

July 12, 2023

Diane Czarnecki Industrial Hygienist Facilities Management Division GSA Public Buildings Service – Heartland Region 2300 Main Street Kansas City, MO 64108

Re: Goodfellow Federal Center

Metals in Settled Dust Sampling – Building 105

Project No. 121244

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 105 located at the Goodfellow Federal Center (GFC) in St. Louis, Missouri. Burns & McDonnell 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.

#### INTRODUCTION

Per historical use and previous characterization, Burns & McDonnell was contracted to perform settled dust sampling for the analysis of seven (7) of the Resource Conservation and Recovery Act (RCRA) target metals (arsenic, barium, cadmium, chromium, lead, selenium, and silver) from various surfaces within buildings. 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 Burns & McDonnell. Specific sample locations were determined by sampling personnel while on-site.

Settled dust wipe sampling at Bldg. 105 was conducted on June 6 and 7, 2023 by Eric Wenger & Jeff Smith of Burns & McDonnell and OCCU-TEC.

#### METALS IN SETTLED DUST SAMPLING

Metals in settled dust sampling was conducted primarily within tenant-occupied areas. Dust wipe sampling was conducted in accordance with ASTM Standard E1728: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination and ASTM Standard D6966: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Determination of Metals. ASTM Standards E1728 and D6966 are consistent with the methodology described in the Housing and



Diane Czarnecki Facilities Management Division July 12, 2023 Page 2

Urban Development Guidelines-Appendix 13.1 and 40 CFR 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 plastic templates. The dust wipe samples were collected using dedicated dust wipe cloths meeting ASTM E1792 Standard. Each dust wipe cloth was pre-moistened and individually wrapped. Each sample was collected by wiping in a back and forth "S" pattern over a measured sampling area using a clean, disposable glove. Then, the wipe was folded over itself and the area was wiped again in a direction perpendicular to the first wipe orientation. Then, the wipe folded over itself again and the area was wiped around the perimeter. The wipe sample was then placed into a labeled, clean container. Dust wipe samples were submitted to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for Inductively Coupled Plasma (ICP) analysis of metals analysis using Environmental Protection Agency (EPA) method SW846 3050B/6010D. EHS is accredited under the American Industrial Hygiene Association (AIHA) Laboratory Accreditation Program (LAP) identification number LAP-100420.

Whereas the Occupational Safety and Health Administration (OSHA) has not established regulatory limits for surface concentrations of metals, the OSHA Technical Manual Section II: Chapter 2 (III.A) describes a method for calculating "housekeeping" standards, as recommended acceptable surface limits. Brookhaven's IH75190 procedure uses the housekeeping standards to derive a lower, "clean area limit" for non-operational areas that can be accessed or contacted without special training or precautions. Burns & McDonnell calculated clean area limits for metals not included in the Brookhaven procedure, specifically barium, chromium (total), selenium and silver. Wipe results were compared to the Brookhaven procedure's clean area limits for each metal.

Results of the dust wipe samples collected from the building indicate that 23 of the 37 samples contained concentrations of target metals above laboratory reporting 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 lab's reportable limit.



Diane Czarnecki Facilities Management Division July 12, 2023 Page 3

**Table 1. Summary of Dust Wipe Results** 

Analyte	Lowest Concentration <sup>(a)</sup> (μg/sq. ft) <sup>(b)</sup>	Highest Concentration <sup>(a)</sup> (μg/sq. ft) <sup>(b)</sup>	Clean Area Limit <sup>(c)</sup> µg/sq. ft <sup>(b)</sup>
Silver	<0.5	0.5	62
Arsenic	<2.5	<2.5	62
Barium	<0.5	100	3,094
Cadmium	<0.1	0.7	31
Chromium (Total)	<1.0	17.0	3,094
Lead	<0.5	14.0	10 <sup>(d)</sup>
Selenium	<2.5	<2.5	1,236

- (a) Samples with a "<" sign indicate that the results were below the laboratory's reporting limit.
- (b) μg/sq. ft = micrograms per square foot of surface area.
- (c) Clean Area Limit per Brookhaven IH75190=OSHA Housekeeping Limit [[PEL ( $\mu g/m^3$ ) x 10  $m^3/100cm^2$ ] x 929cm²/sq.ft.] / 15.
- (d) Lead clean area limit: Brookhaven references EPA/HUD limit for floors, set at 10 µg/sq. ft. as of January 2020.

Of the 23 samples that had detectable levels of one or more analytes, 1 of them exceeded the clean area limit.

1. A sample taken from the floor of the cylinder storage room in room 320 on the second floor had  $14 \mu g/ft^2$  of lead.

Burns & McDonnell appreciates the opportunity to work with the GSA on this project. Please contact us if you have any questions regarding this report or if we may be of any additional service.

Sincerely,



Matt Shanahan, CHMM Project Manager

Attachments:

Appendix A – Sample Summary Table

Appendix B – Laboratory Analysis Report



Diane Czarnecki Facilities Management Division July 12, 2023 Page 4

Information in Appendices A and B is not accessible for people using screen reader technology. If this information is required, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon request by contacting 816-223-6198 or <a href="mailto:required">required</a>, it can be furnished upon required.



						Clean Area
Sample Number	Location	Area Description	Analyte	Result	Units	Limit*
105-W-01	2nd floor, office room 361	Cubicle desk top	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	<b>+</b>	μg/ft <sup>2</sup>	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-02	2nd floor, lab room 339	Floor tile by 339-B sink	Arsenic	< 2.5	μg/ft²	62
			Barium	4.2	μg/ft²	3,094
			Cadmium	0.30	μg/ft²	31
			Chromium	<del></del>	μg/ft²	3,094
			Lead	2.3	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft²	62
105-W-03	2nd floor, office room 357	Top of microwave	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	< 0.50	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-04	2nd floor, office room 334	West cubicle desk top	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	< 0.50	μg/ft <sup>2</sup>	3,094
			Cadmium	0.12	μg/ft <sup>2</sup>	31
			Chromium	<del></del>	μg/ft <sup>2</sup>	3,094
			Lead	< 0.50	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-05	2nd floor, cylinder storage room 320	Concrete floor by cylinders	Arsenic	< 2.5	μg/ft²	62
			Barium	12	μg/ft²	3,094
			Cadmium	0.72	μg/ft²	31
			Chromium	11	μg/ft²	3,094
			Lead	14.0	μg/ft²	10
			Selenium	< 2.5	μg/ft²	
			Silver	< 0.50	μg/ft²	62
105-W-06	2nd floor, break room 323	Top of black Pepsi vending machine (>70")	Arsenic	< 2.5	μg/ft²	62
			Barium	11	μg/ft²	3,094
			Cadmium	0.61	μg/ft²	31
			Chromium	2.7	μg/ft²	3,094
			Lead	3.0	μg/ft²	10
			Selenium	< 2.5	μg/ft²	
			Silver	< 0.50	μg/ft²	62
105-W-07	2nd floor, break room 323	Top of round lunch table, north end	Arsenic	< 2.5	μg/ft²	
			Barium	< 0.5	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	<del></del>	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft²	
105-W-08	2nd floor, reception office room 344	Top of south wooden desk	Arsenic	< 2.5	μg/ft²	
			Barium	0.51	μg/ft <sup>2</sup>	
			Cadmium	< 0.10	μg/ft²	31
			Chromium	<b></b>	μg/ft²	3,094
			Lead	< 0.50	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

						Clean Area
Sample Number	Location	Area Description	Analyte	Result	Units	Limit*
105-W-09	Field blank		Arsenic	< 2.50	μg	
			Barium	< 0.500	μg	
			Cadmium	< 0.100	μg	
			Chromium	< 1.00	μg	
			Lead	< 0.500	μg	
			Selenium	< 2.50	μg	
			Silver	< 0.500	μg	
105-W-10	1st floor, south office	Tile floor near column F53	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-11	1st floor, south office	Top of table by toaster/microwave	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-12	1st floor, south receiving dock	Concrete floor near column C52	Arsenic	< 2.5	μg/ft²	62
			Barium	6.6	μg/ft²	3,094
			Cadmium	0.11	μg/ft²	31
			Chromium	1.2	μg/ft²	3,094
			Lead	5.3	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-13	1st floor, sample receiving offices	Top of desk at column A52	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	< 0.50	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	< 0.50	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-14	1st floor, sample prep	Top of workstation by keyboard at column C48	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	1.0	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	1.1	μg/ft <sup>2</sup>	3,094
			Lead	< 0.50	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-15	1st floor, column C47	Top of blue chemical storage cabinet	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	100	μg/ft <sup>2</sup>	3,094
			Cadmium	0.14	μg/ft <sup>2</sup>	31
			Chromium	2.0	μg/ft <sup>2</sup>	3,094
			Lead	4.4	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-16	1st floor, warehouse	Top of cooler at column E43 (>70")	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	2.3	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	1.2	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-17	1st floor, column F49	Middle shelf of rolling metal table	Arsenic	< 2.5	μg/ft²	62
			Barium	20	μg/ft²	3,094
			Cadmium	0.47	μg/ft <sup>2</sup>	31
			Chromium	8.5	μg/ft²	3,094
			Lead	8.20	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-18	1st floor, column H49	Painted concrete floor in storage	Arsenic	< 2.5	μg/ft²	62
			Barium	13	μg/ft²	3,094
			Cadmium	0.12	μg/ft <sup>2</sup>	31
			Chromium	2.0	μg/ft²	3,094
			Lead	4.6	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-19	Field blank		Arsenic	< 2.50	μg	
			Barium	< 0.500	μg	
			Cadmium	< 0.100	μg	
			Chromium	< 1.00	μg	
			Lead	< 0.500	μg	
			Selenium	< 2.50	μg	
			Silver	< 0.500	μg	
105-W-20	2nd floor, room 310	Desk top of front cubicle	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	< 0.50	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	0.68	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

						Clean Area
Sample Number	Location	Area Description	Analyte	Result	Units	Limit*
105-W-21	2nd floor, hallway outside room 310	Hallway floor	Arsenic	< 2.5	μg/ft²	62
			Barium	3.4	μg/ft²	3,094
			Cadmium	0.20	μg/ft <sup>2</sup>	31
			Chromium	1.1	μg/ft²	3,094
			Lead	1.5	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-22	2nd floor, lab room 311	Desktop at middle computer	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft²	62
105-W-23	2nd floor, lab room 314	Blank vinyl chair seat	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-24	2nd floor, lab room 315	Floor tile in center of room	Arsenic	< 2.5	μg/ft²	62
			Barium	1.8	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	0.70	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-25	2nd floor, office room 317	2nd desk top on east cubicle	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft²	62
105-W-26	2nd floor, office room 317	Top of cabinet above sink (>70")	Arsenic	< 2.5	μg/ft²	62
			Barium	12	μg/ft²	3,094
			Cadmium	0.53	μg/ft²	31
			Chromium	13	μg/ft²	3,094
			Lead	6.7	μg/ft²	10
			Selenium	< 2.5	μg/ft²	
			Silver	0.52	μg/ft²	62
105-W-27	2nd floor, office room 332	Top of 1st wood cabinet (approx. 5')	Arsenic	< 2.5	μg/ft²	62
			Barium	< 0.50	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft²	
			Silver	< 0.50	μg/ft²	62
105-W-28	2nd floor, hallway between 315 & 317	Top of wood handrail	Arsenic	< 2.5	μg/ft²	
			Barium	1.6	μg/ft²	3,094
			Cadmium	0.38	μg/ft²	31
			Chromium	<del></del>	μg/ft²	3,094
			Lead	4.0	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-29	2nd floor, across from room 307	Floor of raised panel	Arsenic	< 2.5	$\mu g/ft^2$	62
			Barium	0.66	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	< 0.50	$\mu g/ft^2$	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-30	2nd floor, across from 305 & 355	Top of handrail ledge	Arsenic	< 2.5	μg/ft²	62
			Barium	0.64	μg/ft²	3,094
			Cadmium	0.13	μg/ft <sup>2</sup>	31
			Chromium	<b></b>	μg/ft²	3,094
			Lead	0.86	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	$\mu g/ft^2$	62
105-W-31	1st floor, west center stairwell	Floor tile	Arsenic	< 2.5	μg/ft²	62
			Barium	6.2	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	4.2	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62
105-W-32	1st floor, breezeway entry to SW of 105	Floor tile	Arsenic	< 2.5	μg/ft <sup>2</sup>	62
			Barium	1.4	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft <sup>2</sup>	3,094
			Lead	0.70	μg/ft <sup>2</sup>	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft <sup>2</sup>	62

Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
105-W-33	1st floor, center of west hall	Ventilator (approx. 2.5' tall)	Arsenic	< 2.5	μg/ft²	62
			Barium	0.82	μg/ft <sup>2</sup>	3,094
			Cadmium	< 0.10	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	0.50	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-34	1st floor, storage across from column F52	Top of metal file cabinet (approx. 4.5' tall)	Arsenic	< 2.5	μg/ft²	62
			Barium	2.5	μg/ft²	3,094
			Cadmium	0.14	μg/ft <sup>2</sup>	31
			Chromium	< 1.0	μg/ft²	3,094
			Lead	0.53	μg/ft²	10
			Selenium	< 2.5	μg/ft <sup>2</sup>	1,236
			Silver	< 0.50	μg/ft²	62
105-W-35	1st floor, storage across from column F52	Top of wooden credenza (approx. 3' tall)	Arsenic	< 2.5	μg/ft²	62
			Barium	2.3	μg/ft²	3,094
			Cadmium	< 0.10	μg/ft²	31
			Chromium	17	μg/ft²	3,094
			Lead	0.86	μg/ft²	10
			Selenium	< 2.5	μg/ft²	1,236
			Silver	< 0.50	$\mu g/ft^2$	62
105-W-36	Field blank		Arsenic	< 2.50	μg	
			Barium	< 0.500	μg	
			Cadmium	< 0.100	μg	
			Chromium	< 1.00	μg	
			Lead	< 0.500	μg	
			Selenium	< 2.50	μg	
			Silver	< 0.500	μg	

#### Appendix A

#### **Sample Summary Table**

						Clean Area
Sample Number	Location	Area Description	Analyte	Result	Units	Limit*
105-W-37	Field blank	-	Arsenic	< 2.50	μg	
			Barium	< 0.500	μg	
			Cadmium	< 0.100	μg	
			Chromium	< 1.00	μg	
			Lead	< 0.500	μg	
			Selenium	< 2.50	μg	
			Silver	< 0.500	μg	

<sup>\*</sup> Clean Area Limit per Brookhaven IH75190=OSHA Housekeeping Limit [[PEL ( $\mu g/m^3$ ) x 10  $m^3/100cm^2$ ] x 929cm<sup>2</sup>/sq. ft.] / 15. Lead clean area limit: Brookhaven references EPA/HUD limit for floors, set at 10  $\mu g/sq$ . ft. as of January 2020.

<sup>\*\*</sup> Indicates results at or above the Clean Area Limit





Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237

Telephone: 800.347.4010

Burns & McDonnell Engineering **Report Number:** 23-06-01506

**Wipe Metals Analysis Report** 

Reported Date:

06/13/2023

9400 Ward Pkwy. Kansas City, MO 64114

Received Date: 06/09/2023 Analyzed Date: 06/11/2023

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

**Client Number:** 

Client:

Fax Number: **Laboratory Results** 816-822-3494 26-3514

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
23-06-01506-001	105-W-01	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-002	105-W-02	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	4.22	4.2	L01
		Cadmium (Cd)	1.00	0.300	0.30	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Lead (Pb)	1.00	2.32	2.3	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-003	105-W-03	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-004	105-W-04	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	0.115	0.12	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-005	105-W-05	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	12.1	12	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Cadmium (Cd)	1.00	0.720	0.72	L01
		Chromium (Cr)	1.00	11.3	11	L01
		Lead (Pb)	1.00	14.1	14	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-006	105-W-06	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	11.2	11	L01
		Cadmium (Cd)	1.00	0.610	0.61	L01
		Chromium (Cr)	1.00	2.72	2.7	L01
		Lead (Pb)	1.00	3.00	3.0	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-007	105-W-07	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
23-06-01506-008	105-W-08	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	0.510	0.51	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-009	105-W-09	Arsenic (As)		<2.50	<2.5	L01
		Barium (Ba)		<0.500	<0.50	L01
		Cadmium (Cd)		<0.100	<0.10	L01
		Chromium (Cr)		<1.00	<1.0	L01
		Lead (Pb)		<0.500	<0.50	L01
		Selenium (Se)		<2.50	<2.5	L01
		Silver (Ag)		<0.500	<0.50	L01
23-06-01506-010	105-W-10	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

23-06-01506

L01

< 0.10

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-011	105-W-11	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-012	105-W-12	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	6.62	6.6	L01
		Cadmium (Cd)	1.00	0.110	0.11	L01
		Chromium (Cr)	1.00	1.25	1.2	L01
		Lead (Pb)	1.00	5.30	5.3	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-013	105-W-13	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01

1.00

< 0.100

Cadmium (Cd)

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-014	105-W-14	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	0.995	1.0	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	1.06	1.1	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-015	105-W-15	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	103	100	L01
		Cadmium (Cd)	1.00	0.135	0.14	L01
		Chromium (Cr)	1.00	1.96	2.0	L01
		Lead (Pb)	1.00	4.36	4.4	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-016	105-W-16	Arsenic (As)	1.00	<2.50	<2.5	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Barium (Ba)	1.00	2.26	2.3	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	1.16	1.2	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-017	105-W-17	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	19.5	20	L01
		Cadmium (Cd)	1.00	0.470	0.47	L01
		Chromium (Cr)	1.00	8.48	8.5	L01
		Lead (Pb)	1.00	8.18	8.2	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-018	105-W-18	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	13.4	13	L01
		Cadmium (Cd)	1.00	0.125	0.12	L01
		Chromium (Cr)	1.00	1.96	2.0	L01
		Lead (Pb)	1.00	4.58	4.6	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-019	105-W-19	Arsenic (As)		<2.50		L01
		Barium (Ba)		<0.500		L01
		Cadmium (Cd)		<0.100		L01
		Chromium (Cr)		<1.00		L01
		Lead (Pb)		<0.500		L01
		Selenium (Se)		<2.50		L01
		Silver (Ag)		<0.500		L01
23-06-01506-020	105-W-20	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.685	0.68	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-021	105-W-21	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	3.42	3.4	L01
		Cadmium (Cd)	1.00	0.200	0.20	L01
		Chromium (Cr)	1.00	1.06	1.1	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Lead (Pb)	1.00	1.46	1.5	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-022	105-W-22	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-023	105-W-23	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-024	105-W-24	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	1.84	1.8	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.700	0.70	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-025	105-W-25	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-026	105-W-26	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	11.7	12	L01
		Cadmium (Cd)	1.00	0.530	0.53	L01
		Chromium (Cr)	1.00	13.1	13	L01
		Lead (Pb)	1.00	6.66	6.7	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	0.520	0.52	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

**Report Number:** 

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
23-06-01506-027	105-W-27	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01

Number	Number	Analyte.	(ft²)	(ug)	(ug/ft²)	ID
23-06-01506-027	105-W-27	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	<0.500	<0.50	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-028	105-W-28	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	1.56	1.6	L01
		Cadmium (Cd)	1.00	0.385	0.38	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	3.99	4.0	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-029	105-W-29	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	0.665	0.66	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	<0.500	<0.50	L01

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-030	105-W-30	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	0.635	0.64	L01
		Cadmium (Cd)	1.00	0.130	0.13	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.860	0.86	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-031	105-W-31	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	6.22	6.2	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	4.21	4.2	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-032	105-W-32	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	1.40	1.4	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01

**Client Number:** 

23-06-01506-035

105-W-35

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

23-06-01506

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.700	0.70	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-033	105-W-33	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	0.815	0.82	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.505	0.50	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-034	105-W-34	Arsenic (As)	1.00	<2.50	<2.5	L01
		Barium (Ba)	1.00	2.53	2.5	L01
		Cadmium (Cd)	1.00	0.140	0.14	L01
		Chromium (Cr)	1.00	<1.00	<1.0	L01
		Lead (Pb)	1.00	0.530	0.53	L01

1.00

1.00

1.00

<2.50

< 0.500

<2.50

<2.5

< 0.50

<2.5

L01

L01

L01

Selenium (Se)

Silver (Ag)

Arsenic (As)

**Client Number:** 

26-3514

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Report Number:

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
		Barium (Ba)	1.00	2.32	2.3	L01
		Cadmium (Cd)	1.00	<0.100	<0.10	L01
		Chromium (Cr)	1.00	16.8	17	L01
		Lead (Pb)	1.00	0.860	0.86	L01
		Selenium (Se)	1.00	<2.50	<2.5	L01
		Silver (Ag)	1.00	<0.500	<0.50	L01
23-06-01506-036	105-W-36	Arsenic (As)		<2.50		L01
		Barium (Ba)		<0.500		L01
		Cadmium (Cd)		<0.100		L01
		Chromium (Cr)		<1.00		L01
		Lead (Pb)		<0.500		L01
		Selenium (Se)		<2.50		L01
		Silver (Ag)		<0.500		L01
23-06-01506-037	105-W-37	Arsenic (As)		<2.50		L01
		Barium (Ba)		<0.500		L01
		Cadmium (Cd)		<0.100		L01
		Chromium (Cr)		<1.00		L01
		Lead (Pb)		<0.500		L01
		Selenium (Se)		<2.50		L01

**Client Number:** 26-3514 **Report Number:** 23-06-01506

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd.; Bldg 105

Lab Sample Client Sample	Analyte:	Wipe Area	Total Metal	Concentration	Narrative
Number Number		(ft²)	(ug)	(ug/ft²)	ID
	Silver (Ag)		<0.500		L01

Sample Narratives:

LO1: LCS and LCSD percent recovery for Se were outside of acceptance limits.

Analyst: Carlos Gonzalez

Method: EPA SW846 3050B/6010D

ized Signatory:

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contains less than the reporting limit based on a 50mL volume. The reporting limit for Lead is 0.5ug.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. These sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

Legend ug = microgram ug/ft² = micrograms per square foot

mL = milliliter ft² = square foot

# **ENVIRONMENTAL HAZARDS SERVICES, LLC**

Metals Chain of Custody Form

Pg \_\_\_\_ of \_\_\_\_

	Company Name   Burns & McDonnell   Account # 26-3514														or									
	mpany Address	3)									100000000000000000000000000000000000000	//Sta			Ka	ans	as City	, MO	6411	4				
	Phone	+			<u>,                                    </u>						Email alanstaett@burnsmcd.com									.com				
P	roject Name / Te			/ 43	300	God	odfe	llow	v Bl	vd - B	100000000000000000000000000000000000000													
	PO Number	168765		Collected By											off Smith + Eric Wenger									
Tu	rn-Around Time	Υ	<b>€</b> 3	DAY			2 D	ΑY	∩ 1 DA	ΛY	(	S	AME	DA	Y O				Call Ahead					
Anna Madah	Client Sample ID				М	ETA	LS		100000		PAI			ICUL	ATES	5		AIR		WIPES				
MBER		Collection		8   8		rofile	ofile profile			-		e Dust		etric			Total Time	Flow Rate	Vol.	AREA				
LAB NUMBER		Date & Time	Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total	Other Metals ICP		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Mins.	L/min.	Total Liters	Circle The Unit of Measurement Used cm or in				
1	105-W-01	6-6-23 8:1	48		120001118		50 NG 80 1000	e in protect		Ag, As, Ba, Cd, Pb, Se	Cr,	1997-1001-100		10111000		1919 14/01	100000000000000000000000000000000000000	ATTENDAMENTS.		12 x 12				
2	605-W-02	1 8:5								1										12×12				
3	105-W-03	8:5																		12 × 12				
4	105-W-04	9:0		1				-						$\exists$						12 × 12				
5	105-W-05	9:0								425										12×12				
6	105-W-06	9:1	2	1																12 x 12				
7	105-W-07	9:1								Material System (System)										12×12				
8	105-W-08	9:0								AT 0 421 Charles										12 x /2				
9	105-W-69	13:4	O							Billion of the second										**Security Consecutive**				
10	105-10-10	1342	-							SCC (14 posts)										12 × 12				
11	105-W-11	13:1	4							The state of the s										12×12				
12	105-W-12	/ /3:	20																	12×12				
13	105-W-13	(3:	25							All the second of the second										12×12				
14	105-W-14	13:	30							anne province										12 ×12				
15	105-W-15	13:	33							2										12x12				
	Released By:	Eric	We	e gd	9	-				Date:	6	18	12	3			Time:	/	6:5	8				
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Signa	ature:			1		1 1	1										∪-د∠	0-01		A CONTRACTOR OF THE CONTRACTOR				
Date	: 6,9	1 25 Tir	ne:	_	:_	4	L			AM P	И					THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO I	Due	Date	MANAGE STATE OF THE PARTY OF TH					

Portal Contact Added

**9** 7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

PRESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Due Date: 06/16/2023 (Friday) EL

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# ENVIRONMENTAL HAZARDS SERVICES, LLC

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(	Company Name	Burns & McD	onr	nell								Acc	ount	#			514			
Со	mpany Address	9400 Ward P	ark	way	/						Cit	City/State/Zip Kansas City, MO 64114								4
Phone 314-302-4661									Email alanstaett@burnsmcd.com											
Pr	oject Name / Te	esting Address G	FC	/ 43	00	God	odfe	llov	v B	lvd - B	11	91	0.5	-		e	a pulc	here	burn	smed, com
	PO Number	168765				Co	llected By	Joff Smith + Eric Wenger												
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Client Sample ID					МІ	ETA	LS					P,	ARTI	CUL	ATES	5		AIR	WIPES	
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LAB N	Sample ID	Date & Time	Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total	Other Metals		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Mins.	L/min.	Total Liters	Circle The Unit of Measurement Used cm or in
1	105-W-16	6-6-23 13:40	1910-4446	Pallinger	350,000	38(92)33	8411172	\$10777.40	1281172	Ag, As, Ba, Cd, Pb, Se	Cr,	I CONTEXTOR					The contact of		3331113114155	12×12
2	105-W-17	1 13:46								- Section 1		$\Box$	$\neg$							12 x/2
3	105-W-18	13:50								T-Linding Inc.										12 ×12
4	105-W-19	13:51																		~~~X
5		6-7-13 09:00								100										12 ×12
6	105-10-21	1 9:03								Total Control										12 x12
7	105-10-22	9:06																		12 x/Z
8	105-W-Z3	9:10								and the second										12 ×12
9	105-10-24	9:15								r i quari i i quari										72 × /Z
10	105-10-25	9:21								Ondinencial Con-										12 x12
11	105-W-26	9:24																		12x12
12	105-47-27	9:41																		12 x /Z_
13	105-10-28	9:49								To Man Digital										1 ×/44
14	105-W-29	9:52								and the second										12 x/2
15	105-W-30	9:57								4										6 x24
	Released By:	Enelle	2 m	1-e/						Date:	4	6/	9/	23	•		Time:		16:5	8
	Signature:	(b) (b)																		
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Date	1014				_:_	4	2_			AM PN	И					L		O	1	
F	Portal Contact	Added														L	abo	rate	orie	?5™
S	7469 WHITEPIN	NE RD, RICHMOND,	VA	2323	37	(80	0)-3	47-4	010	1										

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# **ENVIRONMENTAL HAZARDS SERVICES, LLC**

Metals Chain of Custody Form

	Company Name Burns & McDonnell Account # 26-3514														oi					
Market Cont	mpany Address										City/State/Zip Kansas City, MO 64114							4		
	Phone	314-302-4									Email alanstaett@burnsmcd.com									.com
Р	roject Name / Te	sting Address	GFC	/ 43	00	God	odfe	llow	/ BI	vd - Bldg										
	PO Number						Со	llected By		Jeff Snoth + Eic Wenger										
Tu	rn-Around Time	Υ	€ 3	DAY	2 D	ΑY	← 1 DA													
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AB NUMBER	Client			48	ıtal	rofile	Profile	l.	tal			e Dust	Just	stric			Total Time	Flow Rate	Vol.	AREA
LABNI	Sample ID	Date & Time	Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP  TX 11 TCLP  CA 17 Total  Wetals		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Mins.	L/min.	Total Liters	Circle The Unit of Measurement Used cm or in		
1	105-W-31 6	6-7-23 100	3				Princip		1921221	Ag, As, Ba, Cd, Pb, Se	Cr,		akaros		40.00 to 12.	00000000000000000000000000000000000000				12 x12
2	105-W-32	1 1060								1 5, 56			1		$\neg$					12 x/2
3	105-W-33	101		-																6 x24
4	105-W-34	101																		12 x12
5	105-12-35	¥ 10Z																		12 x/Z
6	105-W-36	1150								1										X
7	105-W-37	4 /15/								4										X
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Portal Contact Added

**2** 7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

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Laboratories"

Attach Laboratory Label Here