



April 16, 2021
Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service – Heartland Region
2300 Main Street
Kansas City, MO 64108

Re: Goodfellow Federal Center – Bldg. #104 Drinking Water Sampling
Project No. 121244

Dear Ms. Czarnecki:

Thank you for the opportunity to provide the General Services Administration (GSA) with the above referenced environmental sampling activities. The following is our report.

INTRODUCTION

As requested, Burns & McDonnell conducted drinking water sampling and testing for the presence of lead and copper at Building #104 of the Goodfellow Federal Center located at 4300 Goodfellow Boulevard in St. Louis, Missouri. Sampling was completed in response to the ongoing environmental condition assessment at the Goodfellow Federal Center which is documented at the Goodfellow Federal Center Reading Room located at <https://www.gsa.gov/portal/content/212361>.

Drinking water sampling was conducted to determine the current levels of lead and copper in representative sources throughout the complex. Drinking water sampling at Bldg. #104 was conducted on March 12, 2021 by Emily Ahlemeyer of Burns & McDonnell and Jeff Smith of OCCU-TEC.

METHODOLOGY

The sampling methodology used during this investigation was developed in general accordance with the United States Environmental Protection Agency's (EPA) "Quick Guide to Drinking Water Sample Collection – Second Edition" developed by the EPA Region 8 in September 2016.

Samples were collected as first draw samples in accordance with the Lead and Copper Rule (40 CFR Part 141 Subpart I). First draw samples represent 'worst case' conditions with water that has been stationary within the plumbing systems for a minimum of six hours. The samples were collected in individually labeled 1000 milliliter (mL) plastic bottles capped with Teflon septa lined screw caps. The bottles were filled to the shoulder with water from the sample source. The samples were then placed in a cooler for safe transport. Each sample was acidified at the laboratory as needed.

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Drinking water sampling for the presence of lead and copper was conducted at thirteen (13) distinct locations within Building #104. A total of fifteen (15) samples were obtained including duplicate samples. After each drinking water sample was collected, Burns & McDonnell filled a separate sample cup with approximately 2 inches of water. Burns & McDonnell placed an Oakton pH30 pH tester into the sample cup. After readings stabilized, Burns & McDonnell recorded the readings for pH (the acidity or basicity of an aqueous solution) and the temperature (in degrees Celsius) on site specific sample logs.

Drinking water samples were submitted to Eurofins-Eaton Analytical in South Bend, IN for analyses of lead and copper. Eurofins-Eaton Analytical is certified by the State of Missouri Department of Natural Resources (MDNR) as an approved drinking water laboratory. Eurofins-Eaton Analytical’s Missouri Certification number is 880.

The drinking water samples were collected using media supplied by Eurofins-Eaton Analytical. Lead and Copper samples were collected and analyzed in accordance with EPA Method 200.8.

RESULTS AND DISCUSSION

The results for the subject testing are summarized in the table below.

| Analysis | Lowest Concentration^(a) | Highest Concentration^(a) | Action Level^(b) |
|-----------------|---|--|-----------------------------------|
| Lead | <1.0 µg/L | 1.4 µg/L | 15 µg/L |
| Copper | 28 µg/L | 160 µg/L | 1300 µg/L |

Notes:

(a) Samples with a “<” sign indicate that the results were below the reportable limit.

(b) As per EPA Lead and Copper Rule (40 CFR Part 141 Subpart I).

A summary table of all sampling results by location is included in Appendix A. The complete laboratory report for the drinking water sampling from Eurofins-Eaton Analytical is attached in Appendix B.

Lead

All samples were below the Action Level (AL) for lead.

Copper

All samples were below the AL for copper.

pH

Normal pH levels for drinking water are between 6.0 to 8.5. Water with a pH < 6.5 is considered acidic, soft, and corrosive. Acidic water may contain metal ions, may cause premature damage to



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metal piping, and increases the likelihood of leaching. Water with a pH > 8.5 is considered alkaline or basic and can indicate that the water is hard. Hard water does not pose a health risk but can cause aesthetic problems. These problems include an alkali taste, the formation of scale deposits, and difficulty in getting soaps and detergents to lather.

Recorded pH levels in Building #104 ranged from 8.52 to 9.62 indicating the drinking water is slightly alkaline.

LIMITATIONS

The scope of this assessment was limited in nature. Burns & McDonnell collected samples from a select number of drinking water sources in an effort to minimize cost while providing a general overview of the drinking water quality at the site. Sample locations do not encompass every drinking water source at the Site. Additionally, samples were only analyzed for a select number of potential contaminants likely to affect the drinking water quality at the site. Burns & McDonnell is not responsible for potential contaminants not identified in this report.

This report was prepared for the sole use of GSA. Reliance by any party other than GSA is expressly forbidden without Burns & McDonnell's written permission. Any parties relying on the report, with Burns & McDonnell's written permission, are bound by the terms and conditions outlined in the original proposal as if said proposal was prepared for them.

Burns & McDonnell appreciates the opportunity to work with the General Services Administration on this project. Please contact us if you have any questions regarding this report or if we may be of any additional service.

Sincerely,

Matt Shanahan, CHMM
Project Manager

Attachments:

- Appendix A - Results Summary by Location
- Appendix B - Water Sample Laboratory Report

APPENDIX A – RESULTS SUMMARY BY LOCATION

Appendix A
Results Summary by Location

| Sample Number | Location | pH | Temp (°C) | Water Source | Analyte | Result | Units | Above / Below | AL |
|---------------|--------------------------------------|------|-----------|--------------|---------|--------|-------|---------------|------|
| 104-DW-01 | 2nd floor, break room, column F50 | 9.39 | 19.8 | Sink | Copper | 95 | µg/L | Below | 1300 |
| 104-DW-01 | 2nd floor, break room, column F50 | 9.39 | 19.8 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-02 | 2nd floor, break room, column C44 | 9.34 | 20.3 | Sink | Copper | 160 | µg/L | Below | 1300 |
| 104-DW-02 | 2nd floor, break room, column C44 | 9.34 | 20.3 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-03 | Duplicate of 104-DW-03 | 9.34 | 20.3 | Sink | Copper | 150 | µg/L | Below | 1300 |
| 104-DW-03 | Duplicate of 104-DW-03 | 9.34 | 20.3 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-04 | 2nd floor, bottle filler, column B44 | 9.11 | 17.3 | DF | Copper | 46 | µg/L | Below | 1300 |
| 104-DW-04 | 2nd floor, bottle filler, column B44 | 9.11 | 17.3 | DF | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-05 | 2nd floor, break room, column D43 | 9.14 | 19.6 | Sink | Copper | 110 | µg/L | Below | 1300 |
| 104-DW-05 | 2nd floor, break room, column D43 | 9.14 | 19.6 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-06 | 2nd floor, break room, column D43 | 8.71 | 20.2 | Ice Machine | Copper | 160 | µg/L | Below | 1300 |
| 104-DW-06 | 2nd floor, break room, column D43 | 8.71 | 20.2 | Ice Machine | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-07 | 2nd floor, break room, column B31 | 9.52 | 20.4 | Sink | Copper | 54 | µg/L | Below | 1300 |
| 104-DW-07 | 2nd floor, break room, column B31 | 9.52 | 20.4 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-08 | 2nd floor, break room, column B31 | 9.34 | 18.1 | L DF | Copper | 110 | µg/L | Below | 1300 |
| 104-DW-08 | 2nd floor, break room, column B31 | 9.34 | 18.1 | L DF | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-09 | 2nd floor, break room, column C25 | 9.62 | 20.4 | Sink | Copper | 120 | µg/L | Below | 1300 |
| 104-DW-09 | 2nd floor, break room, column C25 | 9.62 | 20.4 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-10 | 2nd floor, break room, column B19 | 9.29 | 21.5 | Sink | Copper | 52 | µg/L | Below | 1300 |
| 104-DW-10 | 2nd floor, break room, column B19 | 9.29 | 21.5 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-11 | Duplicate of 104-DW-10 | 9.29 | 21.5 | Sink | Copper | 52 | µg/L | Below | 1300 |
| 104-DW-11 | Duplicate of 104-DW-10 | 9.29 | 21.5 | Sink | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-12 | 2nd floor, break room, column B19 | 9.27 | 20.7 | DF | Copper | 62 | µg/L | Below | 1300 |
| 104-DW-12 | 2nd floor, break room, column B19 | 9.27 | 20.7 | DF | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-13 | 2nd floor, break room, column B19 | 9.36 | 21.5 | Ice Machine | Copper | 28 | µg/L | Below | 1300 |
| 104-DW-13 | 2nd floor, break room, column B19 | 9.36 | 21.5 | Ice Machine | Lead | < 1.0 | µg/L | Below | 15 |
| 104-DW-14 | 2nd floor, north hallway | 9.32 | 18.0 | DF | Copper | 65 | µg/L | Below | 1300 |
| 104-DW-14 | 2nd floor, north hallway | 9.32 | 18.0 | DF | Lead | < 1.0 | µg/L | Below | 15 |

Appendix A

Results Summary by Location

| Sample Number | Location | pH | Temp (°C) | Water Source | Analyte | Result | Units | Above / Below | AL |
|---------------|----------------------------------|------|-----------|--------------|---------|--------|-------|---------------|------|
| 104-DW-15 | 1st floor, break room, column F9 | 8.52 | 19.0 | Sink | Copper | 120 | µg/L | Below | 1300 |
| 104-DW-15 | 1st floor, break room, column F9 | 8.52 | 19.0 | Sink | Lead | 1.4 | µg/L | Below | 15 |

Notes:

DF - Drinking Fountain

D - Duplicate

L/R - Left or Right

AL - Action Level

µg/L - micrograms per liter

APPENDIX B – WATER SAMPLE LABORATORY REPORT

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

| State | Certification | State | Certification |
|-------------------------|---------------|----------------|---------------|
| Alabama | 40700 | Missouri | 880 |
| Alaska | IN00035 | Montana | CERT0026 |
| Arizona | AZ0432 | Nebraska | NE-OS-05-04 |
| Arkansas | IN00035 | Nevada | IN00035 |
| California | 2920 | New Hampshire* | 2124 |
| Colorado | IN00035 | New Jersey* | IN598 |
| Colorado Radiochemistry | IN00035 | New Mexico | IN00035 |
| Connecticut | PH-0132 | New York* | 11398 |
| Delaware | IN035 | North Carolina | 18700 |
| Florida(Primary AB)* | E87775 | North Dakota | R-035 |
| Georgia | 929 | Ohio | 87775 |
| Hawaii | IN035 | Oklahoma | D9508 |
| Idaho | IN00035 | Oregon* | 4156 |
| Illinois* | 200001 | Pennsylvania* | 68-00466 |
| Illinois Microbiology | 17767 | Puerto Rico | IN00035 |
| Illinois Radiochemistry | IN00035 | Rhode Island | LAO00343 |
| Indiana Chemistry | C-71-01 | South Carolina | 95005 |
| Indiana Microbiology | M-76-07 | South Dakota | IN00035 |
| Iowa | 098 | Tennessee | TN02973 |
| Kansas* | E-10233 | Texas* | T104704187 |
| Kentucky | 90056 | Texas/TCEQ | TX207 |
| Louisiana* | LA014 | Utah* | IN00035 |
| Maine | IN00035 | Vermont | VT-8775 |
| Maryland | 209 | Virginia* | 460275 |
| Massachusetts | M-IN035 | Washington | C837 |
| Michigan | 9926 | West Virginia | 9927 C |
| Minnesota* | 018-999-338 | Wisconsin | 999766900 |
| Mississippi | IN035 | Wyoming | IN035 |
| EPA | IN00035 | | |

*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: Burns & McDonnell Engineers
 Attn: Emily Ahlemeyer
 425 South Woods Mill Road
 Suite 300
 Chesterfield, MO 63017

Report: 512946
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

| Sample Information | | | | | |
|--------------------|-----------|--------|-----------------------|---------------|----------------------|
| EEA ID # | Client ID | Method | Collected Date / Time | Collected By: | Received Date / Time |
| 4855457 | 104-DW-01 | 200.8 | 03/12/21 06:17 | Client | 03/16/21 09:30 |
| 4855458 | 104-DW-02 | 200.8 | 03/12/21 06:23 | Client | 03/16/21 09:30 |
| 4855459 | 104-DW-03 | 200.8 | 03/12/21 06:23 | Client | 03/16/21 09:30 |
| 4855460 | 104-DW-04 | 200.8 | 03/12/21 06:26 | Client | 03/16/21 09:30 |
| 4855461 | 104-DW-05 | 200.8 | 03/12/21 06:30 | Client | 03/16/21 09:30 |
| 4855462 | 104-DW-06 | 200.8 | 03/12/21 06:32 | Client | 03/16/21 09:30 |
| 4855463 | 104-DW-07 | 200.8 | 03/12/21 06:35 | Client | 03/16/21 09:30 |
| 4855464 | 104-DW-08 | 200.8 | 03/12/21 06:38 | Client | 03/16/21 09:30 |
| 4855465 | 104-DW-09 | 200.8 | 03/12/21 06:40 | Client | 03/16/21 09:30 |
| 4855466 | 104-DW-10 | 200.8 | 03/12/21 06:48 | Client | 03/16/21 09:30 |
| 4855467 | 104-DW-11 | 200.8 | 03/12/21 06:48 | Client | 03/16/21 09:30 |
| 4855468 | 104-DW-12 | 200.8 | 03/12/21 06:50 | Client | 03/16/21 09:30 |
| 4855469 | 104-DW-13 | 200.8 | 03/12/21 06:54 | Client | 03/16/21 09:30 |
| 4855470 | 104-DW-14 | 200.8 | 03/12/21 06:58 | Client | 03/16/21 09:30 |
| 4855471 | 104-DW-15 | 200.8 | 03/12/21 07:05 | Client | 03/16/21 09:30 |

| Report Summary |
|----------------|
|----------------|

Project: GFC

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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(b) (6)



03/26/2021

Authorized Signature

Title

Date

Client Name: Burns & McDonnell Engineers

Report #: 512946

Sampling Point: 104-DW-01

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 95 | ug/L | --- | 03/25/21 19:03 | 4855457 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:03 | 4855457 |

Sampling Point: 104-DW-02

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 160 | ug/L | --- | 03/25/21 19:10 | 4855458 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:10 | 4855458 |

Sampling Point: 104-DW-03

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 150 | ug/L | --- | 03/25/21 19:13 | 4855459 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:13 | 4855459 |

Sampling Point: 104-DW-04

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 46 | ug/L | --- | 03/25/21 19:15 | 4855460 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:15 | 4855460 |

Sampling Point: 104-DW-05

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 110 | ug/L | --- | 03/25/21 19:17 | 4855461 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:17 | 4855461 |

Sampling Point: 104-DW-06

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 160 | ug/L | --- | 03/25/21 19:20 | 4855462 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:20 | 4855462 |

Sampling Point: 104-DW-07

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 54 | ug/L | --- | 03/25/21 19:22 | 4855463 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:22 | 4855463 |

Sampling Point: 104-DW-08

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 110 | ug/L | --- | 03/25/21 19:25 | 4855464 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:25 | 4855464 |

Sampling Point: 104-DW-09

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 120 | ug/L | --- | 03/25/21 19:27 | 4855465 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:27 | 4855465 |

Sampling Point: 104-DW-10

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 52 | ug/L | --- | 03/25/21 19:30 | 4855466 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:30 | 4855466 |

Sampling Point: 104-DW-11

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 52 | ug/L | --- | 03/25/21 19:37 | 4855467 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:37 | 4855467 |

Sampling Point: 104-DW-12

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 62 | ug/L | --- | 03/25/21 19:40 | 4855468 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:40 | 4855468 |

Sampling Point: 104-DW-13

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 28 | ug/L | --- | 03/25/21 19:47 | 4855469 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:47 | 4855469 |

Sampling Point: 104-DW-14

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 65 | ug/L | --- | 03/25/21 19:49 | 4855470 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | < 1.0 | ug/L | --- | 03/25/21 19:49 | 4855470 |

Sampling Point: 104-DW-15

PWS ID: Not Supplied

| Lead and Copper | | | | | | | | | |
|-----------------|---------|--------|-----------|------|--------|-------|------------------|----------------|----------|
| Analyte ID # | Analyte | Method | Reg Limit | MRL† | Result | Units | Preparation Date | Analyzed | EEA ID # |
| 7440-50-8 | Copper | 200.8 | 1300 ! | 1.0 | 120 | ug/L | --- | 03/25/21 19:52 | 4855471 |
| 7439-92-1 | Lead | 200.8 | 15 ! | 1.0 | 1.4 | ug/L | --- | 03/25/21 19:52 | 4855471 |

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

| | | | |
|-----------------|-----|------|----|
| Reg Limit Type: | MCL | SMCL | AL |
| Symbol: | * | ^ | ! |

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows: $(MS \text{ or } MSD \text{ value} - \text{Sample value}) * 100 / \text{spike target} / \text{dilution factor} = \text{Recovery } \%$

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 512946
Batch # 420998

www.EurofinsUS.com/Eaton

CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

Page 1 of 2

REPORT TO: msingh@burnsmid.com
9400 Ward Parkway
Kansas City, MO 64114

BILL TO: same

| LAB Number | COLLECTION | | DATE | TIME | AM | PM | SAMPLING SITE | COMPLIANCE MONITORING | YES | NO | PWS ID # | STATE (sample origin) | PROJECT NAME | PO# | CHLORINATED | | # OF CONTAINERS | MATRIX CODE | TURNAROUND TIME |
|------------|------------|------|---------|------|----|----|---------------|-----------------------|-----|----|----------|-----------------------|--------------|--------|-------------|----|-----------------|-------------|-----------------|
| | DATE | TIME | | | | | | | | | | | | | YES | NO | | | |
| 1 | 4855457 | | 3/12/21 | 0617 | X | | 104-DW-01 | | | | N/A | MO | GFC | 121244 | X | | 1 | DW SW | |
| 2 | 458 | | | 0623 | X | | 104-DW-02 | | | | | | | | X | | | | |
| 3 | 459 | | | 0623 | X | | 104-DW-03 | | | | | | | | X | | | | |
| 4 | 460 | | | 0626 | X | | 104-DW-04 | | | | | | | | X | | | | |
| 5 | 461 | | | 0630 | X | | 104-DW-05 | | | | | | | | X | | | | |
| 6 | 462 | | | 0632 | X | | 104-DW-06 | | | | | | | | X | | | | |
| 7 | 463 | | | 0635 | X | | 104-DW-07 | | | | | | | | X | | | | |
| 8 | 464 | | | 0635 | X | | 104-DW-08 | | | | | | | | X | | | | |
| 9 | 465 | | | 0640 | X | | 104-DW-09 | | | | | | | | X | | | | |
| 10 | 466 | | | 0648 | X | | 104-DW-10 | | | | | | | | X | | | | |
| 11 | 467 | | | 0648 | X | | 104-DW-11 | | | | | | | | X | | | | |
| 12 | 468 | | | 0650 | X | | 104-DW-12 | | | | | | | | X | | | | |
| 13 | 469 | | | 0654 | X | | 104-DW-13 | | | | | | | | X | | | | |
| 14 | 470 | | | 0658 | X | | 104-DW-14 | | | | | | | | X | | | | |

TEST NAME: Lead and Copper

POPULATION SERVED: N/A

POPULATION SERVED: N/A

RECEIVED BY: (Signature) [Redacted] TIME: 1000 DATE: 3/12/21

RECEIVED BY: (Signature) [Redacted] TIME: [Redacted] DATE: [Redacted]

RECEIVED FOR LABORATORY BY: [Redacted] TIME: [Redacted] DATE: [Redacted]

RECEIVED FOR LABORATORY BY: [Redacted] TIME: 0930 DATE: 03-16-2021

LAB COMMENTS: [Redacted]

°C Upon Receipt: N/A

MATRIX CODES:
 DW- DRINKING WATER RW- REAGENT WATER GW- GROUND WATER EW- EXPOSURE WATER SW- SURFACE WATER PW- POOL WATER WW- WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES
 SW = Standard Written (15 working days) 0% RV* = Rush Verbal (5 working days)
 50% RV* = Rush Written (5 working days) 75% RV* = Rush Verbal (5 working days)
 * Please call, expedited service not available for all testing

IMMEDIATE RESPONSE:
 IM* = Immediate Verbal (3 working days) 100% CALL
 IW* = Immediate Written (3 working days) 125% CALL
 Weekend, Holiday
 STAT* = Less than 48 hours

CONDITIONS UPON RECEIPT (clock-one):
 Ambient

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.



Eaton Analytical

110 S. Hill Street
 South Bend, IN 46617
 T: 1.800.332.4345
 F: 1.574.233.8207

Order # 5129416
 Batch # 420998

www.EurofinsUS.com/Eaton

CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

Page 2 of 2

REPORT TO: mshaganan@burnsmid.com (SAMPLER (Signature))

9400 Ward Parkway
 Kansas City, MO 64114

BILL TO: same

COMPLIANCE MONITORING

Yes No

STATE (sample origin)

MO

PROJECT NAME

GFC

PO#

121244

OF CONTAINERS

1

MATRIX CODE

DW SW

TURNAROUND TIME

TEST NAME

Lead and Copper

Preservative Checks

pH acceptable? Residual Chlorine (P/A)

CHLORINATED

YES NO

LAB COMMENTS

RECEIVED BY (Signature)

[Signature]

DATE

3/12/21

TIME

1000 AM

RECEIVED BY (Signature)

[Signature]

DATE

TIME

RECEIVED FOR LABORATORY BY:

[Signature]

DATE

03-16-2021

TIME

0930 AM

CONDITIONS UPON RECEIPT (check one)

Ice: Wet/Blue Ambient

°C Upon Receipt

N/A

MATRIX CODES:

DW-DRINKING WATER RW REAGENT WATER GW- GROUND WATER EW-EXPOSURE WATER SW- SURFACE WATER PW-POOL WATER WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written (15 working days) 0% RV* = Rush Verbal (5 working days) 50% RW* = Rush Written (5 working days) 75% * Please call, expedited service not available for all testing

W* = Immediate Verbal (3 working days) 100% = Immediate Written (3 working days) SP* = Weekend, Holiday CALL STAT* = Less than 48 hours

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges. 06-1 C-F0435 Issue 8.0 Effective Date: 2020.05-15

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

RELINQUISHED BY (Signature)

[Signature]

DATE

TIME

RELINQUISHED BY (Signature)

[Signature]

DATE

TIME

RELINQUISHED BY (Signature)

[Signature]

DATE

TIME