lead in drinking water. The intent of sampling was to meet the requirements of the pending regulations set forth in Washington Administrative Code (WAC) 246-366A-130 and 246-366A-135¹. Consistent with the regulations, Fulcrum completed sampling at the rates of at least 50% of plumbing fixtures used regularly for drinking or cooking in elementary and preschools and at least 25% of drinking or cooking fixtures in middle schools, junior high schools, and high schools. In addition, Fulcrum sampled administrative facilities in the District at the same rate as elementary schools, of at least 50% of drinking and cooking fixtures.

Fulcrum completed initial sampling on December 22, 2016. Initial results identified six samples with copper concentrations above the Environmental Protection Agency (EPA) action level of 1,300 micrograms per liter (μ g/L). Upon receipt of results, the District removed the identified fixtures from service pending remediation and further testing.

Copper is not a significant component in fixtures, but is the primary material in the plumbing system. To remediate elevated copper, the District aggressively flushed the fixtures with cold water to clear the plumbing of copper construction debris. Fulcrum returned on February 25, 2017 and collected samples to evaluate the success of the remediation. Follow-up samples yielded results below the EPA action level,

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



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 in Attachment A for fixture locations and laboratory results.

Sampling Methodology

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

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

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

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

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

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

Sampling Activities

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



Initial Sampling

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

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

Fixture Replacement and Flushing

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

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

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

Remedial Sampling

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



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

Analytical Results

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

Initial Sampling

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

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

Remedial Sampling

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

Discussion

Initial Sampling

Analytical results identified six samples with a copper concentration above the EPA action level of 1,300 μ g/L. No samples were identified with lead concentrations above the EPA action level of 15 μ g/L.

Remedial Sampling

Immediately following receipt of initial sampling results, the District removed the identified fixtures from service pending remediation and further testing. To remediate elevated copper concentrations, the District completed an aggressive flush of the fixtures. Fulcrum returned on the morning following the aggressive flush, February 25, 2017, to collect follow-up samples.

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



Recommendations

No samples were found to contain lead concentrations above the EPA action level of 15 μ g/L. A total of six initial samples contained copper above the EPA action level of 1,300 μ g/L. The District completed an aggressive flush to reduce the copper concentration of the fixtures and follow-up samples yielded results below the action level, confirming the remediation was successful. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service.

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

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

Sincerely,

Amanda Enbysk, GIT Environmental Geologist

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Ryan K. Mathews, CIH, CHMM Principal

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EXPIRES 12-1-2021



ATTACHMENT A

Figure 1: Sample Location Map





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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

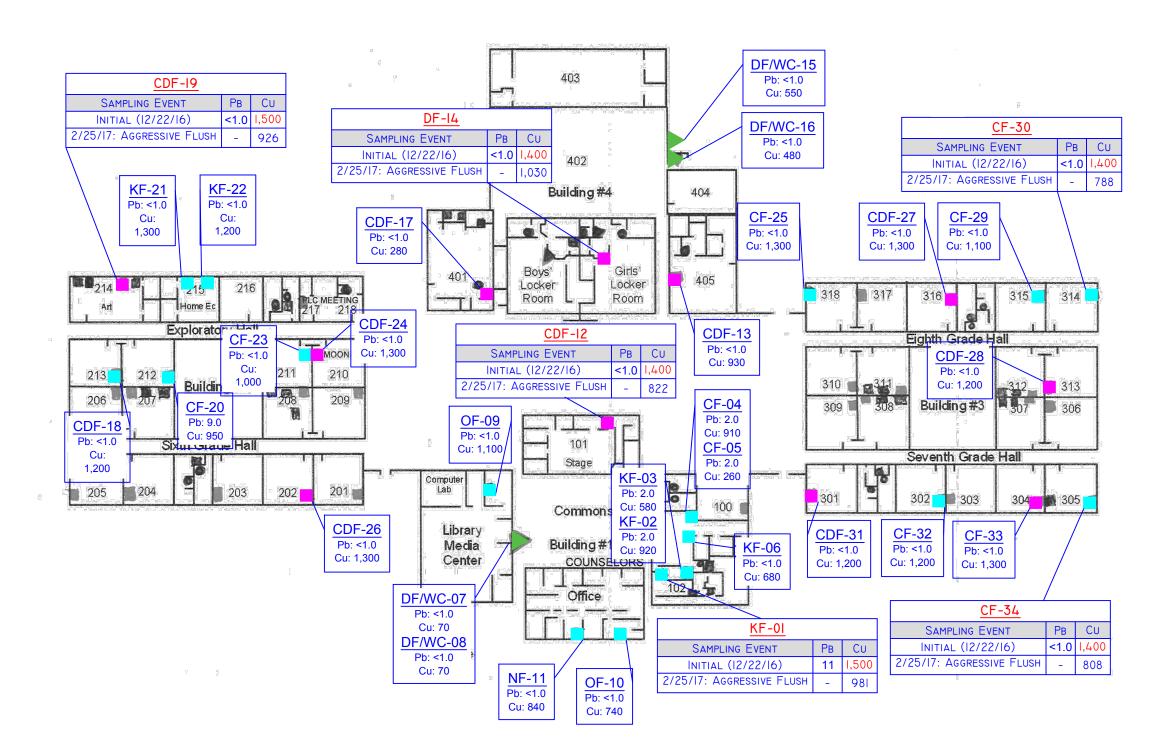
- Sample location: drinking fountain at sink

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.



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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 a specific summary of the location, number, a | | | | |
|---|----------------------------|--------------------------------|-------------------------------|--------------|
| Campus/Building: Park Middle School | Address: | 1011 West 10 | O th Avenue, Kenne | ewick, WA |
| ☐ Elementary | l □ High | School | ☐ Administration | on |
| Date of Construction: 1963 | M | Modernizations | : <u>19</u> | 99 |
| Fixture Type | Locations | Fixture Styles ¹ | Samples | Ratio |
| Drinking fountain/water cooler (DF/WC) | 7 | 3 | 5 | 71% |
| Kitchen Fixture (KF) | 6 | 6 | 6 | 100% |
| Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF) | 39 | 3 | 10 | 26% |
| Classroom drinking fountain at sink (CDF) | 38 | 3 | 10 | 26% |
| Nurse's Office/Health Room (NF) | 1 | 1 | 1 | 100% |
| Teacher's Lounges/Work Rooms (OF) | 3 | 2 | 2 | 67% |
| TOTALS | 94 | | 34 | 36% |
| Fixture styles are approximate based or | n sampler's obse | rvations | | |
| Lead Sampler: Nathan Bo | ostrom | | _ Date: _ | 12/22/2016 |
| Sample Prefix: PMS - 122216 - School Code Date | P (first-draw) Sample Type | | e Sample Nun | nber |
| Laboratory: R. J. Lee Group, Columbia | Basin Analytic | <u>eal</u> Delive | ry Date: <u>Decem</u> | ber 22, 2016 |
| Comments: | | | | a |



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

| Sample Identification and Location Fixture Type PMS122216 P. KF 01: Kitchen Kitchen Kitchen Foucat | | Lead Results (µg/L) | Copper Results (µg/L) |
|---|--------------------------------|---------------------------|-----------------------------|
| PMS122216-P-KF-01: Kitchen | Kitchen Faucet | 11 | 1,500 |
| PMS122216-P-KF-02: Kitchen | Kitchen Faucet | 2 | 920 |
| PMS122216-P-KF-03: Kitchen | Kitchen Faucet | 2 | 580 |
| PMS122216-P-KF-04: Kitchen | Kitchen Faucet | 2 | 910 |
| PMS122216-P-KF-05: Kitchen | Kitchen Faucet | 2 | 260 |
| PMS122216-P-KF-06: Kitchen | Kitchen Faucet | <1.0 | 680 |
| PMS122216-P-DF/WC-07: Commons, left | Drinking Fountain/Water Cooler | <1.0 | 70 |
| PMS122216-P-DF/WC-08: Commons, right | Drinking Fountain/Water Cooler | <1.0 | 70 |
| PMS122216-P-OF-09: Library Office | Office Faucet | <1.0 | 1,100 |
| PMS122216-P-OF-10: Staff Lounge | Office Faucet | <1.0 | 740 |
| PMS122216-P-NF-11: Nurses Office | Nurse's Faucet | <1.0 | 840 |
| PMS122216-P-CDF-12: Stage drinking fountain | Classroom Drinking Fountain | <1.0 | 1,200 |
| PMS122216-P-CDF-13: Room 405 | Classroom Drinking Fountain | <1.0 | 930 |
| PMS122216-P-DF-14:Girls locker room | Drinking Fountain | <1.0 | 1,400 |
| PMS122216-P-DF/WC-15: Room 404, left | Drinking Fountain/Water Cooler | <1.0 | 550 |
| PMS122216-P-DF/WC-16: Room 404, right | Drinking Fountain/Water Cooler | <1.0 | 480 |
| PMS122216-P-CDF-17: Room 401 | Classroom Drinking Fountain | <1.0 | 280 |
| PMS122216-P-CF-18: Room 213 | Classroom Faucet | <1.0 | 1,200 |
| PMS122216-P-CDF-19: Room 214 | Classroom Drinking Fountain | <1.0 | 1,500 |
| PMS122216-P-CF-20: Room 212 | Classroom Faucet | 9 | 950 |
| PMS122216-P-KF-21: Room 215, left | Kitchen Faucet | <1.0 | 1,300 |
| PMS122216-P-KF-22: Room 215, right | Kitchen Faucet | <1.0 | 1,200 |
| PMS122216-P-CF-23: Room 211 | Classroom Faucet | <1.0 | 1,000 |
| PMS122216-P-CDF-24: Room 210 | Classroom Drinking Fountain | <1.0 | 1,300 |
| PMS122216-P-CF-25: Room 318 | Classroom Faucet | <1.0 | 1,300 |
| PMS122216-P-CDF-26: Room 202 | Classroom Drinking Fountain | <1.0 | 1,300 |
| PMS122216-P-CDF-27: Room 316 | Classroom Drinking Fountain | <1.0 | 1,300 |
| PMS122216-P-CDF-28: Room 313 | Classroom Drinking Fountain | <1.0 | 1,200 |
| PMS122216-P-CF-29: Room 315 | Classroom Faucet | <1.0 | 1,100 |
| PMS122216-P-CF-30: Room 314 | Classroom Faucet | <1.0 | 1,400 |
| PMS122216-P-CDF-31: Room 301 | Classroom Drinking Fountain | <1.0 | 1,200 |
| PMS122216-P-CF-32: Room 302 | Classroom Faucet | <1.0 | 1,200 |
| PMS122216-P-CDF-33: Room 303 | Classroom Drinking Fountain | <1.0 | 1,300 |



| Sample Identification and Location | Fixture Type | Lead Results (µg/L) | Copper Results (µg/L) |
|-------------------------------------|-----------------------|---------------------------|-----------------------------|
| PMS122216-P-CF-34: Room 305 | Classroom Faucet | <1.0 | 1,400 |
| PMS122216-P-CF-35: Laboratory Blank | Distilled Water Blank | <1.0 | <10 |
| PMS122216-P-CF-36: Laboratory Spike | Lead and Copper Spike | 14 | 1,400 |
| EPA Action Level | | 15 | 1,300 |

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

Results indicated in **bold** indicate concentrations above the action levels of 15 μ g/L for lead and 1,300 μ g/L for copper Results indicated in *italics* are quality assurance spike and blank samples.

Table 2: pH and Temperature Data Summary

| Sample Number | Fixture Type | pН | pН | Temperature | Temperature |
|---|-----------------------|-------|--------|-------------|-------------|
| ~ · · · · · · · · · · · · · · · · · · · | | Flush | Sample | (°C) Flush | (°C) Sample |
| PMS122216-P-KF-04: Kitchen, left | Kitchen Faucet | 8.03 | 7.94 | 15.4 | 18.2 |
| PMS122216-P-DF/WC-08: Commons, | Water Cooler Fountain | 7.73 | 7.98 | 17.0 | 13.2 |
| right | water Cooler Fountain | 1.13 | 7.96 | 17.0 | 13.2 |
| PMS122216-P-CDF-12: Stage drinking | Classroom Drinking | 7.84 | 7.89 | 19.6 | 17.9 |
| fountain | Fountain | 7.04 | 7.09 | 17.0 | 17.9 |
| PMS122216-P-DF/WC-16: Room 404, | Water Cooler Fountain | 7.92 | 7.99 | 15.4 | 15.3 |
| right | water Cooler Fountain | 1.92 | 1.33 | 13.4 | 13.3 |
| PMS122216-P-CF-20: Room 212 | Classroom Faucet | 7.8 | 7.95 | 19.6 | 19.7 |
| PMS122216-P-CF-23: Room 211 | Classroom Faucet | 7.88 | - | 20.6 | - |

Table 3: Remedial Sampling Analytical Results

| | | | S | Sample I | dentifica | tion | | |
|----------------------------|-------|--------|-------|----------|-----------|-------|------------------------|------------------------|
| Sampling Event | KF-01 | CDF-12 | DF-14 | CDF-19 | CF-30 | CF-34 | Laboratory Blank (-35) | Laboratory Spike (-36) |
| Initial (12/22/16) | 1,500 | 1,400 | 1,400 | 1,500 | 1,400 | 1,400 | <10 | 1,400 |
| Aggressive Flush (2/25/17) | 981 | 822 | 1,030 | 926 | 788 | 808 | 3.02 | 1,200 |
| EPA Action Level | 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).

Results indicated in **bold** indicate concentrations above the action levels of 15 μ g/L for lead and 1,300 μ g/L for copper Results indicated in *italics* are quality assurance spike and blank samples.

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

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



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 12/22/16 for analysis. These sample(s) have been assigned a login order number of W612122. Enclosed is the final report that consists of a summary report of the sample(s), and a copy of the chain of custody.

General Lab Comments

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

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

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

02/10/17

Project Coordinator II, M. Fernanda Pincheira

Date

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



Laboratory Report

Ryan Mathews

RJ Lee Group No.:W612122

Fulcrum Environmental

COC No.: Kennewick Samples Received: 12/22/16

406 N. 2nd St. Yakima, WA 98901

Analysis/Prep Date: 02/10/17 Report Date: 02/10/17

Client Project:

Fulcrum Kennewick

Sample Name:

Date Received: 12/22/16 PMS122216-P-KF-01 Matrix: Potable Water

RJ Lee Grp. ID: W612122-01 02/10/17 **Date Analyzed:**

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.5 | 0.1 | X |
| Lead | EPA 200.8 | 0.011 | 0.001 | |

Date Received: 12/22/16 Sample Name: PMS122216-P-KF-02 Matrix: Potable Water W612122-02 **Date Analyzed:** 02/09/17 RJ Lee Grp. ID:

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.92 | 0.01 | |
| Lead | EPA 200.8 | 0.002 | 0.001 | |

Date Received: 12/22/16 Sample Name: PMS122216-P-KF-03 Matrix: Potable Water RJ Lee Grp. ID: W612122-03 **Date Analyzed:** 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.58 | 0.01 | |
| Lead | EPA 200.8 | 0.002 | 0.001 | |

Date Received: 12/22/16 Sample Name: PMS122216-P-KF-04 Matrix: Potable Water RJ Lee Grp. ID: W612122-04 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.91 | 0.01 | _ |
| Lead | EPA 200.8 | 0.002 | 0.001 | |

Date Received: 12/22/16 Sample Name: PMS122216-P-KF-05 Matrix: Potable Water RJ Lee Grp. ID: W612122-05 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.26 | 0.01 | |
| Lead | EPA 200.8 | 0.002 | 0.001 | |

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

WWW.RJLEEGROUP.COM

02/10/17 16:16 Approved: Report Template: GenMetalReportFull_v12.rpt Report Time Stamp: 02/10/17 16:45

Date Received: 12/22/16



Report Template: GenMetalReportFull_v12.rpt

Sample Name:

PMS122216-P-KF-06

| RJ Lee Grp. ID: W612122- | Date Analyzed: 02/09/17 | | | |
|---------------------------------|-------------------------|------------------|---------------|------------|
| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | EPA 200.8 | 0.68 | 0.01 | |
| Lead | FPA 200 8 | < 0.0010 | 0.001 | |

Matrix: Potable Water

Sample Name: PMS122216-P-DF/WC-Matrix: Potable Water RJ Lee Grp. ID: W612122-07 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|------------|------------|
| Copper | EPA 200.8 | 0.07 | 0.01 | _ |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-DF/WC-08 atrix: Potable Water RJ Lee Grp. ID: W612122-08 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.07 | 0.01 | |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-OF-09 Matrix: Potable Water Date Received: 12/22/16 W612122-09 Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.1 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-OF-10 Matrix: Potable Water

RJ Lee Grp. ID: W612122-10

Date Received: 12/22/16

Date Analyzed: 02/09/17

| | 1 | | | | |
|--------|---------|-----------|------------------|---------------|------------|
| | Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.74 | 0.01 | |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-NF-11 Matrix: Potable Water Date Received: 12/22/16

RJ Lee Grp. ID: W612122-11 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.84 | 0.01 | |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

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



| Sample Name: | PMS122216-P-CDF-12 Matrix: | Potable Water | Date Received: | 12/22/16 |
|-----------------|----------------------------|---------------|----------------|----------|
| RJ Lee Grp. ID: | | Totalor Water | Date Analyzed: | 02/10/17 |

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.4 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CDF-13 Matrix: Potable Water RJ Lee Grp. ID: W612122-13 Matrix: Potable Water Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.93 | 0.01 | _ |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-DF-14 Matrix: Potable Water

RJ Lee Grp. ID: W612122-14

Date Received: 12/22/16

Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.4 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-DF/WC-15 Potable Water Potable Water W612122-15 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.55 | 0.01 | |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-DF/WC-16 Atrix: Potable Water Potable Water W612122-16 Date Analyzed: 02/09/17

| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|--------|----|-----------|------------------|---------------|------------|
| Copper | | EPA 200.8 | 0.48 | 0.01 | |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CDF-17 Matrix: Potable Water Date Received: 12/22/16

RJ Lee Grp. ID: W612122-17 Date Analyzed: 02/09/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 0.28 | 0.01 | _ |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

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



| Sample Name: | PMS12221 | 6-P-CF-18 Matrix: Potable Wa | ater | Date Received | : 12/22/16 |
|--|-----------------------------------|---|--|--|--|
| RJ Lee Grp. ID: | W612122- | 18 | | Date Analyzed | : 02/10/17 |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.2 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122- | 6-P-CDF-19 Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.5 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122-2 | WIALLIA. I CLAUTE WE | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 0.95 | 0.01 | |
| Lead | | EPA 200.8 | 0.009 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122-2 | VIAILLY: LOTABLE MA | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.004 | |
| | | D111 200.0 | < 0.0010 | 0.001 | |
| - | PMS12221 W612122-2 | 6-P-KF-22 Matrix: Potable Wa | | Date Received Date Analyzed | |
| • | W612122-2 | 6-P-KF-22 Matrix: Potable Wa | | Date Received | |
| RJ Lee Grp. ID: | W612122-2 | 6-P-KF-22 Matrix: Potable Wa | Result (mg/L) | Date Received Date Analyzed PQL (mg/L) 0.1 | : 02/10/17 |
| RJ Lee Grp. ID: Analy | W612122-2 | 6-P-KF-22 Matrix: Potable Wa 22 Method | Result (mg/L) | Date Received Date Analyzed PQL (mg/L) | : 02/10/17 Qualifiers |
| Copper | W612122-2 | 6-P-KF-22 Matrix: Potable Wa 22 Method EPA 200.8 EPA 200.8 6-P-CF-23 Matrix: Potable Wa | Result (mg/L) 1.2 < 0.0010 | Date Received Date Analyzed PQL (mg/L) 0.1 | 2/10/17 Qualifiers X 12/22/16 |
| Copper Lead Sample Name: | W612122-2 te PMS12221 W612122-2 | 6-P-KF-22 Matrix: Potable Wa 22 Method EPA 200.8 EPA 200.8 6-P-CF-23 Matrix: Potable Wa | Result (mg/L) 1.2 < 0.0010 | Date Received Date Analyzed PQL (mg/L) 0.1 0.001 Date Received | 2/10/17 Qualifiers X 12/22/16 |
| Copper Lead Sample Name: RJ Lee Grp. ID: | W612122-2 te PMS12221 W612122-2 | 6-P-KF-22 Matrix: Potable Wa 22 Method EPA 200.8 EPA 200.8 6-P-CF-23 Matrix: Potable Wa 23 | Result (mg/L) 1.2 < 0.0010 ater Result | Date Received Date Analyzed PQL (mg/L) 0.1 0.001 Date Received Date Analyzed | 2/10/17 Qualifiers X 12/22/16 202/10/17 |

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 $Report\ Template:\ GenMetalReportFull_v12.rpt$



Report Template: GenMetalReportFull_v12.rpt

| Sample Name: | PMS122216-P-CDF-24 Matrix: | Potable Water | Date Received: | 12/22/16 |
|-----------------|----------------------------|---------------|----------------|----------|
| RJ Lee Grp. ID: | | Totable Water | Date Analyzed: | 02/10/17 |

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|---------------|------------|
| Copper | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CF-25 Matrix: Potable Water Date Received: 12/22/16 Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CDF-26 Matrix: Potable Water Potable Water W612122-26 Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CDF-27 Matrix: Potable Water W612122-27 Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CDF-28 Matrix: Potable Water BJ Lee Grp. ID: W612122-28 Matrix: Potable Water Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.2 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

Sample Name: PMS122216-P-CF-29 Matrix: Potable Water Date Received: 12/22/16

RJ Lee Grp. ID: W612122-29 Date Analyzed: 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.1 | 0.1 | X |
| Lead | EPA 200.8 | < 0.0010 | 0.001 | |

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| Sample Name: | PMS12221 | 6-P-CF-30 Matrix, Patable W | | Date Received | 1: 12/22/16 |
|---------------------------------|----------------------|--------------------------------------|------------------|--------------------------------|-------------|
| RJ Lee Grp. ID: | W612122- | VIALITY. FULADIE WA | ater | Date Analyze | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.4 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122- | 6-P-CDF-31 Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper Lead | | EPA 200.8 EPA 200.8 | 1.2 < 0.0010 | 0.1 0.001 | X |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122- | 6-P-CF-32 Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.2 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122- | 6-P-CDF-33 Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.3 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: RJ Lee Grp. ID: | PMS12221 W612122- | 6-P-CF-34 Matrix: Potable Wa | ater | Date Received Date Analyzed | |
| Analy | te | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| Copper | | EPA 200.8 | 1.4 | 0.1 | X |
| Lead | | EPA 200.8 | < 0.0010 | 0.001 | |
| Sample Name: | PMS12221 | Matrix: Folable wa | ater | Date Received Date Analyzed | |
| • | W612122- | 35 | | Eute Haarj Zec | 4. 02/10/1/ |
| RJ Lee Grp. ID: Analy | | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
| RJ Lee Grp. ID: | | | | PQL | |

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 Sample Name:
 PMS122216-P-CF-36
 Matrix:
 Potable Water
 Date Received:
 12/22/16

 RJ Lee Grp. ID:
 W612122-36
 Date Analyzed:
 02/10/17

| Analyte | Method | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|------------------|---------------|------------|
| Copper | EPA 200.8 | 1.4 | 0.1 | X |
| Lead | EPA 200.8 | 0.014 | 0.001 | |

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.

Report Template: GenMetalReportFull_v12.rpt Report Time Stamp:

| 2216-7-KF-05 2216-7-KF-05 2216-7-KF-06 2216-7-DF/MC-08 Right Commons 2216-7-OF-10 HOFFIX 2216-7-OF-10 HOFFIX Relinquished By (Signature): Mathon Bossian Relinquished By (Print Name): Mathon Bossian Relinquished By (Print Name): Mathon Bossian | 2216-2-KF-05 2216-2-KF-05 2216-2-KF-06 22 | DX(-P-KF-05) DX(-P-KF-05) DZ((-P-DF)MC-08 (eft -(emmons) DZ((-P-DF)MC-08 Kight commons DZ((-P-OF-09 (eft -(emmons) DZ((-P-OF-09 (emmons) DZ((-P-OF-09 (| 221(-9-KF-05 221(-9-KF-05 221(-9-KF-06 221(-9-DF)MC08 Right Com 221(-9-DF-06-06 (Brand) 221(-9-DF-06-06 (Brand) 221(-9-DF-06-06 (Brand) 221(-9-DF-06-06 (Brand) 221(-9-DF-16 (Brand) | 2216-9-16F10X-00 (eft - Common 2216-9-10F10X-00 (eft - Common 2216-9-10F10X-00 (eft - Common 2216-9-10F-10X-00 (eft - Common 2216-9-10F-10X-00 (eft - Common 2216-9-10F-10X-00 (eft - Common 2216-9-16F-03 | 12216-9-16F-05 122216-9-16F-06 122216-9-16F-06 122216-9-16F-06 122216-9-06-06 122 | 2216-9-15-05 2216-9-15-06 2216-9-15-06 | 2216-2-KF-05 | 2216-2-KE-05 | 2216-9-KE-05 | 2216-p-KF-05 | 1626 | 0MC/07/KC-05 | 101.00 | OMC 2221Cーでくっている。 | 3MC12212MC | OMS(2)2017-1-CE-CR | The state of the s | | Client Sample ID Sample Description Date | Sample | | Phone: (509) 574-0839 Fax: (509) 57 | City, State, Zip: Yakima, WA, 98901 | /orce | Company: Fulcrum Environmental Email: lboutillier@efulcrum.net | Name: Lorrie Boutillier | Fax Results To: | Email Results To: aenbysk@efulcrum.net, CC: rmathews@efulcrum.net | Call with Verbal Results: | _ | City, State, Zip: Yakima, WA, 98901 | JON OF | ľ | 5 | Namo: Amanda Enhant Bura Mathaus | Date Logged In: | Lab Use Project No.: | ATTENTION TO: RYAN MATHEWS | |
|--|--|--|--|--|--|--|--------------|--------------|--------------|--------------|------|--------------|--------|-------------------|------------|--------------------|--|---|--|-------------|------------------|-------------------------------------|-------------------------------------|--------------------|--|--------------------------|---------------------|---|---------------------------|-------------------------------|-------------------------------------|---------------|--------------|---|----------------------------------|--------------------------------|----------------------|----------------------------|------|
| Date: 12-22-16 Relinquished To: | -16 | | | | | | | | | | | | | | | | 0.0 | 2 | Start | Sample Time | | 509) 575-8453 | | | fulcrum.net | | | rum.net | | 75-8453 | | | | | | | | | |
| Time: 2:38 | | | | | | | | | | | | | | | | | | | Stop Volume | | | | | | | | | | | | | | | | | | | | WWIL |
| Chain of Custody | Chain of | | 4 | | | | | | | | | | | | - | | > | < | 3 | 70, 00 | EPA 200.8: | | | | | | Analysis Key | Chemistry | | | Jampie Ciny | Sample Only | Water | Drinking | | Request | Turnaround | Purchase Order No.: | 00 |
| Received By (Frint Name) | Received By Standard W. L. | Received BA SARadu & | | | | | | | | | | | | | | | | | | | | | | Analysis Requested | , | Other Na,SO ₄ | 4 C HCI | 4 | ation: | Sample Purpose: A B Other | Multiple Sources #5: | DON Source #: | DOL SOURCE # | ose: Information X | - Commercian V | Standard: Yes No | | r No.: | |
| Det L | Relinanii | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | res. | _ | on Rec | | | /N) | | | S=Soil/Sludge 0=Oil | | | | | | | Regulatory Accreditation (please list below). | - 1 | If 'No,' No. of Business Days: | | Client Job No.: | |
| Note: 12 2016 Time: 14 | OW DW | DW | DW | DW | | | | | | | | | | | | - | | | | | Matri ntainer | x | | | | A=Air (filter or tube) | | er r=rlastic | | | | | | ממאה וואר מהוסא). | assa list halow) | 7: | | 162017 | 000 |

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

724.325.1776 Phone 724.733.1799 Fax

509.544.6010 Fax

509.545.4989 Phone

Pasco, WA 99301

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Washington

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DELIVERING SCIENTIFIC RESOLUTION

W612122, Page 10 of 12

71- x440-6-71000 5M6 PMS 12021-9-COF 18 JICKEN SAND 12-42-6-18CECISMO 5/MS 1221-7-05-20 PMS 12211 -7-CE-18 OMS/2231-P-COF-17 Send Invoice ATTENTION TO: DW S 1 DATE - B- OF 14 SI-2014-6-INC-12 41-30-4-) Tred 5 WO Instructions PHAD-4-COPHA Chain of Special Custody Chain of Custody Report Lab Use Results ᄗ ᅙ Client Sample ID Date Logged In: Relinquished By (Print Name): //a.sho? Phone: City, State, Zip: Address: Company: Name: Lorrie Boutillier Fax Results To: Email Results To: Call with Verbal Results: Phone: City, State, Zip: Company: Fulcrum Environmental Consulting Name: Amanda Enbysk, Ryan Mathews Project No.: Relinquished By (Signature): Company Name: Company Name: Ful Chri Relinquished By (Print Name): Relinquished By (Signature): ddress: 1-KB 22 Fulcrum Environmental 406 North 2nd Street 406 North 2nd Street (509) 574-0839 **RYAN MATHEWS** (509) 574-0839 Yakima, WA, 98901 aenbysk@efulcrum.net, CC: rmathews@efulcrum.net Yakima, WA, 98901 RM RR RM 23 Nort to RM YOU スマ・マロ なる 3 Sample Description whan 214 o droky towar 405 7 25 acker RM Boston Fax: Email: lboutillier@efulcrum.net Fax: Logged In By: Client No: 70 Relinquished To: Date: 12-22-16 Method of Shipment: Relinquished To: Method of Shipment: 509) 575-8453 509) 575-8453 Sample Date アーカーは Start Time: Time: Stop 000 Wipe Area / Air Volume Sample Only Multiple Sources #5: Purchase Order No.: Analysis Key | HNO3 EPA 200.8: Pb, Cu Turnaround Chemistry Drinking Request Chain of Custody Chain of Custody Water Standard: Received By (Signature); Unpres Preservation: Sample Purpose: A DOH Source #: System ID #: sample Purpose: Received By (Print Name): Company Name: Company Name: Received By (Signature): H₂SO₄ Analysis Requested Na₂SO, NaOH HCI Yes В S GW=Groudwater WW=Wastewater Other -Regulatory If 'No,' No. of Business Days 0=0i Client Job No.: Accreditation (please list below): DW=Drinking Water SW=Surface Water Method of Shipment: Relinquished To: Date: Relinquished To: Date 1 2 2 2010 Time: Method of Shipment: Pres. Upon Receipt (Y/N) Preservation Matrix W=Wipe G=Glass P=Plastic Container ۹=Air (filter or tube) 162017 Time: Container Type рΗ 420 No. Containers 15.0 26 3 (C) 5 125 n, 91 5.8 15.9

R4_12032015

DELIVERING SCIENTIFIC RESOLUTION

LEE (

Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146

Pasco, WA 99301

2710 North 20th Avenue

Columbia Basin Analytical Laboratories

509.545.4989 Phone 509.544.6010 Fax

724.325.1776 Phone 724.733.1799 Fax

| ## PANA MATHEWS PANAPORE Collect No. | custony | Custody | Chain of | | Custody | Chain of | DIW 12 | SWY! | DWS / | SI STUTO | SW SW | | PMS 12 | | DICCE I Swd | 2NS 12 | Tecrisme | Ç | | Special Instructions | | 5 | Sella lilvoice | Cond Invoice | | | | | To. | Results | Report | | | Only | Lab Use | ATTENTION TO: |
|--|-----------------|---------------------------|--------------------------|-----------------|-----------------------------|------------------------|--------|--------|-------|----------|-------|------------|--------------|----|--------------|--------|----------|-------|---|----------------------|---------------------|---------|--------------------|--------------------------------|-------------------------|----------------------|------------------------------------|---------------------------|---------------------|----------------------|--------|--------------|-------------------------------|----------------------|---------------------|-----------------|
| Purhase Order No.: | | | | | 1 Buston | Bostian | RM 304 | RM 367 | RM | RM | 22 | 7-0F-28 KM | -COF-27 PM-3 | RA | -7-CF-25 RM- | RM | CIC-MA | Date | | \$ | (509) 574-0839 Fax: | e, Zip: | Address: | Company: Fulcrum Environmental | Name: Lorrie Boutillier | | | Call with Verbal Results: | (509) 574-0839 Fax: | | | | | | | |
| pile Purpose: Information X Regulatory Accreditation (please list be em ID #: Source #: Sources #s: | nent: | | Time: | nent: | | 1 Time: | | | | | | | | | | | | Stop | | | | | | et | | | | | | | | | | | | |
| ple Purpose: Information X Regulatory | customy | Custody | Chain of | | Custody | Chain of | 4 | - | | | | | | | | | 8 | | _ | EPA 200.8: | | | | | Analysis key | Analysis Ko | Chamistry | | | Sample Only | Water | Drinking | | Request | Turnaround | Purchase Orde |
| of Shipping To: | Company Name: | Received By (Print Name): | Received By (Signature): | Company Name: | Received By (Print Name) DW | Received By Signal Cel | | | | | | | | | | | | | | | | | Analysis Requested | h = =7= | Other Na-SO. | 4 C HCI | res H ₂ SO ₄ | | B - | Multiple Sources #s: | | System ID #: | Information X | Standard: Tes | Constant Van | |
| alow): Container: P=Plastic G=Glass W=Wipe A=Air (filter or tube A=Air (filter or tub | Method of Shipn | Relinquished To: | Date: | Method of Shipn | Relinquished To: | | R. | | | | | | | | | | | Pres. | | eserva | tion | | /N) | | er | A DILIVING AN OFFICE | | | | | | | Accreditation (please list be | C. C. Desiring Days. | o of Business Days: | Client Job No.: |
| No. Containers 1, | nent: | | Time: | nent: | | 016rime: 1422 | 4 | | | | | | | | | | P | | | ntainer pH | Тур | | | | A=Air (filter or tube) | W=Wine | P=Plastic | Container: | | | | | elow): | | | 162017 |

R4_12032015

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W612122, Page 12 of 12

| Custody | Chain of | | Custody | Chain of | | e to take | MUSIN | PAUS 122 | Clier | | Special Instructions | | ō | 7010 | | | | | | | Results | Report | | | Only | Lab Use | ATTENTION TO: |
|---------------------|------------------------------|-----------------------|--|------------------------------|--|---------------------|-------------------|------------------------|--------------------|-----------------|-------------------------|----------------|-------------------|----------------------|---------------------------------|-------------------------|-----------------|---|---------------------------|-----------------------|----------------------|----------------------|----------------------------------|------------------------------------|-----------------|-------------------------------|---------------------|
| Company Name: | Relinquished By (Signature): | Tourse Linearing | Company Name: | Relinquished By (Signature): | | JMF 12 2216-P-CF-36 | OMSIDUALL-P-CK-35 | Mrs 120-46-17-18-18-18 | Client Sample ID | | | 09) 574 | City, State, Zip: | Address: 406 North | Company: Fulcrum E | Name: Lorrie Boutillier | Fax Results To: | Email Results To: | Call with Verbal Results: | Phone: (509) 574-0839 | City, State, Zip: | Address: 406 North | Company: Fulcrum E | Name: Amanda Enbysk, Ryan Mathews | Date Logged In: | Project No.: | |
| Name): | iture): | Total Carry | Comment (South | Cathan | | 6 R00 m 807 | - ROOM 306 | Koon 305 | Sample Description | | | -0839 Fax: | Yakima, WA, 98901 | 406 North 2nd Street | nvironmental | | | aenbysk@efulcrum.net, CC: rmathews@efulcrum.net | S: | 1-0839 Fax: | Yakima, WA, 98901 | 406 North 2nd Street | Fulcrum Environmental Consulting | | Logged In By: | Client No: | RYAN MATHEWS |
| Method of Shipment: | Date: | Michiga of Simpinging | | | | 4 | _ | 11-15-51 | Date | Sample | | (509) 575-8453 | | | Email: iboutillier@efulcrum.net | | | ws@efulcrum. | | (509) 575-8453 | | | | | By: | | |
| Shipment: | | | shinment. | | | | | | Start | Sample Time | | 453 | | | ım.net | | | net | | 453 | | | | | | | |
| | Time: | | | Time: 2190 | | | | | Stop | Time | | | | | | | | | | | | | | | | | |
| | | | | 8 | | | | | Volume Volume | Wine Area / Air | | | | | | | | | | | | | | | | | |
| Custody | Chain of | | Custody | Chain of | | 4 | | 7 | | PB, CL | EPA 200.8: | | | | | - Individual Control | Analysis Key | Chemistry | | | Sample Only | Water | Drinking | | Request | Turnaround | Purchase Order No.: |
| Company Name: | Received By (Signature): | company routes | Company Name: | Received By (Signature): | | | | | | | | | | Analysis Requested | | Other | | ē | - 24 | Sample Purpose: A | Multiple Sources #s: | DOH Source #: | System ID #: | Sample Purpose: Infor | Stalldard. Tes | | r No.: |
| lame): | ure): | Mount | The same of the sa | 1000 | | | | | | | | | | uested | | E=Extract | S=Soil/Sludge | GW=Groudwater | Matrix: | B o Other o | | | | Information X Regulatory | | No If No ! | |
| Me | Date: | | MA | Beling | | | | | Pres | Lin | on Red | reint | + (Y | (N) | | X=Other | 0=0il | DW=Drinking Water | | | | | | Accreditation (please list below): | | If 'No ' No of Business Days: | Client Job No.: |
| Method of Shipment: | e: | | Method of Shipment: | L/L | | 4 | | UNPR. | | ė | eserva | | | , , | | | 0 | e Water | | | | | | n (please li | | Davs: | |
| nipment: | 1 | | nipment. | 0 | | 4 | | DW | | | Matri | | | | | A=Air | W=Wipe | G=Glass | Container: | | | | | st below): | | | 162 |
| П | Time: | | | Time: [L | | K | | р | | Cor | ntainer pH | Тур | e — | | | A=Air (filter or tube) | ipe | אַנוֹכּ | iner: | | | | | | | | 162017 |
| П | | | | 20 | | | | | | No. | . Conta | iner | rs | | | tube) | | | | | | | | | | | |

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RJ LEE GROUP

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Columbia Basin Analytical Laboratories
2710 North 20th Avenue

Pennsylvania - HQ



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 - Park Middle School

Work Order Number: 1702287

February 27, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 20 sample(s) on 2/27/2017 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

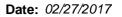
All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward Project Manager CC:

Amanda Enbysk





CLIENT: Fulcrum Environmental Work Order Sample Summary

Project: Kennewick SD Drinking Water - Park Middle

Work Order: 1702287

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---------------|-------------------|---------------------|--------------------|
| 1702287-001 | PMS22517-P-KF-01 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-002 | PMS22517-S-KF-01 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-003 | PMS22517-T-KF-01 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-004 | PMS22517-P-CDF-12 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-005 | PMS22517-S-CDF-12 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-006 | PMS22517-T-CDF-12 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-007 | PMS22517-P-CDF-19 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-008 | PMS22517-S-CDF-19 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-009 | PMS22517-T-CDF-19 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-010 | PMS22517-P-CF-30 | 02/25/2017 9:00 AM | 02/27/2017 9:20 AM |
| 1702287-011 | PMS22517-S-CF-30 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-012 | PMS22517-T-CF-30 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-013 | PMS22517-P-CF-34 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-014 | PMS22517-S-CF-34 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-015 | PMS22517-T-CF-34 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-016 | PMS22517-P-CF-35 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-017 | PMS22517-P-CF-36 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-018 | PMS22517-P-DF-14 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-019 | PMS22517-S-DF-14 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |
| 1702287-020 | PMS22517-T-DF-14 | 02/25/2017 9:30 AM | 02/27/2017 9:20 AM |



Case Narrative

WO#: **1702287**Date: **2/27/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Park Middle School

WorkOrder Narrative:

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

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

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

III. ANALYSES AND EXCEPTIONS:

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

Prep Sample Comments:

1702287-010A 208794: Prep Comments for EPA200.8, Sample 1702287-010A: Turbidity: 0.00 NTU 1702287-001A 208791: Prep Comments for EPA200.8, Sample 1702287-001A: Turbidity: 0.01 NTU 1702287-016A 208796: Prep Comments for EPA200.8, Sample 1702287-016A: Turbidity: 0.00 NTU 1702287-007A 208793: Prep Comments for EPA200.8, Sample 1702287-007A: Turbidity: 0.00 NTU 1702287-013A 208795: Prep Comments for EPA200.8, Sample 1702287-013A: Turbidity: 0.00 NTU 1702287-017A 208797: Prep Comments for EPA200.8, Sample 1702287-017A: Turbidity: 0.00 NTU 1702287-004A 208792: Prep Comments for EPA200.8, Sample 1702287-004A: Turbidity: 0.06 NTU 1702287-018A 208849: Prep Comments for EPA200.8, Sample 1702287-018A: Turbidity: 0.00 NTU



Qualifiers & Acronyms

WO#: 1702287

Date Reported: 2/27/2017

Qualifiers:

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

Acronyms:

%Rec - Percent Recovery

CCB - Continued Calibration Blank

CCV - Continued Calibration Verification

DF - Dilution Factor

HEM - Hexane Extractable Material

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



Analytical Report

Work Order: 1702287

Date Reported: 2/27/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Park Middle School

Lab ID: 1702287-001 **Collection Date:** 2/25/2017 9:00:00 AM

Client Sample ID: PMS22517-P-KF-01 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 16360 Analyst: TN

Copper 981 0.500 μg/L 1 2/27/2017 4:15:23 PM

Lab ID: 1702287-004 **Collection Date:** 2/25/2017 9:00:00 AM

Client Sample ID: PMS22517-P-CDF-12 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

Drinking Water Metals by EPA Method 200.8 Batch ID: 16360 Analyst: TN

Copper 822 0.500 μ g/L 1 2/27/2017 4:19:00 PM

Lab ID: 1702287-007 **Collection Date:** 2/25/2017 9:00:00 AM

Client Sample ID: PMS22517-P-CDF-19 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

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

Batch ID: 16360

Analyst: TN

Copper 926 0.500 µg/L 1 2/27/2017 4:29:51 PM



Analytical Report

Work Order: 1702287 ate Reported: 2/27/2017

Date Reported: 2

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Park Middle School

Lab ID: 1702287-010 **Collection Date:** 2/25/2017 9:00:00 AM

Client Sample ID: PMS22517-P-CF-30 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

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

Batch ID: 16360 Analyst: TN

Copper 788 0.500 μg/L 1 2/27/2017 4:33:27 PM

Lab ID: 1702287-013 **Collection Date:** 2/25/2017 9:30:00 AM

Client Sample ID: PMS22517-P-CF-34 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

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

Batch ID: 16360 Analyst: TN

Copper 808 0.500 μ g/L 1 2/27/2017 4:37:03 PM

Client Sample ID: PMS22517-P-CF-35 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

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

Batch ID: 16360

Analyst: TN

Copper 3.02 0.500 µg/L 1 2/27/2017 4:40:39 PM



Analytical Report

Work Order: 1702287

Date Reported: 2/27/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD Drinking Water - Park Middle School

Lab ID: 1702287-017 **Collection Date:** 2/25/2017 9:30:00 AM

Client Sample ID: PMS22517-P-CF-36 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 16360 Analyst: TN

Copper 1,200 0.500 µg/L 1 2/27/2017 4:44:16 PM

Lab ID: 1702287-018 **Collection Date:** 2/25/2017 9:30:00 AM

Client Sample ID: PMS22517-P-DF-14 Matrix: Drinking Water

Analyses Result RL Qual Units DF Date Analyzed

<u>Drinking Water Metals by EPA Method 200.8</u>
Batch ID: 16360 Analyst: TN

Copper 1,030 0.500 $\mu g/L$ 1 2/27/2017 5:20:20 PM





Work Order: 1702287

QC SUMMARY REPORT

CLIENT: Fulcrum Environmental

| | SD Drinking Water - I | Park Mido | dle | | Drinking Water Metals by EPA Method 200.8 |
|-------------------------------------|--------------------------------|-----------|-----------|-------------|---|
| Sample ID MB-16360 Client ID: MBLKW | SampType: MBLK Batch ID: 16360 | | | Units: µg/L | Prep Date: 2/27/2017 RunNo: 34678 Analysis Date: 2/27/2017 SeqNo: 662272 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | ND | 0.500 | | | |
| Sample ID LCS-16360 | SampType: LCS | | | Units: µg/L | Prep Date: 2/27/2017 RunNo: 34678 |
| Client ID: LCSW | Batch ID: 16360 | | | | Analysis Date: 2/27/2017 SeqNo: 662273 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 95.8 | 0.500 | 100.0 | 0 | 95.8 85 115 |
| Sample ID 1702286-001ADUP | SampType: DUP | | | Units: µg/L | Prep Date: 2/27/2017 RunNo: 34678 |
| Client ID: BATCH | Batch ID: 16360 | | | | Analysis Date: 2/27/2017 SeqNo: 662277 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 521 | 0.500 | | | 546.9 4.82 30 |
| Sample ID 1702286-001AMS | SampType: MS | | | Units: µg/L | Prep Date: 2/27/2017 RunNo: 34678 |
| Client ID: BATCH | Batch ID: 16360 | | | | Analysis Date: 2/27/2017 SeqNo: 662278 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 728 | 0.500 | 200.0 | 546.9 | 90.5 70 130 |
| Sample ID 1702286-001AMSD | SampType: MSD | | | Units: µg/L | Prep Date: 2/27/2017 RunNo: 34678 |
| Client ID: BATCH | Batch ID: 16360 | | | | Analysis Date: 2/27/2017 SeqNo: 662279 |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Copper | 737 | 0.500 | 200.0 | 546.9 | 94.9 70 130 727.8 1.21 30 |

Original Page 8 of 13



Sample Log-In Check List

| Clier | nt Name: | FE | | Work Order Nu | mber: 1702287 | | |
|--------------|----------------|---------------|---|------------------------------|----------------------|--------------|--|
| Logg | ged by: | Erica Silva | a | Date Received: | 2/27/2017 | 9:20:00 AM | |
| Chain | of Custo | od <u>y</u> | | | | | |
| | Chain of Cu | - | plete? | Yes 🗹 | No 🗌 | Not Present | |
| 2. H | ow was the | sample deli | vered? | <u>FedEx</u> | | | |
| Log lı | n | | | | | | |
| _ | oolers are p | resent? | | Yes 🗸 | No 🗆 | NA 🗆 | |
| 4. SI | hipping cont | ainer/coole | r in good condition? | Yes 🗸 | No 🗌 | | |
| | | | n shipping container/cooler? Custody Seals not intact) | Yes | No 🗸 | Not Required | |
| 6. W | /as an attem | npt made to | cool the samples? | Yes 🗸 | No 🗌 | NA 🗆 | |
| 7. W | ere all items | s received a | at a temperature of >0°C to 10.0°C* | Yes 🗸 | No 🗆 | NA \square | |
| 8. S | ample(s) in p | proper cont | ainer(s)? | Yes 🗸 | No 🗆 | | |
| 9. S | ufficient sam | nple volume | e for indicated test(s)? | Yes 🗸 | No \square | | |
| 10. A | re samples p | properly pre | eserved? | Yes 🗸 | No \square | | |
| 11. W | /as preserva | ative added | to bottles? | Yes 🗹 | No \square | NA \square | |
| 40 1- | the section of | | . V(0.) . :-1-0 | V | N. 🗆 | HNO3 | |
| | | | e VOA vials? | Yes ∟ Yes ✓ | No □ No □ | NA 🗹 | |
| _ | | | rs arrive in good condition(unbroken)? oottle labels? | res ▼ Yes ▼ | No \square | | |
| 14. 5 | σου ραροιτί | on materia | out labolo. | .00 = | | | |
| 15. A | re matrices | correctly ide | entified on Chain of Custody? | Yes 🗸 | No \square | | |
| 16. ls | it clear wha | t analyses | were requested? | Yes 🗸 | No 🗌 | | |
| 17. W | /ere all holdi | ing times at | ple to be met? | Yes 🗸 | No 🗌 | | |
| <u>Speci</u> | ial Handli | ng (if ap | <u>plicable)</u> | | | | |
| 18. W | /as client no | tified of all | discrepancies with this order? | Yes 🗸 | No \square | NA \square | |
| | Person N | Notified: | Amanda Enbysk Date | | 2/27/2017 | | |
| | By Whor | m: | Erica Silva Via: | ✓ eMail ☐ I | Phone Fax | ☐ In Person | |
| | Regardir | ng: | "DF-14" bottles received, not on COC | | | | |
| | Client In | structions: | Add and analyze "P", preserve "S" and | "T" | | | |
| 19. A | dditional rem | narks: | | | | | |

HNO3 added to 002A, 003A, 005A, 006A, 008A, 009A, 011A, 012A, 014A, 015A, 019A, 020A

Item Information

| Item # | Temp °C |
|----------|---------|
| Cooler 1 | 1.8 |
| Cooler 2 | 0.9 |
| Sample 1 | 1.2 |
| Sample 2 | 1.5 |

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

| 3600 Fremont Ave N. | | |
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| ont Ave N. | Fre | |
| Tel: 206-352-3790 | Amay | |
| 352-3790 | i i | |
| | | |

Chain of Custody Record and Laboratory Services Agreement

| Mid preserved | | | | | d | = | - (F-50 | 105-4-1-CECSW1 |
|--|---|------------------------|--|-----------------------------|----------------|----------------------|--|-------------------------|
| | | | | | | | 1000 | 0.00 |
| | - AND | | | | | | 1-0012-19 | BALACOLITA GERCAND |
| HOW; when | | | | | - | | 5-COR-19 | PMS225/7-5-COP-19 |
| 4203 preserved | 80 | | | | 3 | | P-COF-19 | BU-207-4-4 (alegan) |
| F | | | | | | | T-6/F-12 | 6-10-1-4198em |
| AOLD; unpos | | | | | | | 5-COF-12 | るからいろうられる |
| ANOB peserved | 8 | | 10 | 3 | | | cof-12 | ANSOGNIT-P-COF-12 |
| * | | | | | | | -T-KFOI | PMS33517-1-KFGI |
| HOLD, impresence | | | | | - | | S-Kroj | PM523517-5-K-0 |
| HNO3 presented | 9 | | | O DW | 2/25/2017 0200 | 2/25/201 | F-01 | PMS30577-P-KF-01 |
| Comments | \$\frac{\cappa_{\text{total}}\cappa_{\text{ | | COSTERA COSTER | Sample Type (Matrix)* | Sample | Sample Date | | Sample Name |
| = Storm Water, WW = Waste Water | $DW = DrinkingWater,\;\;GW = GroundWater,\;\;SW = StormWater,$ | SL = Solid, W = Water, | S = Soil, SD = Sediment, | P = Product, S = | | B = Bulk, O = Other, | AQ = Aqueous, | *Matrix Codes: A = Air, |
| efulcrum.net | rmathews@efulcrum.net; cc:aenbysk@efulcrum.net | PM Email: | 8453 | Fax: 509.575.8453 | Fa | 39 | 509.574.0839 | Telephone: |
| THE BOOK THE WORLD SEE THE STATE OF THE SECOND SECO | Ryan Mathews | Report To (PM): | | 12 | | 98901 | Yakima, WA 98901 | City, State, Zip: |
| | Park Middle School, Kennewick, WA | Location: | | | | econd Street | 406 North Second Street | Address: |
| Collected by: Amanda Enbysk | 162017.22 Co | Project No: | *** | nc. | onsulting, Ir | ironmental C | Fulcrum Environmental Consulting, Inc. | Client: |
| | Kennewick SD Drinking Water - Park Middle School | Project Name: | | | 178 | Fax: 206-352-7178 | | Seattle, WA 98103 |
| Page: of: | | | | | 90 | Tel: 206-352-3790 | | 3600 Fremont Ave N. |
| Laboratory Project No (internal): 1702887 | Date: 2/25/2017 | | | | | | Analytical | |

Received

Date/Time

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

| 3600 Fremont Ave N. Seattle, WA 98103 | |
|---|-------|
| l. Tel: 206-352-3790 Fax: 206-352-7178 | emont |
| 90 | |

Chain of Custody Record and Laboratory Services Agreement

| Page: 2/25/2017 Laboratory Project No (Internal): 3600 Fremont Ave N. Tel: 206-352-3790 Page: 2/25/2017 Laboratory Project No (Internal): 2/25/2017 Labora |
|--|
| Date: 2/25/2017 Kennewick SD Drinking Water - Park Middle S 162017.22 College Park Middle School, Kennewick, WA PM): Ryan Mathews rmathews@efulcrum.net_cc:aenbysk@efulcrum. |
| /25/2017 rinking Water - Park Middle S 17.22 Collect hool, Kennewick, WA |
| Laboratory Project No (internal): Page: |
| |

| | × | × |
|--|--|---|
| TAT → SameDav^ NextDav^ 2 Day 3 Day STD | Received Date/Time | Relinquished (/ Date/Time |
| Section (1) 18 | Received Date/Time Date/Time | Relinquished X/35/7017; 1300 |
| see page I | 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. | 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. |
| | Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be acceived after 4:Jopin will begin assessed if samples are retained after 30 days.) | Sample Disposal: Return to Client Disposal asse |
| Special Remarks: | | ***Anions (Circle): Nitrate Nitrite Chloride |
| Pb Sb Se Sr Sn Ti Tl U V Zn | Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr (Cu) Fe Hg K Mg Mn Mo Na Ni | **Metals Analysis (Circle): MTCA-5 RCRA-8 Priorit |
| | | |
| State of got the part of the first of the confidence of the growing of being | | THE REPORT OF THE PROPERTY OF |
| | | 200 |
| The second second result of the second secon | ⊗ | PMS 23617 P-CF-36 4 |
| +XXD3 preserved | 8 | AN529617-P-CF-35 |
| 8., | | PM523517-T-CF-34 |
| HOLD; impreserved | | \$M532517-5-CF-34 |
| HNO3 preserved | 8 | PMS28517-P-CF-34 |
| + | | PMS245(7-T-CF-30) |
| HOLD; unpr. | DW | 08 bo 2/25/2017 CE-20-2/25/2017 CABO |
| Comments | Sample Type Time (Matrix)* SOC CAN PROPERTY CAS INCIDENTIAL CAS AND CAS | Sample Name Sample Sample Sample Name |
| | 11111111111111 | |

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| ont Ave N. | | |
| Tel: 2 | Ana | 3 |
| Tel: 206-352-379 | lytical | 9 |

| A Trail Sylificant Ne N. Tel: 206-352-3790 103 Fax: 206-352-7178 Fulcrum Environmental Consulting, Inc. Project No: P | | | , | The second secon | | |
|--|--|-----------------------------------|-----------------------------------|--|-------------------------------------|--------------------|
| V. Tel: 206-352-3790 Fax: 206-352-7178 Project Name: Kennewick SD Drinking Water - Park Middle : Project No: 162017.22 Colle 406 North Second Street Location: Park Middle School, Kennewick, WA | | | | | | |
| V. Tel: 206-352-3790 Fax: 206-352-7178 Project Name: Kennewick SD Drinking Water - Park Middle : Project No: 162017.22 Colle | | WA | Park Middle School, Kennewick, \ | Location: | North Second Street | Address: 40 |
| Date: 2/25/2017 | | | | | | |
| Date: 2/25/2017 | | Collected by: Amanda Enbysk | 162017.22 | Project No: | crum Environmental Consulting, Inc. | Cliant: Fu |
| Amalyxical Date: 2/25/2017 V. Tel: 206-352-3790 | | rk Middle School | Kennewick SD Drinking Water - Par | Project Name: | Fax: 206-352-71/8 | Seattle, WA 98103 |
| Amalytical Date: 2/25/2017 | | | | | | o i cinoni care in |
| Date: 2/25/2017 | The state of the same of the s | Page: of: | | | Tel: 206-352-3790 | 3600 Fremont Ave N |
| Date: 2/25/2017 | | | THE RESIDENCE OF STREET | | | |
| | この公のとっ | Laboratory Project No (internal): | 2/25 | | | |
| | | | | | | |

| *Matrix Codes: A = Air, AQ = Aqueous, B = Bi | ulk, O = Other, P = Product, | ing water, GW = | Ground Water, SW = Storm Water, WW = Waste Water |
|--|--|---|---|
| | 0 | 0/20/ | |
| Sample Name | Sample Sample Ty Date Time (Mai | 3011 tride 0 068 1 20 0 0 2 15 1 20 0 1 20 1 20 1 20 1 2 | |
| PMSJOTH-P-KF-01 | 2/25/2017 CAOO D | 8 | TINO3 preserved |
| PM523517-S-KF01 | | | HOLD; impresenced |
| アントーナーとののとから | | | * |
| PN522517-1-005-12 | | 8 | Avid peserved |
| るからからからでする | | | ACLD; unpr. |
| 61-70-1-4126em | | | - |
| 19-201-9-4 (accord | the Carlo Carlo Carlo | 8 | 41003 preserved |
| PM5335/7-5-CDF-19 | | | thoso; unpor |
| 14-100-1-41 gcreand | | | |
| (M5225)7-8-(F-30 | * | 8 | HNO, preserved |
| | RCRA-8 Priority Pollutants | TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr(Cu) Fe Hg K Mg | Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn |
| ***Anions (Circle): Nitrate Nitrite | Chloride Sulfate | 5 | Turn-around times for samples Special Remarks: received after 4:00pm will begin |
| Sample Disposal: Return to Client | nt Disposal by Lab (S assessed if sampl | Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A ree may be on the following assessed if samples are retained after 30 days.) | day. |
| I represent that I am authorized to enter into this Agreement with Fremont | r into this Agreement with | 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 represent the each of the terms on the front and backside of this Agreement. | ed Client's Sample's |
| Relinquished Date | Date/Time 11K 120 12 - 1700 | Received Date/Time Date/Time 2/27/1/17 00/70 | TAT: ASAP |
| 100 | Date/Time | Received Date/Time | TAT → SameDay^ NextDay^ 2 Day 3 Day STD |
| • | | | |

Page 13 of 13