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June 12, 2019

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 Metals in Settled Dust Sampling – Building 105L 4300 Goodfellow Boulevard St. Louis, Missouri 63120 OCCU-TEC Project No. 919083

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the metals in settled dust sampling investigation of Building 105L 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.

On May 30, 2019, a team of OCCU-TEC personnel including a Missouri licensed lead risk assessor conducted 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 tenant-occupied areas within the building. The purpose of this testing was to further characterize the presence and concentration of target metals in common tenant-occupied areas of the building.

The proposed sampling scheme, the number of samples, the sample distribution and general methodology was developed by GSA and OCCU-TEC. Specific sample locations were determined by OCCU-TEC personnel while on-site.

Metals in Settled Dust Sampling

Metals in settled dust sampling was conducted within only within tenant-occupied areas.

Dust wipe sampling was conducted in accordance with ASTM Standard E1728-16: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination. ASTM Standard E1728-16 is consistent with the methodology described in the Housing and Urban Development Guidelines and 40 CRF 745.63. The Brookhaven National Laboratory's Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

Dust wipe sampling for the target metals was conducted on a variety of representative surfaces that have the potential of being disturbed by building occupants. A representative surface area of approximately one square foot (1 SF) was measured and delineated with pre-fabricated, disposable templates. The dust wipe samples were collected using dedicated dust wipe cloths meeting ASTM standards. Each dust wipe aleth use pre-moistened and individually wrapped. Each sample was collected by our pre-fabricated sampling area. Then, the wipe you was a way to be a way of the area was a standard to be a sampling area.

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 Scientific Analytical Institute, Inc. (SAI) in Greensboro, North Carolina 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 all of the samples collected contained 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.

Analysis	Lowest	Highest
	Concentration	Concentration
	(µg/sq. ft.)	$(\mu g/sq, ft.)$
Silver	< 0.50	< 0.50
Arsenic	<2.0	<2.0
Barium	< 0.75	0.84
Cadmium	< 0.050	0.12
Total Chromium	< 0.50	0.60
Lead	0.35	0.88
Selenium	<1.3	<1.3

The samples collected did not contain target metals above the Brookhaven recommended levels

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, CIEC Environmental Scientist





Kevin Heriford Environmental Operations Manager (QA/QC)

Appendices:

- A Sample Summary Table
- B Laboratory Analysis Reports
- C Licenses

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Figure 1: Wipe Location Maps—Bldg. 105L
Goodfellow Federal Center
4300 Goodfellow Boulevard

St. Louis, Missouri

(b) (7)(F)

Project Number: 919083



Appendix A

Sample Summary Table

105L-W-01 B.3 4 Assembly Room Floor Carpet Arsenic < 2.00	mple Number	Location	Area Description	Analyte	Resu	ılt	Units	Recommended Limits
105L-W-01 B.3 4 Assembly Room Floor Carpet Arsenic. Barium < 2.00 µg/ft' µg/ft' ··· Barium 105L-W-01 B.3 4 Assembly Room Floor Carpet				Silver	< 0.	50	µg/ft²	* 139/9.3
105L-W-01 B.3 4 Assembly Room Floor Carpet Cadmium < 0.05 µg/ft *** 105L-W-02 B.5 7.5 Break Room Silver <				Arsenic	< 2.	00		** 62
1051-W-02 B:5 7.5 Break Room Counter Chromium Selenium < 0.50 µg/ft ² 1051-W-02 B.5 7.5 Break Room Counter Silver <				Barium	0.	84	µg/ft²	
105L-W-02 B:5 7.5 Break Room Counter Lead 0.71 µg/ft ² ** 105L-W-02 B:5 7.5 Break Room Counter Silver < 0.50	105L-W-01	B.3 4 Assembly Room	Floor Carpet	Cadmium	< 0.	05		** 31
105L-W-02 B.5 7.5 Break Room Counter Selenium < 1.30 µg/ft ² 105L-W-02 B.5 7.5 Break Room Counter Gadmium < 0.05				Chromium				
105L-W-02 B.5 7.5 Break Room Counter Silver < 0.50				Lead	0.	71		** 200/40
105L-W-02 B.5 7.5 Break Room Counter Arsenic < 2.00				Selenium	< 1.	30	μg/ft²	
105L-W-02 B.5 7.5 Break Room Counter Barium < 0.75 µg/ft ² 105L-W-02 B.5 7.5 Break Room Counter Counter Cadmium 0.10 µg/ft ² *** 105L-W-03 A9 Training Room 5 Floor Carpet Silver < 0.50				Silver	< 0.	50	μg/ft²	* 139/9.3
105L-W-02 B.5 7.5 Break Room Counter Cadmium 0.10 µg/ft ² ** 105L-W-02 B.5 7.5 Break Room Counter Cadmium <0.50				Arsenic	< 2.	00	$\mu g/ft^2$	** 62
105L-W-03 = M + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +				Barium	< 0.	75	µg/ft²	
105L-W-03 = M + 105L-W-04 = M + 10000 + 10000 + 1000 + 1000 + 1000 + 1	105L-W-02	B.5 7.5 Break Room	Counter	Cadmium	0.	10		** 31
$105L-W-03 = M + 1.30 + \mu g/h^2 + 1.30 $				Chromium	< 0.	50		
$105L-W-03 A9 \text{ Training Room 5} Floor Carpet Selenium < 1.30 \mu g/ft^2 \\ Silver < 0.50 \mu g/ft^2 \\ Barium & 0.80 \mu g/ft^2 \\ Barium & 0.80 \mu g/ft^2 \\ Cadmium < 0.50 \mu g/ft^2 \\ Lead & 0.35 \mu g/ft^2 \\ Lead & 0.36 \mu g/ft^2 \\ Lead & 0.36 \mu g/ft^2 \\ Lead & 0.36 \mu g/ft^2 \\ Silver < 0.50 \mu g/ft^2 \\ Silver \\ Silver < 0.50 \mu g/ft^2 \\ Silver \\ Silver < 0.50 \mu g/ft^2 \\ Silver \\$				Lead	0.	47		** 200/40
$105L-W-03 = A9 Training Room 5 = Floor Carpet = Silver < 0.50 \mu g/ft^2 = 1 Arsenic < 2.00 \mu g/ft^2 = 1 Camium < 0.80 \mu g/ft^2 = 1 Camium < 0.80 \mu g/ft^2 = 1 Camium < 0.50 \mu g/ft^2 = 1 Silver < 0.50 \mu g/ft^2 = 1 Arsenic < 2.00 \mu g/ft^2 = 1 Arsenic < 0.50 \mu g/ft^2 = 1 Barium < 0.60 \mu g/ft^2 = 1 Camium < 0.12 \mu g/ft^2 = 1 Camium < 0.12 \mu g/ft^2 = 1 Camium < 0.50 \mu$					< 1.	30		
105L-W-03								* 139/9.3
105L-W-03								** 62
105L-W-03 A9 Training Room 5 Floor Carpet Cadmium $<$ 0.05 $\mu g/t^2$ $**$ 105L-W-03 A9 Training Room 5 Floor Carpet Chromium $<$ 0.50 $\mu g/t^2$ $**$ 105L-W-04 B10 Training Room 5 Floor Carpet Silver $<$ 0.50 $\mu g/t^2$ $**$ 105L-W-04 B10 Training Room 5 Table Silver $<$ 0.50 $\mu g/t^2$ $**$ 105L-W-04 B10 Training Room 5 Table Cadmium 0.12 $\mu g/t^2$ $**$ 105L-W-04 B10 Training Room 5 Table Cadmium 0.00 $\mu g/t^2$ $**$ 105L-W-04 B10 Training Room 5 Table Silver $<$ 0.30 $\mu g/t^2$ $**$ 105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Silver $<$ 0.50 $\mu g/t^2$ $**$ 105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Silver $<$ 0.50 $\mu g/t^2$ $**$ 105L-W-05 C0.5 - 9 Training Room 2 Floor Carpet Silver $<$ 0.50								
$105L-W-04 D11 Training Room 2 Floor Carpet Chromium < 0.50 \mug/ft^2 < ** \\ Lead & 0.36 \mug/ft^2 < ** \\ Selenium < 1.30 \mug/ft^2 < ** \\ Selenium < 0.50 \mug/ft^2 < *1 \\ Arsenic < 2.00 \mug/ft^2 < * \\ Barium < 0.50 \mug/ft^2 < * \\ Barium & 0.12 \mug/ft^2 < * \\ Chromium & 0.60 \mug/ft^2 < * \\ Chromium & 0.60 \mug/ft^2 < * \\ Selenium < 1.30 \mug/ft^2 < * \\ Selenium < 0.60 \mug/ft^2 < * \\ Selenium < 0.60 \mug/ft^2 < * \\ Selenium < 0.50 \mug/ft^2 < * \\ Selenium < 0.50 $	105I-W-03	A9 Training Room 5	Floor Carpet					** 31
$105L-W-04 D11 \ Training \ Room 1 Floor \ Carpet Selenium < 0.36 \mug/ft^2 *** \\ Selenium < 1.30 \mug/ft^2 *** \\ Selenium < 0.50 \mug/ft^2 *** \\ Selenium < 0.50 \mug/ft^2 *** \\ Barium < 0.75 \mug/ft^2 ** \\ Chromium & 0.60 \mug/ft^2 *** \\ Selenium < 0.50 \mug$	1052 11 05							
Selenium < 1.30 µg/ft ² Silver <								** 200/40
$105L-W-04 B10 \text{ Training Room 5} Table Table \begin{array}{c c c c c c c c c } Silver & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 2.00 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.75 & \mu g/ft^2 & *1 \\ \hline Barium & < 0.75 & \mu g/ft^2 & *1 \\ \hline Cadmium & 0.12 & \mu g/ft^2 & *1 \\ \hline Chromium & 0.60 & \mu g/ft^2 & *1 \\ \hline Lead & 0.39 & \mu g/ft^2 & **1 \\ \hline Selenium & < 1.30 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 2.00 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 2.00 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 2.00 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 2.00 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.55 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.55 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.55 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.55 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.50 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.05 & \mu g/ft^2 & *1 \\ \hline Arsenic & < 0.0$								200/40
$105L-W-04 B10 \text{ Training Room 5} Table Table \begin{bmatrix} Arsenic & < 2.00 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Cadmium & 0.12 & \mu g/ft^2 & * \\ Chromium & 0.60 & \mu g/ft^2 & * \\ Lead & 0.39 & \mu g/ft^2 & * \\ Selenium & < 1.30 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Silver & < 0.50 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Selenium & < 0.75 & \mu g/ft^2 & * \\ Barium & < 0.75 & \mu g/ft^2 & * \\ Chromium & < 0.05 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.75 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.75 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu g/ft^2 & * \\ Selenium & < 0.50 & \mu$								* 420/0.2
105L-W-04 B10 Training Room 5 Table Barium <			Table					* 139/9.3
105L-W-04 B10 Training Room 5 Table Cadmium 0.12 $\mu g/ft^2$ ** 105L-W-04 B10 Training Room 5 Table Cadmium 0.60 $\mu g/ft^2$ ** 105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Silver < 0.50		B10 Training Room 5						** 62
$ \begin{array}{ c c c c c c } \hline \mbox{Chromium} & 0.60 & \mu g/ft^2 & & & & & & & & & & & & & & & & & & &$								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	105L-W-04							** 31
$105L-W-05 \qquad D11 Training Room 2 \qquad Floor Carpet \qquad \begin{array}{ c c c c c c } \hline Selenium & < & 1.30 & \mug/ft^2 & & & & \\ \hline Silver & < & 0.50 & \mug/ft^2 & & & & \\ \hline Arsenic & < & 2.00 & \mug/ft^2 & & & \\ \hline Barium & < & 0.75 & \mug/ft^2 & & & \\ \hline Cadmium & < & 0.05 & \mug/ft^2 & & & \\ \hline Chromium & < & 0.50 & \mug/ft^2 & & & \\ \hline Lead & & 0.88 & \mug/ft^2 & & & & \\ \hline Selenium & < & 1.30 & \mug/ft^2 & & & \\ \hline Arsenic & < & 2.00 & \mug/ft^2 & & & \\ \hline Silver & < & 0.50 & \mug/ft^2 & & & \\ \hline Arsenic & < & 2.00 & \mug/ft^2 & & & \\ \hline Arsenic & < & 0.50 & \mug/ft^2 & & & \\ \hline Arsenic & < & 2.00 & \mug/ft^2 & & & \\ \hline Barium & < & 0.75 & \mug/ft^2 & & & \\ \hline Barium & < & 0.75 & \mug/ft^2 & & & \\ \hline Barium & < & 0.75 & \mug/ft^2 & & & \\ \hline Barium & < & 0.05 & \mug/ft^2 & & & \\ \hline Barium & < & 0.05 & \mug/ft^2 & & & \\ \hline Barium & < & 0.05 & \mug/ft^2 & & & \\ \hline Barium & < & 0.50 & \mug/ft^2 & & & \\ \hline \end{array}$								
$105L-W-05 \qquad C0.5 - 9 \text{ Training Room 1} \qquad Floor Carpet \qquad \begin{array}{c c c c c c c c c c c c c c c c c c c $								** 200/40
$105L-W-05 \qquad C0.5 - 9 \text{ Training Room 1} \qquad Floor Carpet \qquad \begin{aligned} & Arsenic & < 2.00 & \mu g/ft^2 & * \\ & Barium & < 0.75 & \mu g/ft^2 & \\ & Cadmium & < 0.05 & \mu g/ft^2 & \\ & Chromium & < 0.50 & \mu g/ft^2 & \\ & Lead & 0.88 & \mu g/ft^2 & \\ & Lead & 0.88 & \mu g/ft^2 & \\ & Selenium & < 1.30 & \mu g/ft^2 & \\ & Selenium & < 1.30 & \mu g/ft^2 & \\ & Silver & < 0.50 & \mu g/ft^2 & \\ & Arsenic & < 2.00 & \mu g/ft^2 & \\ & Arsenic & < 2.00 & \mu g/ft^2 & \\ & & Arsenic & < 0.75 & \mu g/ft^2 & \\ & & Barium & < 0.75 & \mu g/ft^2 & \\ & & Barium & < 0.75 & \mu g/ft^2 & \\ & & Barium & < 0.75 & \mu g/ft^2 & \\ & & Barium & < 0.05 & \mu g/ft^2 & \\ & & Barium & < 0.05 & \mu g/ft^2 & \\ & & Barium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & & & & Chromium & < 0.50 & \mu g/ft^2 & \\ & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & $				Selenium	< 1.	30		
105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Barium < 0.75 $\mu g/ft^2$ 105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Cadmium < 0.05				Silver	< 0.	50	μg/ft²	* 139/9.3
105L-W-05 C0.5 - 9 Training Room 1 Floor Carpet Cadmium < 0.05 $\mu g/ft^2$ * Lead 0.88 $\mu g/ft^2$ * Lead 0.88 $\mu g/ft^2$ * * Selenium < 1.30				Arsenic	< 2.	00	µg/ft²	** 62
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				Barium	< 0.	75	$\mu g/ft^2$	
$\frac{1000}{1000} = \frac{1000}{10000} + \frac{1000}{10000000000000000000000000000000$	105L-W-05	C0.5 - 9 Training Room 1	Floor Carpet	Cadmium	< 0.	05	$\mu g/ft^2$	** 31
$\frac{105L-W-06}{105L-W-06} D11 Training Room 2 Floor Carpet $ $\frac{Lead}{0.88} \mu g/ft^{2} ** : 5elenium < 0.88 \mu g/ft^{2} ** : 5elenium < 0.50 \mu g/ft^{2} ** : 5eleni$				Chromium	< 0.	50		
Selenium < 1.30 μg/ft ² Silver <				Lead	0.	88		** 200/40
$105L-W-06 \qquad D11 Training Room 2 \qquad Floor Carpet \qquad \frac{Silver < 0.50 \mu g/ft^2 *1}{Arsenic} < 2.00 \mu g/ft^2 *1}{Cadmium} < 0.75 \mu g/ft^2 *1}{Chromium} < 0.05 \mu g/ft^2 *1}$					< 1.	30		
Arsenic < 2.00 µg/ft ² * 105L-W-06 D11 Training Room 2 Floor Carpet Cadmium < 0.05								* 139/9.3
105L-W-06D11 Training Room 2Floor CarpetBarium< 0.75 $\mu g/ft^2$ Chromium< 0.05								** 62
105L-W-06D11 Training Room 2Floor CarpetCadmium< 0.05μg/ft²*Chromium< 0.50								
Chromium < 0.50 µg/ft ²	1051-10/-06	D11 Training Room 2	Floor Carnot			+		** 31
	2002 11 00							
Lead $0.35 \ \mu g/ft^2$								** 200/40
Lead 0.35 μg/ft² ** Selenium <								200/40

Sample Number	Location	Area Description	Analyte		Result	Units	Recommended Limits
			Silver	<	0.50	μg/ft²	* 139/9.3
			Arsenic	<	2.00	$\mu g/ft^2$	** 62
			Barium	<	0.75	μg/ft²	
105L-W-07	B0.5 - 12	Floor Carpet	Cadmium		0.068	$\mu g/ft^2$	** 31
			Chromium	<	0.50	μg/ft²	
			Lead		0.83	μg/ft²	** 200/40
			Selenium	<	1.30	$\mu g/ft^2$	
			Silver	<	0.50	μg	* 139/9.3
			Arsenic	<	2.00	μg	** 62
			Barium	<	0.75	μg	
105L-W-08	FB		Cadmium	<	0.05	μg	** 31
			Chromium	<	0.50	μg	
			Lead	<	0.25	μg	** 200/40
			Selenium	<	1.30	μg	

* Recommended Limits based on Table 3 (BNL Surface Wipe Criteria for Metals) of the Brookhaven Surface Wipe Sampling Procedure (IH75190), Rev 19: 3/4/14

** Recommended Limits based on Attachment 9.3 (Required & Recommended Surface Wipe Criteria) - Brookhaven Surface Wipe Sampling Procedure (IH75190), Rev 23: 6/23/17

Indicates results at or above REL

Appendix B

Laboratory Analytical Reports



Dust Wipe Metals Concentration by Inductively-Coupled Plasma Analysis (ICP) NIOSH 7300/EPA SW-846 3050B



Client:	Occu-Tec, Inc.	Attn:	Justin Arnold	Lab Order ID:	71914532
	2604 NE Industrial Drive, Suite 230			Date Received:	05/31/2019
	North Kansas City, MO 64117			Date Reported:	06/10/2019
Project:	919083.001 GFC			Page:	1 of 3

Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(µg)	(µg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-01	B½ 4 − floor carpet		Ba	0.75	0.84	0.84
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
710145221011/1			Pb	0.25	0.71	0.71
71914532IPW_1			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-02	B ¹ / ₂ 7 ¹ / ₂ counter	r	Ва	0.75	< 0.75	< 0.75
		1	Cd	0.050	0.10	0.10
			Cr	0.50	< 0.50	< 0.50
710145221011/ 2			Pb	0.25	0.47	0.47
71914532IPW_2			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-03	A9 – floor counter		Ba	0.75	0.80	0.80
	Counter	1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
710145221014 2			Pb	0.25	0.36	0.36
71914532IPW_3			Se	1.3	< 1.3	< 1.3

Melissa Ferrell

Analyst

(b)	(6)		

Lab Director

* SAI is AIHA ELLAP accredited for Pb only for dust wipe metals.

Unless otherwise noted blank sample correction was not performed on analytical results. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. MDLs are available upon request. Time-weighted average (TWA) calculations are based on customer supplied data and valid only for samples included in the specified TWA group. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190.



Dust Wipe Metals Concentration by Inductively-Coupled Plasma Analysis (ICP) NIOSH 7300/EPA SW-846 3050B



Client:	Occu-Tec, Inc.	Attn:	Justin Arnold	Lab Order ID:	71914532
	2604 NE Industrial Drive, Suite 230			Date Received:	05/31/2019
	North Kansas City, MO 64117			Date Reported:	06/10/2019
Project:	919083.001 GFC			Page:	2 of 3

Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(µg)	(µg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-04	B10 - table		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	0.12	0.12
			Cr	0.50	0.60	0.60
710145221004			Pb	0.25	0.39	0.39
71914532IPW_4			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-05	C ¹ / ₂ 9 – floor carpet		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
710145221000 5			Pb	0.25	0.88	0.88
71914532IPW_5			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-06	D11 – floor carpet		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
71914532IPW_6			Pb	0.25	0.35	0.35
719143321FW_0			Se	1.3	< 1.3	< 1.3

Melissa Ferrell

Analyst

Lab Director

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Dust Wipe Metals Concentration by Inductively-Coupled Plasma Analysis (ICP) NIOSH 7300/EPA SW-846 3050B



Client:	Occu-Tec, Inc.	Attn:	Justin Arnold	Lab Order ID:	71914532
	2604 NE Industrial Drive, Suite 230			Date Received:	05/31/2019
	North Kansas City, MO 64117			Date Reported:	06/10/2019
Project:	919083.001 GFC			Page:	3 of 3

Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(µg)	(µg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
105L-W-07	B ¹ /2 12 – floor carpet		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	0.068	0.068
			Cr	0.50	< 0.50	< 0.50
71914532IPW_7			Pb	0.25	0.85	0.85
/1914552IP w_7			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	
			As	2.0	< 2.0	
105L-W-08	FB		Ba	0.75	< 0.75	
		-	Cd	0.050	< 0.050	
			Cr	0.50	< 0.50	
710145221014 0			Pb	0.25	< 0.25	
71914532IPW_8			Se	1.3	< 1.3	

Melissa Ferrell

Analyst

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Lab Director

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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	71914532
Lab Order ID:	1114532
Client Code: _	

Industrial Hygiene Test Types		
Silica as Alpha Quartz (XSZ)* With Respirable Dust (XDZ)		
Silica as Cristobalite (XSC)*		
Silica as Tridymite (XST)*		
Silica as Alpha Quartz, Cristobalite, Tridymi (XSA)*	_	
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 6010 C	X	
* Modified NIOSH 7500/OSHATD 142		

Company Contact Information		
Company: OCCU-TEC Inc.	Contact: Justin Arnold	
Address: 2604 NE Industrial Drive, Suite 230	Phone :816-810-3276	
North Kansas City, MO 64117	Fax []:816-994-3478	
	Email :jarnold@occutec.com	

Billing/Invoice Information	Turn Around Times [^]			
SAME	90 Min.	48 Hours		
Company:	3 Hours	72 Hours		
Contact:	6 Hours	96 Hours		
Address:	12 Hours	120 Hours 🔳		
	24 Hours	144 ⁺ Hours		
	TATs not available	TATs not available for certain test types		
PO Number:				
Project Name/Number:919083.001 GFC				

Sample ID #	D	escription/Location	Volume/Area	Comments
1052-W-01	B124-	floor carpet	lsf	Ag, As, Ba, Cd, Cr, Pb, Se
1052-W-02	B1/2 71/2	rounter	lsf	Ag, As, Ba, Cd, Cr, Pb, Se
105L-W-03	A9- flo	por compet	1 sf	Ag, As, Ba, Cd, Cr, Pb, Se
1052-W-04	B10 - ta	uble	1 sf	Ag, As, Ba, Cd, Cr, Pb, Se
105L-W-05	(1/29-	floor carpet	1 sf	Ag, As, Ba, Cd, Cr, Pb, Se
1051-W-06	DII-Flo	por carpet	lsf	Ag, As, Ba, Cd, Cr, Pb, Se
1056-W-07	B/2 12-	floor compet	1 sF	Ag, As, Ba, Cd, Cr, Pb, Se
1052-W-08		FB	NIA	Ag, As, Ba, Cd, Cr, Pb, Se
				Ag, As, Ba, Cd, Cr, Pb, Se
			ted V	Ag, As, Ba, Cd, Cr, Pb, Se
		Accer		Ag, As, Ba, Cd, Cr, Pb, Se
				Ag, As, Ba, Cd, Cr, Pb, Se
		Rejec	100	Ag, As, Ba, Cd, Cr, Pb, Se
				Total # of Samples
Relinqu	ished by	Date/Time	Received by	Date/Time
		(b) (6)	5/31	10:30A
(b) (6)		5/30/19 16:00		
				Pageof

Appendix C

Qualifications and Licenses

STATE OF MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

Justin E. Arnold

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: Expiration Date: License Number: 6/11/2018 6/11/2020 120611-300003622

(b) (6)

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

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