

July 21, 2017

Pasco School District No. 1
Attn: Randy D. Nunamaker, Executive Director of Operations
1215 West Lewis Street
Pasco, Washington, 99301

**RE: Winter 2016 Drinking Water Sampling Results
Robert Frost Elementary School, 1915 North 22nd Avenue, Pasco, Washington**

Dear Randy:

On Thursday, November 10, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 52 drinking water samples for lead and copper analysis from Robert Frost Elementary School (School) located at 1915 North 22nd Avenue, Pasco, Washington. The sampling was completed as part of a District-wide project.

The purpose of 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.

Summary

Fulcrum completed initial sampling in the building on November 10, 2016. Analytical results indicate that all of the samples were below the Environmental Protection Agency (EPA) action level of 15 micrograms per liter (µg/L) for lead and 1,300 µg/L for copper.

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 November 2021). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017). See Figure 1 in Attachment A for fixture locations and laboratory results.

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

Sampling Methodology

As a portion of this project, Fulcrum prepared a Sampling and Analysis Plan (SAP) in consultation with the Benton-Franklin Health District 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 or copper are present, this first-draw sample typically contains the highest lead and copper levels.

Field evaluation of pH and temperature of drinking water was completed during the initial cold water flush and immediately following sample collection on select fixtures.

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.

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 in English and Spanish indicating that 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 immediately placed on ice in a chilled cooler.

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.

Collected samples were delivered under chain-of-custody to RJ Lee Group’s Columbia Basin Analytical Laboratory (Lab ID: C859-16) in Pasco, Washington for analysis.

Analytical Results

Samples were analyzed for lead and copper in drinking water by EPA Method 200.8. Sample locations 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. The analytical results from this project are summarized in Table 1 located in Attachment C of this letter. Laboratory analytical results from the sampling event are located in Attachment D of this letter.

In addition, pH and temperature data is presented in Table 2 in Attachment C of this letter.

Discussion

Analytical results indicate that all of the samples were below the action level of 15 micrograms per liter ($\mu\text{g/L}$) for lead and 1,300 $\mu\text{g/L}$ for copper.

Recommendations

Although all samples collected contain detectable amounts of lead and copper, the concentrations identified are below the EPA action levels of 15 $\mu\text{g/L}$ for lead and 1,300 $\mu\text{g/L}$ for copper.

At this time, Fulcrum does not recommend any additional sampling at Robert Frost Elementary School. 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). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017).

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

Sincerely,



Amanda Enbysk, GIT
Environmental Geologist



Ryan K. Mathews, CIH, CHMM
Principal

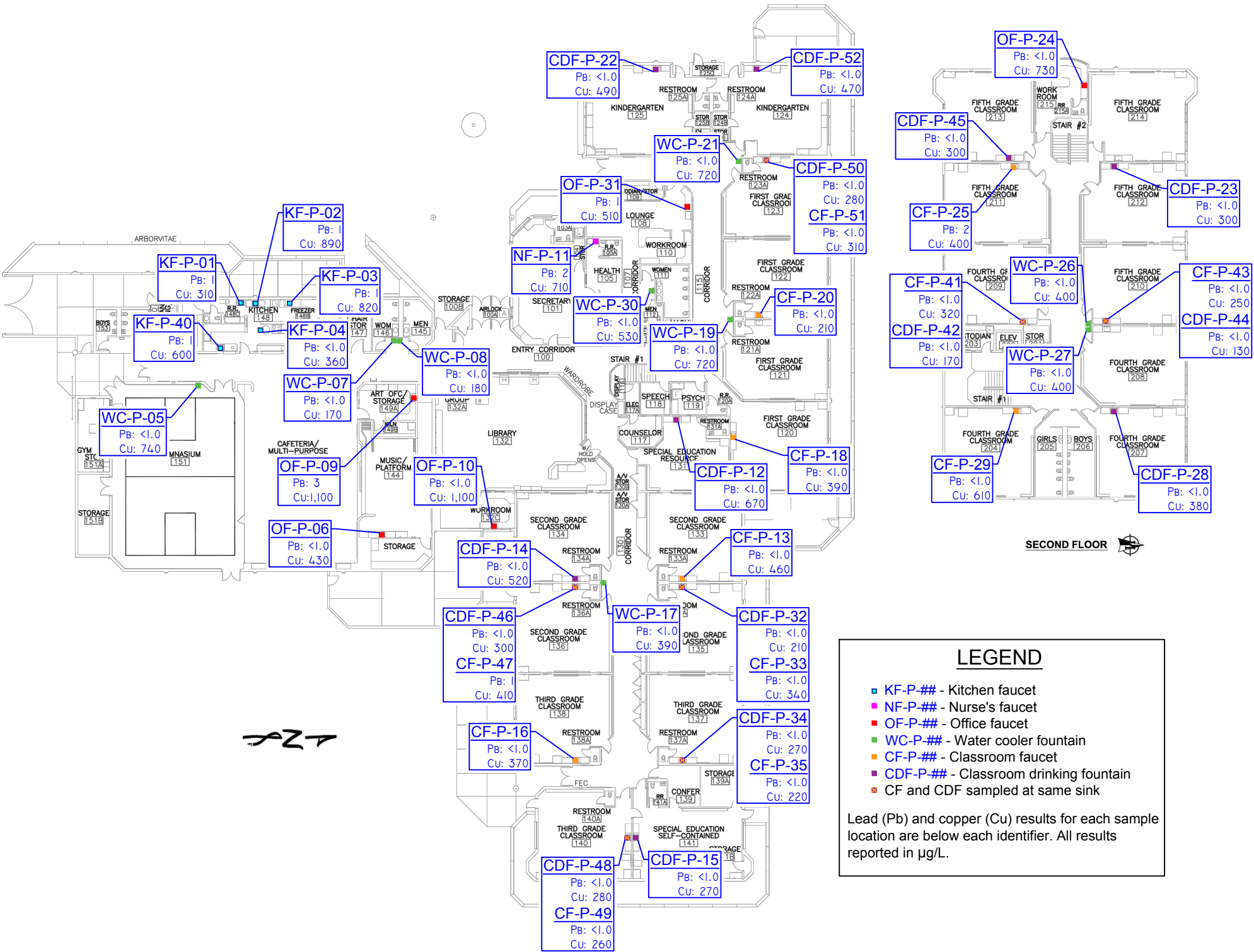


ATTACHMENT A

Figure 1: Sample Location Map

Samples 36-39 located in portables associated with the campus

Portable Classroom Results Summary		
Sample ID and Location	Lead Results (µg/L)	Copper Results (µg/L)
CF-P-36: Portable P-1	1	190
CF-P-37: Portable P-2	<1.0	260
CDF-P-38: Portable P-4	<1.0	560
CDF-P-39: Portable P-6	<1.0	970



DRAWING PROVIDED BY PASCO SCHOOL DISTRICT NO. 1

ATTACHMENT B

Site-Specific Sampling and Analysis Plan

ATTACHMENT C

Table 1: Analytical Results Summary Table
Table 2: pH and Temperature Data Summary Table

Table 1: Initial Sampling Analytical Results

Sample Identification and Location	Type of Fixture	Lead Results (µg/L)	Copper Results (µg/L)
FRO111016-KF-P-01: Kitchen; west wall, south fixture	Kitchen Faucet	1	310
FRO111016-KF-P-02: Kitchen; west wall, center fixture	Kitchen Faucet	1	890
FRO111016-KF-P-03: Kitchen; west wall, north fixture	Kitchen Faucet	1	820
FRO111016-KF-P-04: Kitchen; vat fill fixture	Kitchen Faucet	<1.0	360
FRO111016-WC-P-05: Gymnasium	Water Cooler Fountain	<1.0	740
FRO111016-OF-P-06: Music Classroom	Classroom Faucet	<1.0	430
FRO111016-WC-P-07: Cafeteria corridor, left fixture	Water Cooler Fountain	<1.0	170
FRO111016-WC-P-08: Cafeteria corridor, right fixture	Water Cooler Fountain	<1.0	180
FRO111016-OF-P-09: Art Office	Office Faucet	3	1,100
FRO111016-OF-P-10: Library Workroom	Office Faucet	<1.0	1,100
FRO111016-NF-P-11: Health Room	Nurse's Faucet	2	710
FRO111016-CDF-P-12: Classroom 131	Classroom Drinking Fountain	<1.0	670
FRO111016-CF-P-13: Classroom 133	Classroom Faucet	<1.0	460
FRO111016-CDF-P-14: Classroom 134	Classroom Drinking Fountain	<1.0	520
FRO111016-CDF-P-15: Classroom 141	Classroom Drinking Fountain	<1.0	270
FRO111016-CF-P-16: Classroom 138	Classroom Faucet	<1.0	370
FRO111016-WC-P-17: East corridor, between 134 and 136	Water Cooler Fountain	<1.0	390
FRO111016-CF-P-18: Classroom 120	Classroom Faucet	<1.0	390
FRO111016-WC-P-19: West corridor, between 121 and 122	Water Cooler Fountain	<1.0	720
FRO111016-CF-P-20: Classroom 122	Classroom Faucet	<1.0	210
FRO111016-WC-P-21: West corridor, between 123 and 124	Water Cooler Fountain	<1.0	720
FRO111016-CDF-P-22: Classroom 125	Classroom Drinking Fountain	<1.0	490
FRO111016-CDF-P-23: Classroom 212	Classroom Drinking Fountain	<1.0	300
FRO111016-OF-P-24: Room 215 -Staff Workroom	Office Faucet	<1.0	730
FRO111016-CF-P-25: Classroom 211	Classroom Faucet	2	400
FRO111016-WC-P-26: Second floor corridor, left fixture	Water Cooler Fountain	<1.0	400
FRO111016-WC-P-27: Second floor corridor, right fixture	Water Cooler Fountain	<1.0	400
FRO111016-CDF-P-28: Classroom 207	Classroom Drinking Fountain	<1.0	380
FRO111016-CF-P-29: Classroom 204	Classroom Faucet	<1.0	610
FRO111016-WC-P-30: Office corridor, outside staff restrooms	Water Cooler Fountain	<1.0	530
FRO111016-OF-P-31: Staff Lounge	Office Faucet	1	510
FRO111016-CDF-P-32: Classroom 135	Classroom Drinking Fountain	<1.0	210
FRO111016-CF-P-33: Classroom 135	Classroom Faucet	<1.0	340
FRO111016-CDF-P-34: Classroom 137	Classroom Drinking Fountain	<1.0	270
FRO111016-CF-P-35: Classroom 137	Classroom Faucet	<1.0	220
FRO111016-CF-P-36: Portable P-1	Classroom Faucet	1	190

Sample Identification and Location	Type of Fixture	Lead Results (µg/L)	Copper Results (µg/L)
FRO111016-CF-P-37: Portable P-2	Classroom Faucet	<1.0	260
FRO111016-CDF-P-38: Portable P-4	Classroom Drinking Fountain	<1.0	560
FRO111016-CDF-P-39: Portable P-6	Classroom Drinking Fountain	<1.0	970
FRO111016-KF-P-40: Kitchen; east wall, dishwashing sink	Kitchen Faucet	1	600
FRO111016-CF-P-41: Classroom 209	Classroom Faucet	<1.0	320
FRO111016-CDF-P-42: Classroom 209	Classroom Drinking Fountain	<1.0	170
FRO111016-CF-P-43: Classroom 210	Classroom Faucet	<1.0	250
FRO111016-CDF-P-44: Classroom 210	Classroom Drinking Fountain	<1.0	130
FRO111016-CDF-P-45: Classroom 213	Classroom Drinking Fountain	<1.0	300
FRO111016-CDF-P-46: Classroom 136	Classroom Drinking Fountain	<1.0	300
FRO111016-CF-P-47: Classroom 136	Classroom Faucet	1	410
FRO111016-CDF-P-48: Classroom 140	Classroom Drinking Fountain	<1.0	280
FRO111016-CF-P-49: Classroom 140	Classroom Faucet	<1.0	260
FRO111016-CDF-P-50: Classroom 123	Classroom Drinking Fountain	<1.0	280
FRO111016-CF-P-51: Classroom 123	Classroom Faucet	<1.0	310
FRO111016-CDF-P-52: Classroom 124	Classroom Drinking Fountain	<1.0	470
<i>FRO111016-DF-P-53: Laboratory Blank - Labeled Gym W</i>	<i>Distilled Blank</i>	<1.0	<10
<i>FRO111016-CDF-P-54: Laboratory Spike - Labeled Gym E</i>	<i>Lead and Copper Spike</i>	15	1,300
EPA Action Level		15	1,300

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

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

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

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

Table 2: pH and Temperature Data Summary

Sample Number and Location	Fixture Type	pH Flush	pH Sample	Temperature Flush (°C)	Temperature Sample (°C)
FRO111016-KF-P-01: Kitchen; west wall, south fixture	Kitchen Faucet	7.82	7.90	21.3	19.1
FRO111016-KF-P-04: Kitchen; vat fill fixture	Kitchen Faucet	7.80	7.87	20.8	19.6
FRO111016-WC-P-08: Cafeteria corridor, right fixture	Water Cooler Fountain	7.85	7.83	15.0	19.0
FRO111016-CDF-P-12: Classroom 131	Classroom Drinking Fountain	7.73	7.82	21.2	19.9
FRO111016-CF-P-16: Classroom 138	Classroom Faucet	7.81	7.94	19.9	14.3
FRO111016-CF-P-20: Classroom 122	Classroom Faucet	7.80	7.81	21.3	21.7
FRO111016-OF-P-24: Room 215 -Staff Workroom	Office Faucet	7.73	7.83	20.9	19.6
FRO111016-CDF-P-28: Classroom 207	Classroom Drinking Fountain	7.74	7.84	21.9	21.2
FRO111016-CDF-P-32: Classroom 135	Classroom Drinking Fountain	7.80	7.86	19.9	20.7

Sample Number and Location	Fixture Type	pH Flush	pH Sample	Temperature Flush (°C)	Temperature Sample (°C)
FRO111016-CF-P-36: Portable P-1	Classroom Faucet	7.78	7.78	23.0	21.0
FRO111016-KF-P-40: Kitchen; east wall, dishwashing sink	Kitchen Faucet	7.88	7.84	22.4	19.8
FRO111016-CDF-P-44: Classroom 210	Classroom Drinking Fountain	7.92	7.86	21.0	19.0
FRO111016-CDF-P-48: Classroom 140	Classroom Drinking Fountain	7.82	7.95	20.8	20.9
FRO111016-CDF-P-52: Classroom 124	Classroom Drinking Fountain	7.82	7.92	19.5	21.4

ATTACHMENT D

Analytical Results



RJ LeeGroup, Inc. | Columbia Basin Analytical Laboratories

2710 North 20th Avenue, Pasco WA 99301

Tel: (509) 545-4989 | Fax: (509) 544-6010

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

Subject: Chemical Analysis Report

Columbia Basin Analytical Laboratories received 54 sample(s) on 11/10/16 for analysis. These sample(s) have been assigned a login order number of W611033. 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.

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:

A handwritten signature in black ink, appearing to read "Fernanda Pincheira". The signature is written in a cursive style.

12/02/16

Project Coordinator, M. Fernanda Pincheira

Date

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



Laboratory Report

Ryan Mathews

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

Client Project:

No Project

RJ Lee Group No.: W611033

COC No.:

Samples Received: 11/10/16

Analysis/Prep Date: 11/18/16

Report Date: 12/02/16

Sample Name:	FRO111016-KF-P-01	Matrix:	Potable Water	Date Received:	11/10/16
RJ Lee Grp. ID:	W611033-01			Date Analyzed:	11/18/16
Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers	
Copper	EPA 200.8	0.31	0.01		
Lead	EPA 200.8	0.001	0.001		

Sample Name:	FRO111016-KF-P-02	Matrix:	Potable Water	Date Received:	11/10/16
RJ Lee Grp. ID:	W611033-02			Date Analyzed:	11/18/16
Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers	
Copper	EPA 200.8	0.89	0.01		
Lead	EPA 200.8	0.001	0.001		

Sample Name:	FRO111016-KF-P-03	Matrix:	Potable Water	Date Received:	11/10/16
RJ Lee Grp. ID:	W611033-03			Date Analyzed:	11/18/16
Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers	
Copper	EPA 200.8	0.82	0.01		
Lead	EPA 200.8	0.001	0.001		

Sample Name:	FRO111016-KF-P-04	Matrix:	Potable Water	Date Received:	11/10/16
RJ Lee Grp. ID:	W611033-04			Date Analyzed:	11/18/16
Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers	
Copper	EPA 200.8	0.36	0.01		
Lead	EPA 200.8	< 0.001	0.001		

Sample Name:	FRO111016-WC-P-05	Matrix:	Potable Water	Date Received:	11/10/16
RJ Lee Grp. ID:	W611033-05			Date Analyzed:	11/18/16
Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers	
Copper	EPA 200.8	0.74	0.01		
Lead	EPA 200.8	< 0.001	0.001		

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

WWW.RJLEEGROUP.COM

Report Template: GenMetalReportFull_v12.rpt

Approved: 12/1/16 16:56
Report Time Stamp: 12/02/16 10:15

**Sample Name:** FRO111016-OF-P-06**RJ Lee Grp. ID:** W611033-06**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.43	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-07**RJ Lee Grp. ID:** W611033-07**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.17	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-08**RJ Lee Grp. ID:** W611033-08**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.18	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-OF-P-09**RJ Lee Grp. ID:** W611033-09**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.1	0.1	
Lead	EPA 200.8	0.003	0.001	

Sample Name: FRO111016-OF-P-10**RJ Lee Grp. ID:** W611033-10**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

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

Sample Name: FRO111016-NF-9-11**RJ Lee Grp. ID:** W611033-11**Matrix:** Potable Water**Date Received:** 11/10/16**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.71	0.01	
Lead	EPA 200.8	0.002	0.001	



Sample Name: FRO111016-CDF-P-12 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-12

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.67	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-13 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-13

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.46	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-14 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-14

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.52	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-15 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-15

Date Received: 11/10/16
Date Analyzed: 11/18/16

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

Sample Name: FRO111016-CF-P-16 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-16

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.37	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-17 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-17

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.39	0.01	
Lead	EPA 200.8	< 0.001	0.001	

**Sample Name:** FRO111016-CF-P-18**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-18**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.39	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-19**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-19**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.43	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-20**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-20**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.21	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-21**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-21**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.72	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-22**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-22**Date Analyzed:** 11/18/16

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

Sample Name: FRO111016-CDF-P-23**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-23**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.30	0.01	
Lead	EPA 200.8	< 0.001	0.001	

**Sample Name:** FRO111016-OF-P-24**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-24**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.73	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-25**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-25**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.40	0.01	
Lead	EPA 200.8	0.002	0.001	

Sample Name: FRO111016-WC-P-26**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-26**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.40	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-WC-P-27**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-27**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.40	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-28**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-28**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.38	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-29**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-29**Date Analyzed:** 11/18/16

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



Sample Name: FRO111016-WC-P-30 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-30

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.53	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-OF-P-31 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-31

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.51	0.01	
Lead	EPA 200.8	0.001	0.001	

Sample Name: FRO111016-CDF-P-32 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-32

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.21	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-33 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-33

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.34	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-34 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-34

Date Received: 11/10/16
Date Analyzed: 11/18/16

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

Sample Name: FRO111016-CF-P-35 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-35

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.22	0.01	
Lead	EPA 200.8	< 0.001	0.001	

**Sample Name:** FRO111016-CF-P-36**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-36**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.19	0.01	
Lead	EPA 200.8	0.001	0.001	

Sample Name: FRO111016-CF-P-37**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-37**Date Analyzed:** 11/18/16

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

Sample Name: FRO111016-CDF-P-38**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-38**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.56	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-39**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-39**Date Analyzed:** 11/18/16

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

Sample Name: FRO111016-KF-P-40**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-40**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.60	0.01	
Lead	EPA 200.8	0.001	0.001	

Sample Name: FRO111016-CF-P-41**Matrix:** Potable Water**Date Received:** 11/10/16**RJ Lee Grp. ID:** W611033-41**Date Analyzed:** 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.32	0.01	
Lead	EPA 200.8	< 0.001	0.001	



Sample Name: FRO111016-CDF-P-42 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-42

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.17	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-43 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-43

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.25	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-44 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-44

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.13	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-45 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-45

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.30	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-46 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-46

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.30	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CF-P-47 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-47

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.41	0.01	
Lead	EPA 200.8	0.001	0.001	



Sample Name: FRO111016-CDF-P-48 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-48

Date Received: 11/10/16
Date Analyzed: 11/18/16

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

Sample Name: FRO111016-CF-P-49 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-49

Date Received: 11/10/16
Date Analyzed: 11/18/16

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

Sample Name: FRO111016-CDF-P-50 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-50

Date Received: 11/10/16
Date Analyzed: 11/18/16

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

Sample Name: FRO111016-CF-P-51 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-51

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.31	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-CDF-P-52 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-52

Date Received: 11/10/16
Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.47	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: FRO111016-DF-P-53 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-53

Date Received: 11/10/16
Date Analyzed: 11/18/16

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



Sample Name: FRO111016-CDF-P-54 **Matrix:** Potable Water
RJ Lee Grp. ID: W611033-54

Date Received: 11/10/16

Date Analyzed: 11/18/16

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	
Lead	EPA 200.8	0.015	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

Scientist III J Grissmerson

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Report Template: GenMetalReportFull_v12.rpt

Approved: 12/1/16 16:56
 Report Time Stamp: 12/02/16 10:15

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 **RJ LEE GROUP**
DELIVERING SCIENTIFIC RESOLUTION

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Request for Environmental and IH Laboratory Analytical Services

W611033

Page 5 of 5

ATTENTION TO: <u>Ryan Mathews</u>		Purchase Order No.:		Client Job No.: <u>161494.01</u>	
Lab Use Only	Project No.:	Client No.:	Turnaround Request	Standard: ☒ Yes ☐ No	If 'No,' No. of Business Days:
Report Results To	Date Logged In:	Logged In By:	Drinking Water Sample Only	Sample Purpose: ☒ Information ☒ Regulatory ☐ Accreditation (please list below):	
	Name: Amanda Embysk, Ryan Mathews		System ID #:		
	Company: Fulcrum Environmental Consulting		DOH Source #:		
	Address: 406 North 2nd Street		Multiple Sources #s:		
	City, State, Zip: Yakima, WA, 98901		Sample Purpose: ☐ A ☐ B ☐ Other ☐		
	Phone: (509) 574-0839	Fax: (509) 575-8453	Preservation:	Matrix:	Container:
	Call with Verbal Results:		Unpres H ₂ SO ₄	WW=Wastewater	SW=Surface Water
	Email Results To: aembysk@fulcrum.net, cc: rmathews@fulcrum.net		4°C HCl	GW=Groundwater	DM=Drinking Water
	Fax Results To:		HNO ₃ NaOH	S=Soil/Sludge	O=Oil
	Name: Lorrie Boutillier		Other Na ₂ SO ₄	E=Extract	X=Other
Send Invoice To	Company: Fulcrum Environmental	Email: lboutillier@fulcrum.net	Analysis Requested		
	Address: 406 N 2nd Street				
	City, State, Zip: Yakima, WA, 98901				
	Phone: (509) 574-0839	Fax: (509) 575-8453			
Special Instructions					
Client Sample ID	Sample Description	Sample Date	Sample Time	Wipe Area / Air Volume	Pres. Upon Receipt (Y/N)
FD011016-CDF-P-45	Room 213	11/10/16			
FD011016-CDF-P-46	Room 186				
FD011016-CF-P-47	Room 136				
FD011016-CDF-P-48	Room 140				
FD011016-CF-P-49	Room 140				
FD011016-CDF-P-50	Room 123				
FD011016-CF-P-51	Room 123				
FD011016-CDF-P-52	Room 124				
FD011016-CF-P-53	Gym 10				
FD011016-CDF-P-54	Gym 5				
Chain of Custody	Relinquished By (Signature): <u>[Signature]</u>	Date: 11/10/16	Time: 2:00pm	Chain of Custody	Received By (Signature): <u>[Signature]</u>
	Relinquished By (Print Name): <u>Levi Wright</u>	Relinquished To:			Received By (Print Name): <u>[Signature]</u>
	Company Name: <u>FLM</u>	Method of Shipment:			Company Name: <u>FLM</u>
Chain of Custody	Relinquished By (Signature):	Date:	Time:	Chain of Custody	Received By (Signature):
	Relinquished By (Print Name):	Relinquished To:			Received By (Print Name):
	Company Name:	Method of Shipment:			Company Name:

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