



June 29, 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  
Building #105F  
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 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 9, 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 105F.

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 ( $\mu\text{m}$ ) 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 105F 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 Concentration ( $\mu\text{g}/\text{m}^3$ ) | Highest Concentration ( $\mu\text{g}/\text{m}^3$ ) |
|-------------------|---|--|
| Silver Ag         | <5.6  | <5.6   |
| Arsenic As        | <0.77   | <0.77  |
| Barium Ba         | <0.56   | 6.5  |
| Cadmium Cd        | <0.077  | <0.077   |
| Total Chromium Cr | <1.6  | 1.8  |
| Lead Pb           | <0.40   | 2.4  |
| Selenium Se       | <0.77   | <0.77  |

Results indicate that **all** of the air samples collected from Building 105F contained concentrations of RCRA metals below the laboratory’s method reporting limit or the OSHA Permissible Exposure Limit (PEL). Sample locations and the corresponding result are summarized in the enclosed laboratory analytical report. The air sampling professional’s Missouri Lead license is included in Appendix A.

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,

(b) (6)

Jeff T. Smith  
Senior Project Manager

(b) (6)

Jay Hurst  
Director of Operations (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

**Attn:** Justin Arnold

**Lab Order ID:** 11809546  
**Date Received:** 04/17/2018  
**Date Reported:** 04/27/2018  
**Date Amended:** 05/02/2018

**Project:** 918004.002

**Page:** 1 of 3

| Sample ID      | Description                       | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m <sup>3</sup> ) |
|----------------|-----------------------------------|------------|---------|----------------------|--------------------|------------------------------------|
| Lab Sample ID  | Lab Notes                         |            |         |                      |                    |                                    |
| 105F-MetA18-01 | 1 <sup>st</sup> Floor column P-28 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                                   |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                                   |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                                   |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                                   |            | Cr      | 1.8                  | <1.8               | <1.6                               |
|                |                                   |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_1  |                                   |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-02 | 1 <sup>st</sup> Floor column P-32 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                                   |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                                   |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                                   |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                                   |            | Cr      | 1.8                  | <1.8               | <5.6                               |
|                |                                   |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_2  |                                   |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-03 | 1 <sup>st</sup> Floor column L-34 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                                   |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                                   |            | Ba      | 0.18                 | 2.1                | 6.5                                |
|                |                                   |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                                   |            | Cr      | 1.8                  | <1.8               | <5.6                               |
|                |                                   |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_3  |                                   |            | Se      | 0.25                 | <0.25              | <0.77                              |

Melissa Ferrell / Daniel Olson

(b) (6)

**Analyst**

**Lab Director**

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

NIOSH Method 7300



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| Sample ID      | Description           | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m <sup>3</sup> ) |
|----------------|-----------------------|------------|---------|----------------------|--------------------|------------------------------------|
| Lab Sample ID  | Lab Notes             |            |         |                      |                    |                                    |
| 105F-MetA18-04 | 1st Floor column M-36 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                       |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                       |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                       |            | Cr      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_4  |                       |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-05 | 2nd Floor column E-35 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                       |            | Ba      | 0.18                 | 0.21               | 0.65                               |
|                |                       |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                       |            | Cr      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_5  |                       |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-06 | 2nd Floor column M33  | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                       |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                       |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                       |            | Cr      | 1.8                  | <1.8               | <5.6                               |
|                |                       |            | Pb      | 0.13                 | <0.13              | <0.40                              |
| 11809546IPA_6  |                       |            | Se      | 0.25                 | <0.25              | <0.77                              |

Melissa Ferrell / Daniel Olson

(b) (6)

**Analyst**

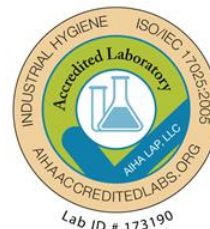
**Lab Director**

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

NIOSH Method 7300



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**Page:** 3 of 3

| Sample ID      | Description          | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m <sup>3</sup> ) |
|----------------|----------------------|------------|---------|----------------------|--------------------|------------------------------------|
| Lab Sample ID  | Lab Notes            |            |         |                      |                    |                                    |
| 105F-MetA18-07 | 2nd Floor column P27 | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                      |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                      |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                      |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                      |            | Cr      | 1.8                  | 0.59               | 1.8                                |
|                |                      |            | Pb      | 0.13                 | 0.79               | 2.4                                |
| 11809546IPA_7  |                      |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-08 | Exterior Roof        | 323.2      | Ag      | 1.8                  | <1.8               | <5.6                               |
|                |                      |            | As      | 0.25                 | <0.25              | <0.77                              |
|                |                      |            | Ba      | 0.18                 | <0.18              | <0.56                              |
|                |                      |            | Cd      | 0.025                | <0.025             | <0.077                             |
|                |                      |            | Cr      | 1.8                  | <1.8               | <1.6                               |
|                |                      |            | Pb      | 0.13                 | 0.41               | 1.3                                |
| 11809546IPA_8  |                      |            | Se      | 0.25                 | <0.25              | <0.77                              |
| 105F-MetA18-09 | Blank                | -          | Ag      | 1.8                  | <1.8               | -                                  |
|                |                      |            | As      | 0.25                 | <0.25              | -                                  |
|                |                      |            | Ba      | 0.18                 | <0.18              | -                                  |
|                |                      |            | Cd      | 0.025                | <0.025             | -                                  |
|                |                      |            | Cr      | 1.8                  | 0.62               | -                                  |
|                |                      |            | Pb      | 0.13                 | <0.13              | -                                  |
| 11809546IPA_9  |                      |            | Se      | 0.25                 | <0.25              | -                                  |

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(b) (6)

**Analyst**

**Lab Director**

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# **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

**Peter Lyskowski**  
Acting Director



**Jeremiah W. (Jay) Nixon**  
Governor

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



[www.health.mo.gov](http://www.health.mo.gov)

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

Expiration Date: N/A

Certificate Number: 7070111MOASP13670

Training Date: 7/1/2011

**Missouri State Certificate for Asbestos Related Occupations**

issued by Department of Natural Resources

P.O. Box 176  
Jefferson City, MO 65102  
Phone (573) 751-4817

**Justin E. Arnold**

has successfully completed the requirements for certification as a AIR SAMPLING PROFESSIONAL. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

7/5/2011

Date

(b) (6)

Director of Air Pollution Control Program

