

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

June 8, 2018

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
Buildings – 103D
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 building located at the Goodfellow Federal Complex, in St. Louis, Missouri. OCCU-TEC, Inc. (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 April 26, 2018, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of seven (7) of the RCRA metals including Silver, Arsenic, Barium, Cadmium, Chromium, Lead, and Selenium. Sampling was conducted at Building 103D.

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 and samples collected from discretionary 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 methodology. 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 according to NIOSH method 7300. SAI is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. SAI's AIHA IHPAT Laboratory identification number is 173190.

Results of the air sampling are summarized in the table below by identifying the range of results for Building 103D for each of the seven (7) 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	<6.2	<6.2
Arsenic As	< 0.31	< 0.31
Barium Ba	< 0.062	< 0.062
Cadmium Cd	< 0.062	< 0.062
Total Chromium Cr	1.3	1.9
Lead Pb	< 0.31	< 0.31
Selenium Se	< 0.62	< 0.62

Results indicate that **all** of the eight (8) air samples collected from Building 103D contained concentrations of RCRA metals below the OSHA Permissible Exposure Limit (PEL). Sample locations and the corresponding result are summarized in the enclosed laboratory analytical. 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,



Justin Arnold Environmental Scientist



Kevin Heriford Project Manager (QA/QC)

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

Client: Occu-Tec, Inc

100 NW Business Park Ln

Riverside, MO 64150

Project: 918004.002

Attn: Justin Arnold

Lab Order ID: Date Received: 11811092 05/04/2018

Date Reported:

05/04/2018

Page: 1 of 3

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Element	Limit (µg)	(μg)	(μg/m ³)
			Ag	2.0	<2.0	<6.2
			As	0.10	<0.10	< 0.31
103D-MetA18-	1st Floor		Ba	0.020	< 0.020	< 0.062
01	Column P38	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.56	1.7
			Pb	0.10	<0.10	< 0.31
11811092ICP_1			Se	0.20	< 0.20	< 0.62
			Ag	2.0	<2.0	<6.2
			As	0.10	<0.10	< 0.31
103D -MetA18-	1st Floor		Ba	0.020	< 0.020	< 0.062
02	Column N36 ½	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.53	1.6
			Pb	0.10	<0.10	< 0.31
11811092ICP_2			Se	0.20	<0.20	< 0.62
			Ag	2.0	<2.0	<6.2
			As	0.10	<0.10	< 0.31
103D -MetA18-	1st Floor		Ba	0.020	< 0.020	< 0.062
03	Column L34	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.59	1.8
			Pb	0.10	<0.10	< 0.31
11811092ICP_3			Se	0.20	<0.20	< 0.62

Taylor Davis

Analyst

Lab Director

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.



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



NIOSH Method 7300

Client: Occu-Tec, Inc

100 NW Business Park Ln

Riverside, MO 64150

Project: 918004.002

Attn: Justin Arnold

Lab Order ID: Date Received: 11811092 05/04/2018

Date Reported:

05/04/2018

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	2.0	<2.0	<6.2
			As	0.10	<0.10	< 0.31
103D -MetA18-	1st Floor		Ba	0.020	< 0.020	< 0.062
04	Column N31	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.42	1.3
			Pb	0.10	<0.10	< 0.31
11811092ICP_4			Se	0.20	< 0.20	< 0.62
			Ag	2.0	<2.0	<6.2
			As	0.10	< 0.10	< 0.31
103D -MetA18-	2 nd Floor		Ba	0.020	< 0.020	< 0.062
05	Column L32	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.44	1.4
			Pb	0.10	<0.10	< 0.31
11811092ICP_5			Se	0.20	<0.20	< 0.62
			Ag	2.0	<2.0	<6.2
			As	0.10	< 0.10	< 0.31
103D -MetA18-	2 nd Floor		Ba	0.020	< 0.020	< 0.062
06	Column N34	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.6	1.9
			Pb	0.10	<0.10	<0.31
11811092ICP_6			Se	0.20	<0.20	< 0.62

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



NIOSH Method 7300

Client: Occu-Tec, Inc

100 NW Business Park Ln

Riverside, MO 64150

Project: 918004.002

Attn: Justin Arnold

Lab Order ID:

Date Received:
Date Reported:

11811092 05/04/2018 05/14/2018

Page:

ge: 3 of 3

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Element	Limit (µg)	Concentration (μg)	(μg/m ³)
			Ag	2.0	<2.0	<6.2
			As	0.10	<0.10	< 0.31
103D -MetA18-	2 nd Floor		Ba	0.020	< 0.020	< 0.062
07	Column L37	323.2	Cd	0.020	< 0.020	< 0.062
			Cr	0.20	0.54	1.7
			Pb	0.10	<0.10	< 0.31
11811092ICP_7			Se	0.20	<0.20	< 0.62
			Ag	2.0	<2.0	
			As	0.10	<0.10	
103D -MetA18-	D11-		Ba	0.020	< 0.020	
08	Blank	0	Cd	0.020	< 0.020	
			Cr	0.20	0.47	
			Pb	0.10	<0.10	
11811092ICP_8			Se	0.20	< 0.20	

Taylor Davis

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Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407

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

Lab Use Only	1101	na
Lab Order ID:	101	V10
Client Code: _	CMDS TV	

Company Cor	ntact Information			Industrial Hygiene Test Types
	u-Icc	Contact: Justin	Arnold	Silica as Alpha Quartz (XSZ)* With Respirable Dust (XDZ)
	JW Business Park Lane		10-3276	Silica as Cristobalite (XSC)* With Respirable Dust (XDC)
	e, MO 64150	Fax []: 816-99		Silieu as Tridymite (XST)* With Respirable Dust (XDT)
~ivu 3.04	c, 10 and		loccutec.com	Silica as Alpha Quartz, Cristobalite, Tridymite (XSA)* With Respirable Dust (XDA)
Billing/Invoice	Information	Turn Aroun	nd Times	Silica Bulk (XSf)*
SAME 🔀			48 Hours	Bulk Phase ID/Whole Rock (XUK)
Company:		3 Hours 🔲 🗆	72 Hours	Total Dust NIOSH Method 0500 (GTD)
Contact:		6 Hours 🔲 9	96 Hours	Respirable Dust NIOSH Method 0600 (GRD)
Address:		12 Hours 1	20 Hours	PCM NIOSH 7400-A Rules (PCM)
C		24 Hours	44 ⁺ Hours	B Rules (PCB) TWA (PTA)
		TATs not available for	certain test types	TEM NIOSH 7402 (Asbestos) (TNI)
PO Number: 7	37018061	· · · · · · · · · · · · · · · · · · ·		Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations)
Project Name/Nu				Metals (NIOSH 7300) (Specify Metals Under Comments)
				Other Lines (125)
				NOSH ISO CONTRICE
				* Modified NIOSH 7500/OSHA ID 142
Sample ID #	Description/L	ocation	Volume/A	* Modified NIOSH 7500/OSHA ID 142
	Description/L		Volume/A	* Modified NIOSH 7500/OSHA ID 142
130-Mc+A18-01	1st floor Column P38			* Modified NIOSH 7500/OSHA ID 142
30-Mc+A18-01 30-Mc+A18-02	1st floor Column P38 1st floor Column N3	3	323.2 L	* Modified NIOSH 7500/OSHA ID 142
30-MHA18-01 30-MHA18-02 30-MHA18-03	1st floor Column P38 1st floor Column N3 1st floor Column L3	3 4 1/2	323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
30-MHA18-01 30-MHA18-02 30-MHA18-03 030-MHA18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3	3 4/2 31	323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-01 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3	3 6 1/2 31 2	323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-MC+A18-01 030-MC+A18-02 030-MC+A18-03 030-MC+A18-05 030-MC+A18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3	3 4/2 31 2 34	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-02 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-05 030-Mc+A18-05 030-Mc+A18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3 2nd floor Column N3 2nd floor Column N3	3 4/2 31 2 34	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-02 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-05 030-Mc+A18-05 030-Mc+A18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3	3 4/2 31 2 34/ 37	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
Sample ID # 030-Mc+A18-01 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-04 030-Mc+A18-05 030-Mc+A18-06 030-Mc+A18-07 030-Mc+A18-08	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3 2nd floor Column N3 2nd floor Column N3	3 4/2 31 2 34	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-01 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-05 030-Mc+A18-05 030-Mc+A18-00	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3 2nd floor Column N3 2nd floor Column N3	3 4 31 2 34 37	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-02 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-05 030-Mc+A18-05 030-Mc+A18-04	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3 2nd floor Column N3 2nd floor Column N3	3 4 31 2 34 37	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A18-01 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-04 030-Mc+A18-05 030-Mc+A18-06	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column N3 2nd floor Column N3 2nd floor Column N3	3 4/2 31 2 34/ 37	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	* Modified NIOSH 7500/OSHA ID 142
030-Mc+A 8-01 030-Mc+A 8-02 030-Mc+A 8-03 030-Mc+A 8-04 030-Mc+A 8-05 030-Mc+A 8-04 030-Mc+A 8-08	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column L3 2nd floor Column N 2nd floor Column L BLANK	31 2 31 37 Acce Reject	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L	*Modified NIOSH 7500VOSHA 10 142 Total # of Samples 8
030-Mc+A18-02 030-Mc+A18-02 030-Mc+A18-03 030-Mc+A18-05 030-Mc+A18-05 030-Mc+A18-00 030-Mc+A18-08	1st floor Column P38 1st floor Column N3 1st floor Column L3 1st floor Column N 2nd floor Column L3 2nd floor Column L3 2nd floor Column L3 2nd floor Column L BLANK	31 2 31 37 Acce Reject	323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 323.2 L 223.2 L	*Modified NIOSH 7500VOSHA 10 142 Total # of Samples 3

Appendix B Qualifications and Licenses





Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010 RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466



Jeremiah W. (Jay) Nixon Governor

Peter Lyskowski Acting Director

May 27, 2016

Justin Arnold Occu-Tec, Inc. 100 NW Business Park Lane Riverside, MO 64150

Dear Licensee:

After review of your renewal application for a license with the Missouri Department of Health and Senior Services' Lead Licensing Program, your application for a Lead Risk Assessor license has been approved.

Enclosed is your Lead Risk Assessor license certificate and photo identification badge. Please have your identification badge with you at all times while conducting lead abatement activities.

Note the date your Lead Risk Assessor license expires. A renewal application and information will be mailed to you approximately three months before your license expiration date and will need to be completed and submitted 60 days prior to the expiration date.

A requirement of renewing your application will be attending a Lead Risk Assessor refresher class. A list of Missouri accredited lead abatement training providers will be included in your renewal packet. Additional information on training and lead abatement in general can be found at http://health.mo.gov/safety/leadlicensing/index.php.

Please contact the Lead Licensing Program at (573) 526-5873 or (888) 837-0927 if you have any questions concerning this letter or on lead abatement regulations in general.

Sincerely,

(b) (6)

Angie DeBroeck Lead Licensing Program

AKD:ss

Enclosures

Missouri Department of Health and Senior Services

Lead Occupation License - ID Badge License Number: 120611-300003622

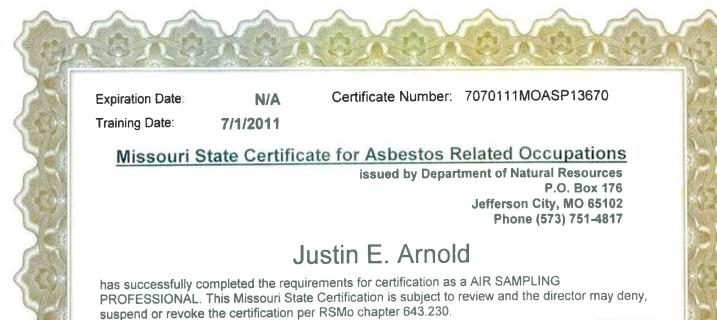
Lead Risk Assessor

JUSTIN ARNOLD

Expiration Date: 06/11/2018

www.health.mo.gov

Healthy Missourians for The Missouri Department of Health and Senior Services will be the lead



7/5/2011

Date

(b) (6)

Diversor of Air Pollution Control Program