
February 24, 2025

Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service - Heartland Region
U.S. General Services Administration
2300 Main Street, Kansas City, MO 64108

**RE: Goodfellow Federal Center
Bi-Weekly Metals in Air and Settled Dust Sampling – Building 107
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 925001**

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the bi-weekly metals in air and settled dust sampling investigation of Building 107 located at the Goodfellow Federal Center (GFC), in St. Louis, Missouri. OCCU-TEC, Inc. (OCCU-TEC) understands that the purpose of the investigation was to provide additional sampling data of existing environmental conditions that are present at GFC that could adversely impact the health and safety of building occupants as well as workers at the facility. The following report summarizes the sample collection activities, and the laboratory analytical results of samples submitted.

The purpose of this testing was to further characterize the presence and concentration of target metals in occupied areas and determine if current cleaning efforts are sufficient to limit airborne dust and the accumulation of surface dust. The proposed sampling scheme, the number of samples, the sample distribution and general methodology were developed by GSA and OCCU-TEC. Specific sample locations were determined by OCCU-TEC personnel while on-site.

On January 29th-30th, 2025, OCCU-TEC personnel, including a Missouri licensed lead risk assessor, conducted air and settled dust sampling for the presence of seven of the Resource Conservation and Recovery Act (RCRA) target metals (lead, arsenic, barium, cadmium, total chromium, selenium, and silver) from various surfaces within occupied spaces within the building.

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 500 liters. Air samples were submitted under chain-of-custody to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for independent analysis of RCRA metals according to NIOSH Method 7300. EHS is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. EHS's IHPAT Laboratory ID is LAP-100420.

Results of the air sampling are summarized in the table below by identifying the range of results 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.**

Sample ID	Location	Analyte	Concentration (ug/m ³)	Recommended Limits ¹ (ug/m ³)
107-A-01.2	North end of hallway at glass door	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.052	5
		Chromium	<1.3	500
		Lead ²	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
107-A-02.2	Field Blank	Arsenic	<0.15 ug	10
		Barium	<0.15 ug	500
		Cadmium	<0.030 ug	5
		Chromium	<0.75 ug	500
		Lead ²	<0.15 ug	1
		Selenium	<0.75 ug	200
		Silver	<0.15 ug	10

Metals in Settled Dust Sampling

Metals in settled dust sampling was limited to only those areas within occupied spaces that may be routinely accessed by building personnel. Closed office spaces, mechanical rooms, basements, penthouses, tunnels and other mechanical spaces were not included in the testing.

Dust wipe sampling was conducted in accordance with ASTM Standard E1728/E1728M-24: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination. ASTM Standard E1728/E1728M-24 is consistent with the methodology described in the Housing and Urban Development Guidelines and 40 CFR 745.63. The Brookhaven National Laboratory's Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

A representative surface area of approximately one (1) square foot (SF) was measured and delineated with prefabricated, plastic templates which were thoroughly cleaned after each use. The dust wipe samples were collected using dedicated dust wipe cloths meeting ASTM standards. Each dust wipe cloth was pre-moistened and individually wrapped. Each sample was collected by wiping in a back and forth "S" pattern over a measured sampling area. Then, the wipe was folded over itself and the area was wiped again in a direction perpendicular to the first wipe orientation. The wipe samples were then placed into labeled, clean laboratory-supplied plastic centrifuge tubes with screw on caps. Dust wipe samples were submitted to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for Inductively Coupled Plasma (ICP) analysis of metals analysis using Environmental Protection Agency (EPA) Method SW846 350B/7420.

Results of the dust wipe samples collected from the building indicate that the sample did contain concentrations of target metals above laboratory detection limits. The following table identifies the range of results for each of the seven metals that were analyzed. **Samples with a "<" sign indicate that the results were below the reportable limit.**

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
107-W-01.2	Center Hallway	Floor – near north hallway glass door	Arsenic	< 2.50	µg/ft ²	62
			Barium	1.60	µg/ft ²	3,094
			Cadmium	< 0.10	µg/ft ²	31
			Chromium	2.80	µg/ft ²	3,094
			Lead	2.00	µg/ft ²	10
			Selenium	< 2.50	µg/ft ²	1,236
			Silver	< 0.50	µg/ft ²	62
107-W-02.2	Field Blank		Arsenic	< 2.50	µg/ft ²	62
			Barium	< 0.50	µg/ft ²	3,094
			Cadmium	< 0.10	µg/ft ²	31
			Chromium	< 1.00	µg/ft ²	3,094
			Lead	< 0.50	µg/ft ²	10
			Selenium	< 2.50	µg/ft ²	1,236
			Silver	< 0.50	µg/ft ²	62

None of the samples exceeded the recommended limits.

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,

(b) (6)

Jeff T. Smith
Senior Project Manager

(b) (6)

Kevin Heriford
Director of Environmental Health and
Safety (QA/QC)

Appendices:

A – Laboratory Analysis Report

APPENDIX A – LABORATORY ANALYSIS REPORT



7469 Whitepine Rd
North Chesterfield, VA 23237
Telephone: 800.347.4010

Air Metals Analysis Report

Client: OCCU-Tec Inc
2604 NE Industrial Drive
Suite 230
North Kansas City, MO 64117

Report Number: 25-02-00051
Received Date: 02/03/2025
Reported Date: 02/06/2025

Project/Test Address: GSA Goodfellow Complex

Client Number:
202507

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
25-02-00051-001	107-A-01.2	02/04/2025	Arsenic (As)	588	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
25-02-00051-002	107-A-02.2	02/04/2025	Arsenic (As)	0	<0.15	---	
			Barium (Ba)		<0.15	---	
			Cadmium (Cd)		<0.030	---	
			Chromium (Cr)		<0.75	---	
			Lead (Pb)		<0.15	---	
			Selenium (Se)		<0.75	---	
			Silver (Ag)		<0.15	---	

Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-02-00051

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
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Sample Narratives:

Method: NIOSH 7300M
Analyst: Carlos Gonzalez

(b) (6)

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contains less than the reporting limit for each particular metal, based on a 15mL volume. The reporting limit is 0.03ug for Cadmium, 0.15ug for Arsenic, Barium, Lead and Silver, and 0.75ug for Chromium and Selenium.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. These sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

LEGEND	ug = microgram mL = milliliter	ug/m ³ = micrograms per cubic meter L= Liters
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ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

Page ____ of ____

Company Name		OCCU-TEC Inc.		Account #		202507	
Company Address		2604 NE Industrial Drive Suite 230		City/State/Zip		North Kansas City, MO 64117	
Phone		816-231-5580		Email		jarnold@occutech.com	
Project Name / Testing Address				GSA Goodfellow Complex			
PO Number		925001		Collected By		Justin Arnold	
Turn-Around Time		<input checked="" type="radio"/> 5 Day <input type="radio"/> 3 Day <input type="radio"/> 2 Day <input type="radio"/> 1 Day <input type="radio"/> Same Day / Weekend - Must Call Ahead					

LAB NUMBER	Client Sample ID	Collection Date & Time	METALS							Other Metals	PARTICULATES					AIR			WIPES			
			Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Total Time	Flow Rate	Vol.	AREA	Circle Unit of Measurement Used		
																Min.	L/min	Total Liters			cm	or
1	107-A-01.2	1/23/25 0700			X					Ag, As, Ba, Cd, Cr, Pb, Se								240	2.45	588		X
2	107-A-02.2	1/29/25 -			X					"							-	-	-		X	
3	107-W-01.2	1/30/25								" 0830							-	-	-	12	X 12	
4	107-W-02.2	1/30/25 -			X					"							-	-	-		X	
5																					X	
6																					X	
7																					X	
8																					X	
9																					X	
10																					X	
11																					X	
12																					X	
13																					X	
14																					X	
15																					X	

Released By:	<i>Kevin Hestford</i>	Date:		Time:	
Signature:	(b) (6)				

LAB USE ONLY - BELOW THIS LINE

Received By: J. Soder

Signature: (b) (6)

Date: 2/3/25 Time: 9:42 ☒ AM ☐ PM

☐ Portal Contact Added

25-02-00051



Due Date:
02/10/2025
(Monday)
AE

P



7469 Whitepine Rd
North Chesterfield, VA 23237
Telephone: 800.347.4010

Wipe Metals Analysis Report

Client: OCCU-Tec Inc
2604 NE Industrial Drive
Suite 230
North Kansas City, MO 64117

Report Number: 25-02-00056

Received Date: 02/03/2025

Analyzed Date: 02/04/2025

Reported Date: 02/06/2025

Project/Test Address: GSA Goodfellow Complex

Client Number:
202507

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft ²)	Total Metal (ug)	Concentration (ug/ft ²)	Narrative ID
25-02-00056-001	107-W-01.2	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	1.56	1.6	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	2.78	2.8	L01
		Lead (Pb)	1.00	2.00	2.0	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
25-02-00056-002	107-W-02.2	Arsenic (As)		<2.50	---	L01
		Barium (Ba)		<0.500	---	L01
		Cadmium (Cd)		<0.100	---	L01
		Chromium (Cr)		<1.00	---	L01

Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-02-00056

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft ²)	Total Metal (ug)	Concentration (ug/ft ²)	Narrative ID
		Lead (Pb)		<0.500	---	L01
		Selenium (Se)		<2.50	---	L01
		Silver (Ag)		<0.500	---	L01

Sample Narratives:

L01: LCS and LCSD percent recovery for Se were outside of acceptance limits.

Analyst: Carlos Gonzalez

Method: EPA SW846 3050B/6010D

(b) (6)

Reviewed By Authorized Signatory:

Tasha Eaddy

QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contains less than the reporting limit based on a 50mL volume. The reporting limit for Lead is 0.5ug.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. These sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

Legend	ug = microgram	ug/ft ² = micrograms per square foot
	mL = milliliter	ft ² = square foot

ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

Page ____ of ____

Company Name		OCCU-TEC Inc.		Account #		202507	
Company Address		2604 NE Industrial Drive Suite 230		City/State/Zip		North Kansas City, MO 64117	
Phone		816-231-5580		Email		jarnold@occutec.com	
Project Name / Testing Address				GSA Goodfellow Complex			
PO Number		925001		Collected By		Justin Arnold	
Turn-Around Time		<input checked="" type="radio"/> 5 Day <input type="radio"/> 3 Day <input type="radio"/> 2 Day <input type="radio"/> 1 Day <input type="radio"/> Same Day / Weekend - Must Call Ahead					

LAB NUMBER	Client Sample ID	Collection Date & Time	METALS							Other Metals	PARTICULATES					AIR			WIPES	
			Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Total Time	Flow Rate	Vol.	AREA	
																Min.	L/min	Total Liters		Circle Unit of Measurement Used cm or <input checked="" type="radio"/> in
1	107-A-01.2	1/29/25 0700			X					Ag, As, Ba, Cd, Cr, Pb, Se						240	2.45	588		X
2	107-A-02.2	1/29/25 -			X					"						-	-	-		X
3	107-W-01.2	1/30/25								" 0830						-	-	-	12	X 12
4	107-W-02.2	1/30/25 -			X					"						-	-	-		X
5																				X
6																				X
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10																				X
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13																				X
14																				X
15																				X

Released By:	<i>Kevin Hestford</i>	Date:		Time:	
Signature:	(b) (6)				

LAB USE ONLY - BELOW THIS LINE

Received By: *Sodler*
 Signature: (b) (6)

Date: 2/3/25 Time: 9:43 ☒ AM ☐ PM

☐ Portal Contact Added

25-02-00056



Due Date:
 02/10/2025
 (Monday)
 AE P