November 30, 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. 105 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 105 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 select sources throughout the building. These sources were selected based on the results of the semiannual drinking water sampling completed in June 2021. Drinking water sampling at Bldg. 105 was conducted on October 29, 2021 by 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.

Drinking water sampling for the presence of lead and copper was conducted at four (4) distinct locations within Building 105. 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	Highest Concentration	Action Level[(a)]
Lead	12 µg/L	280 µg/L	15 µg/L
Copper	32 µg/L	66 µg/L	1300 µg/L

Notes:
(a) As per EPA Lead and Copper Rule (40 CFR Part 141 Subpart I).
(b) µg/L – micrograms per liter

Three (3) samples resulted in levels over the action levels, 15 µg/L for lead and 1,300 µg/L for copper.

1. A sample taken from the northeast sink in lab room 324 on the second floor of building 105 had a lead concentration of 280 µg/L.

2. A sample taken from the sink in the east island in lab room 328 on the second floor of building 105 had a lead concentration of 190 µg/L.

3. A sample taken from the sink on the south wall in lab room 328 on the second floor of building 105 had a lead concentration of 24 µg/L.

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.

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

Sincerely,

(b) (6)

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	Water Source	Analyte	Result	Units	Above / Below	AL
105-DW-28R	2nd floor, Lab Room 324, NE sink	Sink	Copper	48	µg/L	Below	1300
105-DW-28R	2nd floor, Lab Room 324, NE sink	Sink	Lead	280	µg/L	Above	15
105-DW-30R	2nd floor, Lab Room 328, E Island	Sink	Copper	32	µg/L	Below	1300
105-DW-30R	2nd floor, Lab Room 328, E Island	Sink	Lead	190	µg/L	Above	15
105-DW-31R	2nd floor, Lab Room 328, S wall	Sink	Copper	38	µg/L	Below	1300
105-DW-31R	2nd floor, Lab Room 328, S wall	Sink	Lead	24	µg/L	Above	15
105-DW-37R	2nd floor, Lab Room 347, E wall	Sink	Copper	66	µg/L	Below	1300
105-DW-37R	2nd floor, Lab Room 347, E wall	Sink	Lead	12	µg/L	Below	15

Notes:
AL - Action Level
µg/L - micrograms per liter

APPENDIX B – WATER SAMPLE LABORATORY REPORT

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ANALYTICAL REPORT

Eurofins Eaton Analytical - South Bend
110 S Hill Street
South Bend, IN 46617
Tel: (574)233-4777

Laboratory Job ID: 810-6623-1
Client Project/Site: Burns & McDonnell

For:
Burns & McDonnell
425 South Woods Mill Road
Chesterfield, Missouri 63017

Attn: Mr. Matt Shanahan
(b) (6) [redacted]

Authorized for release by:
11/17/2021 3:29:34 PM
Luke Orchard, LIMS Analyst
(802)923-1019
Luke.Orchard@eurofinset.com

Designee for

Patricia Muff, Project Manager
(574)233-4777
patricia.muff@eurofinset.com

Table of Contents

Definitions/Glossary

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Job ID: 810-6623-1

Laboratory: Eurofins Eaton Analytical - South Bend

Narrative

Job Narrative
810-6623-1

Comments
No additional comments.

Receipt
The samples were received on 11/3/2021 2:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals
Method 200.8: The continuing calibration verification (CCV) analyzed in 810-6975 was outside the method criteria of + 10 % but within + 15% for Copper. As indicated in the reference method, this continuing calibration verification (CCV) will be used at the closing CCV and previous samples will not be reanalyzed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Client Sample ID: 105-DW-28R 0540

Lab Sample ID: 810-6623-1

Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	280		1.0		ug/L			11/09/21 22:07	1
Copper	48		1.0		ug/L			11/09/21 22:07	1

Client Sample ID: 105-DW-30R 0545

Lab Sample ID: 810-6623-2

Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.0		ug/L			11/09/21 22:10	1
Copper	32		1.0		ug/L			11/09/21 22:10	1

Client Sample ID: 105-DW-31R 0543

Lab Sample ID: 810-6623-3

Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	24		1.0		ug/L			11/09/21 22:12	1
Copper	38		1.0		ug/L			11/09/21 22:12	1

Client Sample ID: 105-DW-37R 0534

Lab Sample ID: 810-6623-4

Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	12		1.0		ug/L			11/09/21 22:15	1
Copper	66		1.0		ug/L			11/09/21 22:15	1

Lab Chronicle

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Client Sample ID: 105-DW-28R 0540
Lab Sample ID: 810-6623-1
Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8		1	6975	11/09/21 22:07	JK	EA SB

Client Sample ID: 105-DW-30R 0545
Lab Sample ID: 810-6623-2
Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8		1	6975	11/09/21 22:10	JK	EA SB

Client Sample ID: 105-DW-31R 0543
Lab Sample ID: 810-6623-3
Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8		1	6975	11/09/21 22:12	JK	EA SB

Client Sample ID: 105-DW-37R 0534
Lab Sample ID: 810-6623-4
Date Collected: 10/29/21 00:00
Matrix: Drinking Water
Date Received: 11/03/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8		1	6975	11/09/21 22:15	JK	EA SB

Laboratory References:

EA SB = Eurofins Eaton Analytical - South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Laboratory: Eurofins Eaton Analytical - South Bend

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Missouri	State	880	09-30-24

Method Summary

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton Analytical - South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: Burns & McDonnell
Project/Site: Burns & McDonnell

Job ID: 810-6623-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-6623-1	105-DW-28R 0540	Drinking Water	10/29/21 00:00	11/03/21 14:30
810-6623-2	105-DW-30R 0545	Drinking Water	10/29/21 00:00	11/03/21 14:30
810-6623-3	105-DW-31R 0543	Drinking Water	10/29/21 00:00	11/03/21 14:30
810-6623-4	105-DW-37R 0534	Drinking Water	10/29/21 00:00	11/03/21 14:30

eurofins | Eaton Analytical

810-6623 COC

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

Order # 394993

Batch #

www.EurofinsUS.com/Eaton

CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

REPORT TO: alanstaltt@burnsmcd.com
9400 Ward Parkway
Kansas City, MO 64114

BILL TO: Same

SAMPLER (Signature): (b) (6)

COMPLIANCE MONITORING: Yes [ ] No [X]

PWS ID #: N/A

STATE (sample origin): MO

POPULATION SERVED: N/A

SOURCE WATER: Municipal

PROJECT NAME: GFC

PO#: 121244

	LAB Number	COLLECTION DATE	COLLECTION TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1		10/27/21				105-DW-28R 0540	Lead & Copper		X		1	DW	IW
2		"				105-DW-30R 0545	"		X		1	DW	IW
3		"				105-DW-31R 0543	"		X		1	DW	IW
4		"				105-DW-37R 0534	"		X		1	DW	IW
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
(b) (6)	11/2/21	1630 AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM	(b) (6)	11-3-2021	1430 AM PM

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

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one):
___ Iced: Wet/Blue X 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%	IV* = Immediate Verbal: (3 working days)	100%
RV* = Rush Verbal: (5 working days)	50%	IW* =Immediate Written: (3 working days)	125%
RW* = Rush Written: (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

06-LO-F0435 Issue 7.0 Effective Date: 2018-10-11

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.

Login Sample Receipt Checklist

Client: Burns & McDonnell

Job Number: 810-6623-1

Login Number: 6623
List Number: 1
Creator: DePriest, Kellie

List Source: Eurofins Eaton Analytical - South Bend

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	