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November 22, 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 - Mercury Air Sampling Investigation
Building – #104
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 919103**

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 November 5, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of airborne particulate mercury in Building #104.

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 particulate mercury 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 collected in accordance with NIOSH Method 7300 and submitted under chain-of-custody to Scientific Analytical Institute, Inc. (SAI), for independent analysis of mercury in accordance with NIOSH Method 6009. 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 #104 for the metal sampled. **Samples with a “<” sign indicate that the results were below the laboratory’s method reporting limit.**

Analysis	Lowest Concentration ($\mu\text{g}/\text{m}^3$)	Highest Concentration ($\mu\text{g}/\text{m}^3$)
Mercury (Hg)	<0.057	<0.057

Results of the air samples collected indicate Building #104 contained concentrations of particulate mercury below the laboratory’s method reporting limit and the OSHA Permissible Exposure Limit (PEL). Sample location diagrams are attached is Appendix A. Sample locations and the corresponding results are summarized in the laboratory analytical results that are included in Appendix B. The air sampling professional’s Missouri Lead license is in included in Appendix C.

It should be noted that this air sampling investigation was only a screening of airborne particulate mercury 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,

(b) (6)

Jeff Smith,
Senior Project Manager

(b) (6)

Kevin Heriford
Environmental Operations Manager (QA/QC)

Appendices:

- A: Sample Location Diagrams
- B: Laboratory Analytical Results and Chain of Custody Documentation
- C: Qualifications and Licenses

Appendix A

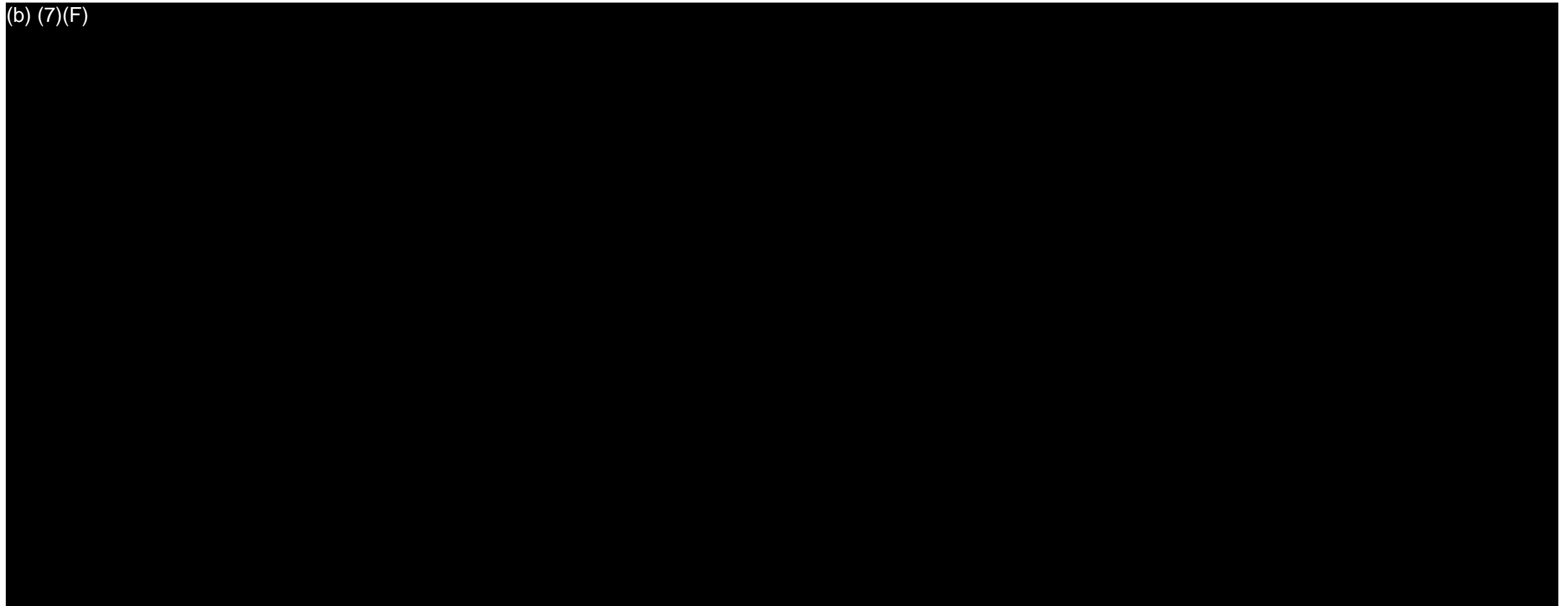
Sample Location Diagrams



(b) (7)(F)

Figure 1: Air Sample Location Maps—1st Floor bldg. 104
Goodfellow Federal Center
4300 Goodfellow Boulevard
St. Louis, Missouri
Project Number: 919103

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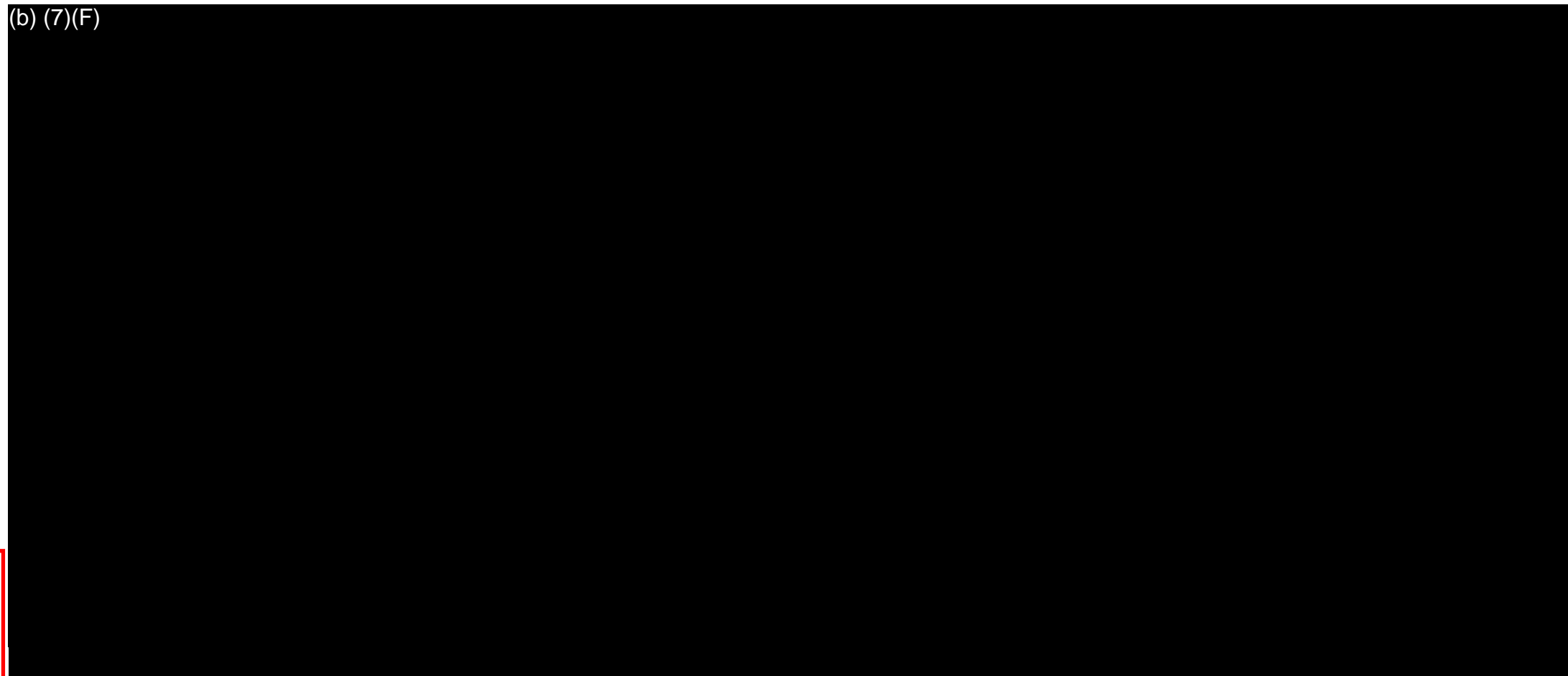
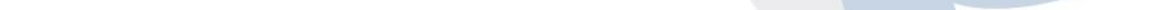


Figure 2: Air Sample Location Maps—2nd Floor bldg. 104

Goodfellow Federal Center
4300 Goodfellow Boulevard
St. Louis, Missouri
Project Number: 919103

Appendix B

Laboratory Analytical Results and Chain of Custody Documentation





Airborne Mercury Concentration by Cold Vapor-Atomic Absorption (CVAA)

NIOSH Method 6009/OSHA ID-140



Client:	OCCU-TEC Inc. 2604 NE Industrial Dr #230 North Kansas City, MO 64117	Attn: Austin O'Byrne	Lab Order ID: 71928705	Date Received: 11/11/2019
Project:	919103.001		Date Reported: 11/18/2019	Page: 1 of 1

Sample ID	Description	Sampling Type	Volume (L)	Concentration (µg)	Concentration (µg/m ³)
Lab Sample ID	Lab Notes				
104-Hg-01	Field Blank	Particulate	-	< 0.025	-
71928705HGA_1					
104-Hg-02	Upper level – D45	Particulate	436.8	< 0.025	< 0.057
71928705HGA_2					
104-Hg-03	Upper level – G18	Particulate	436.8	< 0.025	< 0.057
71928705HGA_3					
104-Hg-04	Lower level – B2	Particulate	436.8	< 0.025	< 0.057
71928705HGA_4					
104-Hg-05	Lower level – H9	Particulate	436.8	< 0.025	< 0.057
71928705HGA_5					

Melissa Ferrell

Analyst

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Lab Director

This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. 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. The reporting limit for an undiluted air sample is 0.01µg total Mercury. Analytical uncertainty available upon request.



Scientific Analytical Institute, Inc.
 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: 71928705
 Client Code: _____

Company Contact Information	
Company: OCCU-TEC Inc.	Contact: Austin O'Byrne
Address: 2604 NE Industrial Drive, Suite 230	Phone ☐: 816-602-0819
North Kansas City, MO 64117	Fax ☐: 816-994-3417
	Email : aobyrne@occutec.com

Industrial Hygiene Test Types	
Silica as Alpha Quartz (XSZ)* ☐ With Respirable Dust (XDZ) ☐	
Silica as Cristobalite (XSC)* ☐ With Respirable Dust (XDC) ☐	
Silica as Tridymite (XST)* ☐ With Respirable Dust (XDT) ☐	
Silica as Alpha Quartz, Cristobalite, Tridymite (XSA)* ☐ With Respirable Dust (XDA) ☐	
Silica Bulk (XSI)*	☐
Bulk Phase ID/Whole Rock (XUK)	☐
Total Dust NIOSH Method 0500 (GTD)	☐
Respirable Dust NIOSH Method 0600 (GRD)	☐
PCM NIOSH 7400-A Rules (PCM)	☐
B Rules (PCB) ☐ TWA(PTA) ☐	
TEM NIOSH 7402 (Asbestos) (TNI)	☐
Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations)	☐
Metals (NIOSH 7300) (Specify Metals Under Comments)	☐
Other NIOSH 6009 - Mercury Air Samples	<input checked="" type="checkbox"/>
* Modified NIOSH 7500 OSHA ID 142	

Billing/Invoice Information	Turn Around Times [^]	
SAME <input checked="" type="checkbox"/>	90 Min. ☐	48 Hours ☐
Company:	3 Hours ☐	72 Hours ☐
Contact:	6 Hours ☐	96 Hours ☐
Address:	12 Hours ☐	120 Hours <input checked="" type="checkbox"/>
	24 Hours ☐	144 ⁺ Hours ☐
	[^] TATs not available for certain test types	
PO Number:		
Project Name/Number: 919103.001		

Sample ID #	Description/Location	Volume/Area	Comments
104-Hg-01	Field Blank	N/A	Mercury Air Samples
104-Hg-02	Upper level - D45	436.8	Mercury Air Samples
104-Hg-03	Upper level - G18	436.8	Mercury Air Samples
104-Hg-04	Lower level - B2	436.8	Mercury Air Samples
104-Hg-05	Lower level - H9	436.8	Mercury Air Samples
			Mercury Air Samples
			Accepted <input checked="" type="checkbox"/>
			Rejected <input type="checkbox"/>

Total # of Samples _____

Relinquished by	Date/Time	Received by	Date/Time
(b) (6)	11/13/19	(b) (6)	11/11 10:30am

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Appendix C

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**

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

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