

Riverside, MO 64150 Telephone: 816.231.5580 Fax: 816.231.5641 www.occutec.com

February 5, 2019

Ms. Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service – Heartland Region
2300 Main Street
Kansas City, Missouri 64108

RE: Goodfellow Federal Center - Metals in Air Investigation
Building - #102E
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 918004

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the Resource Conservation and Recovery Act (RCRA) metals air sampling investigation of the above referenced buildings located at the Goodfellow Federal Center, in St. Louis, Missouri. OCCU-TEC understands that the purpose of the investigation was to provide sampling data regarding pre-existing conditions noted in investigation reports previously prepared for the facility. The following report summarizes the sample collection activities and the laboratory analytical results of the samples submitted.

On January 11, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of seven of the RCRA metals including Silver, Arsenic, Barium, Cadmium, Chromium, Lead, and Selenium. Sampling was conducted on Building #102E.

The proposed sampling scheme, the numbers of samples, sample distribution and general methodology was developed based on previous investigation methodology and in coordination with the GSA. Sample locations were determined by OCCU-TEC field personnel while on-site.

Resource Conservation and Recovery Act Metals Air Sampling

Air sampling for RCRA metals was collected on 37-millimeter (mm) cassettes with 0.8 micrometer (μm) mixed cellulose ester (MCE) filters using powered air sampling pumps in accordance with National Institute for Occupational Safety and Health (NIOSH) sampling methods. Samples were collected in a method sufficient to collect a minimum sample volume of 300 liters. Air samples were submitted under chain-of-custody to Scientific Analytical Institute, Inc. (SAI), for independent analysis of RCRA metals in accordance with NIOSH Method 7300. SAI is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. SAI's IHPAT Laboratory ID is 173190.

Results of the air sampling are summarized in the table below by identifying the range of results for Building #102E for each of the seven metals that were sampled. Samples with a "<" sign indicate that the results were below the laboratory's method reporting limit.

Analysis	Lowest	Highest
	Concentration	Concentration
	$(\mu g/m^3)$	$(\mu g/m^3)$
Silver (Ag)	< 0.68	< 0.68
Arsenic (As)	< 0.68	< 0.68
Barium (Ba)	< 0.10	< 0.10
Cadmium (Cd)	< 0.068	< 0.068
Total Chromium (Cr) *	1.30	2.30
Lead (Pb)	< 0.35	< 0.35
Selenium (Se)	< 0.68	< 0.68

^{*} The laboratory reported trace amounts of total chromium above the laboratory detection limit on many samples, including field blanks. According to the lab, low levels of Chromium can be found as a contaminant in varying levels on MCE filters for different manufacturers and lots.

Results of the air samples collected indicate that **all** the air samples collected from Building #102E contained concentrations of RCRA metals below the laboratory's method reporting limit and the OSHA Permissible Exposure Limit (PEL) with the exception of total Chromium. As previously noted, the elevated total chromium results were likely due to contaminated MCE filter media. Sample locations and the corresponding results are summarized in the laboratory analytical results that are included in Appendix A. The air sampling professional's Missouri Lead license is in included in Appendix B.

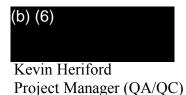
It should be noted that this air sampling investigation was only a screening of airborne RCRA metals and should not be interpreted or used to determine compliance or non-compliance with OSHA personnel monitoring regulations.

OCCU-TEC appreciates the opportunity to work with GSA on this project. If you have any questions concerning this report, or if we may be of any additional service, please feel free to contact us.

Sincerely,



Jeff T. Smith Senior Project Manager



Appendices:

A: Laboratory Analytical Results and Chain of Custody Documentation

B: Qualifications and Licenses



Appendix A

Laboratory Analytical Report and Chain of Custody

Documentation





Airborne Metals Concentration by Inductively-Coupled Plasma Analysis (ICP)



NIOSH Method 7300

Occu-Tec, Inc. **Client:**

100 NW Business Park Ln.

Riverside, MO 64150

Project: 6FC-102E Attn: **Kevin Heriford**

Lab Order ID: **Date Received:**

71901036 01/15/2019

Date Reported:

01/25/2019

Page: 1 of 3

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration	
Lab Sample ID	Lab Notes	(L)	Liement	Limit (µg)	(μg)	$(\mu g/m^3)$	
	Lower Level		Ag	0.25	< 0.25	< 0.68	
			As	0.25	< 0.25	< 0.68	
102E-META18-01	Outside		Ba	0.038	< 0.038	< 0.10	
102E-META16-01	Bathrooms	367.5	Cd	0.025	< 0.025	< 0.068	
			Cr	0.25	0.68	1.9	
			Pb	0.13	< 0.13	< 0.35	
71901036IPA_1			Se	0.25	< 0.25	< 0.68	
	Lower Level in Main Hallway	367.5	Ag	0.25	< 0.25	< 0.68	
			As	0.25	< 0.25	< 0.68	
102E-META18-02			Ba	0.038	< 0.038	< 0.10	
102E-ME1A16-02			Cd	0.025	< 0.025	< 0.068	
Hal			Cr	0.25	0.85	2.3	
			Pb	0.13	< 0.13	< 0.35	
71901036IPA_2			Se	0.25	< 0.25	< 0.68	
	Lower Level by		Ag	0.25	< 0.25	< 0.68	
			As	0.25	< 0.25	< 0.68	
102E-META18-03			Ba	0.038	< 0.038	< 0.10	
102E-WETA16-03	Pillar N24	367.5	Cd	0.025	< 0.025	< 0.068	
		307.3	Cr	0.25	0.76	2.1	
			Pb	0.13	< 0.13	< 0.35	
71901036IPA_3			Se	0.25	< 0.25	< 0.68	

(b) (6) Melissa Ferrell (9) Lab Director Analyst

This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by AIHA or any other agency of the U.S. government. Scientific Analytical Institute participates in the AIHA IHPAT program. IHPAT Laboratory ID: 173190. Unless otherwise noted blank sample correction was not performed on analytical results. MDLs are available upon request. Reporting limits stated



Project:

Airborne Metals Concentration by Inductively-Coupled Plasma Analysis (ICP)



NIOSH Method 7300

Attn:

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Kevin Heriford

Lab Order ID:

71901036

Riverside, MO 64150

Date Received: Date Reported: 01/15/2019 01/25/2019

6FC-102E

Page:

2 of 3

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Element	Limit (μg)	(μg)	$(\mu g/m^3)$
			Ag	0.25	< 0.25	< 0.68
	Lower		As	0.25	< 0.25	< 0.68
102E-META18-04	Level by		Ba	0.038	< 0.038	< 0.10
102E-ME1A18-04 (Column N27	367.5	Cd	0.025	< 0.025	< 0.068
	1127		Cr	0.25	0.49	1.3
			Pb	0.13	< 0.13	< 0.35
71901036IPA_4			Se	0.25	< 0.25	< 0.68
	Lower Level by Restrooms	367.5	Ag	0.25	< 0.25	< 0.68
			As	0.25	< 0.25	< 0.68
102E META 19 05			Ba	0.038	< 0.038	< 0.10
102E-META18-05			Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.57	1.6
			Pb	0.13	< 0.13	< 0.35
71901036IPA_5			Se	0.25	< 0.25	< 0.68
	Lower Level Room 103	367.5	Ag	0.25	< 0.25	< 0.68
			As	0.25	< 0.25	< 0.68
102E-META18-06			Ba	0.038	< 0.038	< 0.10
102E-WE1A18-00			Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.67	1.8
			Pb	0.13	< 0.13	< 0.35
71901036IPA_6			Se	0.25	< 0.25	< 0.68

Melissa Ferrell (9)	(b) (b)
Analyst	Lab Director

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Project:

Airborne Metals Concentration by Inductively-Coupled Plasma Analysis (ICP)



NIOSH Method 7300

Attn:

Occu-Tec, Inc. **Client:**

Sample ID

102E-META18-09

71901036IPA_9

6FC-102E

100 NW Business Park Ln.

Kevin Heriford

Lab Order ID:

71901036 01/15/2019

Riverside, MO 64150

Description

Blank

Date Received: Date Reported:

Page:

01/25/2019

3 of 3

Reporting

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Element	Limit (µg)	(μg)	$(\mu g/m^3)$
	Lower		Ag	0.25	< 0.25	< 0.68
			As	0.25	< 0.25	< 0.68
102E-META18-07	Level Room		Ba	0.038	< 0.038	< 0.10
102E-META16-07	109	367.5	Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.59	1.6
			Pb	0.13	< 0.13	< 0.35
71901036IPA_7			Se	0.25	< 0.25	< 0.68
	Lower Level Stairwell	367.5	Ag	0.25	< 0.25	< 0.68
102E-META18-08			As	0.25	< 0.25	< 0.68
			Ba	0.038	< 0.038	< 0.10
			Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.84	2.3
			Pb	0.13	< 0.13	< 0.35
71901036IPA_8			Se	0.25	< 0.25	< 0.68
			Ag	0.25	< 0.25	
			As	0.25	< 0.25	

Ba

Cd

Cr

Pb

Se

0.038

0.025

0.25

0.13

0.25

< 0.038

< 0.025

0.82

< 0.13

< 0.25

Melissa Ferrell (9)	(b) (6)
Analyst	Lab Director

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Scientific Analytical Institute 4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 www.sailab.com lab@sailab.com

Lab Use Only Lab Order ID:	11901036
Client Code:	

Contact Information	on		Billing/Invoi	ce I	nformation	
Company Name: O(U-TEC		Company: Sa	ne		
	W Baisness	Park In	Address:			
hiverside N	•					
11.000.00	.0		Contact: Acu	Lunc	3 Payable	
Contact: V	viford		Phone :		3 4	
	25-0628		Fax :			
	4-3466		Email : A	0	centre con	
_ //	rd & occute		1		ccurec. coo	
PO Number:	918064	c. con	Turn Aroun	dT	mes	
Project Name/Number:	6FC -102E	-	3 Hours		72 Hours	
1 Toject Transcribinoci.	OFC - 102L		6 Hours		96 Hours	
Lead Test Types	71.5		12 Hours		120 Hours	
Paint Chips by Flame AA	Soil by Flame AA	Other 🔀	24 Hours	П	144+ Hours	
(PBP) Wipe by Flame AA	(PBS) Air by Flame AA	Pich & W/O Ha			111. Hours	L- /8
(PBW)	(PBA)	FICH'S & SOLD 112	48 Hours		Standard	
Sample ID#	Descripti	on/Location	Volume/Area		Comments	
102E -META18-01			367.5			
102E-META15-02			367.5			
102E-METHIT - 03			367.5			
DAE-METAR- 04			367.5			
102E-METAID-05			367.5			
102E-METAIS-06			367.5			
102E-METATO - 07			367.5			
102E-METHIS-OF			367 15			
IONE -METATY-09	Blank					
						-
			Accep	te	d W	
			Relec	te		
			- 4		of Samples	
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Appendix B Qualifications and Licenses



STATE OF MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

Austin G. O'Byrne

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

Lead Risk Assessor Category of License

Issuance Date: 12/10/2018
Expiration Date: 12/10/2020

License Number: 181210-300005671





Randall W. Williams, MD, FACOG Director Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102