July 17, 2018

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

Re: Metals Investigation – Building 110 - Basement

OCCU-TEC conducted a limited lead-based paint and metals contaminated dust investigation in the basement of Building 110 located at the Goodfellow Federal Center at the above referenced address. Samples were collected to further assess legacy contamination in the basement of Building 110 in preparation for upcoming remodeling activities planned for the area.

OCCU-TEC collected a total of five (5) wipe samples for settled dust from stored materials located throughout the basement of Building 110. In addition to collecting wipe samples, OCCU-TEC utilized an X-ray Florescence analyzer to assess the lead content of various surfaces throughout the basement.

Methodology

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 (HUD) Guidelines and 40 CFR 745.63. Dust samples were sent to SanAir Technologies Laboratory of Powhatan, Virginia for analysis of Resource Conservation and Recovery Act (RCRA) 7 metals.
(Silver, Arsenic, Barium, Cadmium, Chromium, Lead, and Selenium) by EPA Method M3050/6010C). The Brookhaven National Laboratory’s Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

The lead-based paint testing was conducted using a Heuresis Corporation Model Pb200i X-ray Florescence (XRF) detector, Serial # 01098, General License #53-0720, utilizing a Cobalt - 57 radioisotope source with an activity level of 5 millicuries (mCi). A material is considered lead-containing if at least one sample collected from a distinct sampling combination shows a result of 1.0 mg/cm² or higher which is in accordance with the definition of a lead-containing material as per HUD and the State of Missouri.

**Results and Conclusions**

Of the wipe samples collected, three (3) of the five (5) samples contained concentrations of lead above the referenced Brookhaven guidelines. The samples collected containing elevated lead above the referenced guidelines included samples collected from the following locations:

- The top of a stored folding table (sample 110-B-01, Pb=84 ug/ft²)
- The top of mounted ducting (sample 110-B-04, Pb=200 ug/ft²)
- The top of stored raised flooring (sample 110-B-05, Pb=68 ug/ft²)

It should be noted that previous wipe sample analytical results noted in the report titled *Asbestos Air, Lead, Air, and Lead Dust Investigation Report* dated March 4, 2016, indicated elevated lead concentrations in additional areas of the basement of Building 110.

Of the assays collected for XRF analysis, one (1) of eight (8) readings collected contained concentrations of lead greater than 1.0 mg/cm². The reading containing a concentration greater than 1.0 mg/cm² was taken from a dark green brick wall located on the north side of the room adjacent to the north stairwell.

It should be noted that the minimum detection limit for Cadmium (<2.5 ug/ft²) is greater than the minimum concentration of 1.9 ug/ft². Additionally, Chromium was noted in several samples collected. Due to the methodology, Chromium cannot be differentiated between Chromium III and Chromium VI and a level comparison cannot be made with the current information available.
OCCU-TEC appreciates the opportunity to provide the U.S. General Services Administration with the above referenced testing services. If you have any questions, please contact us at (816) 994-3416.

Best Regards,

Kevin Heriford
Project Manager

ATTACHMENTS
XRF Analysis Results Table
Laboratory Analytical Results and Chain of Custody Documentation
<table>
<thead>
<tr>
<th>Reading #</th>
<th>mgcm²</th>
<th>Result</th>
<th>DateTime</th>
<th>Floor</th>
<th>Room</th>
<th>Side</th>
<th>Component</th>
<th>Color</th>
<th>Substrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>312</td>
<td>1.1</td>
<td>Positive</td>
<td>6/29/2018 7:09</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
<tr>
<td>313</td>
<td>0.7</td>
<td>Negative</td>
<td>6/29/2018 7:11</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
<tr>
<td>314</td>
<td>0.8</td>
<td>Negative</td>
<td>6/29/2018 7:11</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
<tr>
<td>316</td>
<td>0.1</td>
<td>Negative</td>
<td>6/29/2018 7:41</td>
<td>Basement</td>
<td>110</td>
<td>East</td>
<td>Pillar</td>
<td>White</td>
<td>Concrete</td>
</tr>
<tr>
<td>317</td>
<td>0.1</td>
<td>Negative</td>
<td>6/29/2018 7:41</td>
<td>Basement</td>
<td>110</td>
<td>North</td>
<td>Ceiling</td>
<td>White</td>
<td>Concrete</td>
</tr>
<tr>
<td>318</td>
<td>0.3</td>
<td>Negative</td>
<td>6/29/2018 7:42</td>
<td>Basement</td>
<td>110</td>
<td>North</td>
<td>Wall</td>
<td>White</td>
<td>Cinder Block</td>
</tr>
<tr>
<td>319</td>
<td>-0.3</td>
<td>Negative</td>
<td>6/29/2018 7:43</td>
<td>Basement</td>
<td>110</td>
<td>North</td>
<td>Wall</td>
<td>White</td>
<td>Brick</td>
</tr>
<tr>
<td>320</td>
<td>-0.2</td>
<td>Negative</td>
<td>6/29/2018 7:44</td>
<td>Basement</td>
<td>110</td>
<td>North</td>
<td>Wall</td>
<td>White</td>
<td>Brick</td>
</tr>
<tr>
<td>321</td>
<td>1</td>
<td>Positive</td>
<td>6/29/2018 7:44</td>
<td>Basement</td>
<td>110</td>
<td>North</td>
<td>Wall</td>
<td>Dark Green</td>
<td>Brick</td>
</tr>
<tr>
<td>322</td>
<td>0.6</td>
<td>Negative</td>
<td>6/29/2018 7:47</td>
<td>Basement</td>
<td>110</td>
<td>West</td>
<td>Pillar</td>
<td>Lime Greed</td>
<td>Concrete</td>
</tr>
<tr>
<td>323</td>
<td>0.4</td>
<td>Negative</td>
<td>6/29/2018 7:48</td>
<td>Basement</td>
<td>110</td>
<td>West</td>
<td>Wall</td>
<td>Orange</td>
<td>Concrete</td>
</tr>
<tr>
<td>324</td>
<td>0.7</td>
<td>Negative</td>
<td>6/29/2018 8:26</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
<tr>
<td>325</td>
<td>1.3</td>
<td>Positive</td>
<td>6/29/2018 8:27</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
<tr>
<td>326</td>
<td>0.7</td>
<td>Negative</td>
<td>6/29/2018 8:28</td>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Calibration</td>
</tr>
</tbody>
</table>
Analysis Report
prepared for
Occu-Tec

Report Date: 7/12/2018
Project Name: GFC - 110 Basement
Project #: 918004
SanAir ID#: 18028293
July 12, 2018

SanAir ID #    18028293
Project Name:  GFC - 110 Basement
Project Number:  918004

Dear Kevin Heriford,

We at SanAir would like to thank you for the work you recently submitted. The 5 sample(s) were received on Thursday, July 05, 2018 via FedEx. The final report(s) is enclosed for the following sample(s): 110-B-01, 110-B-02, 110-B-03, 110-B-04, 110-B-05.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Abisola Kasali
Metals Laboratory Director
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

sample conditions:
5 sample(s) in Good condition
<table>
<thead>
<tr>
<th>Company:</th>
<th>OCCU-TEL Inc</th>
<th>Project #:</th>
<th>917004</th>
<th>Phone #:</th>
<th>716-225-4028</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>100 W Business Park Ln</td>
<td>Project Name:</td>
<td>GFL-110 Paint</td>
<td>Phone #:</td>
<td>716-994-3466</td>
</tr>
<tr>
<td>City, St., Zip:</td>
<td>Riverside, MO 64160</td>
<td>Date Collected:</td>
<td>6-29-18</td>
<td>Fax #:</td>
<td>716-994-3466</td>
</tr>
<tr>
<td>Samples Collected By:</td>
<td>Van Hursford</td>
<td>P.O. Number:</td>
<td></td>
<td>Email:</td>
<td>Dinah Forsythe</td>
</tr>
<tr>
<td>Account #:</td>
<td></td>
<td>U.S. State Collected in:</td>
<td>MO</td>
<td>Email:</td>
<td>Dinah Forsythe</td>
</tr>
</tbody>
</table>

### Matrix Types

<table>
<thead>
<tr>
<th>Air (ug/m³)</th>
<th>Total Concentration of Lead</th>
<th>XRCP-total concentration of metals (please list metals):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wipe (ug²)</td>
<td>Total Concentration of RCRA 8 Metals</td>
<td>Mercury</td>
</tr>
<tr>
<td>Paint</td>
<td>TCLP for Lead</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>TCLP for RCRA 8 Metals</td>
<td></td>
</tr>
<tr>
<td>Bulk (ug/g or ppm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Metals Analysis Types

<table>
<thead>
<tr>
<th>Turn Around Time</th>
<th>Same Day</th>
<th>1 Day</th>
<th>2 days</th>
<th>3 Days</th>
<th>4 Days</th>
<th>Standard (5 day)</th>
<th>Other Test:</th>
</tr>
</thead>
</table>

### Sample Information

<table>
<thead>
<tr>
<th>Sample #</th>
<th>Collection Date &amp; Time</th>
<th>Sample Identification/Location</th>
<th>Flow Rate</th>
<th>Start Time</th>
<th>Stop Time</th>
<th>Volume (L)</th>
<th>Area (Sq Ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-B-01</td>
<td>6/24/18 /0815</td>
<td>Table Top</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>SF</td>
</tr>
<tr>
<td>110-B-02</td>
<td>6/24/18 /0720</td>
<td>Stored Light</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>SF</td>
</tr>
<tr>
<td>110-B-03</td>
<td>6/24/18 /0835</td>
<td>Stored Dusting</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>SF</td>
</tr>
<tr>
<td>110-B-04</td>
<td>6/24/18 /0830</td>
<td>Top of Mounted Duct</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>SF</td>
</tr>
<tr>
<td>110-B-05</td>
<td>6/24/18 /0535</td>
<td>Top of Stored Raising Dusting</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>SF</td>
</tr>
</tbody>
</table>

### Special Instructions

*Do not analyze Mercury*

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of $150. A single charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.
From: Kevin Heriford [mailto:kheriford@occutec.com]
Sent: Thursday, July 05, 2018 11:55 AM
To: Jennifer L. McGee <jmcgee@sanair.com>
Subject: Re: 918004/ GFC - 110 Basement - Missing TAT

Standard please.

On Thu, Jul 5, 2018, 10:47 AM Jennifer L. McGee <jmcgee@sanair.com> wrote:

RE: 918004/ GFC – 110 Basement
SanAir ID: 18028293

Hello,

For the job listed above, there isn’t a turnaround time marked on the COC. What TAT would you like for these wipe samples for metals analysis?
Thanks in advance.

Jennifer L. McGee
Customer Service
SanAir Technologies Laboratory
1551 Oakbridge Drive, Suite B
Powhatan, VA 23139

804.897.1177 Office
804.897.0070 Fax
**REPORT OF ANALYSIS**

<table>
<thead>
<tr>
<th>Lab Sample #</th>
<th>Field Sample #</th>
<th>Analyte</th>
<th>Sample Description</th>
<th>Results in ug/Sample</th>
<th>MRL ug/Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>18028293-01</td>
<td>110-B-01</td>
<td>Silver (Ag)</td>
<td>Table Top</td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic (As)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium (Ba)</td>
<td></td>
<td>24</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium (Cd)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Cr)</td>
<td></td>
<td>8.0</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead (Pb)</td>
<td></td>
<td>84</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium (Se)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>18028293-02</td>
<td>110-B-02</td>
<td>Silver (Ag)</td>
<td>Stored Light</td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic (As)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium (Ba)</td>
<td></td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium (Cd)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Cr)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead (Pb)</td>
<td></td>
<td>9.0</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium (Se)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>18028293-03</td>
<td>110-B-03</td>
<td>Silver (Ag)</td>
<td>Stored Ducting</td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic (As)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium (Ba)</td>
<td></td>
<td>19</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium (Cd)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Cr)</td>
<td></td>
<td>7.6</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead (Pb)</td>
<td></td>
<td>33</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium (Se)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>18028293-04</td>
<td>110-B-04</td>
<td>Silver (Ag)</td>
<td>Top Of Mounted Duct</td>
<td>3.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic (As)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium (Ba)</td>
<td></td>
<td>65</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium (Cd)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Cr)</td>
<td></td>
<td>14</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead (Pb)</td>
<td></td>
<td>200</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium (Se)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

MRL: Method Reporting Limit based on ug/sample

Signature: [b] (6)  
Reviewed: [b] (6)  
Date: 7/6/2018  
Date: 7/12/2018
## REPORT OF ANALYSIS

<table>
<thead>
<tr>
<th>Lab Sample #</th>
<th>Field Sample #</th>
<th>Analyte</th>
<th>Sample Description</th>
<th>Results in ug/Sample</th>
<th>MRL ug/Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>18028293-05</td>
<td>110-B-05</td>
<td>Silver (Ag)</td>
<td>Top Of Stored Raised Flaring</td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic (As)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium (Ba)</td>
<td></td>
<td>32</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium (Cd)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (Cr)</td>
<td></td>
<td>5.6</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead (Pb)</td>
<td></td>
<td>68</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium (Se)</td>
<td></td>
<td>&lt;2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

MRL: Method Reporting Limit based on ug/sample

Signature: [b] (6)  Reviewed: [b] (6)
Date: 7/6/2018  Date: 7/12/2018
Disclaimer
SanAir Technologies Laboratory, Inc. participates in the Environmental Lead Accreditation Program (ELAP) administered by AIHA-LAP, LLC (Lab ID162952). Refer to our accreditation certificate or www.aihaaccreditedlabs.org for an up to date list of the Fields of Testing for which we are accredited. SanAir also participates in the State of New York’s DOH-ELAP (Lab Id 11983), and has met the EPA’s NLLAP program standards.
Final reports cannot be reproduced, except in full, without written authorization from SanAir Technologies Laboratory, Inc. SanAir is not responsible for sample collection or interpretation made by others. This report does not constitute endorsement by AIHA-LAP, LLC and/or any other U.S. governmental agencies; and may not be accredited by every local, state or federal regulatory agency. SanAir Technologies Laboratory, Inc only assures the precision and accuracy of the data it generates and assumes no responsibility for errors or biasing that occur during collection prior to SanAir’s receipt of the sample(s). SanAir’s Method Detection Limits (MDL) and Reporting Limits (RL) have been derived using various materials meeting each accrediting agencies’ standards. The MDL and RL may not be relevant or applicable for other forms of wipe materials. All quality control results are acceptable unless otherwise noted. Results are not corrected for blanks.

Lead Exposure Limits

Dust
Non-Grant Funded Projects (Standard Clearance Applies):
40ug/ft$^2$ HUD Clearance Level for Floors
250ug/ft$^2$ HUD Clearance Level for Window Sills
400ug/ft$^2$ HUD Clearance Level for Window Troughs

Grant Funded Clearance (OLHCHH; LBPHC; LHRD Grantees):
10ug/ft$^2$ HUD Clearance Level for Floors
100ug/ft$^2$ HUD Clearance Level for Window Sills and Window Troughs
40ug/ft$^2$ HUD Clearance Level for Porch Floors