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January 7, 2020

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 – #141C 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 December 6th, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of six (6) of the RCRA metals including Silver, Arsenic, Barium, Cadmium, Lead, and Selenium. Sampling was conducted on Building #141C.

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 for Building #141C 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	Concentration (µg/m³)
Silver (Ag)	<0.37
Arsenic (As)	< 0.71
Barium (Ba)	< 0.071
Cadmium (Cd)	0.082
Lead (Pb)	< 0.37
Selenium (Se)	< 0.71

Results of the air samples collected indicate that the air samples collected from Building #141C contained concentrations of RCRA metals below the laboratory's method reporting limit and the OSHA Permissible Exposure Limit (PEL) with the exception of Cadmium. 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 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.





Justin Arnold, CIEC Project Manager



(b) (6)

Jeff Smith Senior Project Manager (QA/QC)

Appendices:

A: Sample Location Diagrams

B: Laboratory Analytical Results and Chain of Custody Documentation

C: Qualifications and Licenses



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Appendix ASample Location Diagrams

Floor Plans were not available for this building

Appendix B

Laboratory Analytical Results and Chain of Custody Documentation



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



NIOSH Method 7303

OCCU-TEC Inc. Client: Lab Order ID: 71931152 Attn: **Justin Arnold Date Received:** 12/12/2019

2604 NE Industrial Drive, Suite 230

North Kansas City, MO 64117 **Date Reported:** 12/19/2019 **Project:** 919103 Page: 1 of 1

Sample ID	Description	Volume (L)	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes		Liement	Limit (µg)	Concentration (μg)	(μg/m ³)
122019-MetA- 141C-01 Inside 141C		Ag	0.13	< 0.13	< 0.37	
	Inside 141C	352.8	As	0.25	< 0.25	< 0.71
			Ba	0.025	< 0.025	< 0.071
			Cd	0.025	0.029	0.082
71931152IPA_1			Pb	0.13	< 0.13	< 0.37
			Se	0.25	< 0.25	< 0.71
122019-MetA- 141C-02			Ag	0.13	< 0.13	
	Field Blank		As	0.25	< 0.25	
			Ba	0.025	< 0.025	
		_	Cd	0.025	< 0.025	
71021152104 2			Pb	0.13	< 0.13	
71931152IPA_2			Se	0.25	< 0.25	

Melissa Ferrell **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 above.



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

Lab Use Only 193 51 Lab Order ID:	
Client Code:	l

A-F-018 EXP: 2/4/2021

Company Contact	Information			In	dustrial Hygiene Test T	pes
Company: OCCU-TEC Inc.		Contact: Justin	Contact: Justin Arnold		Silica as Alpha Quartz (XSZ)* With Respirable Dust (XDZ)	
Address: 2604 NE Industrial Drive, Suite 230		Phone □:816-8	Phone □:816-810-3276		Silica as Cristobalite (XSC)*	
North Kansas City, MO 64117		Fax □:816-99	Fax :816-994-3478		With Respirable Dust (XDC) Silica as Tridymite (XST)* With Respirable Dust (XDT)	
		Email :jarnold@	@occutec.com	Silica (XSA	a as Alpha Quartz, Cristobalite, Tridyr A)*	
Billing/Invoice Inf	ormation	Turn Arou	und Times	Silica	a Bulk (XSI)*	T
SAME		90 Min.	48 Hours	Bulk	Phase ID/Whole Rock (XUK)	
Company:		3 Hours	72 Hours		Dust SH Method 0500 (GTD)	
Contact:		6 Hours	96 Hours	Resp	irable Dust SH Method 0600 (GRD)	
Address:		12 Hours	120 Hours	-	NIOSH 7400-A Rules (PCM)	
		24 Hours	144 ⁺ Hours	BR	Rules (PCB) TWA (PTA)	
		^TATs not available	for certain test types	TEM	NIOSH 7402 (Asbestos) (TNI)	
PO Number:					valent Chromium (OSHA ID-215) e if from spray paint operations)	
D AT	er: 919103				ls (NIOSH 7300) (Specify Metals or Comments)	×
Project Name/Numbe					(Comment)	_
Sample ID #	Description		Volume/A		* Modified NIOSH 7500/OSHA ID I	12
Sample ID #	Description Inside 1 ^L	116	Volume/A	Area	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb	, Se
Sample ID # 22019-MetA-141C-01 22019-MetA-141C-02	Description Inside 1 ^L			Area	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S
Sample ID # 122019-MetA-141C-01 22019-MetA-141C-02 22019-MetA-141C-03	Description Inside 1 ^L	116		Area	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S
Sample ID # 122019-MetA-141C-01 122019-MetA-141C-02 122019-MetA-141C-03	Description Inside 1 ^L	116		Area	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, So
Sample ID # 122019-MetA-141C-01 122019-MetA-141C-02 122019-MetA-141C-03	Description Inside 1 ^L	116	352.8 N/A	Area L	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S
Sample ID # 122019-MetA-141C-01 122019-MetA-141C-02 122019-MetA-141C-03	Description Inside 1 ^L	116	352.8 N/A	Area L	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S
Sample ID # 122019-MetA-141C-01 22019-MetA-141C-02 22019-MetA-141C-03	Description Inside 1 ^L	116	352.8 N/A	Area L	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S
Sample ID # 122019-MetA-141C-01 22019-MetA-141C-02 22019-MetA-141C-03	Description Inside 1th Field B	116	352-8 N/A Received	Area L	*Modified NIOSH 7500/OSHA ID I Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, S, S

Appendix CQualifications 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