

# Lead and Heavy Metals Sampling Report GSA Goodfellow Complex

4300 Goodfellow

St. Louis, Missouri

April 13, 2017

Terracon Project No. 15167203



**Prepared for:**

Global Environmental, Inc  
St. Louis, Missouri

**Prepared by:**

Terracon Consultants, Inc.  
St. Louis, Missouri

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**Terracon**

Environmental



Facilities



Geotechnical



Materials



April 13, 2017

Global Environmental, Inc.  
6438 Plymouth Ave  
Peabody, Missouri 63201

Attn: Mr. John Dugas  
[jdugas@global-environment.com](mailto:jdugas@global-environment.com)

Re: Lead & Heavy Metals (soil characterization, Building 100) & Compliance Air and Drinking Water Sampling  
65A Goodfellow Federal Center  
4000 Goodfellow Boulevard  
St. Louis MO 63133  
Terracon Proposal No. P11161201

Dear Mr. Dugas:

During October and November 2016 and April 2017, Terracon Consultants, Inc. (Terracon) conducted lead and heavy metals (soil) site sampling, and air sampling and drinking water sampling for lead at the above referenced site in accordance with Terracon's Agreement for Services, dated July 20, 2016, and Terracon Proposal No. P11161201, dated July 20, 2016.

This report contains the results of Terracon's sampling and a diagram of the sampling locations. Terracon appreciates the opportunity to provide these services to Global Environmental, Inc. Should you have any questions regarding this report, please contact Rick Whitney in our St. Louis office at (314) 466-6611.

Sincerely,  
Terracon Consultants, Inc.

(b) (6)

Rick Whitney  
Missouri Certified Lead Inspector

(b) (6)

Henry Mitchell, III, CSP  
National Director, Industrial Hygiene Services

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**HEAVY METALS DUST, AIR and WATER SAMPLING REPORT  
GSA GOODFELLOW COMPLEX  
4300 GOODFELLOW  
ST. LOUIS, MISSOURI**

**Terracon Project No. 15167203  
April 13, 2017**

## **1.0 SCOPE OF SERVICES**

### **1.1 Lead and Heavy Metals Dust Wipe Sampling**

Terracon mobilized lead inspectors certified by the Missouri Department of Health and Senior Services (MDHSS) to perform lead and heavy metals wipe sampling in Building 102E 2<sup>nd</sup> floor, Building 103E 1<sup>st</sup> and 2<sup>nd</sup> Floor, and air and water samples throughout the entire Goodfellow complex (all buildings). The purpose of the sampling was to provide Global Environmental, Inc. (Client) with analytical data that it will provide to the General Services Administration (GSA) to use to develop a remedial action plan for the Goodfellow Federal Center. Terracon was not contracted to provide conclusions or recommendations for remedial actions.

The wipe sampling was conducted in general accordance with the sampling protocols outlined in ASTM E1728 Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination.

Collected samples were transported under a chain of custody to EMSL Laboratories located in Indianapolis, Indiana, a third-party laboratory accredited by the National Lead Laboratory Accreditation Program (NLLAP) and an American Industrial Hygiene Association (AIHA) Accreditation, for analysis using EPA Method SW-846-6010B or C (Inductively Coupled Plasma-Atomic Emission Spectrometry).

GSA is committed to achieving levels as low as reasonably possible with the Housing and Urban Development (HUD) standard for lead as the most stringent. Once the analysis was completed, Terracon compared the results to the 4.3  $\mu\text{g}/100\text{cm}^2$  (40  $\mu\text{g}/\text{ft}^2$ ) level outlined in HUD.

### **1.2 Complex-Wide Air Sampling**

Terracon performed air sampling throughout the complex at locations specified by Client. The purpose of the sampling was to provide Client with analytical data to characterize airborne levels of lead and heavy metals on the given day the air samples were collect. Sampling was conducted in general accordance with Occupational Safety and Health Administration (OSHA)

sampling protocols however, the samples taken were collected as area samples as described in the proposal P15167203 and not personnel breathing zones of occupants as would be required by OSHA.

### **1.3 Complex-Wide Drinking Water Sampling**

Terracon performed drinking water sampling at locations specified by Client. The purpose of the sampling was to provide Client with analytical data to characterize the lead levels in the drinking water.

## **2.0 BUILDING DESCRIPTION**

The Goodfellow Federal Center is located on 62.5 acres and consists of 23 buildings. Several of the buildings located on the grounds were built in 1941 by the Department of Defense and are utilized as an Army Small Arms Munitions Plant to support the World War II effort. In 1966, the ownership and operation of the Federal Center was transferred from the Army to the General Services Administration (GSA). At that time, the GSA began to convert several of the ammunition plant buildings into office spaces. Since that time, lead and heavy metals contamination has been identified in building crawlspaces in some buildings and in some annular spaces above ceilings.

## **3.0 SAMPLING METHODS**

### **3.1 Field Activities**

The sampling was conducted by Mr. Rick Whitney, a Missouri Department of Health-certified lead-based paint Inspector and Lead Risk Assessor. A copy of Mr. Whitney's Environmental Protection Agency (EPA) Lead Risk Assessor certification is included in Appendix C.

### **3.2 Visual Assessment**

Terracon visually assessed the accessible interior and exterior horizontal surfaces of the site structure to identify accumulated dust. Sample locations were randomly selected and included HVAC ducts, floors, counters, shelves, air diffusers, and exhaust vents.

Air sampling locations were selected based on air flows and personnel occupancy.

### **3.3 Sample Collection**

#### Wipe Sampling

Mr. Whitney used Ghost Wipe™ brand wipes and a 100-square-centimeter disposable template to collect each of the wipe samples. Ghost Wipe™ brand wipes conform to American Society for

Testing and Materials (ASTM) E1792, *Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*. The collected wipe samples were placed in clean and labeled plastic containers. A Heavy Metals Wipe, Air, and Water Sample Location Diagram is provided in Appendix A. The laboratory analytical results for the sampling are provided in Appendix B.

#### Air Sampling

Air samples were collected in general accordance with Occupational Safety and Health Administration (OSHA) sampling methods using low flow air pumps calibrated to 2.0 liters per minute however, samples were collected as area samples as described in the proposal P15167203 and not personnel breathing zones. Each sample location was sampled for an eight-hour period developing a snap shot of the air quality on that day during that given period of time. The laboratory analytical results for the sampling are provided in Appendix B.

#### Water Sampling

One water sample was collected from a drinking fountain on each floor. Water samples were taken general accordance with Missouri Department of Health guidelines by replicating a person taking a drink of water at the fountain by activating the fountain water flow then capturing the water directly into the sample container. The laboratory analytical results for the sampling are provided in Appendix B.

### **3.4 Sample Analysis**

Collected samples were transported under a chain of custody to EMSL Laboratories located in Indianapolis, Indiana, a third-party laboratory accredited by the National Lead Laboratory Accreditation Program (NLLAP) and an American Industrial Hygiene Association (AIHA) Accreditation, for analysis using EPA Method SW-846-6010B or C (Inductively Coupled Plasma-Atomic Emission Spectrometry).

### **3.5 Findings**

#### Lead and Heavy Metals Wipe Sampling

The laboratory analytical results indicated that the dust from one of the location had lead concentrations at 4.3  $\mu\text{g}/100\text{cm}^2$ . The location is:

1. Building 102E, Second Floor, Sample Number 311, Table Support Near Column P23

#### Lead Air Sampling

The laboratory analytical results indicated that the air samples collected did not exceed the OSHA Permissible Exposure Limit. While the OSHA Permissible Exposure Limit was used to compare the results of this sampling, the results should not be used to characterize employee exposures. OSHA requires Personal Breathing Zone (PBZ) air sampling to determine worker exposures. The

results of this air sampling should only be used as a general guide to determine if additional sampling is indicated.

#### Drinking Water Sampling

The laboratory analytical results indicated that the water from three of the drinking fountains had lead concentrations at or above 15 µg/L. These locations are:

1. Building 103D, First Floor North Drinking Fountain.
2. Building 103E, Second Floor South Drinking Fountain.
3. Building 103D, First Floor Clinic Room 101.

The laboratory analytical results are provided in Appendix B. Sample locations are included in Appendix A, Heavy Metals Wipe, Air and Water Sample Location Diagram.

## **4.0 GENERAL COMMENTS**

This sampling was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results and findings expressed in this report are based on conditions observed during our sampling of the facility. The information contained in this report is relevant to the date on which this sampling was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Global Environmental, Inc. for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

**APPENDIX A**  
**SAMPLE LOCATION DIAGRAM**



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**LEGEND**

A222	- SAMPLE ID (AIR)
D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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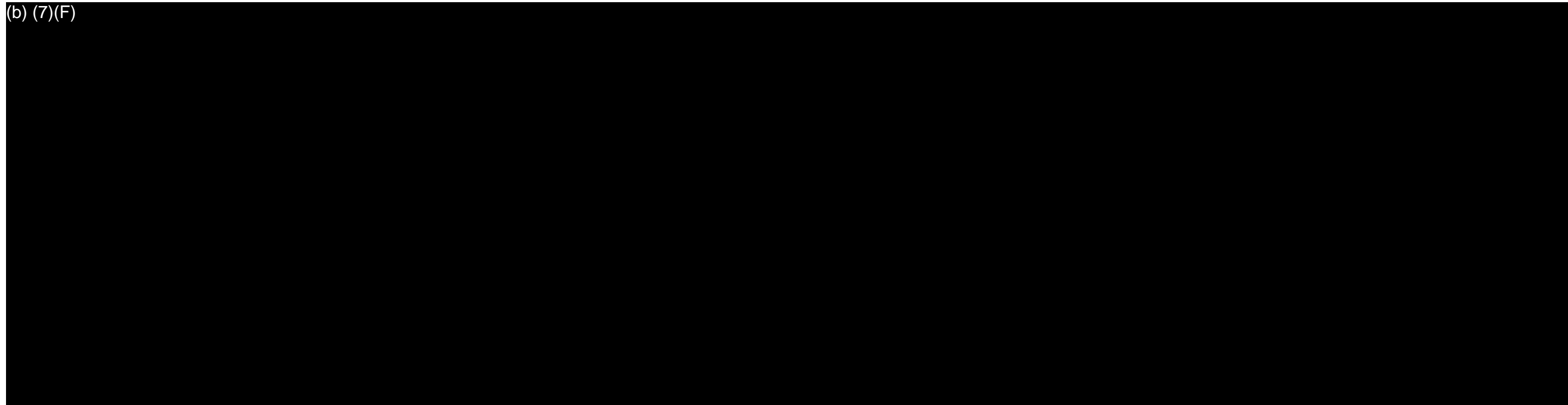
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MO0602 FLOOR SAMPLE PLANS
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A020 - BASEMENT (NEAR TUNNEL DOOR)

A021 - BOILER ROOM

LEGEND

- A222 - SAMPLE ID (AIR)
- D300 - SAMPLE ID (DUST)
- W20 - SAMPLE ID (WATER)

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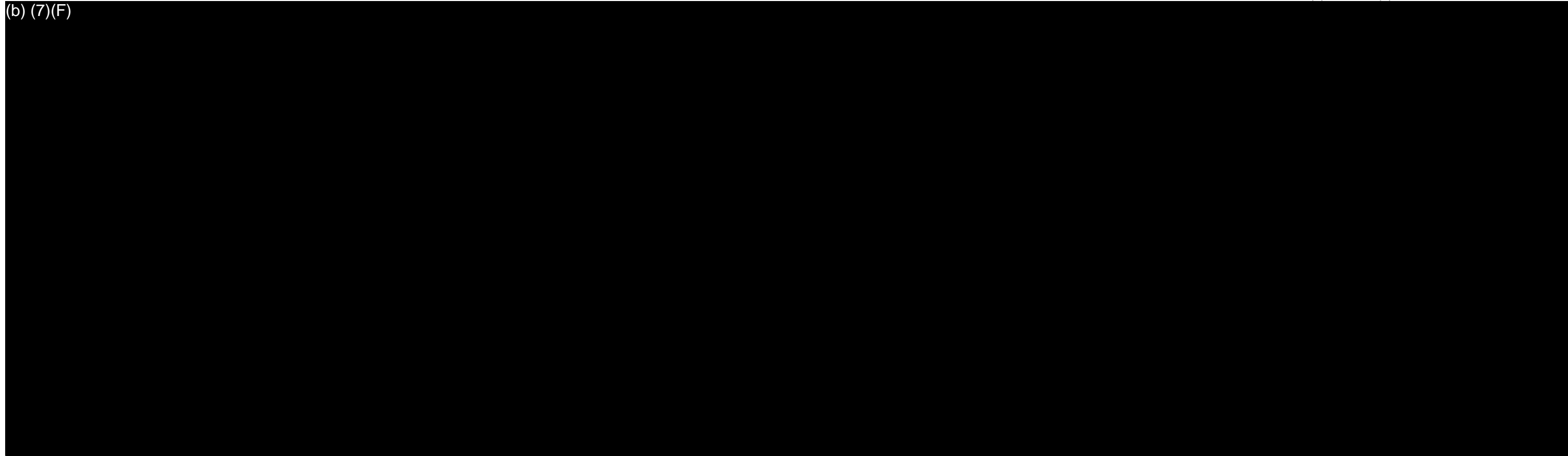
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NOTE: 300 SERIES ARE DUST SAMPLES

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W20	- SAMPLE ID (WATER)

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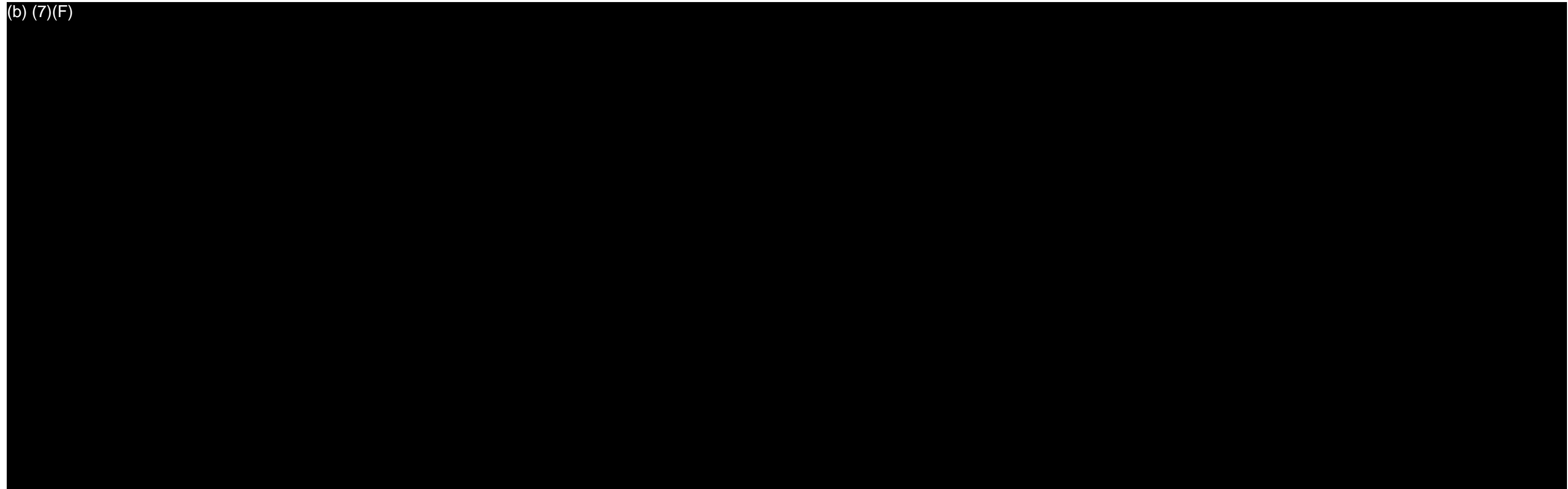
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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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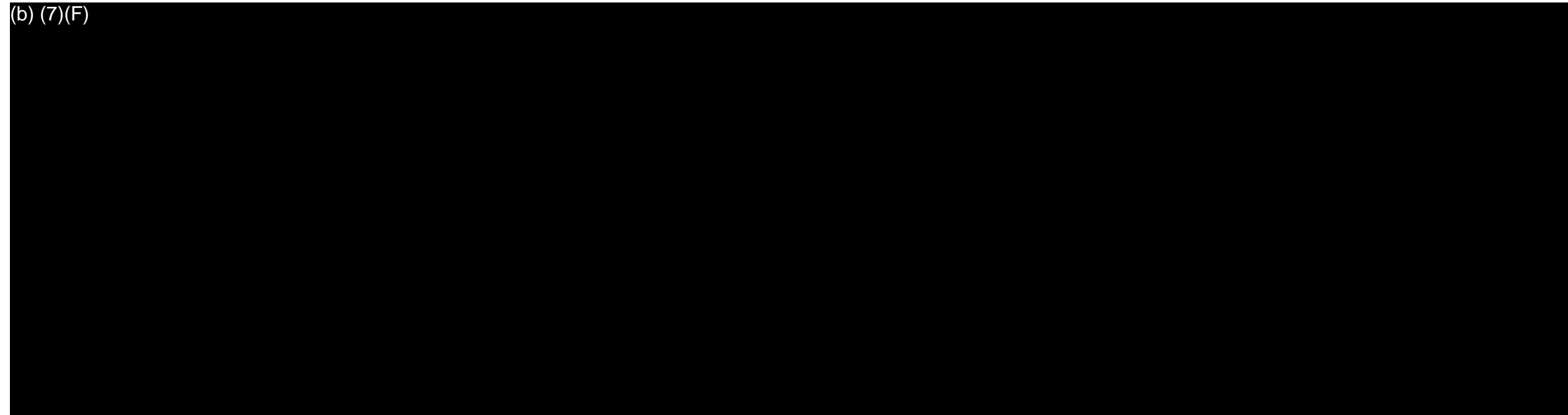
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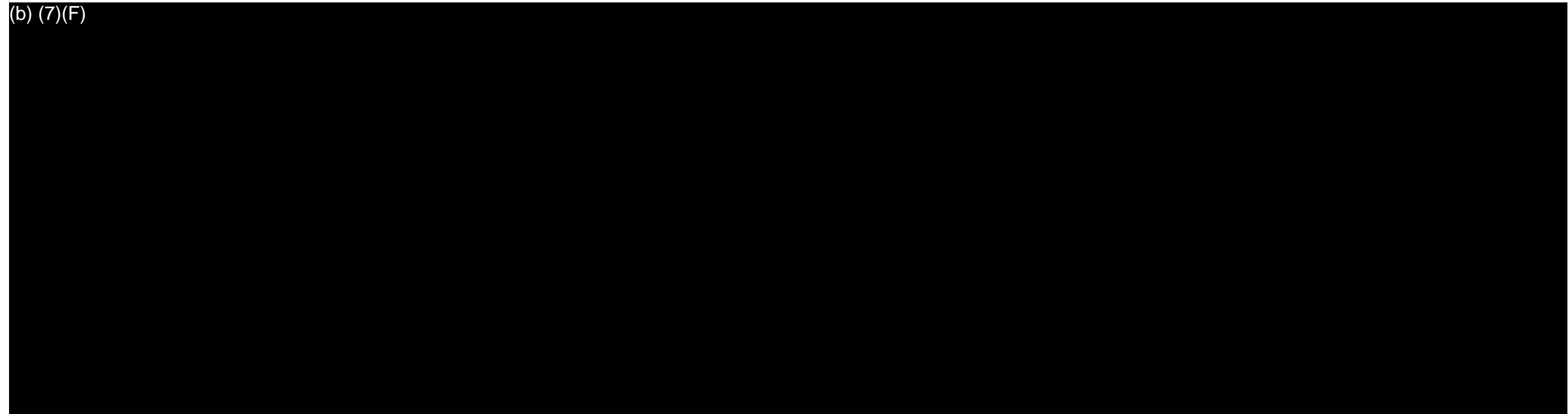
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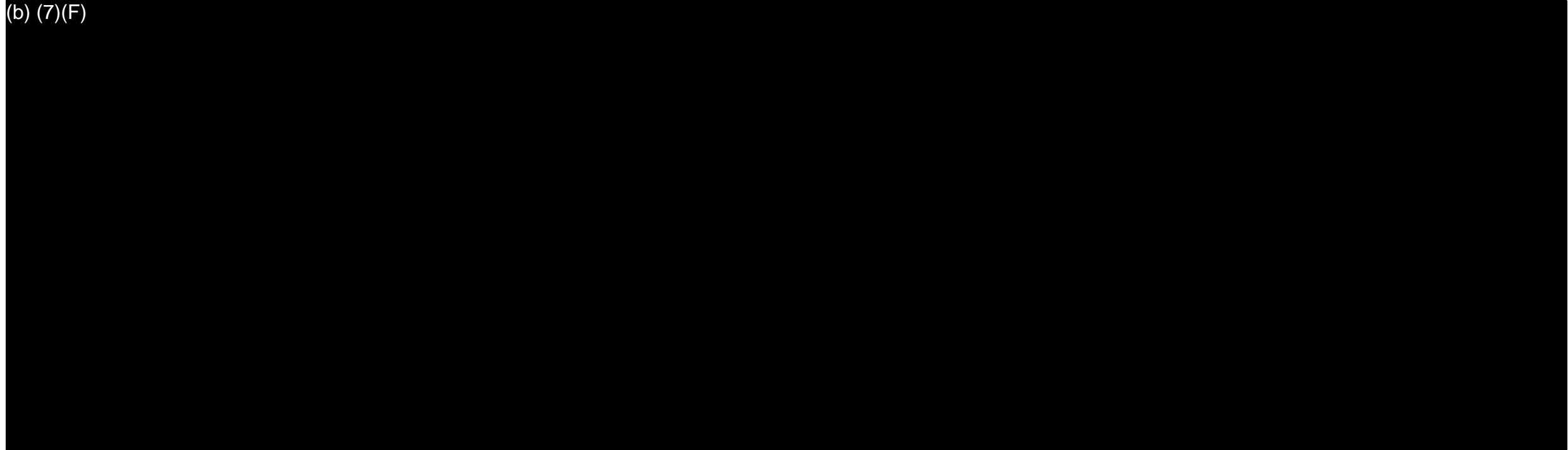
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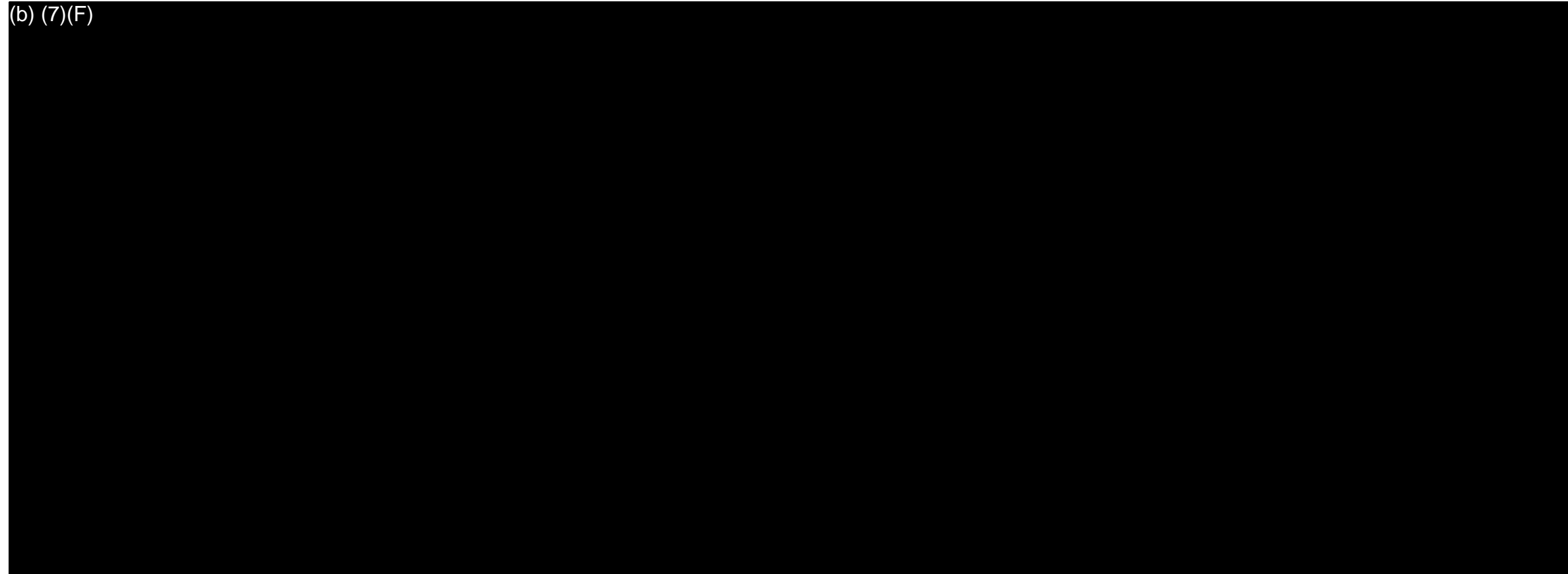
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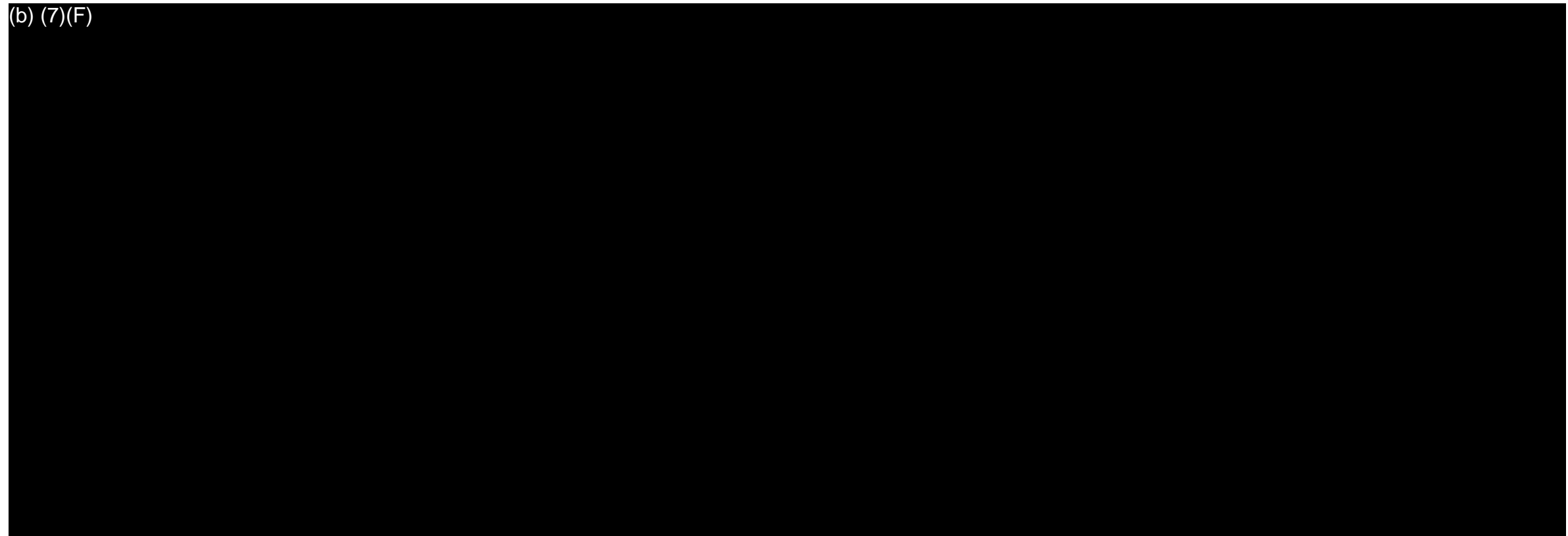
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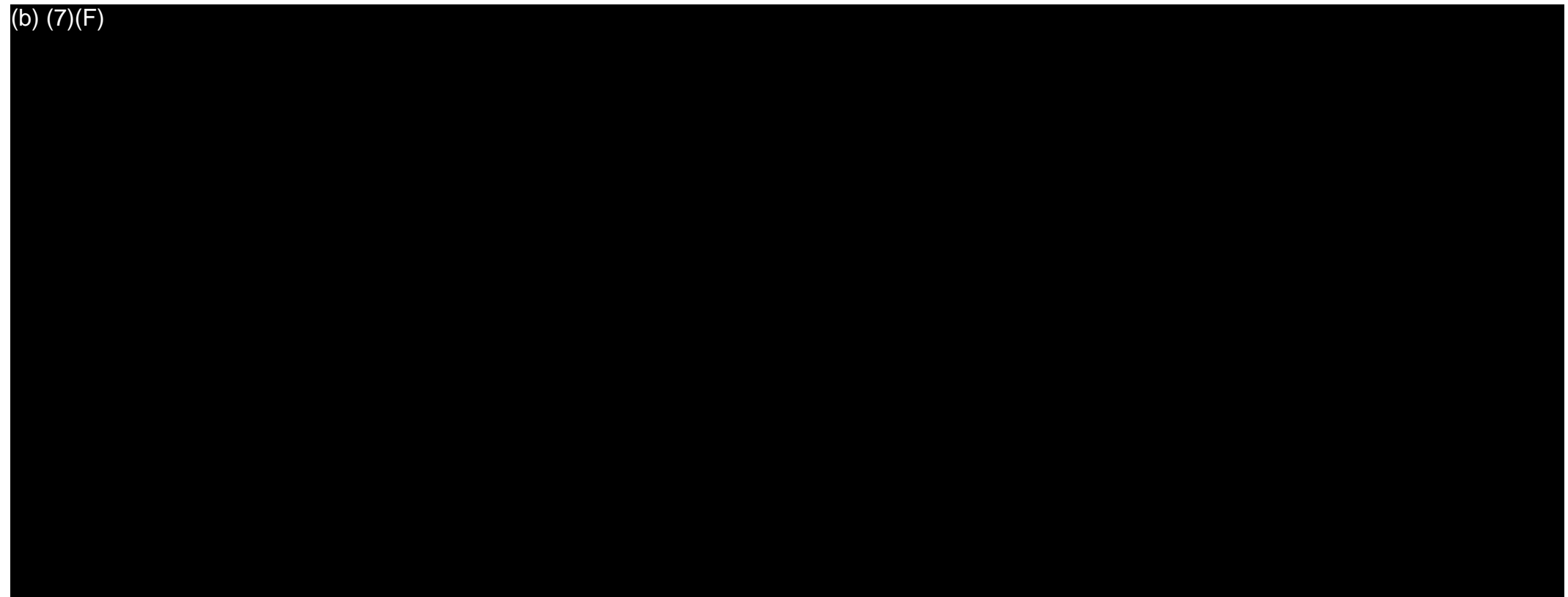
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01 MO0609 B104 1st floor (SOUTH)

(b) (7)(F)



01 MO0609 B104 1st floor (NORTH)

- 105 - BASEMENT (NEAR SHELTER ENTRANCE)
- 106 - B27 TUNNEL
- 107 - BASEMENT (SOUTH BOILER ROOM)

**LEGEND**

A222	- SAMPLE ID (AIR)
D300	- SAMPLE ID (DUST)
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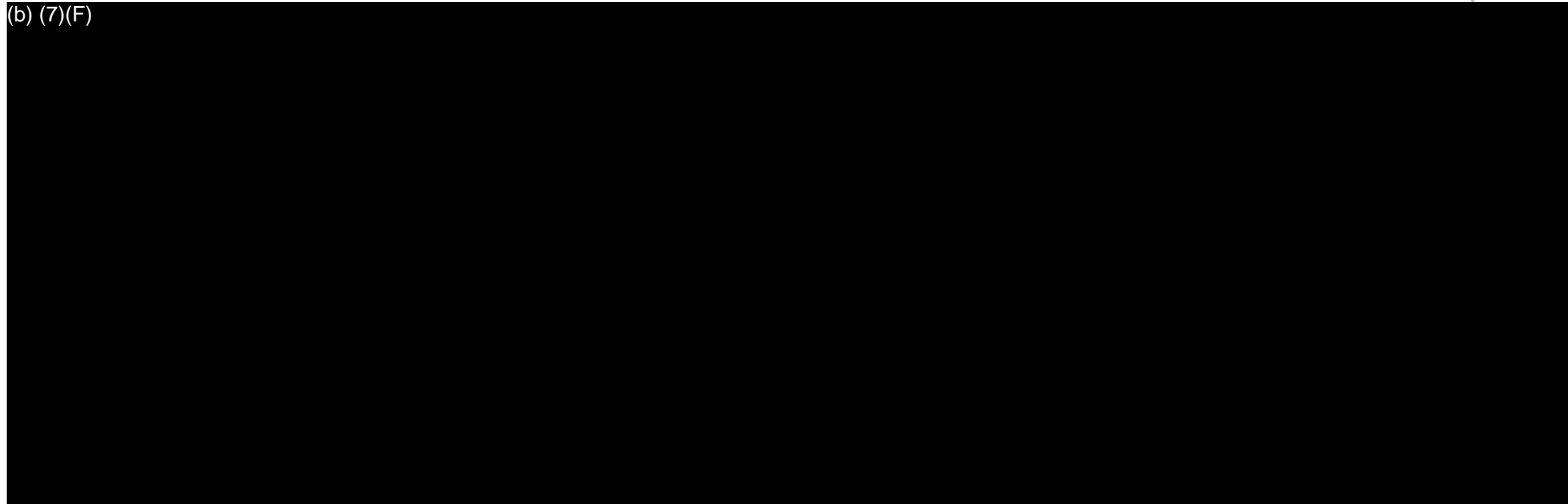
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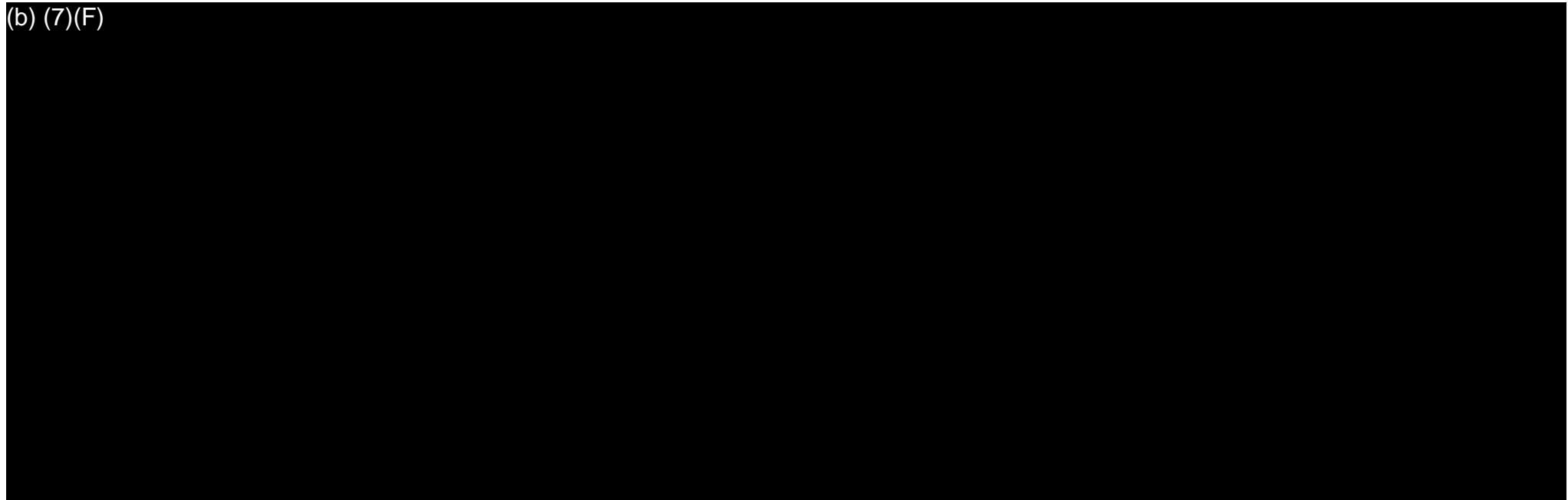
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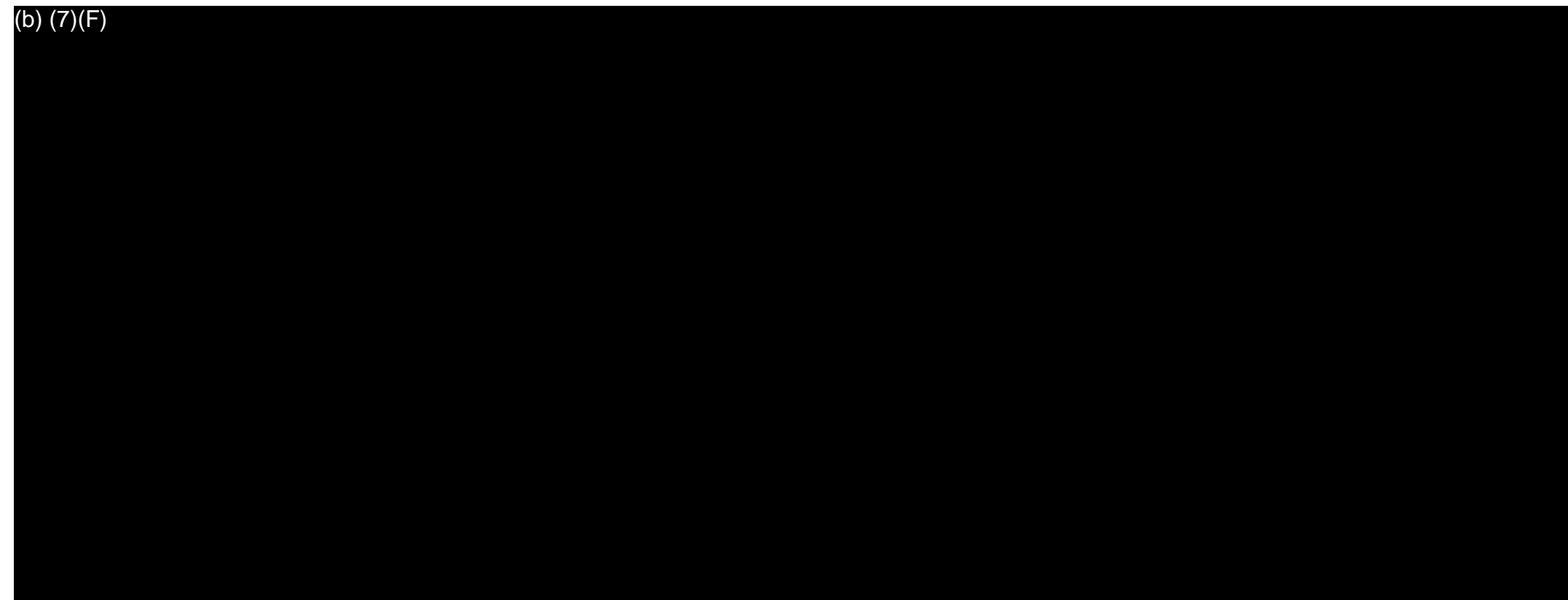
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B104t Basement

(b) (7)(F)



B104t 1st floor

**LEGEND**

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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 APPROXIMATE DRAWING SCALE

Project No.	Date:
15167203	2/2/2017
Project Mng:	Drawn By:
RHW	JAL
File Name:	15167203-MO0610.dwg
Layout Name:	MO0610-1

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MO0610 FLOOR SAMPLE PLANS
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02 M00610 B104E 2nd floor

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Project No. 15167203 Date: 2/2/2017  
Project Mng: RHW Drawn By: JAL  
File Name: 15167203-MO0610.dwg  
Layout Name: MO0610-2

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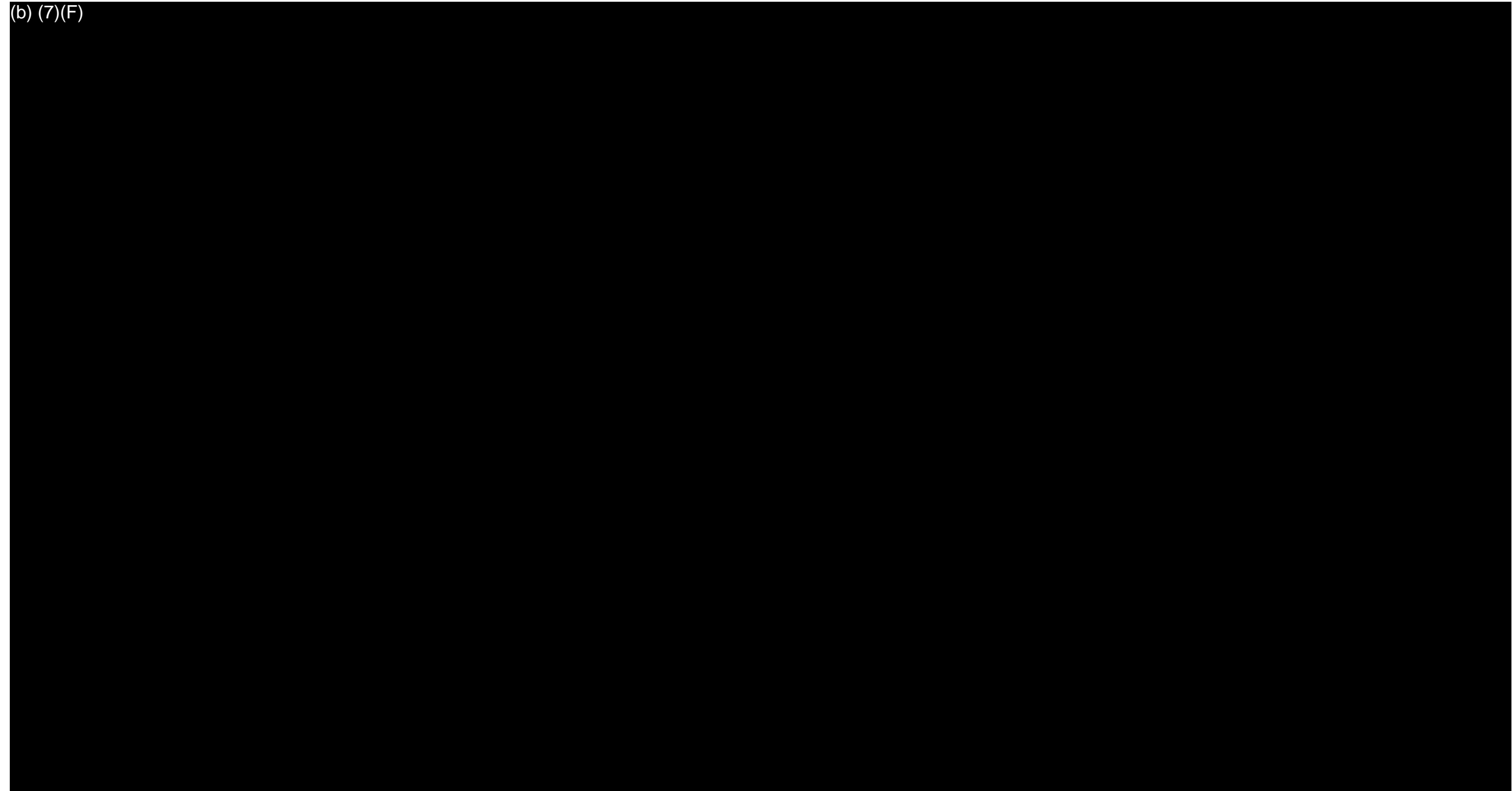
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**LEGEND**

A222	- SAMPLE ID (AIR)
D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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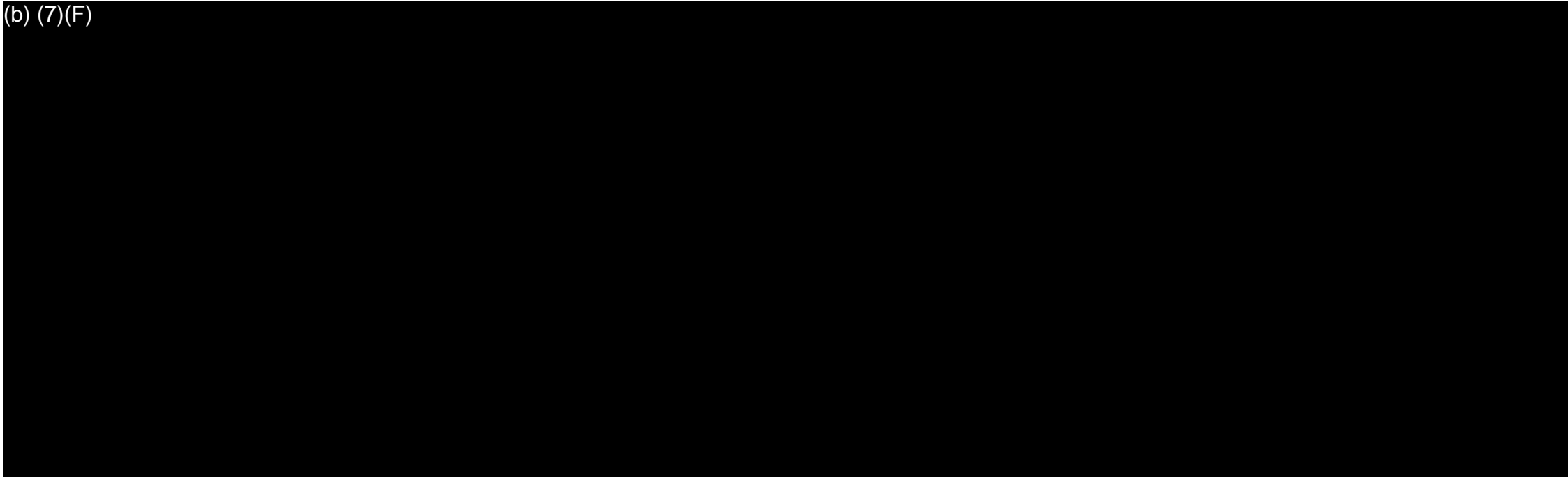
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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)



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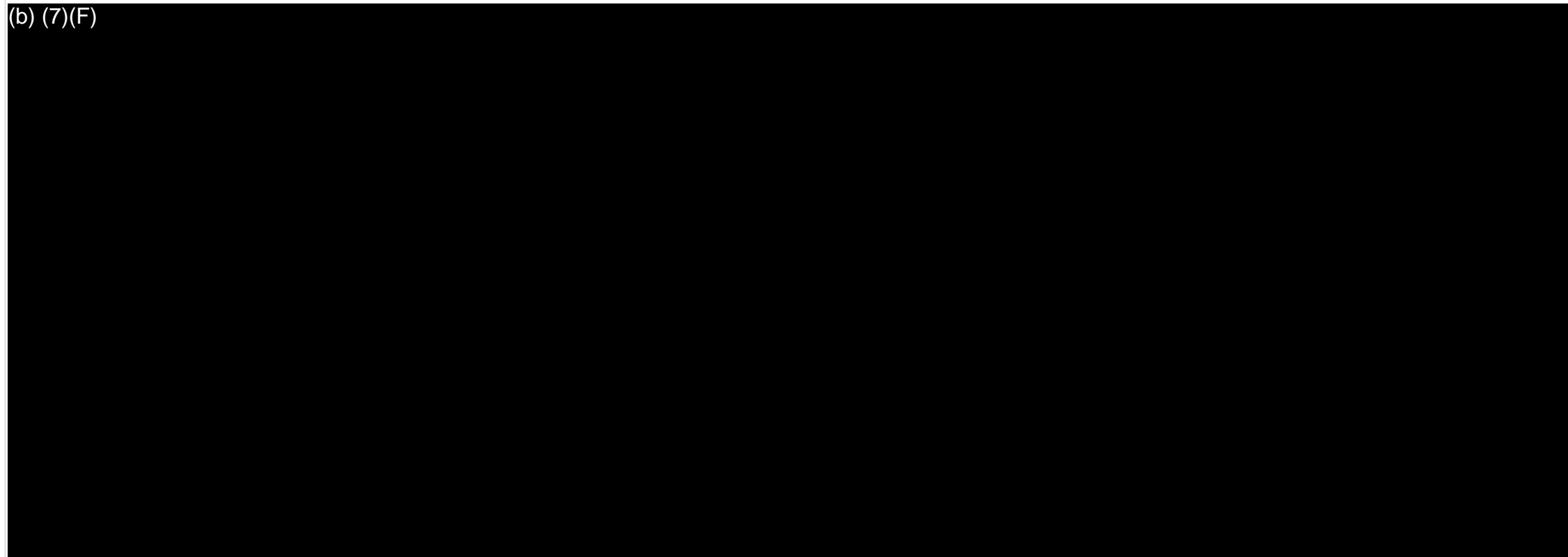
MO0612 FLOOR SAMPLE PLANS

AIR AND DRINKING WATER SAMPLING

GENERAL SERVICES ADMINISTRATION / GLOBAL ENVIRONMENTAL, INC.

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(b) (7)(F)



02 SECOND FLOOR - South

(b) (7)(F)



03 SECOND FLOOR - North

**LEGEND**

A222	- SAMPLE ID (AIR)
D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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Project No. 15167203	Date: 2/2/2017
Project Mngr: RHW	Drawn By: JAL
File Name: 15167203-MO0612.dwg	
Layout Name: MO0612-3	

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AIR AND DRINKING WATER SAMPLING
GENERAL SERVICES ADMINISTRATION / GLOBAL ENVIRONMENTAL, INC.
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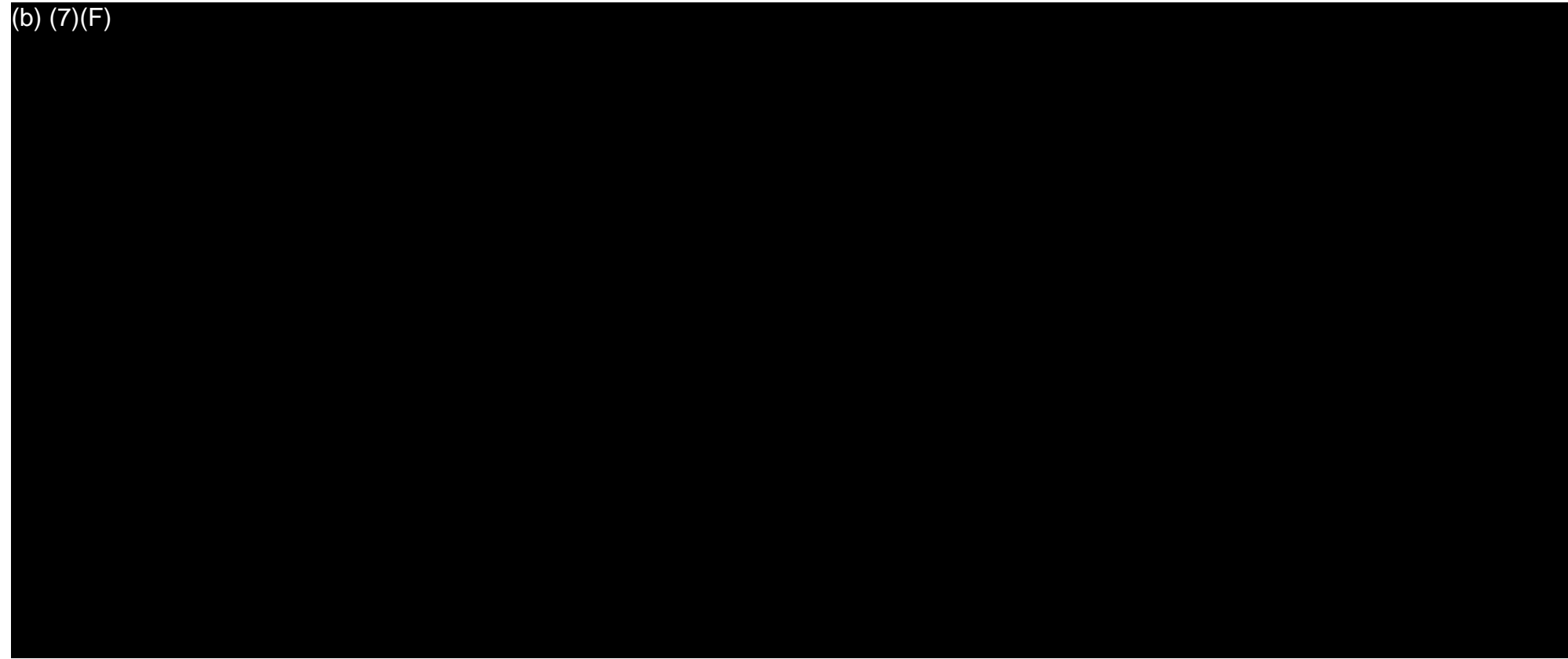
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00 MO0613 B105E Basement

(b) (7)(F)



01 MO0613 B105E 1st floor

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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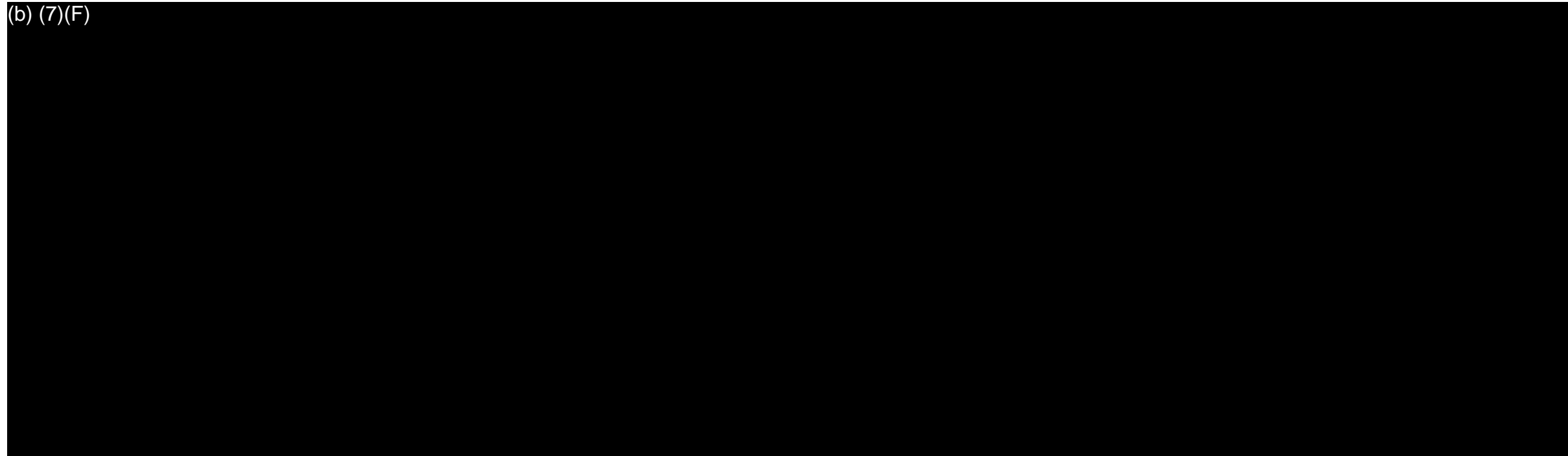
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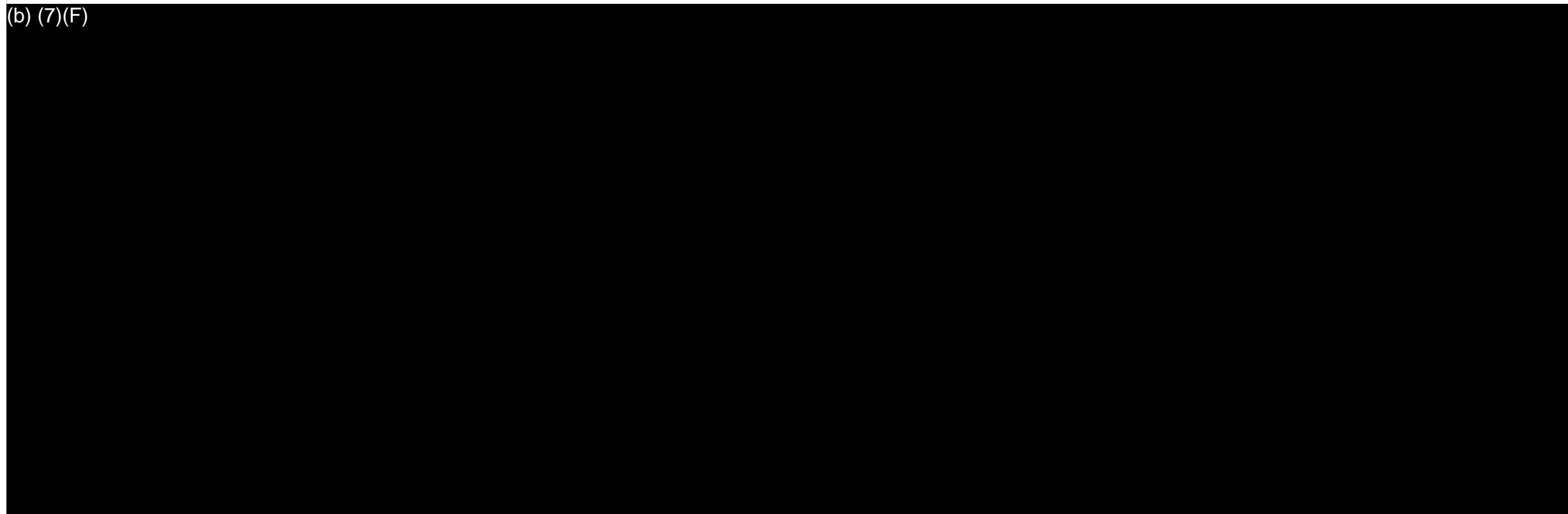
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(B1) BASEMENT

(b) (7)(F)



(01) M00614 B105F 1st floor

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

0 NTS  
APPROXIMATE DRAWING SCALE

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Layout Name:	
MO0614-1	

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(b) (7)(F)

02 ————— B105- nd -loor

PROPOSED TITRATION UNIT  
UNITS

**LEGEND**

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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APPROXIMATE DRAWING SCALE

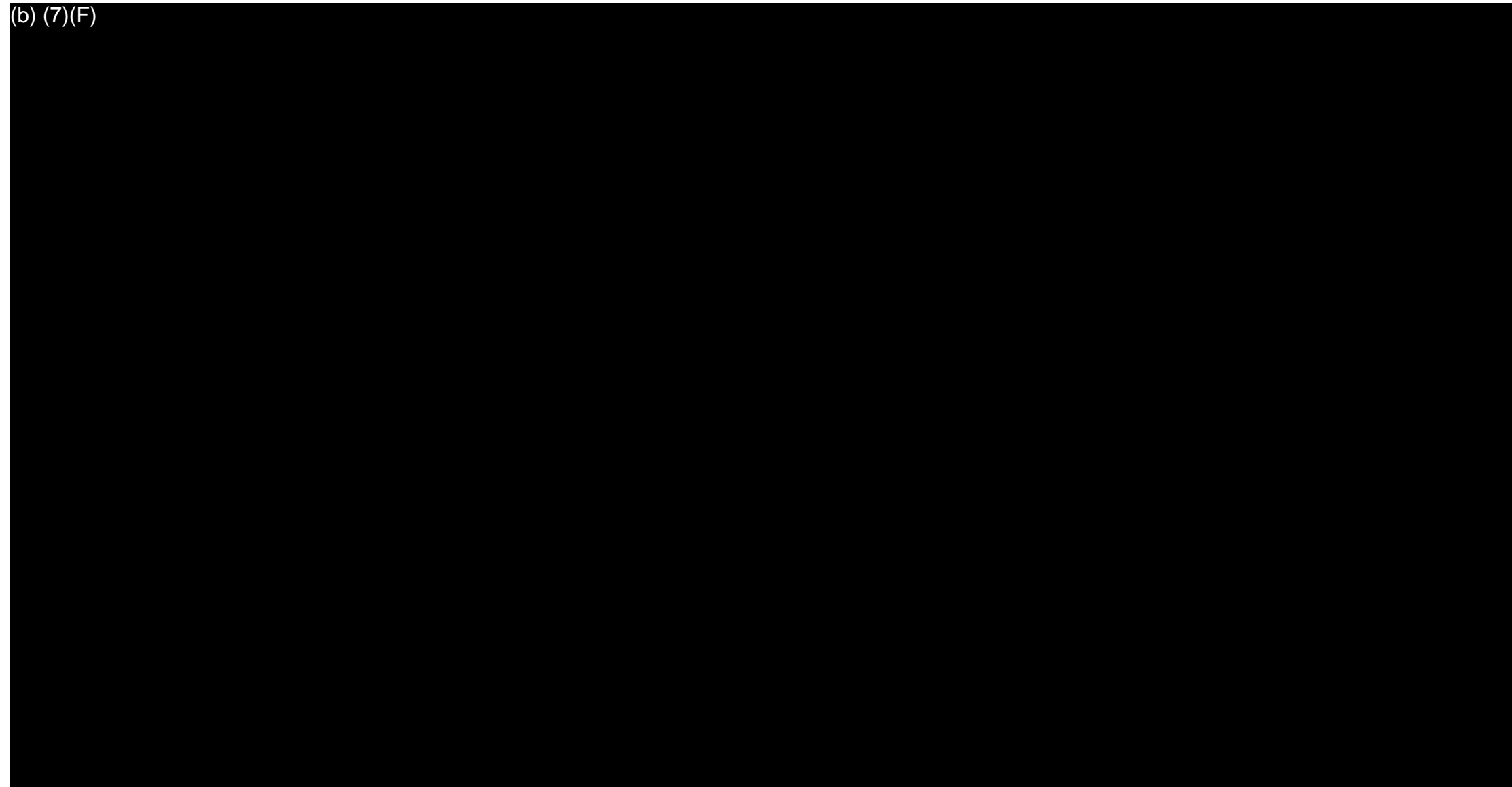
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MO0614 FLOOR SAMPLE PLANS
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**LEGEND**

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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MO0615 FLOOR SAMPLE PLANS
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01 MO0616 B103F 1st floor

- A028 - BASEMENT (GRIDLINE E8)
- A029 - BASEMENT (GRIDLINE C9)

**LEGEND**

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)



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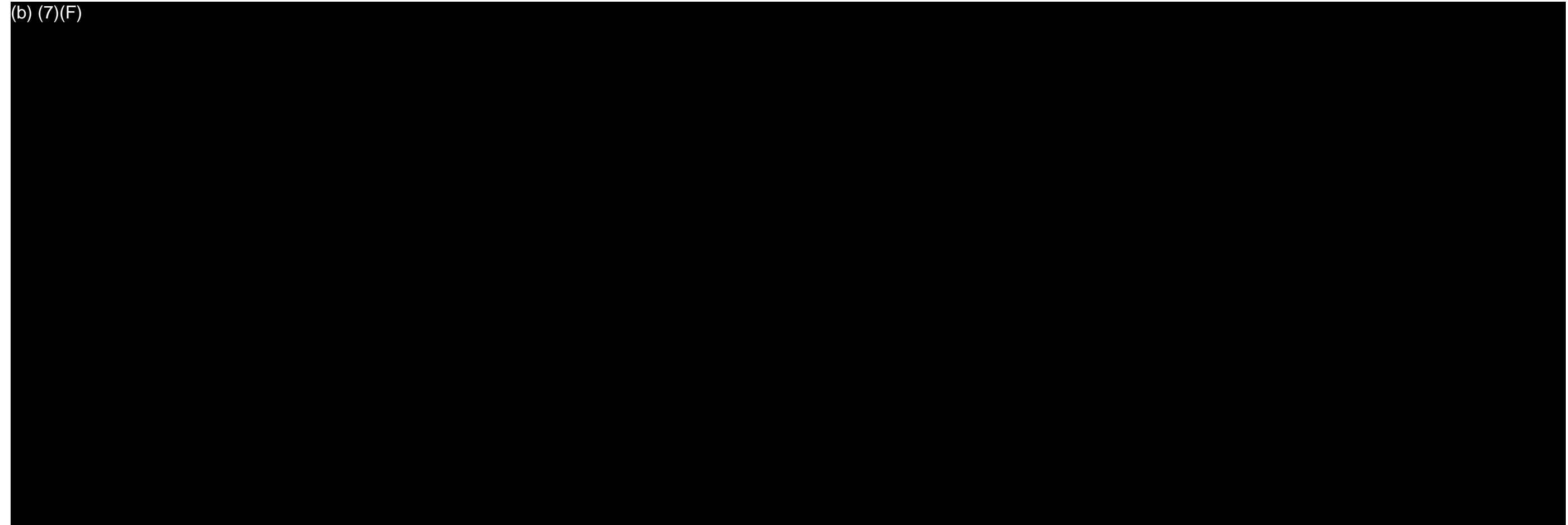
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MO0616 FLOOR SAMPLE PLANS
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**LEGEND**

A222	- SAMPLE ID (AIR)
D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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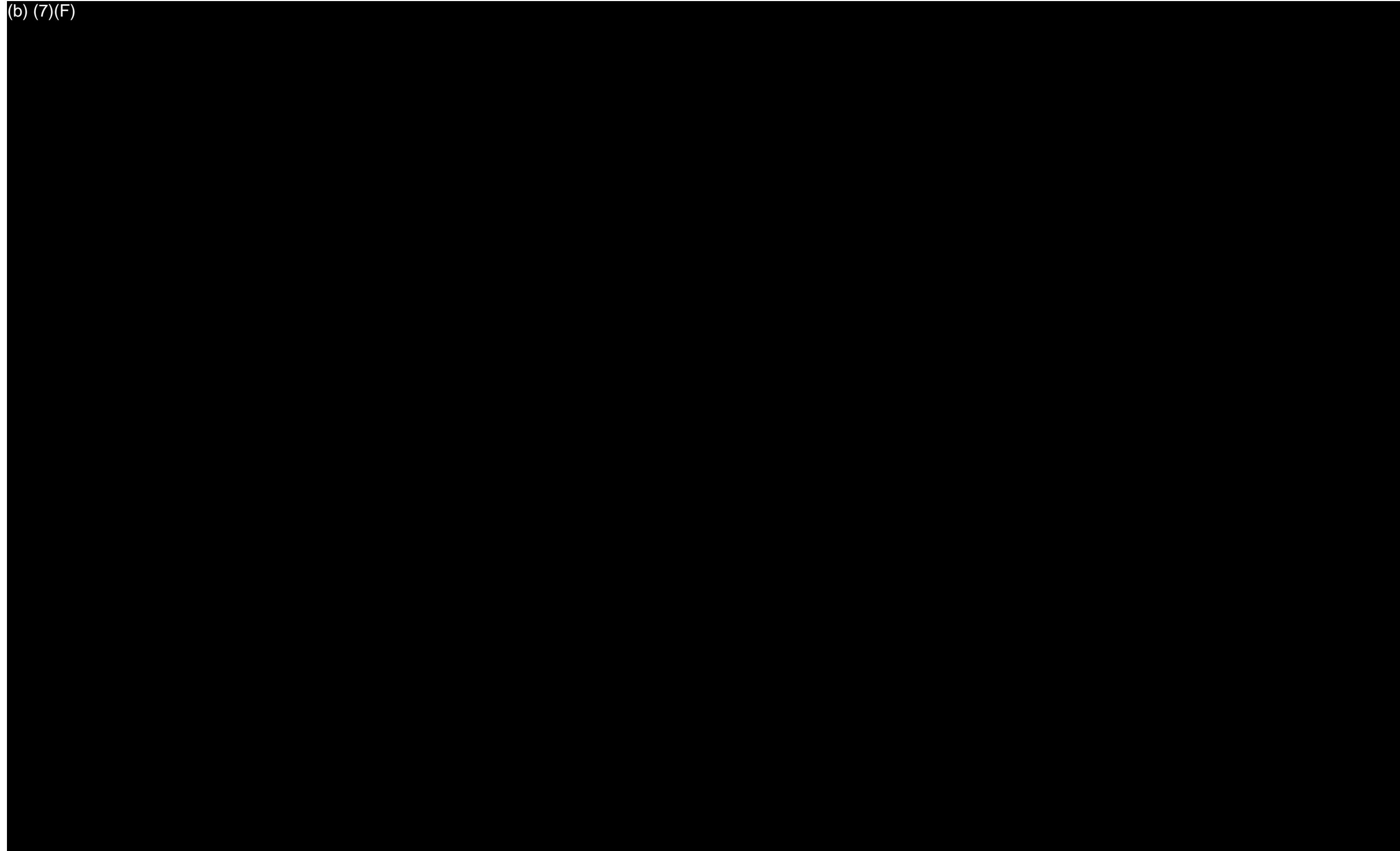
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MO0617 FLOOR SAMPLE PLANS
AIR AND DRINKING WATER SAMPLING GENERAL SERVICES ADMINISTRATION / GLOBAL ENVIRONMENTAL, INC. 4300 GOODFELLOW ROAD ST. LOUIS, MISSOURI

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B110 Basement

**LEGEND**

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W20	- SAMPLE ID (WATER)

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Project Mngr: RHW	Drawn By: JAL
File Name: 15167203-MO0618.dwg	
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MO0618 FLOOR SAMPLE PLANS
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01 MO0618 B110 1st floor

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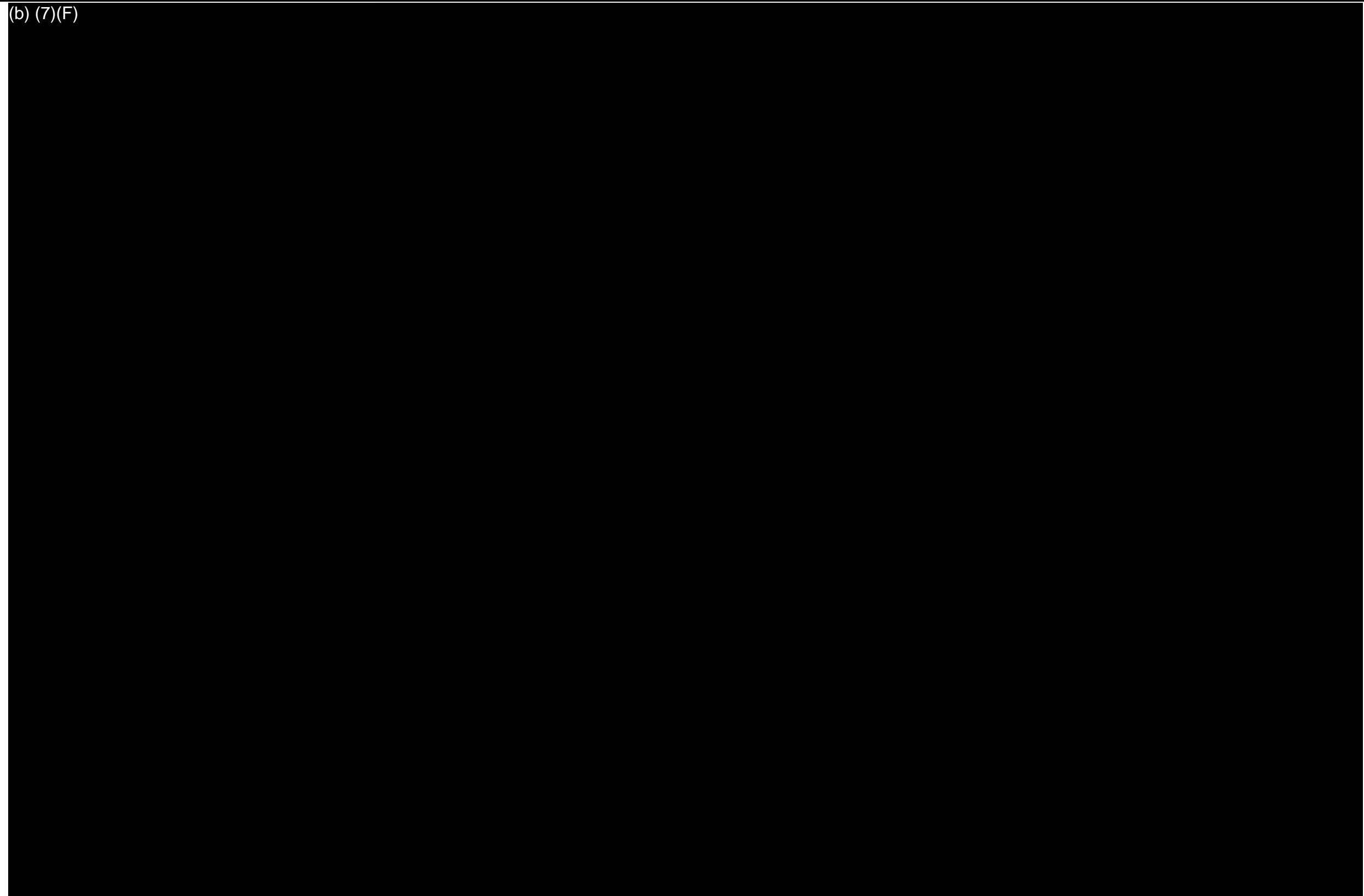
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MO0618 FLOOR SAMPLE P
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02 M00618 B110 2nd floor

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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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APPROXIMATE DRAWING SCALE

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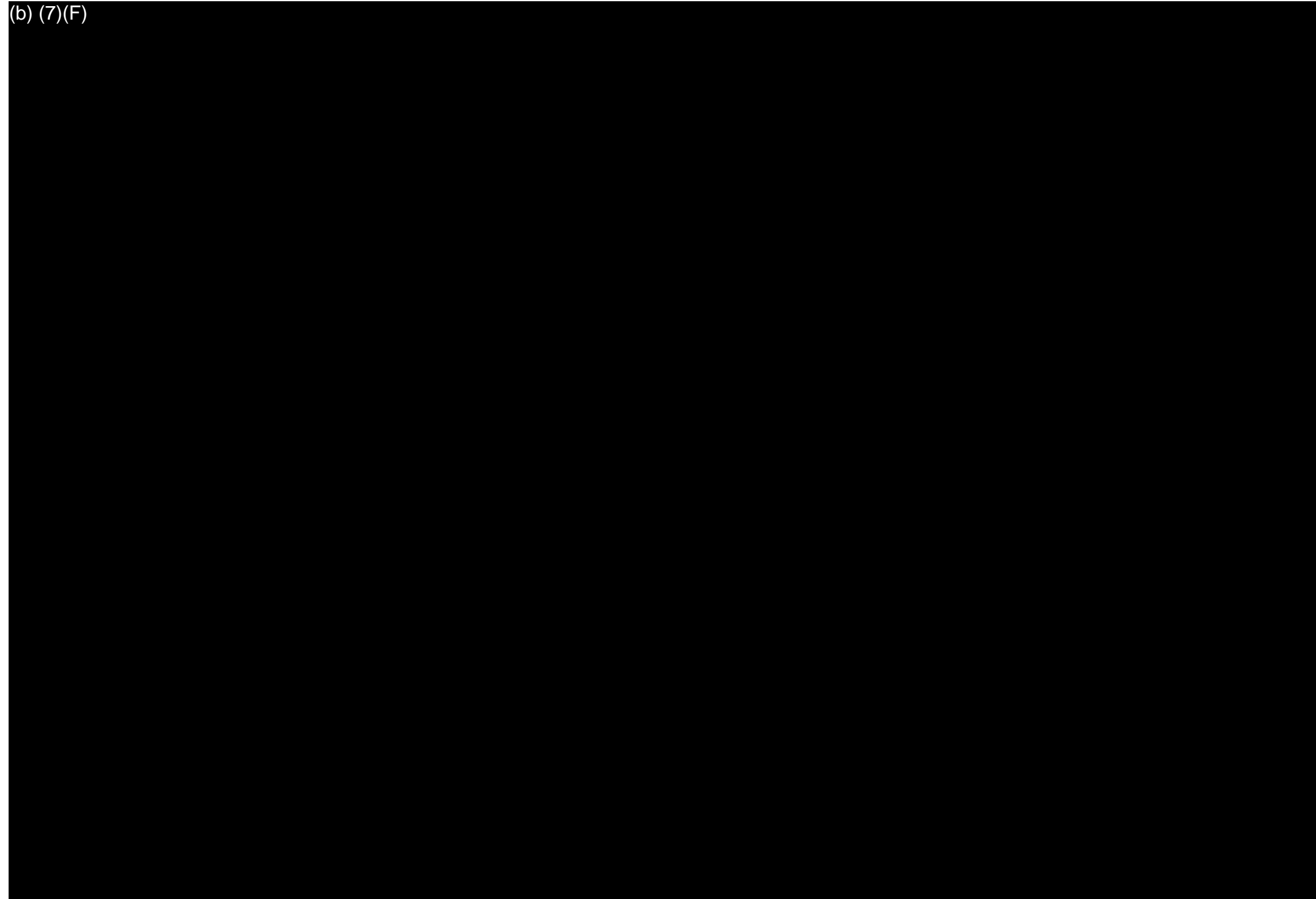
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**LEGEND**

A222	- SAMPLE ID (AIR)
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W20	- SAMPLE ID (WATER)

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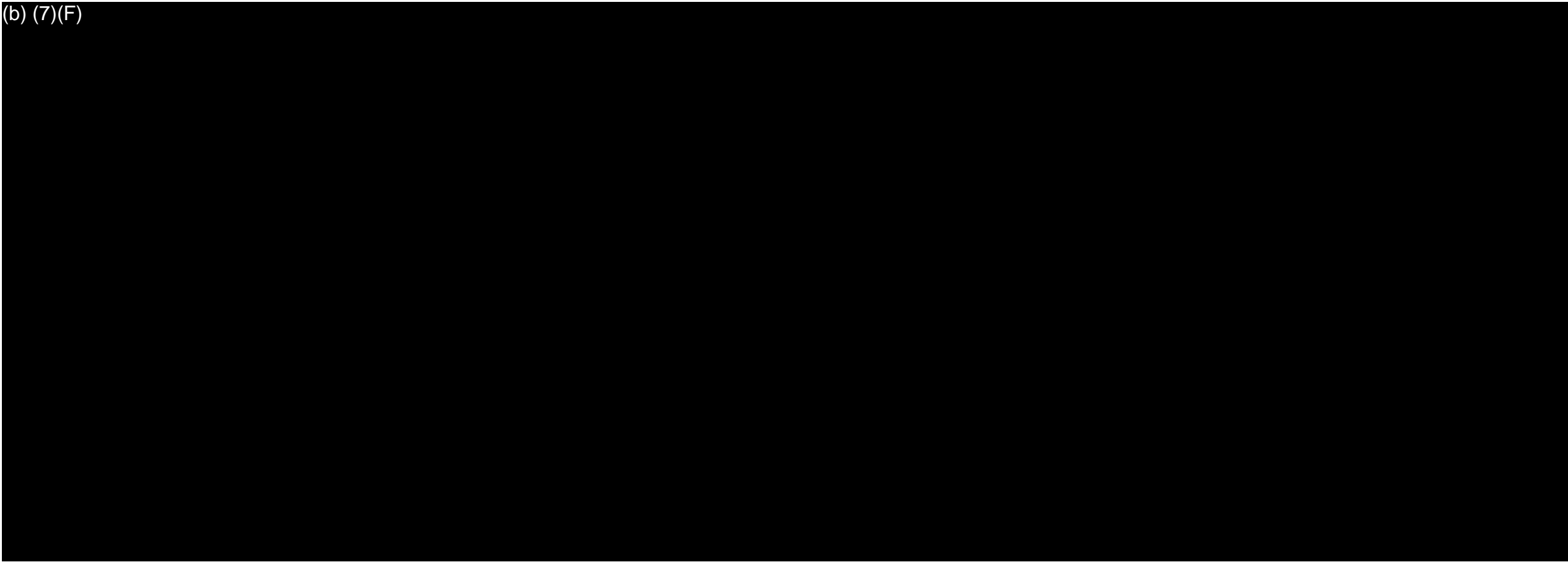
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D300	- SAMPLE ID (DUST)
W20	- SAMPLE ID (WATER)

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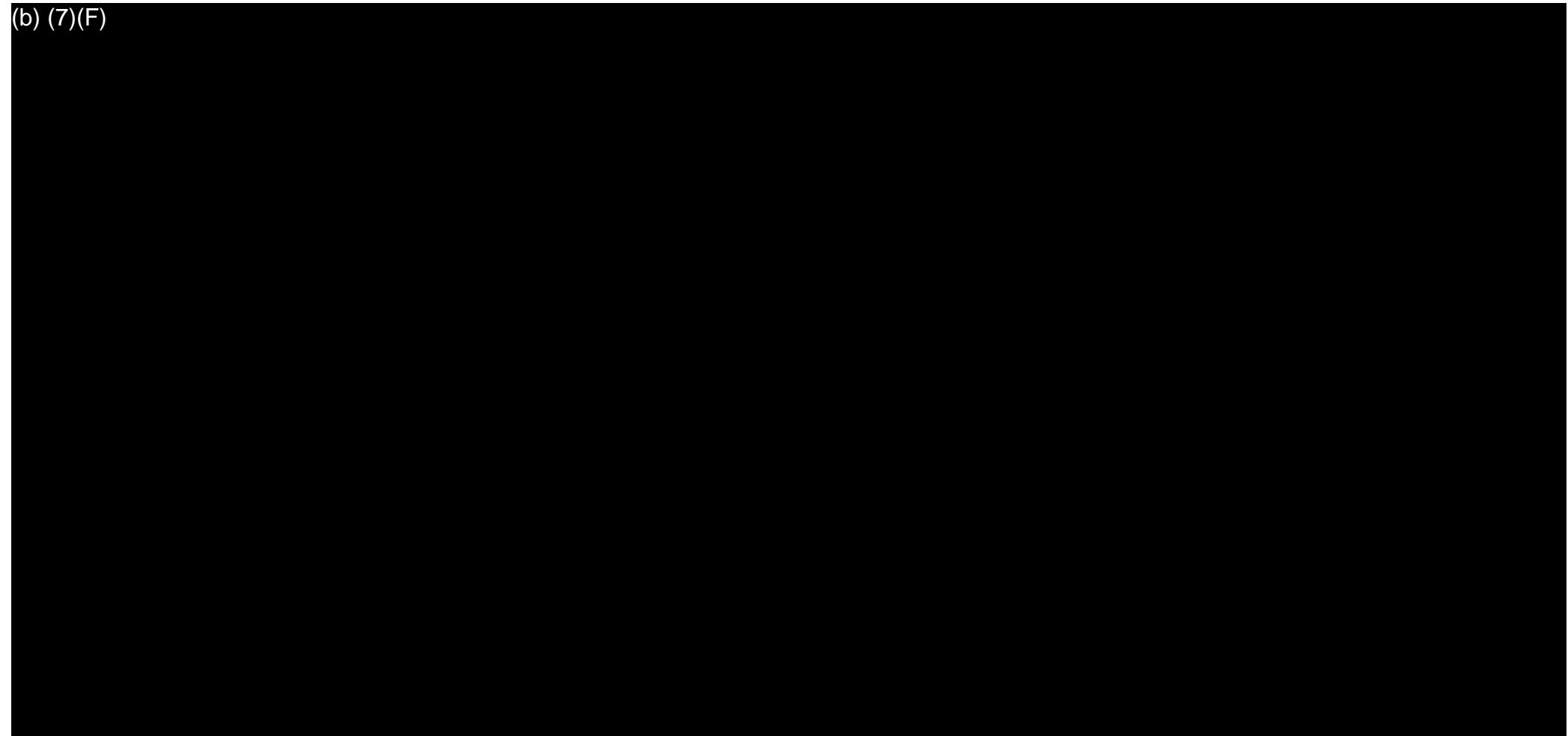
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MO0622 FLOOR SAMPLE PLANS
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W20	- SAMPLE ID (WATER)

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W20	- SAMPLE ID (WATER)

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File Name:	
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MO0625 FLOOR SAMPLE PLANS

AIR AND DRINKING WATER SAMPLING

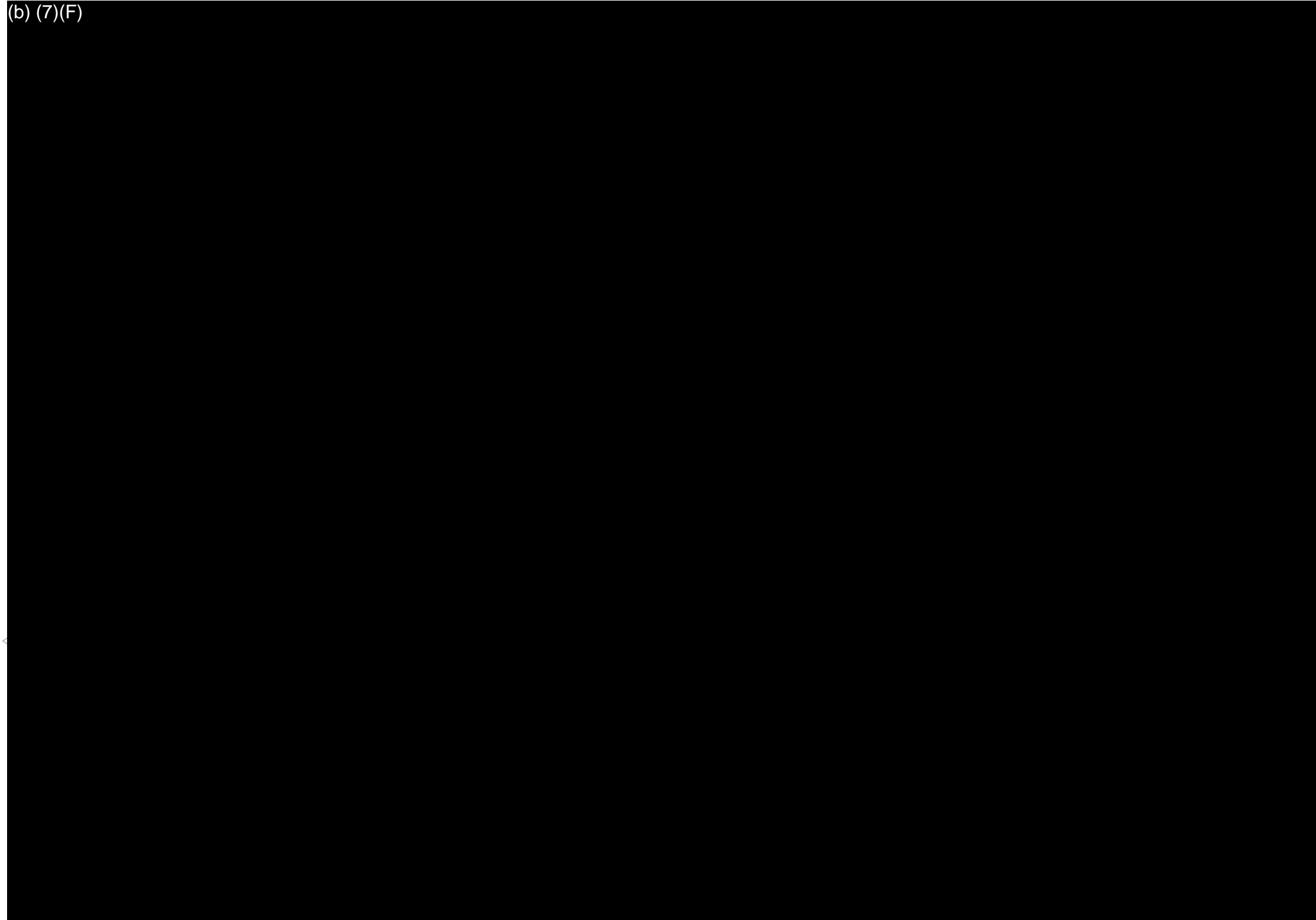
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MO0626 FLOOR SAMPLE PLANS
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## **APPENDIX B**

### **ANALYTICAL LABORATORY DATA**

## DUST ANALYTICAL LABORATORY DATA



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

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Attn:

**Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

9/8/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/7/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161616133. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

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EMSL Order: 161616133  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/07/16 9:25 AM  
 Collected: 9/6/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 300  
 Table Top  
**Collected:** 9/6/2016 **Lab ID:** 0001

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 301  
 Top of Lockers @ L28 -29  
**Collected:** 9/6/2016 **Lab ID:** 0002

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	0.82	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	0.76	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 302  
 Floor @ L28 - L29  
**Collected:** 9/6/2016 **Lab ID:** 0003

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 303  
 Fan @ Breakrm (Front Cover) L27  
**Collected:** 9/6/2016 **Lab ID:** 0004

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	13	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD



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 ProjectID:

Attn: **Rick Whitney**  
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Project: 15167203

## Analytical Results

**Client Sample Description** 303 **Collected:** 9/6/2016 **Lab ID:** 0004  
 Fan @ Breakrm (Front Cover) L27

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Chromium	0.86	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	1.4	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 304 **Collected:** 9/6/2016 **Lab ID:** 0005  
 Window Sill @ Breakrm Refrigeration L26

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 305 **Collected:** 9/6/2016 **Lab ID:** 0006  
 1st Cube From Door @ N27

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	1.1	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 306 **Collected:** 9/6/2016 **Lab ID:** 0007  
 Top of Key Box #10 in Front of Office

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

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Project: 15167203

**Analytical Results**

**Client Sample Description** 306 **Collected:** 9/6/2016 **Lab ID:** 0007  
 Top of Key Box #10 in Front of Office

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 307 **Collected:** 9/6/2016 **Lab ID:** 0008  
 Desk Table @ L24

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 308 **Collected:** 9/6/2016 **Lab ID:** 0009  
 Window in Office @ P25

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 309 **Collected:** 9/6/2016 **Lab ID:** 0010  
 File on Table @ P24

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD



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Project: 15167203

**Analytical Results**

**Client Sample Description** 310 **Collected:** 9/6/2016 **Lab ID:** 0011  
 Hanging File Rack @ N23

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	0.61	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	0.70	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 311 **Collected:** 9/6/2016 **Lab ID:** 0012  
 Table Support Near P23

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	19	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	2.8	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	4.3	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	0.55	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 312 **Collected:** 9/6/2016 **Lab ID:** 0013  
 Vinyl Binder on Shelf AP22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	0.50	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 313 **Collected:** 9/6/2016 **Lab ID:** 0014  
 Back of Chair @ L22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD



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Project: 15167203

## Analytical Results

**Client Sample Description** 313 **Collected:** 9/6/2016 **Lab ID:** 0014  
 Back of Chair @ L22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	0.60	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 314 **Collected:** 9/6/2016 **Lab ID:** 0015  
 File Cabinet @ P21 (Top)

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 315 **Collected:** 9/6/2016 **Lab ID:** 0016  
 Carpet @ N22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 316 **Collected:** 9/6/2016 **Lab ID:** 0017  
 Hanging File Rack @ N22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616133  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/07/16 9:25 AM  
 Collected: 9/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 316 **Collected:** 9/6/2016 **Lab ID:** 0017  
 Hanging File Rack @ N22

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 317 **Collected:** 9/6/2016 **Lab ID:** 0018  
 Desk Between N23 & L23

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	0.71	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	0.79	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	0.67	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 318 **Collected:** 9/6/2016 **Lab ID:** 0019  
 Air Grate @ P21

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD

**Client Sample Description** 319 **Collected:** 9/6/2016 **Lab ID:** 0020  
 Diffuser @ N24

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Chromium	0.68	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	9/7/2016	TD	9/7/2016	TD



## EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205

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<http://www.EMSL.com>

[indianapolislaboratory@emsl.com](mailto:indianapolislaboratory@emsl.com)

EMSL Order:	161616133
CustomerID:	TERR57
CustomerPO:	15167203
ProjectID:	

### Definitions:

ND - indicates that the analyte was not detected at the reporting limit

RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Lead (Pb) Chain of Custody**  
**EMSL Order ID (Lab Use Only):**

161616133

Indianapolis, IN 46205  
PHONE (317) 803-2997  
FAX (317) 803-3047

<b>Company:</b> Terracon		<b>EMSL-Bill to:</b> <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
<b>Street:</b> 11600 Lilburn Park Dr.		<i>Third Party Billing requires written authorization from third party</i>	
<b>City:</b> St. Louis	<b>State/Province:</b> MO	<b>Zip/Postal Code:</b> 63146	<b>Country:</b> US
<b>Report To (Name):</b> Rick Whitney		<b>Telephone #:</b> 314-569-9368	
<b>Email Address:</b> rhwhitney@terracon.com		<b>Fax #:</b> 314-692-8810	<b>Purchase Order:</b> [REDACTED]
<b>Project Name/Number:</b> 15167203		<b>Please Provide Results:</b> <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
<b>U.S. State Samples Taken:</b> MO		<b>CT Samples:</b> <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
<b>Chips</b> <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
<b>Air</b>	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input type="checkbox"/>
<b>Wipe*</b> <b>ASTM</b> <input checked="" type="checkbox"/> <b>non ASTM</b> <input type="checkbox"/> <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input checked="" type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
<b>TCLP</b>	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
<b>Soil</b>	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
<b>Wastewater</b> Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
<b>Drinking Water</b> Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
<b>TSP/SPM Filter</b>	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
<b>Other:</b>				<input type="checkbox"/>

**Name of Sampler:** Rick Whitney      **Signature of Sampler:** (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
See Attached			

**Client Sample #'s:** 300 - 319      **Total # of Samples:** 20

**Relinquished (Client):** (b) (6)      **Date:** 8/9/16      **Time:**

**Received (Lab):** [REDACTED]      **Date:** 9/7/16      **Time:** 925F

**Comments:**  
RCRA metals minus Mercury  
BillTo: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**LEAD (Pb) CHAIN OF CUSTODY**

EMSL ORDER ID (Lab Use Only):

16133

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205

PHONE: (317) 803-2997

FAX: (317) 803-3047

310g 102E

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
300	Top of shelf <sup>pub 9/6/16</sup> <del>Locker</del> <sup>Tap Top</sup> L18	100 cm <sup>2</sup>	9/6/16 0955
301	Top of Lockers @ L28 #29		0958
302	Floor @ L28 - L29		1001
303	Fan @ Break room (Front corner) L27		1005
304	Window sill @ Break room Refrigerator L26 <sup>pub 9/6/16</sup>		1009
305	1st cube from Door @ N27		1014
306	Top of key box <sup>#10</sup> in front of office		1015
307	Desk Table @ L24		1017
308	Window in office @ P25		1019
309	File on Table @ P24		1022
310	Hanging File rack @ N23		1025
311	Table support near P23		1028
312	Vinyl binder on shelf @ P22		1030
313	Back of Chair @ L22		1034
314	File Cabinet @ P21 (Top)		1040
315	Carpet @ N22		1045
316	Hanging File rack @ N22		1052
317	Desk between N23 & L23		1058

Comments/Special Instructions:

RCRA metals minus Mercury  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone 314-569-9368 Email: rwhitney@terracon.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### LEAD (Pb) CHAIN OF CUSTODY

EMSL ORDER ID (Lab Use Only):

16133

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX (317) 803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
318	Air grate @ P21	100 cm <sup>2</sup>	9/6/16 1205
319	Diffuser @ N24	100 cm <sup>2</sup>	↓ 1215
/			

**Comments/Special Instructions:**  
RCRA metals minus Mercury  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rwhitney@terracon.com Purchase Order

# AIR ANALYTICAL LABORATORY DATA





**EMSL Analytical, Inc.**

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---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/15/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/9/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161616477. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

Report amended 09/15/2016 10:31:55 Replaces initial report from 09/14/2016 16:08:48

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



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EMSL Order: 161616477  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 09/09/16 9:20 AM  
Collected: 9/7/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 001 **Collected:** 9/7/2016 **Lab ID:** 0001  
Outside SW entrance, Bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 002 **Collected:** 9/7/2016 **Lab ID:** 0002  
Office copy area NE side bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 003 **Collected:** 9/7/2016 **Lab ID:** 0003  
NW stairwell bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 004 **Collected:** 9/7/2016 **Lab ID:** 0004  
West side conference rm bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD



# EMSL Analytical, Inc.

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EMSL Order: 161616477  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/09/16 9:20 AM  
 Collected: 9/7/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 004 **Collected:** 9/7/2016 **Lab ID:** 0004  
 West side conference rm bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 005 **Collected:** 9/7/2016 **Lab ID:** 0005  
 SE offices bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 006 **Collected:** 9/7/2016 **Lab ID:** 0006  
 East center hall bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 007 **Collected:** 9/7/2016 **Lab ID:** 0007  
 South vestibule bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
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EMSL Order: 161616477  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/09/16 9:20 AM  
 Collected: 9/7/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 008 **Collected:** 9/7/2016 **Lab ID:** 0008  
 Office 100 SE end bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 009 **Collected:** 9/7/2016 **Lab ID:** 0009  
 Outside NE entrance bldg 107 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 010 **Collected:** 9/7/2016 **Lab ID:** 0010  
 Room 244 SE bldg 107 2nd flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 011 **Collected:** 9/7/2016 **Lab ID:** 0011  
 North hall between column c&d6 bldg 107  
 2nd flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.1	5.1	µg/m³	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m³	9/12/2016	TD	9/12/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616477  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/09/16 9:20 AM  
 Collected: 9/7/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 011 **Collected:** 9/7/2016 **Lab ID:** 0011  
 North hall between column c&d6 bldg 107  
 2nd flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Chromium	<0.51	0.51	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.51	0.51	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 012 **Collected:** 9/7/2016 **Lab ID:** 0012  
 Basement @ stairs to 1st flr

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Client Sample Description** 013 **Collected:** 9/7/2016 **Lab ID:** 0013  
 Basement @ crawl space door

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Barium	<5.2	5.2	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Cadmium	<0.21	0.21	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Chromium	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Lead	<0.52	0.52	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Selenium	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD
7300 Modified	Silver	<1.0	1.0	µg/m <sup>3</sup>	9/12/2016	TD	9/12/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Lead (Pb) Chain of Custody**  
**EMSL Order ID (Lab Use Only):**

161616477

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same If Bill to is Different note Instructions in Comments**	
Street: 11600 Lilburn Park Dr.		Third Party Billing requires written authorization from third party	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
 1 Week   
 2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input checked="" type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM non ASTM <input type="checkbox"/> <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
001	Outside SW Entrance, Bldg 107 1st Flr	960 L	9/7/16 0750
002	Office Copy Area NE side Bldg 107 1st Flr	960 L	0803
003	NW stairwell Bldg 107 1st Flr	960 L	0810
004	West side Conference Rm Bldg 107 1st Flr	960 L	0816
005	SE Offices, Bldg 107 1st Flr	960 L	0822

Client Sample #'s: 001 - 013      Total # of Samples: 13

Relinquished (Client): (b) (6)      Date: 9/8/16      Time: \_\_\_\_\_

Received (Lab): \_\_\_\_\_      Date: 9/9/16      Time: 9:20 AM

Comments:  
TCLP RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314.569.9368 Email: rwhitney@terracon.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**LEAD (Pb) CHAIN OF CUSTODY**  
EMSL ORDER ID (Lab Use Only):

16477

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
006	East Center Hall, Bldg 107 1st Flr	960 L	9/7/16 0829
007	South Vestibule, Bldg 107 1st Flr	960 L	↓ 0835
008	Office 100, SW End Bldg 107 1st Flr	960 L	↓ 0839
009	Outside NE Entrance Bldg 107 1st Flr	960 L	9/8/16 0710
010	Room 244 SE Bldg 107 2nd Flr	960 L	0719
011	North Hall between Column C+D6 Bldg 107 2nd Flr	972 L	0726
012	Basement @ Stairs To 1st Flr	960 L	↓ 0737
013	Basement @ Crawl space Door	960 L	↓ 0742

**Comments/Special Instructions:**

TCLP RCRA metals minus Mercury (Hg)  
Bill To Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rwhitney@terracon.com Purchase Order:



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/20/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/13/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161616681. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616681  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/9/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 014 **Collected:** 9/9/2016 **Lab ID:** 0001  
 N Side Entrance Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 015 **Collected:** 9/9/2016 **Lab ID:** 0002  
 2nd Flr @ Column L28 Back Locker Rm  
 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	0.52	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 016 **Collected:** 9/9/2016 **Lab ID:** 0003  
 2nd Flr Office Column N26 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 017 **Collected:** 9/9/2016 **Lab ID:** 0004  
 2nd Flr Office Column P24 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616681  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/9/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 017 **Collected:** 9/9/2016 **Lab ID:** 0004  
 2nd Flr Office Column P24 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 018 **Collected:** 9/9/2016 **Lab ID:** 0005  
 2nd Flr Office Column N22 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 019 **Collected:** 9/9/2016 **Lab ID:** 0006  
 2nd Flr N Exit Column N20 Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 020 **Collected:** 9/9/2016 **Lab ID:** 0007  
 Basement @ Tunnel Door Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616681  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/9/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 020 **Collected:** 9/9/2016 **Lab ID:** 0007  
 Basement @ Tunnel Door Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
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**Client Sample Description** 021 **Collected:** 9/9/2016 **Lab ID:** 0008  
 Basement Boiler Rm Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 022 **Collected:** 9/9/2016 **Lab ID:** 0009  
 Outside SE Exit Bldg. 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Client Sample Description** 023 **Collected:** 9/9/2016 **Lab ID:** 0010  
 1st Flr Hall Outside GSA Fl. Mang. Bldg.  
 102E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616681  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/9/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 024 **Collected:** 9/9/2016 **Lab ID:** 0011  
 1st Fir USDA Office Near Copier Bldg. 102E

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL</i>	<i>Units</i>	<i>Prep Date</i>	<i>Analyst</i>	<i>Analysis Date</i>	<i>Analyst</i>
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/15/2016	TD	9/15/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL INC.  
LABORATORY • PRODUCTS • TRAINING

### Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

161616681

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 11600 Lilburn Park Dr.		<i>Third Party Billing requires written authorization from third party</i>	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input checked="" type="checkbox"/>
Wipe* ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> *If no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney

Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
014	North side Entrance Bldg 102E	960 L	9/9/16 0704
015	2nd Flr @ Column L28 Back Locker Rm Bldg 102E	960 L	0718
016	2nd Flr Office Column N26 Bldg 102E	960 L	0724
017	2nd Flr Office Column P24 Bldg 102E	960 L	0737
018	2nd Flr Office Column N23 Bldg 102E	960 L	

Client Sample #'s: 014 - 024

Total # of Samples: 11

Relinquished (Client): (b) (6)	Date: 9/12/16	Time:
Received (Lab):	Date: 9/13/16	Time: 1030F

Comments:  
TCLP RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order





**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

9/20/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/13/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161616680. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616680  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/12/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 025 **Collected:** 9/12/2016 **Lab ID:** 0001  
 Outside SW Exit Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 026 **Collected:** 9/12/2016 **Lab ID:** 0002  
 Café Behind Restrooms Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Barium	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Cadmium	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Chromium	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Lead	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Selenium	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Silver	ND	0.28	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 027 **Collected:** 9/12/2016 **Lab ID:** 0003  
 Café Line @ Trays Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Barium	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Cadmium	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Chromium	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Lead	ND	0.69	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Selenium	ND	1.4	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Silver	ND	0.28	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 028 **Collected:** 9/12/2016 **Lab ID:** 0004  
 Basement E Side Near Door Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161616680  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/13/16 10:30 AM  
 Collected: 9/12/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 028 **Collected:** 9/12/2016 **Lab ID:** 0004  
 Basement E Side Near Door Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 029 **Collected:** 9/12/2016 **Lab ID:** 0005  
 Basement W Side Bldg. 103F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
NIOSH 7303	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Barium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Cadmium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
NIOSH 7303	Silver	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



### Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

161616680

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 11600 Lilburn Park Dr.		<i>Third Party Billing requires written authorization from third party</i>	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  
  6 Hour  
  24 Hour  
  48 Hour  
  72 Hour  
  96 Hour  
  1 Week  
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input checked="" type="checkbox"/>
Wipe* <small>ASTM <input type="checkbox"/>   non ASTM <input type="checkbox"/>   *If no box is checked, non-ASTM   Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
025	Outside SW Ext Bldg 103F	960 L	9/12/16 0748
026	Cafe behind Restrooms Bldg 103F	720 L	0754
027	Cafe line @ Trays Bldg 103F	720 L	0800
028	Basement East side near Pan Bldg 103F	960 L	0806
029	Basement West side of Bldg 103F	960 L	0810

Client Sample #'s: 025 - 026      Total # of Samples: 5

Relinquished (Client): (b) (6)      Date: 9/12/16      Time:

Received (Lab):      Date: 9/13/16      Time: 1030 F

Comments:

TCLP RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/23/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/19/2016. The results are tabulated on the attached data pages for the following client designated project:

**15067203**

The reference number for these samples is EMSL Order #161617083. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617083  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/15/2016

Project: 15067203

## Analytical Results

**Client Sample Description** 038 **Collected:** 9/14/2016 **Lab ID:** 0001  
 Outside S Entrance Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 039 **Collected:** 9/14/2016 **Lab ID:** 0002  
 1st Flr Office S Conference Rm Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 040 **Collected:** 9/14/2016 **Lab ID:** 0003  
 1st Flr E Hall @ S Door Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 041 **Collected:** 9/14/2016 **Lab ID:** 0004  
 1st Flr Break Room Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617083  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 09/19/16 9:50 AM  
Collected: 9/15/2016

Project: 15067203

## Analytical Results

**Client Sample Description** 041 **Collected:** 9/14/2016 **Lab ID:** 0004  
1st Flr Break Room Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 042 **Collected:** 9/14/2016 **Lab ID:** 0005  
1st Flr Men's Restroom Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 043 **Collected:** 9/14/2016 **Lab ID:** 0006  
1st Flr N Stairs Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 044 **Collected:** 9/14/2016 **Lab ID:** 0007  
Basement Sump Area Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD



# EMSL Analytical, Inc.

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EMSL Order: 161617083  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/15/2016

Project: 15067203

## Analytical Results

**Client Sample Description** 045 **Collected:** 9/14/2016 **Lab ID:** 0008  
 Basement Tunnel Entrance Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 046 **Collected:** 9/15/2016 **Lab ID:** 0009  
 2nd Flr Breakroom Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 047 **Collected:** 9/15/2016 **Lab ID:** 0010  
 2nd Flr Office Center Hall Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 048 **Collected:** 9/15/2016 **Lab ID:** 0011  
 2nd Flr South End Office Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/19/2016	TD	9/19/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617083  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/15/2016

Project: **15067203**

**Analytical Results**

**Client Sample Description** 048 **Collected:** 9/15/2016 **Lab ID:** 0011  
 2nd Flr South End Office Bldg. 104E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m³	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m³	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m³	9/19/2016	TD	9/19/2016	TD

**Client Sample Description** 049 **Collected:** **Lab ID:** 0012  
 Blank - Lot #42692

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Barium	ND	5.0	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Chromium	ND	0.50	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Lead	ND	0.50	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/filter	9/19/2016	TD	9/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/filter	9/19/2016	TD	9/19/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617083

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE 317-803-2997  
FAX: 317-803-3047

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
038	Outside South Entrance Bldg 104E	NIOSH 7300	Air MCE	960 L	9/14/16	
039	1st Flr Office South Conference Rm Bldg 104E			960 L		
040	1st Flr East Hall @ South Door Bldg 104E			960 L		
041	1st Flr Break room Bldg 104E			960 L		
042	1st Flr Men's Restroom Bldg 104E			960 L		
043	1st Flr North Stairs Bldg 104E			960 L		
044	Basement Sump Area Bldg 104E			960 L		
045	Basement Tunnel Entrance Bldg 104E	↓	↓	960 L	↓	

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 9/16/16	Received By (b) (6)	Date 9-19-16 9:50
---------------------	--------------	---------------------	-------------------

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

OrderID: 161617083

Page 1 of 2







**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/23/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/19/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617084. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



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EMSL Order: 161617084  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
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**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 09/19/16 9:50 AM  
Collected: 9/16/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 049 **Collected:** 9/15/2016 **Lab ID:** 0001  
2nd Flr Open Office Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 050 **Collected:** 9/15/2016 **Lab ID:** 0002  
2nd Flr Stairway landing Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 051 **Collected:** 9/15/2016 **Lab ID:** 0003  
2nd Flr S End Vestibule Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 052 **Collected:** 9/15/2016 **Lab ID:** 0004  
N End Entrance Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD



# EMSL Analytical, Inc.

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EMSL Order: 161617084  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 052 **Collected:** 9/15/2016 **Lab ID:** 0004  
 N End Entrance Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 053 **Collected:** 9/16/2016 **Lab ID:** 0005  
 1st Flr N Side Office Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 054 **Collected:** 9/16/2016 **Lab ID:** 0006  
 1st Flr W Side Breakrm Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 055 **Collected:** 9/16/2016 **Lab ID:** 0007  
 1st Flr Office S Hall Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**EMSL Analytical, Inc.**

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617084  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 056 **Collected:** 9/16/2016 **Lab ID:** 0008  
 1st Flr Mechanical Rm S End Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 057 **Collected:** 9/16/2016 **Lab ID:** 0009  
 Basement @ Sump Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Client Sample Description** 058 **Collected:** 9/16/2016 **Lab ID:** 0010  
 Basement @ Tunnel Entrance Bldg. 104F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/21/2016	ED	9/21/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617084

EMSL ANALYTICAL, INC.  
2001 E 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617084

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
049	2nd Flr Open Office Bldg 104F	NIOSH 7300	Am MCE	960 L	9/15/16	
050	2nd Flr Stairway Landing Bldg 104F			960 L	↓	
051	2nd Flr South End Vestibule Bldg 104F			960 L	↓	
052	North End Entrance Bldg 104F			960 L	↓	
053	1st Flr North side Office Bldg 104F			960 L	9/16/16	
054	1st Flr West side Breakroom Bldg 104F			960 L	↓	
055	1st Flr Office South Hall Bldg 104F			960 L	↓	
056	1st Flr Mechanical Rm South end Bldg 104F			960 L	↓	

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	9/16/16	(b) (6)	9/19/16 9:50

Comments: Please analyze for RCRA Metals minus Mercury (Hg)



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):  
17084

EMSL ANALYTICAL, INC  
2001 E 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617084

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
057	Basement @ Sump Bldg 104F	NIOSH 7300	Air MCE	960 L	8/16/16	
058	Basement @ Tunnel Entrance Bldg 104F	↓	↓	960 L	↓	
<b>Comments:</b>						

Page 2 of 2



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/28/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/22/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617371. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

---

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.





# EMSL Analytical, Inc.

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EMSL Order: 161617371  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 059 **Collected:** 9/19/2016 **Lab ID:** 0001  
 Outside N Entrance Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 060 **Collected:** 9/19/2016 **Lab ID:** 0002  
 1st Flr Security Office @ H3 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 061 **Collected:** 9/19/2016 **Lab ID:** 0003  
 1st Flr Breakrm North @ E2 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 062 **Collected:** 9/19/2016 **Lab ID:** 0004  
 1st Flr Office @ C5 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617371  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 062 **Collected:** 9/19/2016 **Lab ID:** 0004  
 1st Flr Office @ C5 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 063 **Collected:** 9/19/2016 **Lab ID:** 0005  
 1st Flr East Stairway @ B12 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 064 **Collected:** 9/19/2016 **Lab ID:** 0006  
 1st Flr Hall @ B21 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 065 **Collected:** 9/19/2016 **Lab ID:** 0007  
 1st Flr Hall @ E31 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW



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EMSL Order: 161617371  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 066 **Collected:** 9/19/2016 **Lab ID:** 0008  
 1st Flr South Breakrm @ H37 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 067 **Collected:** 9/20/2016 **Lab ID:** 0009  
 2nd Flr Office @ D3 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 068 **Collected:** 9/20/2016 **Lab ID:** 0010  
 2nd Flr Office @ F6 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 069 **Collected:** 9/20/2016 **Lab ID:** 0011  
 2nd Flr Breakrm @ H6 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617371  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 069 **Collected:** 9/20/2016 **Lab ID:** 0011  
 2nd Flr Breakrm @ H6 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 070 **Collected:** 9/20/2016 **Lab ID:** 0012  
 2nd Flr Hall @ H14 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 071 **Collected:** 9/20/2016 **Lab ID:** 0013  
 2nd Flr Hall @ B20 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 072 **Collected:** 9/20/2016 **Lab ID:** 0014  
 2nd Flr Hall @ G31 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**EMSL Analytical, Inc.**

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EMSL Order: 161617371  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 073 **Collected:** 9/20/2016 **Lab ID:** 0015  
 2nd Flr USDA @ F36 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 074 **Collected:** 9/20/2016 **Lab ID:** 0016  
 2nd Flr Hall @ C35 Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 075 **Collected:** 9/21/2016 **Lab ID:** 0017  
 Basement Near Entrance Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.1	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.51	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.51	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 076 **Collected:** 9/21/2016 **Lab ID:** 0018  
 Basement @ South Tunnel Entrance Bldg.  
 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.1	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

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 CustomerID: TERR57  
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Attn: **Rick Whitney**  
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**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 076 **Collected:** 9/21/2016 **Lab ID:** 0018  
 Basement @ South Tunnel Entrance Bldg.  
 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Chromium	ND	0.51	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.51	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 077 **Collected:** 9/21/2016 **Lab ID:** 0019  
 Basement West Center Bldg. 103

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** **Collected:** **Lab ID:** 0020  
 Blank - Box #42692

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.0	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.20	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.50	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.50	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/filter	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/filter	9/22/2016	TD	9/22/2016	DW

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617371

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617371

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
059	Outside North Entrance Bldg 103	NIOSH 7300	Air MLE	960 L	9/19/16	
060	1st Flr Security Office @ H3 Bldg 103	↓	↓	960 L	↓	
061	1st Flr Breakrm North @ E2 Bldg 103			960 L		
062	1st Flr Office @ C5 Bldg 103			960 L		
063	1st Flr East Stairway @ B12 Bldg 103			960 L		
064	1st Flr Hall @ E21 B21 Bldg 103			960 L		
065	1st Flr Hall @ E31 Bldg 103			960 L		
066	1st Flr South Breakrm @ H37 Bldg 103			960 L		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 9/21/16	Received By (b) (6)	Date 9/22/16 1005
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Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 OF 2



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

17371

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617371

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
067	2nd Flr Office @ D3 Bldg 103	NIOSH 7300	Air MCE	960 L	9/20/16	
068	2nd Flr Office @ F6 Bldg 103			960 L		
069	2nd Flr Breakrm @ H6 Bldg 103			960 L		
070	2nd Flr Hall @ H14 Bldg 103			960 L		
071	2nd Flr Hall @ B20 Bldg 103			960 L		
072	2nd Flr Hall @ G31 Bldg 103			960 L		
073	2nd Flr USDA @ F36 Bldg 103			960 L		
074	2nd Flr Hall @ C35 Bldg 103	↓	↓	960 L	↓	
075	Basement near Entrance Bldg 103			972 L	9/2/16	
076	Basement @ South Tunnel Entrance Bldg 103			972 L		
077	Basement West Center Bldg 103	↓	↓	960 L	↓	
	Blank-Box #42692	↓	↓		↓	
Comments:						

Page 2 of 2





**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

10/3/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/22/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617375. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By

(b) (6)



Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617375  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 078 **Collected:** 9/21/2016 **Lab ID:** 0001  
 Outside North End Bldg. 115

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 079 **Collected:** 9/21/2016 **Lab ID:** 0002  
 1st Fir North Reception Bldg. 115

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 080 **Collected:** 9/21/2016 **Lab ID:** 0003  
 1st Fir Center Workout Area Bldg. 115

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	2.0	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Client Sample Description** 081 **Collected:** 9/21/2016 **Lab ID:** 0004  
 1st Fir South Fitness Rm Bldg. 115

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

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 ProjectID:

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 Received: 09/22/16 10:05 AM  
 Collected: 9/21/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 081 **Collected:** 9/21/2016 **Lab ID:** 0004  
 1st Flr South Fitness Rm Bldg. 115

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL</i>	<i>Units</i>	<i>Prep Date</i>	<i>Analyst</i>	<i>Analysis Date</i>	<i>Analyst</i>
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/22/2016	TD	9/22/2016	DW

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617375

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617375

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
078	Outside North end Bldg 115	NIOSH 7300	Air MLE	960 L	9/21/16	
079	1st Flr North Reception Bldg 115	↓	↓	960 L	↓	
080	1st Flr Center Workout area Bldg 115	↓	↓	960 L	↓	
081	1st Flr South F. Truss Rm Bldg 115	↓	↓	960 L	↓	
A large diagonal line is drawn across the remaining empty rows of the table.						

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 9/21/16	Received By (b) (6)	Date 9/22/16 10:05
---------------------	--------------	---------------------	--------------------

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

9/29/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/23/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617503. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617503  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/23/16 9:15 AM  
 Collected: 9/22/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 030 **Collected:** 9/13/2016 **Lab ID:** 0001  
 OUTSIDE S ENTRANCE BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 031 **Collected:** 9/13/2016 **Lab ID:** 0002  
 N STAIRWELL 1ST FLR BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 032 **Collected:** 9/13/2016 **Lab ID:** 0003  
 N BREAKROOM 1ST FLR BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 033 **Collected:** 9/13/2016 **Lab ID:** 0004  
 EXAM RM 107 1ST FLR BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.1	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.51	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617503  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/23/16 9:15 AM  
 Collected: 9/22/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 033 **Collected:** 9/13/2016 **Lab ID:** 0004  
 EXAM RM 107 1ST FLR BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.51	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 034 **Collected:** 9/13/2016 **Lab ID:** 0005  
 S VESTIBULE & STAIRS 1ST FLR BLDG.  
 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 035 **Collected:** 9/13/2016 **Lab ID:** 0006  
 EXAM RM 118 1ST FLR BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 036 **Collected:** 9/13/2016 **Lab ID:** 0007  
 BASEMENT SUMP AREA BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617503  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/23/16 9:15 AM  
 Collected: 9/22/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 037 **Collected:** 9/13/2016 **Lab ID:** 0008  
 BASEMENT N TUNNEL ENTRANCE  
 BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 082 **Collected:** 9/22/2016 **Lab ID:** 0009  
 2ND FLR OFFICE @ P38 BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 083 **Collected:** 9/22/2016 **Lab ID:** 0010  
 2ND FLR OFFICE @ P33 BLDG. 103D

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617503

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617503

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
030	Outside South Entrance Bldg 103 D	NIOSH 7300	Air MLE	960 L	9/13/16	
031	North Stairwell 1st Flr Bldg 103 D			960 L		
032	North Breakroom 1st Flr Bldg 103 D			960 L		
033	Exam Rm 107 1st Flr Bldg 103 D			972 L		
034	South Vestibule + Stairs 1st Flr Bldg 103 D			960 L		
035	Exam Rm 118 1st Flr Bldg 103 D			960 L		
036	Basement Sump Area Bldg 103 D			960 L		
037	Basement North Tunnel Entrance Bldg 103 D			960 L		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	9/22/16	(b) (6)	9:15 FX 9/23/16

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 of 2





**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/29/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/23/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617504. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

---

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617504  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/23/16 9:15 AM  
 Collected: 9/22/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 084 **Collected:** 9/22/2016 **Lab ID:** 0001  
 OUTSIDE BLDG. 105L W SIDE

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 085 **Collected:** 9/22/2016 **Lab ID:** 0002  
 1ST FLR AUDITORIUM E SIDE BLDG.  
 105L

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 086 **Collected:** 9/22/2016 **Lab ID:** 0003  
 1ST FLR BREAKROOM N CORNER  
 BLDG. 105L

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 087 **Collected:** 9/22/2016 **Lab ID:** 0004  
 1ST FLR CLASSROOM 3 S END BLDG.  
 105L

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617504  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/23/16 9:15 AM  
 Collected: 9/22/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 087 **Collected:** 9/22/2016 **Lab ID:** 0004  
 1ST FLR CLASSROOM 3 S END BLDG.  
 105L

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Client Sample Description** 088 **Collected:** 9/22/2016 **Lab ID:** 0005  
 1ST FLR HALL @ CLASSROOM 4 BLDG.  
 105L

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/26/2016	TD	9/27/2016	DW

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617504

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617504

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
084	Outside Bldg 105L West side	NIOSH 7300	Air MCE	936 L	9/22/16	
085	1st Flr Auditorium East side Bldg 105L	↓	↓	960 L	↓	
086	1st Flr Break room North corner Bldg 105L	↓	↓	960 L	↓	
087	1st Flr Class room 3 South end Bldg 105L	↓	↓	960 L	↓	
088	1st Flr Hall @ Class room 4 Bldg 105L	↓	↓	960 L	↓	

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	9/22/16	(b) (6)	9/23/16

Comments: Please analyze for RCRA Metals minus Mercury (Hg)



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

10/4/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/28/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617862. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

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EMSL Order: 161617862  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 089 **Collected:** 9/23/2016 **Lab ID:** 0001  
 Outside S Entrance Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.4	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.54	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.54	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 090 **Collected:** 9/23/2016 **Lab ID:** 0002  
 2nd Flr USDA @ FSI Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 091 **Collected:** 9/23/2016 **Lab ID:** 0003  
 2nd Flr USDA @ B48 Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 092 **Collected:** 9/23/2016 **Lab ID:** 0004  
 2nd Flr USDA @ G41 Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD





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EMSL Order: 161617862  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 09/28/16 10:35 AM  
Collected: 9/27/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 092 **Collected:** 9/23/2016 **Lab ID:** 0004  
2nd Flr USDA @ G41 Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 093 **Collected:** 9/23/2016 **Lab ID:** 0005  
2nd Flr USDA @ F30 Hall Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 094 **Collected:** 9/23/2016 **Lab ID:** 0006  
2nd Flr USDA @ G23 Office Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 095 **Collected:** 9/23/2016 **Lab ID:** 0007  
2nd Flr E Breakrm Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD



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EMSL Order: 161617862  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 096 **Collected:** 9/23/2016 **Lab ID:** 0008  
 2nd Fire Elevator Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 097 **Collected:** 9/26/2016 **Lab ID:** 0009  
 Outside N Entrance Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	0.62	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 098 **Collected:** 9/26/2016 **Lab ID:** 0010  
 1st Flr Office @ H4 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 099 **Collected:** 9/26/2016 **Lab ID:** 0011  
 1st Flr Relocation @ B8 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD



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EMSL Order: 161617862  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
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**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 099 **Collected:** 9/26/2016 **Lab ID:** 0011  
 1st Flr Relocation @ B8 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 100 **Collected:** 9/26/2016 **Lab ID:** 0012  
 1st Flr Mailroom @ F7-E7 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 101 **Collected:** 9/26/2016 **Lab ID:** 0013  
 1st Flr File Rm @ A13 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 102 **Collected:** 9/26/2016 **Lab ID:** 0014  
 1st Flr File Rm @ E17 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**EMSL Analytical, Inc.**

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EMSL Order: 161617862  
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 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 103 **Collected:** 9/26/2016 **Lab ID:** 0015  
 1st Flr File Rm @ J23 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 104 **Collected:** 9/26/2016 **Lab ID:** 0016  
 1st Flr Breakrm @ F30 VA Bldg 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	0.53	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 105 **Collected:** 9/27/2016 **Lab ID:** 0017  
 Basement Near Shelter Entrance Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 106 **Collected:** 9/27/2016 **Lab ID:** 0018  
 Basement @ B27 Tunnel Entrance Bldg.  
 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617862  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 106 **Collected:** 9/27/2016 **Lab ID:** 0018  
 Basement @ B27 Tunnel Entrance Bldg.  
 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 107 **Collected:** 9/27/2016 **Lab ID:** 0019  
 Basement S Boiler Rm Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 108 **Collected:** 9/27/2016 **Lab ID:** 0020  
 1st Flr File Rm @ A35 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	9/30/2016	TD	9/30/2016	TD

**Client Sample Description** 109 **Collected:** 9/27/2016 **Lab ID:** 0021  
 1st Flr File Rm @ E40 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD



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EMSL Order: 161617862  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 109 **Collected:** 9/27/2016 **Lab ID:** 0021  
 1st Flr File Rm @ E40 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD

**Client Sample Description** 110 **Collected:** 9/27/2016 **Lab ID:** 0022  
 1st Flr W Stairway @ J44 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>			9/30/2016	TD

**Client Sample Description** 111 **Collected:** 9/27/2016 **Lab ID:** 0023  
 1st Flr Loading Dock @ B45 VA Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD

**Client Sample Description** 112 **Collected:** 9/27/2016 **Lab ID:** 0024  
 1st Flr File Rm @ E52 Bldg. 104

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			9/30/2016	TD

**EMSL Analytical, Inc.**

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Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
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**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/28/16 10:35 AM  
 Collected: 9/27/2016

Project: 15167203

**Analytical Results****Client Sample Description**

Blank Box #42692

**Collected:** 9/23/2016 **Lab ID:** 0025

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL</i>	<i>Units</i>	<i>Prep Date</i>	<i>Analyst</i>	<i>Analysis Date</i>	<i>Analyst</i>
7300 Modified	Arsenic	ND	1.0	µg/filter			9/30/2016	TD
7300 Modified	Barium	ND	5.0	µg/filter			9/30/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/filter			9/30/2016	TD
7300 Modified	Chromium	ND	0.50	µg/filter			9/30/2016	TD
7300 Modified	Lead	ND	0.50	µg/filter			9/30/2016	TD
7300 Modified	Selenium	ND	1.0	µg/filter			9/30/2016	TD
7300 Modified	Silver	ND	1.0	µg/filter			9/30/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161617862

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161617862

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
089	Outside South Entrance Bldg 104	NIOSH 7300	Air MCE	932 L	9/23/16	
090	2nd Flr USDA @ F51 Bldg 104	↓	↓	960 L		
091	2nd Flr USDA @ G44 B48 Bldg 104			960 L		
092	2nd Flr USDA @ G41 Bldg 104			960 L		
093	2nd Flr USDA @ F30 Hall Bldg 104			960 L		
094	2nd Flr USDA @ G23 Office Bldg 104			960 L		
095	2nd Flr East Breakrm Bldg 104			960 L		
096	2nd Flr Elevator Bldg 104			960 L		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date	Received By	Date
	9/27/16	(b) (6)	9/28/16 1035A

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 of 3





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

17862

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

OrderID: 161617862

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments	
097	Outside North Entrance Bldg 104	NIOSH 7300	Air MCE	960 L	9/26/16		
098	1st Flr Office @ H4 VA Bldg 104	↓	↓	960 L	↓		
099	1st Flr Relocation @ B8 VA Bldg 104			960 L			
100	1st Flr Mailroom @ F7 → E7 VA Bldg 104			960 L			
101	1st Flr File Rm @ A13 VA Bldg 104			960 L			
102	1st Flr File Rm @ E17 VA Bldg 104			960 L			
103	1st Flr File Rm @ J23 VA Bldg 104			960 L			
104	1st Flr Breakroom @ F30 VA Bldg 104			960 L			
105	Basement near shelter Entrance Bldg 104			960 L		9/27/16	
106	Basement @ B27 Tunnel Entrance Bldg 104			936 L		↓	
107	Basement South Boiler Rm Bldg 104			936 L			
108	1st Flr File Rm @ E40-A35 VA Bldg 104	960 L					
109	1st Flr File Rm @ E40 VA Bldg 104	960 L					
110	1st Flr West Stairway @ J44 VA Bldg 104	936 L					
Comments:							

Page 2 of 3



EMSL ANALYTICAL, INC.  
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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

17862

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

OrderID: 161617862

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
111	1st Flr Loading Dock @ B45 VA Bldg 104	NIOSH 7300	Air MCE	960 L	9/27/16	
112	1st Flr File Rm @ E52 Bldg 104	↓	↓	960 L	↓	
	Blank Box # 42692	↓	↓	—————	↓	
/						
Comments:						

Page 3 of 3



**EMSL Analytical, Inc.**

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Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/10/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/3/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161618139. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



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EMSL Order: 161618139  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/29/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 113 **Collected:** 9/28/2016 **Lab ID:** 0001  
 Outside S Entrance Bldg 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 114 **Collected:** 9/28/2016 **Lab ID:** 0002  
 1st Flr Mail Rm Warehouse @ O52 Bldg.  
 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 115 **Collected:** 9/28/2016 **Lab ID:** 0003  
 1st Flr Mail Rm Warehouse @ N50 Bldg.  
 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 116 **Collected:** 9/28/2016 **Lab ID:** 0004  
 1st Flr Mail Rm Paper Storage @ O46  
 Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD



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EMSL Order: 161618139  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/29/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 116 **Collected:** 9/28/2016 **Lab ID:** 0004  
 1st Fir Mail Rm Paper Storage @ O46  
 Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 117 **Collected:** 9/28/2016 **Lab ID:** 0005  
 1st Fir N Store Room @ P44 Bldg 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 118 **Collected:** 9/28/2016 **Lab ID:** 0006  
 1st Fir N Stairway Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 119 **Collected:** 9/28/2016 **Lab ID:** 0007  
 2nd Fir Mech Rm N Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**EMSL Analytical, Inc.**

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EMSL Order: 161618139  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/29/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 119 **Collected:** 9/28/2016 **Lab ID:** 0007  
 2nd Flr Mech Rm N Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 120 **Collected:** 9/29/2016 **Lab ID:** 0008  
 2nd Flr Office @ N Copier Bldg 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 121 **Collected:** 9/29/2016 **Lab ID:** 0009  
 2nd Flr Office @ S Copier Bldg. 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	0.55	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 122 **Collected:** 9/29/2016 **Lab ID:** 0010  
 Basement @ Tunnel Entrance Bldg 105E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

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EMSL Order: 161618139  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/29/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 123 **Collected:** 9/29/2016 **Lab ID:** 0011  
 Basement @ Sump Bldg 105E

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL</i>	<i>Units</i>	<i>Prep Date</i>	<i>Analyst</i>	<i>Analysis Date</i>	<i>Analyst</i>
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	1.1	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161618139

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618139

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature): (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
113	Outside South Entrance Bldg 105E	NIOSH 7300	Air MLE	936 L	9/28/16	
114	1st Flr Mail Rm Warehouse @ 052 Bldg 105E	↓	↓	960 L	↓	
115	1st Flr Mail Rm Warehouse @ N50 Bldg 105E			960 L		
116	1st Flr Mail Rm Paper Storage @ 046 Bldg 105E			960 L		
117	1st Flr North Store Room @ P44 Bldg 105E			960 L		
118	1st Flr North Stairway Bldg 105E			960 L		
119	2nd Flr Mech. Rm North Bldg 105E			960 L		
120	2nd Flr Office @ North Corridor Bldg 105E			960 L		9/29/16

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	9/30/16		
	10/3/16	9255	

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 of 2





EMSL ANALYTICAL, INC.  
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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

15139

EMSL ANALYTICAL, INC.  
2001 E 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618139

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
121	2nd Flr Office @ South Copter Bldg 105E	NIOSH 7300	Air MIE	960 L	9/29/16	
122	Basement @ Tunnel Entrance Bldg 105E	↓	↓	960 L	↓	
123	Basement @ Sump Bldg 105E	↓	↓	960 L	↓	
/						
Comments:						

Page 2 of 2



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/10/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/3/2016. The results are tabulated on the attached data pages for the following client designated project:

**151617203**

The reference number for these samples is EMSL Order #161618137. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By  
(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



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EMSL Order: 161618137  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 151617203

## Analytical Results

**Client Sample Description** 124 **Collected:** 9/29/2016 **Lab ID:** 0001  
 Basement @ Tunnel Entrance Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 125 **Collected:** 9/29/2016 **Lab ID:** 0002  
 Basement @ Sump Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 126 **Collected:** 9/29/2016 **Lab ID:** 0003  
 Outside E Side Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 127 **Collected:** 9/29/2016 **Lab ID:** 0004  
 1st Flr N Entrance Vestibule Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD



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EMSL Order: 161618137  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 151617203

## Analytical Results

**Client Sample Description** 127 **Collected:** 9/29/2016 **Lab ID:** 0004  
 1st Flr N Entrance Vestibule Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 128 **Collected:** 9/30/2016 **Lab ID:** 0005  
 2nd Flr Office Area Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 129 **Collected:** 9/30/2016 **Lab ID:** 0006  
 2nd Flr Office Meeting Rm N Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 130 **Collected:** 9/30/2016 **Lab ID:** 0007  
 2nd Flr Office Meeting Rm N Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD



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EMSL Order: 161618137  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 151617203

## Analytical Results

**Client Sample Description** 131 **Collected:** 9/30/2016 **Lab ID:** 0008  
 1st Flr Office @ Breakroom Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 132 **Collected:** 9/30/2016 **Lab ID:** 0009  
 1st Flr Snack Bar Area Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 133 **Collected:** 9/30/2016 **Lab ID:** 0010  
 1st Flr @ S Elevator Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** 134 **Collected:** 9/30/2016 **Lab ID:** 0011  
 Outside SE Entrance Under Walk Over  
 Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618137  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 151617203

## Analytical Results

**Client Sample Description** 134 **Collected:** 9/30/2016 **Lab ID:** 0011  
 Outside SE Entrance Under Walk Over  
 Bldg. 105F

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/4/2016	TD	10/4/2016	TD

### Definitions:

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161618137

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618137

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature): (b) (6)	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
124	Basement @ Tunnel entrance Bldg 105F	NIOSH 7300	Am MLE	960 L	9/29/16	
125	Basement @ Sump Bldg 105F	↓	↓	960 L	↓	
126	Outside East side Bldg 105F	↓	↓	960 L	↓	
127	1st Flr North Entrance vestibule Bldg 105F	↓	↓	960 L	↓	
128	2nd Flr Office Conference Rm South Bldg 105F	↓	↓	960 L	9/30/16	
129	2nd Flr Office area Bldg 105F	↓	↓	960 L	↓	
130	2nd Flr Office meeting Rm North Bldg 105F	↓	↓	960 L	↓	
131	1st Floor office @ Breakroom Bldg 105F	↓	↓	960 L	↓	

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	9/30/16		
	10/2/16	QSF	

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 of 2



EMSL ANALYTICAL, INC.  
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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

18137

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618137

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
132	1st Flr Snack Bar Area Bldg 105F	NIOSH 7300	Am MIE	960 L	9/30/16	
133	1st Flr @ South Elevator Bldg 105F	↓	↓	960 L	↓	
134	Outside SE Entrance under Walk Over Bldg 105F	↓	↓	960 L	↓	
Comments:						

Page 2 of 2





**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/17/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/10/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161618645. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

(b) (6)



Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 135 **Collected:** 10/3/2016 **Lab ID:** 0001  
 Outside N Entrance Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 136 **Collected:** 10/3/2016 **Lab ID:** 0002  
 2nd Flr N Office @ H5 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 137 **Collected:** 10/3/2016 **Lab ID:** 0003  
 2nd Flr N Office @ D4 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 138 **Collected:** 10/3/2016 **Lab ID:** 0004  
 2nd Flr Office @ G9 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD



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EMSL Order: 161618645  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 10/10/16 9:35 AM  
Collected: 10/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 138 **Collected:** 10/3/2016 **Lab ID:** 0004  
2nd Flr Office @ G9 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 139 **Collected:** 10/3/2016 **Lab ID:** 0005  
2nd Flr Office @ D13 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 140 **Collected:** 10/3/2016 **Lab ID:** 0006  
2nd Flr Breakrm @ B17 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 141 **Collected:** 10/3/2016 **Lab ID:** 0007  
2nd Flr Office @ D22 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**EMSL Analytical, Inc.**

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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 142 **Collected:** 10/3/2016 **Lab ID:** 0008  
 2nd Flr Office @ H25 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 145 **Collected:** 10/4/2016 **Lab ID:** 0009  
 1st Flr Office @ H6 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 146 **Collected:** 10/4/2016 **Lab ID:** 0010  
 1st Flr Breakroom @ A10 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 147 **Collected:** 10/4/2016 **Lab ID:** 0011  
 1st Flr Office @ E12 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD



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EMSL Order: 161618645  
CustomerID: TERR57  
CustomerPO: 15167203  
ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
Fax: (314) 692-8810  
Received: 10/10/16 9:35 AM  
Collected: 10/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 147 **Collected:** 10/4/2016 **Lab ID:** 0011  
1st Flr Office @ E12 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 148 **Collected:** 10/4/2016 **Lab ID:** 0012  
1st Flr Office @ H15 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 149 **Collected:** 10/4/2016 **Lab ID:** 0013  
1st Flr Office @ F22 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 150 **Collected:** 10/4/2016 **Lab ID:** 0014  
1st Flr Breakroom @ A20 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD



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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 151 **Collected:** 10/5/2016 **Lab ID:** 0015  
 Outside S Entrance Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 152 **Collected:** 10/5/2016 **Lab ID:** 0016  
 2nd Flr Office @ E36 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 153 **Collected:** 10/5/2016 **Lab ID:** 0017  
 2nd Flr USDA Lab @ E43 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 154 **Collected:** 10/5/2016 **Lab ID:** 0018  
 2nd Flr USDA Lab @ H47 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD



# EMSL Analytical, Inc.

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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 154 **Collected:** 10/5/2016 **Lab ID:** 0018  
 2nd Flr USDA Lab @ H47 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 155 **Collected:** 10/5/2016 **Lab ID:** 0019  
 2nd Flr USDA Office @ D53 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 156 **Collected:** 10/5/2016 **Lab ID:** 0020  
 1st Flr Office @ D35 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Barium	ND	5.1	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Chromium	ND	0.51	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Lead	ND	0.51	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/14/2016	TD	10/14/2016	TD

**Client Sample Description** 157 **Collected:** 10/5/2016 **Lab ID:** 0021  
 1st Flr Hall @ B30 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD



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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

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 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 158 **Collected:** 10/5/2016 **Lab ID:** 0022  
 1st Flr Hall @ Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 159 **Collected:** 10/6/2016 **Lab ID:** 0023  
 Outside W Breezeway Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 160 **Collected:** 10/6/2016 **Lab ID:** 0024  
 1st Flr W Stairway @ Breezeway Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 161 **Collected:** 10/6/2016 **Lab ID:** 0025  
 1st Flr Storage @ E51 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD



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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 161 **Collected:** 10/6/2016 **Lab ID:** 0025  
 1st Flr Storage @ E51 Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 162 **Collected:** 10/6/2016 **Lab ID:** 0026  
 Basement @ W Center Entrance Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 163 **Collected:** 10/6/2016 **Lab ID:** 0027  
 Basement @ N End W Side Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD

**Client Sample Description** 164 **Collected:** 10/6/2016 **Lab ID:** 0028  
 Basement @ S End W Side Bldg. 105

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/14/2016	TD

**EMSL Analytical, Inc.**

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EMSL Order: 161618645  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/6/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** Blank Box #42692 **Collected:** **Lab ID:** 0029

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/filter			10/14/2016	TD
7300 Modified	Barium	ND	5.0	µg/filter			10/14/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/filter			10/14/2016	TD
7300 Modified	Chromium	ND	0.50	µg/filter			10/14/2016	TD
7300 Modified	Lead	ND	0.50	µg/filter			10/14/2016	TD
7300 Modified	Selenium	ND	1.0	µg/filter			10/14/2016	TD
7300 Modified	Silver	ND	1.0	µg/filter			10/14/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161618645

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618645

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
135	Outside North Entrance Bldg 105	NIOSH 7300	Air MLE	960 L	10-3-16	
136	2nd Flr North Office @ H5 Bldg 105	↓	↓	960 L	↓	
137	2nd Flr North Office @ D4 Bldg 105			960 L		
138	2nd Flr Office @ G9 Bldg 105			960 L		
139	2nd Flr Office @ D13 Bldg 105			960 L		
140	2nd Flr Office Breakrm @ B17 Bldg 105			960 L		
141	2nd Flr Office @ D22 Bldg 105			960 L		
142	2nd Flr Office @ H25 Bldg 105			960 L		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 10-7-16	Received By (b) (6)	Date 10/10/16 9358
------------------------	-----------------	------------------------	-----------------------

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 of 3



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):  
18645

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618645

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments			
145	1st Flr Office @ H6 Bldg 105	NIOSH 7300	Air MCE	960 L	10-4-16				
146	1st Flr Breakroom @ A10 Bldg 105	↓	↓	960 L	↓				
147	1st Flr Office @ E12 Bldg 105			960 L					
148	1st Flr Office @ H15 Bldg 105			960 L					
149	1st Flr Office @ F22 Bldg 105			960 L					
150	1st Flr Breakroom @ A20 Bldg 105			936 L		↓			
151	Outside South Entrance Bldg 105			960 L		10-5-16			
152	2nd Flr Office @ E36 Bldg 105			960 L		↓			
153	2nd Flr USDA Lab @ E43 Bldg 105			960 L		↓			
154	2nd Flr USDA Lab @ H47 Bldg 105			960 L		↓			
155	2nd Flr USDA Office @ D53 Bldg 105			960 L		↓			
156	1st Flr Office @ D55 Bldg 105			984 L		↓			
157	1st Flr Hall @ B30 Bldg 105			960 L		↓			
158	1st Flr Hall @ Bldg 105			960 L		↓			
Comments:									

Page 2 of 3





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Phone: (314) 569-9368  
Fax: (314) 692-8810

10/17/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/10/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161618640. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

(b) (6)



Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618640  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/7/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 143 **Collected:** 10/4/2016 **Lab ID:** 0001  
 Outside S Bldg. 108B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.68	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 144 **Collected:** 10/4/2016 **Lab ID:** 0002  
 West Half Bldg. 108B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 165 **Collected:** 10/6/2016 **Lab ID:** 0003  
 Center of Bldg. 141C

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	11	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 166 **Collected:** 10/6/2016 **Lab ID:** 0004  
 W Side Exterior Bldg. 141C

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.90	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD



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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618640  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/7/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 166 **Collected:** 10/6/2016 **Lab ID:** 0004  
 W Side Exterior Bldg. 141C

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 167 **Collected:** 10/7/2016 **Lab ID:** 0005  
 Outside NE Corner Bldg. 122B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.68	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 168 **Collected:** 10/7/2016 **Lab ID:** 0006  
 1st Flr E Offices Bldg. 122B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.61	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 169 **Collected:** 10/7/2016 **Lab ID:** 0007  
 Basement E Locker Rm Bldg. 122B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.56	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD



**EMSL Analytical, Inc.**

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EMSL Order: 161618640  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/7/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 170 **Collected:** 10/7/2016 **Lab ID:** 0008  
 Warehouse E Side Bldg. 122B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	1.2	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 171 **Collected:** 10/7/2016 **Lab ID:** 0009  
 Warehouse W Side Bldg. 122B

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	62	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 172 **Collected:** 10/7/2016 **Lab ID:** 0010  
 Outside E Side Bldg. 108A

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	2.4	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 173 **Collected:** 10/7/2016 **Lab ID:** 0011  
 Inside W End Bldg. 108A

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.87	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618640  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/10/16 9:35 AM  
 Collected: 10/7/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 173 **Collected:** 10/7/2016 **Lab ID:** 0011  
 Inside W End Bldg. 108A

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

**Client Sample Description** 174 **Collected:** 10/7/2016 **Lab ID:** 0012  
 Inside E End Bldg. 108A

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Chromium	0.61	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/13/2016	TD	10/13/2016	TD

### Definitions:

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161618640

EMSL ANALYTICAL, INC  
2001 E 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618640

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature): (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
143	Outside South Bldg 108B	NIOSH 7300	Air MCE	936 L	10-4-16	
144	West Half Bldg 108B	↓	↓	936 L	↓	
/						

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	10-7-16	(b) (6)	10/10/16 9356

Comments: Please analyze for RCRA Metals minus Mercury (Hg)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

18640

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618640

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: <u>MCL</u>	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
165	Center of Bldg 141C	NIOSH 7300	Air MCL	960 L	10-6-16	
166	West side Exterior Bldg 141C	↓	↓	936 L	↓	
<del>_____</del>						

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 10-7-16	Received By (b) (6)	Date 10/10/16 9356
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Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 2 of 4



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

18640

EMSL ANALYTICAL, INC.  
2001 E 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618640

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature): (b) (6)	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MLE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
167	Outside North East Corner Bldg 122 B	NIOSH 7300	Air MLE	960 L	10-7-16	
168	1st Flr East Offices Bldg 122 B	↓	↓	960 L	↓	
169	Basement East Locker Rm Bldg 122 B	↓	↓	960 L	↓	
170	Warehouse East side Bldg 122 B	↓	↓	960 L	↓	
171	Warehouse West side Bldg 122 B	↓	↓	960 L	↓	

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By: (b) (6)	Date: 10-7-16	Received By: (b) (6)	Date: 10/10/16 930
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Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 3 of 4



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

18640

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161618640

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature): (b) (6)	

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
172	Outside East side Bldg 108A 108A	NIOSH 7300	Air MCE	960 L	10-7-16	
173	Inside West end Bldg 108A	↓	↓	960 L	↓	
174	Inside East End Bldg 108A	↓	↓	960 L	↓	
-----						

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By: (b) (6)	Date: 10-7-16	Received By:	Date:
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Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 4 of 4



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

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Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/24/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/17/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161619107. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

(b) (6)



Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



# EMSL Analytical, Inc.

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EMSL Order: 161619107  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 175 **Collected:** 10/11/2016 **Lab ID:** 0001  
 2nd Flr Office @ J12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 176 **Collected:** 10/11/2016 **Lab ID:** 0002  
 2nd Flr Office @ N13 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.1	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.3	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.53	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.53	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.1	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.1	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 177 **Collected:** 10/11/2016 **Lab ID:** 0003  
 2nd Flr Office @ H15 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 178 **Collected:** 10/11/2016 **Lab ID:** 0004  
 2nd Flr Office @ E11-E12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD





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EMSL Order: 161619107  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 178 **Collected:** 10/11/2016 **Lab ID:** 0004  
 2nd Flr Office @ E11-E12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 179 **Collected:** 10/11/2016 **Lab ID:** 0005  
 2nd Flr Office @ F8 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 180 **Collected:** 10/11/2016 **Lab ID:** 0006  
 2nd Flr Office @ F3 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 181 **Collected:** 10/11/2016 **Lab ID:** 0007  
 2nd Flr Office @ Rm 289 J2 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD



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EMSL Order: 161619107  
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 CustomerPO: 15167203  
 ProjectID:

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 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 182 **Collected:** 10/11/2016 **Lab ID:** 0008  
 Outside North Entrance Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 183 **Collected:** 10/12/2016 **Lab ID:** 0009  
 1st Flr Office @ J2 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 184 **Collected:** 10/12/2016 **Lab ID:** 0010  
 1st Flr Office @ L3 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 185 **Collected:** 10/12/2016 **Lab ID:** 0011  
 1st Flr Office @ F2 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD



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 Collected: 10/14/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 185 **Collected:** 10/12/2016 **Lab ID:** 0011  
 1st Flr Office @ F2 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 186 **Collected:** 10/12/2016 **Lab ID:** 0012  
 1st Flr Breakrm @ F10 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 187 **Collected:** 10/12/2016 **Lab ID:** 0013  
 1st Flr Office @ E12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 188 **Collected:** 10/12/2016 **Lab ID:** 0014  
 1st Flr Office @ B13 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

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 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 189 **Collected:** 10/12/2016 **Lab ID:** 0015  
 1st Flr Office @ D10 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 190 **Collected:** 10/12/2016 **Lab ID:** 0016  
 Outside Center Eas Entrance @ A14 Bldg.  
 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 191 **Collected:** 10/13/2016 **Lab ID:** 0017  
 1st Flr Former Studio @ D17 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 192 **Collected:** 10/13/2016 **Lab ID:** 0018  
 1st Flr Office @ K12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD



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Project: 15167203

## Analytical Results

**Client Sample Description** 192 **Collected:** 10/13/2016 **Lab ID:** 0018  
 1st Flr Office @ K12 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 193 **Collected:** 10/13/2016 **Lab ID:** 0019  
 1st Flr Office @ N13-N14 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	1.0	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 194 **Collected:** 10/13/2016 **Lab ID:** 0020  
 1st Flr Breakrm @ H14 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 195 **Collected:** 10/13/2016 **Lab ID:** 0021  
 Basement @ E14 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619107  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

## Analytical Results

**Client Sample Description** 195 **Collected:** 10/13/2016 **Lab ID:** 0021  
 Basement @ E14 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
--------	-----------	--------	----	-------	-----------	---------	---------------	---------

**Client Sample Description** 196 **Collected:** 10/13/2016 **Lab ID:** 0022  
 Basement @ D9 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 197 **Collected:** 10/13/2016 **Lab ID:** 0023  
 Basement @ H3 Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 198 **Collected:** 10/13/2016 **Lab ID:** 0024  
 Outside SE Corner @ Chillers Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619107  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 199 **Collected:** 10/14/2016 **Lab ID:** 0025  
 1st Flr ICE JV Storage SE Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 200 **Collected:** 10/14/2016 **Lab ID:** 0026  
 1st Flr ICE JV Office Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 201 **Collected:** 10/14/2016 **Lab ID:** 0027  
 1st Flr ICE JV Office Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 202 **Collected:** 10/14/2016 **Lab ID:** 0028  
 Outside SW Corner Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619107  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: **15167203**

**Analytical Results**

**Client Sample Description** 202 **Collected:** 10/14/2016 **Lab ID:** 0028  
 Outside SW Corner Bldg. 110

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** Blank Box #42692 **Collected:** 10/14/2016 **Lab ID:** 0029

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/filter			10/19/2016	TD
7300 Modified	Barium	ND	5.0	µg/filter			10/19/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/filter			10/19/2016	TD
7300 Modified	Chromium	ND	0.50	µg/filter			10/19/2016	TD
7300 Modified	Lead	ND	0.50	µg/filter			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/filter			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/filter			10/19/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)





EMSL ANALYTICAL, INC.  
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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161619107

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161619107

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone: 314-569-9368		Fax: 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
175	2nd Flr Office @ J12 Bldg 110	NIOSH 7300	A MCE	960 L	10-11-16	
176	2nd Flr Office @ N13 Bldg 110	↓	↓	936 L	↓	
177	2nd Flr Office @ H15 Bldg 110			960 L		
178	2nd Flr Office @ E11 → E12 Bldg 110			960 L		
179	2nd Flr Office @ F8 Bldg 110			960 L		
180	2nd Flr Office @ F3 Bldg 110			960 L		
181	2nd Flr Office @ Rm 209, J2 Bldg 110			960 L		
182	Outside North Entrance Bldg 110			960 L		↓

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
		(b) (6)	10-17-16 102

Comments: Please analyze for RCRA Metals minus Mercury (Hg)



EMSL ANALYTICAL INC.  
LABORATORY • PRODUCTS • TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

19107

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161619107

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
183	1st Flr Office @ J2 Bldg 110	Niosit 7300	Air MIE	960 L	10-12-16	
184	1st Flr Office @ L3 Bldg 110	↓	↓	960 L	↓	
185	1st Flr Office @ F2 Bldg 110			960 L		
186	1st Flr Breakrm @ F10 Bldg 110			960 L		
187	1st Flr Office @ E12 Bldg 110			960 L		
188	1st Flr Office @ B13 Bldg 110			960 L		
189	1st Flr Office @ D10 Bldg 110			960 L		
190	Outside Center East Entrance @ A14 Bldg 110			960 L		
191	1st Flr Form Studio @ D17 Bldg 110			960 L		10-13-16
192	1st Flr Office @ K12 Bldg 110			960 L		
193	1st Flr Office @ N13-N14 Bldg 110			960 L		
194	1st Flr Breakrm @ H14 Bldg 110	960 L				
195	Basement @ D9 E14 Bldg 110	↓	↓	960 L	↓	
196	Basement @ H3 D9 Bldg 110			960 L		
Comments:						

Page 2 of 3



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS DIVISION

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

19107

EMSL ANALYTICAL, INC.  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

OrderID: 161619107

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
197	Basement @ H 3 Bldg 110	NIOSH 7300	Air MLE	960 L	10-13-16	
198	Outside SE Corner @ Chillers Bldg 110			960 L	↓	
199	1st Flr ICE JV Storage @ SE Bldg 110			960 L	10-14-16	
200	1st Flr ICE JV Storage @ Mail Door Bldg 110			960 L	↑	
201	1st Flr ICE JV Office Bldg 110			960 L		
202	Outside East Side SW Corner Bldg 110			960 L	↓	
	Blank - Box #42692					
Comments:						

Page 3 of 3



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

10/24/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/17/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161619103. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619103  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/17/16 10:25 AM  
 Collected: 10/14/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 203 **Collected:** 10/14/2016 **Lab ID:** 0001  
 Outside E Side Bldg. 106 Guard House

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 204 **Collected:** 10/14/2016 **Lab ID:** 0002  
 Hall @ Locker Rm Bldg. 106 Guard House

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Client Sample Description** 205 **Collected:** 10/14/2016 **Lab ID:** 0003  
 Front Desk Bldg. 106 Guard House

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Chromium	0.59	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>			10/19/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
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# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161619103

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
Phone : 314-569-9368		Fax : 314-692-8810		Phone:		Fax:	
Project Name: 15167203			Email Results To: rhwhitney@terracon.com			U.S. State where Samples Collected: MO	
# Samples in Shipment:		Date of Shipment:		Purchase Order:		Sampled By (Signature) (b) (6)	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
203	Outside East side Bldg 106 (Guard) House	NIOSH 7300	Air MCE		10-14-16	
204	Hall @ Locker Rm Bldg 106 (Guard) House	↓	↓		↓	
205	Front Desk Bldg 106 (Guard) House	↓	↓		↓	
A large diagonal line is drawn across the remaining empty rows of the table.						

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By (b) (6)	Date 10-14-16	Received By (b) (6)	Date 10/17/16 1020
------------------------	------------------	------------------------	-----------------------

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

OrderID: 161619103



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

11/1/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/26/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161619865. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

(b) (6)



Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619865  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/26/16 10:10 AM  
 Collected: 10/24/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 206 **Collected:** 10/24/2016 **Lab ID:** 0001  
 Outside N Entrance Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.1	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.20	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.51	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.51	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 207 **Collected:** 10/24/2016 **Lab ID:** 0002  
 1st Flr N Stairway Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 208 **Collected:** 10/24/2016 **Lab ID:** 0003  
 Basement @ Sump Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 209 **Collected:** 10/24/2016 **Lab ID:** 0004  
 Basement @ Tunnel Entrance Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD



**EMSL Analytical, Inc.**

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161619865  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/26/16 10:10 AM  
 Collected: 10/24/2016

Project: **15167203**

**Analytical Results**

**Client Sample Description** 209 **Collected:** 10/24/2016 **Lab ID:** 0004  
 Basement @ Tunnel Entrance Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 210 **Collected:** 10/24/2016 **Lab ID:** 0005  
 1st Flr Office @ N22 Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 211 **Collected:** 10/24/2016 **Lab ID:** 0006  
 1st Flr Office @ N26 Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Client Sample Description** 212 **Collected:** 10/24/2016 **Lab ID:** 0007  
 2nd Flr Office N End Bldg. 103E

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**EMSL Analytical, Inc.**

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EMSL Order: 161619865  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/26/16 10:10 AM  
 Collected: 10/24/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** 213 **Collected:** 10/24/2016 **Lab ID:** 0008  
 2nd Flr Office S End Bldg. 103E

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL</i>	<i>Units</i>	<i>Prep Date</i>	<i>Analyst</i>	<i>Analysis Date</i>	<i>Analyst</i>
7300 Modified	Arsenic	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Barium	ND	5.2	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Cadmium	ND	0.21	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Chromium	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Lead	ND	0.52	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Selenium	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD
7300 Modified	Silver	ND	1.0	µg/m <sup>3</sup>	10/31/2016	TD	11/1/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

161619865

EMSL ANALYTICAL, INC  
2001 E. 52<sup>ND</sup> ST.  
INDIANAPOLIS, IN 46205  
PHONE: 317-803-2997  
FAX: 317-803-3047

Order ID: 161619865

Report To Contact Name: Rick Whitney		Client ID: TERR57		Bill To Company: TRHQ42		Client ID #:	
Company Name: Terracon Consultants				Attention To:			
Street: 11600 Lilburn Park Dr				Street:			
City: St Louis		State/Province: MO		Zip/Postal Code: 63146		City:	
State/Province:		Zip/Postal Code:		Phone:		Fax:	
Phone: 314-569-9368		Fax: 314-692-8810		Project Name: 15167203		Email Results To: rhwhitney@terracon.com	
U.S. State where Samples Collected: MO		# Samples in Shipment:		Date of Shipment:		Purchase Order:	
Sampled By (Signature)		(b) (6)					

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply						Media Type: MCE	
<input type="checkbox"/> 2 Week	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 4 Day	<input type="checkbox"/> 3 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> Other (Call Lab)	Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Volume / Area	Sample Date	Comments
206	Outside North Entrance Bldg 103 E	NIOSH 7300	Air MCE	984 L	10-24-16	
207	1st Flr North Stairway Bldg 103 E	↓	↓	960 L	↓	
208	Basement @ Sump Bldg 103 E			960 L		
209	Basement @ Tunnel Entrance Bldg 103 E			960 L		
210	Basement 1st Flr Office @ N22 Bldg 103 E			960 L		
211	1st Flr Office @ N26 Bldg 103 E			960 L		
212	2nd Flr Office North end Bldg 103 E			960 L		
213	2nd Flr Office South end Bldg 103 E			960 L		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
(b) (6)	10-25-16	(b) (6)	10/26/16 @ 10:10

Comments: Please analyze for RCRA Metals minus Mercury (Hg)

Page 1 OF 1

# WATER ANALYTICAL LABORATORY DATA



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**  
Phone: (314) 569-9368  
Fax: (314) 692-8810

9/29/2016

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/19/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161617095. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By  
(b) (6)



Doug Wiegand, Laboratory Manager

Report amended 09/29/2016 11:08:28 Replaces initial report from 09/26/2016 16:07:29

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the AIHA, unless specifically indicated. The final results are not field blank corrected. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617095  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** W01 **Collected:** 9/7/2016 **Lab ID:** 0001  
 Bldg. 107 1st Flr S End Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W02 **Collected:** 9/7/2016 **Lab ID:** 0002  
 Bldg. 107 2nd Flr Drink Fountain @  
 Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	0.0038	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W03 **Collected:** 9/9/2016 **Lab ID:** 0003  
 Bldg. 102E 1st Flr N End Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W04 **Collected:** 9/9/2016 **Lab ID:** 0004  
 Bldg. 102E 2nd Flr N End Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD



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EMSL Order: 161617095  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

## Analytical Results

**Client Sample Description** W04 **Collected:** 9/9/2016 **Lab ID:** 0004  
 Bldg. 102E 2nd Flr N End Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W05 **Collected:** 9/12/2016 **Lab ID:** 0005  
 Bldg. 103F 1st Flr N End Drink Fountain @  
 Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W06 **Collected:** 9/13/2016 **Lab ID:** 0006  
 Bldg. 103D 1st Flr N End Drink Fountain @  
 Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	0.12	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W07 **Collected:** 9/13/2016 **Lab ID:** 0007  
 Bldg. 103D 2nd Flr N End Drink Fountain @  
 Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	0.0084	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD



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EMSL Order: 161617095  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
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Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

## Analytical Results

**Client Sample Description** W07  
 Bldg. 103D 2nd Flr N End Drink Fountain @ Restroom  
**Collected:** 9/13/2016 **Lab ID:** 0007

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W08  
 Bldg. 104E 1st Flr VA Drink Fountain @ Restroom  
**Collected:** 9/14/2016 **Lab ID:** 0008

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W09  
 Bldg. 104E 2nd Flr USDA Drink Fountain @ Restroom  
**Collected:** 9/14/2016 **Lab ID:** 0009

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W10  
 Bldg. 104 F 1st Flr Men's Restroom  
**Collected:** 9/15/2016 **Lab ID:** 0010

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	0.0035	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161617095  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 09/19/16 9:50 AM  
 Collected: 9/16/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** W10 **Collected:** 9/15/2016 **Lab ID:** 0010  
 Bldg. 104 F 1st Flr Men's Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
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**Client Sample Description** W11 **Collected:** 9/16/2016 **Lab ID:** 0011  
 Bldg. 103 1st Flr SE Men's Restroom Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Client Sample Description** W12 **Collected:** 9/16/2016 **Lab ID:** 0012  
 Bldg. 103 2nd Flr SE Restroom Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Barium	<0.10	0.10	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Cadmium	<0.0040	0.0040	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Chromium	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Lead	<0.0030	0.0030	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Selenium	<0.020	0.020	mg/L	9/26/2016	TD	9/26/2016	TD
200.5	Silver	<0.010	0.010	mg/L	9/26/2016	TD	9/26/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

*See below*  
~~Lead (Pb)~~ Chain of Custody  
EMSL Order ID (Lab Use Only):

161617095

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 11600 Lilburn Park Dr.		Third Party Billing requires written authorization from third party	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
 1 Week   
 2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> <small>*if no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input checked="" type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input checked="" type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
<i>See Attached</i>			

Client Sample #'s	W01 - W12	Total # of Samples:	12
Relinquished (Client):	(b) (6)	Date:	9/16/16
Received (Lab):	(b) (6)	Date:	9-19-16
Comments:		Time:	9:50 pm

RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

~~LEAD (Pb)~~ CHAIN OF CUSTODY  
EMSL ORDER ID (Lab Use Only):

17095

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
W01	Bldg 107 1st Flr South end Drink Fountain		9/7/16 0934
W02	Bldg 107 2nd Flr Drink fountain @ Restroom		↓ 0950
W03	Bldg 102 E 1st Flr North End Drink Fountain		9/9/16 0818
W04	Bldg 102 E 2nd Flr North End Drink Fountain		↓ 0822
W05	Bldg 103 F 1st Flr North End Drink Fountain @ Restroom		9/12/16 0835
W06	Bldg 103 D 1st Flr North End Drink Fountain @ Restroom		9/13/16 0800
W07	Bldg 103 D 2nd Flr North End Drink Fountain @ Restroom		↓ 0810
W08	Bldg 104 E 1st Flr VA Drink Fountain @ Restroom		9/14/16 0814
W09	Bldg 104 E 2nd Flr USDA Drink Fountain @ Restroom		↓ 0818
W10	Bldg 104 F 1st Flr Men's Restroom		9/15/16 0800
W11	Bldg 103 1st Flr SE Men's Restroom Drink Fountain		9/16/16 0745
W12	Bldg 103 2nd Flr SE Restroom Drink Fountain		↓ 0753

Comments/Special Instructions:

RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rwhitney@terracon.com Purchase Order



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn:

**Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/4/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/3/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161618130. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

(b) (6)



Doug Wiegand, Laboratory Manager

EPA limit for Lead in drinking water is 0.015 mg/L

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



# EMSL Analytical, Inc.

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618130  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 15167203

## Analytical Results

**Client Sample Description** W13  
 Bldg. 115 N End Drinking Fountain  
**Collected:** 9/21/2016 7:55:00 AM  
**Lab ID:** 0001

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W14  
 Bldg. 105L S Drink Fountain @ Restrooms  
**Collected:** 9/22/2016 7:54:00 AM  
**Lab ID:** 0002

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	0.0033	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W15  
 Bldg. 104 E Breakroom Drink Fountain 2nd Flr  
**Collected:** 9/23/2016 7:50:00 AM  
**Lab ID:** 0003

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	0.0041	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W16  
 Bldg. 104 1st Flr VA Drink Fountain @ Restrooms  
**Collected:** 9/23/2016 7:55:00 AM  
**Lab ID:** 0004

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD



# EMSL Analytical, Inc.

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EMSL Order: 161618130  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 15167203

## Analytical Results

**Client Sample Description** W16  
 Bldg. 104 1st Flr VA Drink Fountain @ Restrooms  
**Collected:** 9/23/2016 7:55:00 AM  
**Lab ID:** 0004

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W17  
 Bldg. 105E 2nd Flr N Drink Fountain  
**Collected:** 9/28/2016 7:30:00 AM  
**Lab ID:** 0005

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W18  
 Bldg. 105E 1st Flr N Drinking Fountain @ Restroom  
**Collected:** 9/28/2016 7:33:00 AM  
**Lab ID:** 0006

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W19  
 Bldg. 105F 1st Flr S Drink Fountain @ Restroom  
**Collected:** 9/29/2016 7:42:00 AM  
**Lab ID:** 0007

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD



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EMSL Order: 161618130  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 15167203

## Analytical Results

**Client Sample Description** W19  
 Bldg. 105F 1st Flr S Drink Fountain @ Restroom  
**Collected:** 9/29/2016 7:42:00 AM  
**Lab ID:** 0007

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	0.0042	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W20  
 Bldg. 105F 2nd Flr N Drink Fountain  
**Collected:** 9/29/2016 7:55:00 AM  
**Lab ID:** 0008

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W21  
 Bldg. 103E 2nd Flr S Drink Fountain  
**Collected:** 9/29/2016 10:40:00 AM  
**Lab ID:** 0009

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	0.015	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W22  
 Bldg. 103E 1st Flr N Drink Fountain  
**Collected:** 9/29/2016 10:45:00 AM  
**Lab ID:** 0010

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	0.0051	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD

**EMSL Analytical, Inc.**

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618130  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/03/16 9:25 AM  
 Collected: 9/30/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** W22  
 Bldg. 103E 1st Flr N Drink Fountain  
**Collected:** 9/29/2016 10:45:00 AM  
**Lab ID:** 0010

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W23  
 Bldg. 105 1st Flr S Drink Fountain @ Restrooms  
**Collected:** 9/30/2016 8:00:00 AM  
**Lab ID:** 0011

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Client Sample Description** W24  
 Bldg. 105 2nd Flr Drink Fountain @ G26 Restrooms  
**Collected:** 9/30/2016 8:12:00 AM  
**Lab ID:** 0012

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Barium	ND	0.10	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/4/2016	TD	10/4/2016	TD
200.5	Silver	ND	0.010	mg/L	10/4/2016	TD	10/4/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**RCRA minus Hg  
Lead (Pb) Chain of Custody**

EMSL Order ID (Lab Use Only):

161618130

Indianapolis, IN 46205  
PHONE (317) 803-2997  
FAX (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 11600 Lilburn Park Dr.		Third Party Billing requires written authorization from third party	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  
  6 Hour  
  24 Hour  
  48 Hour  
  72 Hour  
  96 Hour  
 1 Week  
 2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chlps <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input checked="" type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input checked="" type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
W13	See Attached		

Client Sample #'s: W13 - W24      Total # of Samples: 12

Relinquished (Client): (b) (6)      Date: 9/20/16      Time:        
 Received (Lab):      Date: 10/3/16      Time: 925F

Comments:   
 RCRA metals minus Mercury (Hg)   
 Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US   
 Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

~~LEAD (Pb)~~ CHAIN OF CUSTODY  
EMSL ORDER ID (Lab Use Only):

18130

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
W13	Bldg 115 North end Drinking Fountain		9/21/16 0755
W14	Bldg 105 L South Drink Fountain @ Restroom		9/22/16 0754
W15	Bldg 104 East Break room Drink Fountain 2nd Flr		9/23/16 0750
W16	Bldg 104 1st Flr VA Drink Fountain @ Restrooms		9/23/16 0755
W17	Bldg 105 E 2nd Flr North Drink Fountain @ Restrooms <sup>AW</sup>		9/28/16 0740
W18	Bldg 105 E 1st Flr North Drinking Fountain @ Restroom		9/28/16 0753
W19	Bldg 105 F 1st Flr South Drink Fountain @ Restroom		9/29/16 0742
W20	Bldg 105 F 2nd Flr North Drink Fountain		9/29/16 0755
W21	Bldg 103 E 2nd Flr South Drink Fountain		9/29/16 1040
W22	Bldg 103 E 1st Flr North Drink Fountain		9/29/16 1045
W23	Bldg 105 1st Flr South Drink Fountain @ Restrooms		9/30/16 0800
W24	Bldg 105 2nd Flr Drink Fountain @ G-26 @ Restrooms		9/30/16 0812

Comments/Special Instructions:

RCRA metals minus Mercury (Hg)  
BiliTo Terracon, 11600 Liburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rwhitney@terracon.com Purchase Order



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn:

**Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

10/20/2016

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/13/2016. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161618913. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By

(b) (6)

Doug Wiegand, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161618913  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/13/16 9:40 AM  
 Collected: 10/11/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** W25 **Collected:** 10/3/2016 **Lab ID:** 0001  
 Bldg. 103D 1st Flr Clinic Rm 101

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	0.032	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W26 **Collected:** 10/3/2016 **Lab ID:** 0002  
 Bldg. 103D 1st Flr Clinic Drink Fountain @  
 Restroom

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	0.0034	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W27 **Collected:** 10/3/2016 **Lab ID:** 0003  
 Bldg. 103D 1st Flr Clinic Breakrm Sink

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	0.0048	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W28 **Collected:** 10/3/2016 **Lab ID:** 0004  
 Bldg. 103D 1st Flr North Men's Restroom  
 Sink

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislaboratory@emsl.com](mailto:indianapolislaboratory@emsl.com)

EMSL Order: 161618913  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/13/16 9:40 AM  
 Collected: 10/11/2016

Project: 15167203

**Analytical Results**

**Client Sample Description** W28 **Collected:** 10/3/2016 **Lab ID:** 0004  
 Bldg. 103D 1st Flr North Men's Restroom  
 Sink

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	0.0048	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W29 **Collected:** 10/11/2016 **Lab ID:** 0005  
 Bldg. 110 1st Flr North Drink Fountain @  
 Restrooms

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W30 **Collected:** 10/11/2016 **Lab ID:** 0006  
 Bldg. 110 2nd Flr South Drink Fountain @  
 Restrooms

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Client Sample Description** W31 **Collected:** 10/11/2016 **Lab ID:** 0007  
 Bldg. 106 Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Arsenic	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Barium	ND	0.10	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Cadmium	ND	0.0040	mg/L	10/18/2016	TD	10/18/2016	TD

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislaboratory@emsl.com](mailto:indianapolislaboratory@emsl.com)

EMSL Order: 161618913  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 10/13/16 9:40 AM  
 Collected: 10/11/2016

Project: 15167203

## Analytical Results

---

**Client Sample Description** W31 **Collected:** 10/11/2016 **Lab ID:** 0007  
 Bldg. 106 Drink Fountain

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
200.5	Chromium	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Lead	ND	0.0030	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Selenium	ND	0.020	mg/L	10/18/2016	TD	10/18/2016	TD
200.5	Silver	ND	0.010	mg/L	10/18/2016	TD	10/18/2016	TD

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

RCRA Metals minus Hg  
Lead (Pb) Chain of Custody  
EMSL Order ID (Lab Use Only):

161618913

EMSL Analytical, Inc.  
2001 East 52nd Street

Indianapolis, IN 46205  
PHONE: (317) 803-2997  
FAX: (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 11600 Lilburn Park Dr.		<i>Third Party Billing requires written authorization from third party</i>	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
 1 Week   
 2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM *If no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input checked="" type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input checked="" type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
See Attached			

Client Sample #'s	W25 - W31	Total # of Samples:	7
Relinquished (Client):	(b) (6)	Date:	10-12-16
Received (Lab):	(b) (6)	Date:	10/13/16
Comments:	94054		

RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314.569.9368 Email: rhwhitney@terracon.com Purchase Order:





**APPENDIX C**

**CERTIFICATIONS**

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

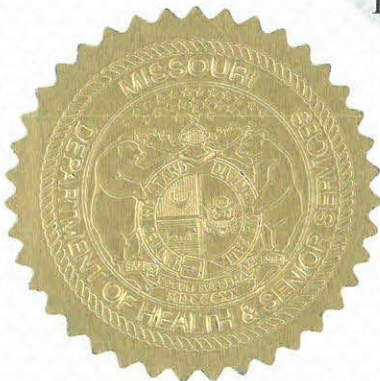
Issued to:

**Rick H. Whitney**

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: **10/24/2015**  
Expiration Date: **10/24/2017**  
License Number: **051024-300001031**



(b) (6)

Gail Vasterling  
Director  
Department of Health and Senior Services

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

**APPENDIX D  
BUILDING 103E  
DUST SAMPLING ADDENDUM**



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

---

Attn:

**Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

4/12/2017

Phone: (314) 569-9368  
Fax: (314) 692-8810

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 4/5/2017. The results are tabulated on the attached data pages for the following client designated project:

**15167203**

The reference number for these samples is EMSL Order #161706017. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (317) 803-2997.

Approved By:

(b) (6)

Doug Wiegand, Laboratory Manager



Chemical Testing

2845.25

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc. A2LA accredited chemical testing laboratory for Lead in Paint by Inductively Coupled Plasma (ICP), Total Lead in Children's Metal Jewelry and Phthalates.

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161706017  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 04/05/17 10:15 AM  
 Collected: 4/4/2017

Project: 15167203

**Analytical Results**

**Client Sample Description** 401 **Collected:** 4/4/2017 **Lab ID:** 161706017-0001  
 Bldg 103 E, 1st Flr N22 Desk top

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 402 **Collected:** 4/4/2017 **Lab ID:** 161706017-0002  
 Bldg 103 E, 1st Flr N23 Top of safe

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 403 **Collected:** 4/4/2017 **Lab ID:** 161706017-0003  
 Bldg 103 E, 1st Flr N24 Sta #123

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	1.9	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 404 **Collected:** 4/4/2017 **Lab ID:** 161706017-0004  
 Bldg 103 E, 1st Flr P26 Store rm box

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF



# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
 Phone/Fax: (317) 803-2997 / (317) 803-3047  
<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161706017  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 04/05/17 10:15 AM  
 Collected: 4/4/2017

Project: 15167203

## Analytical Results

**Client Sample Description** 404 **Collected:** 4/4/2017 **Lab ID:** 161706017-0004  
 Bldg 103 E, 1st Flr P26 Store rm box

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 405 **Collected:** 4/4/2017 **Lab ID:** 161706017-0005  
 Bldg 103 E, 1st Flr N26 Conference rm

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 406 **Collected:** 4/4/2017 **Lab ID:** 161706017-0006  
 Bldg 103 E, 2nd Flr Sta 326 desk

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 407 **Collected:** 4/4/2017 **Lab ID:** 161706017-0007  
 Bldg 103 E, 2nd Flr Sta 209 desk

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**EMSL Analytical, Inc.**

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<http://www.EMSL.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161706017  
 CustomerID: TERR57  
 CustomerPO: 15167203  
 ProjectID:

Attn: **Rick Whitney**  
**Terracon Consultants, Inc.**  
**11600 Lilburn Park Dr**  
**Saint Louis, MO 63146**

Phone: (314) 569-9368  
 Fax: (314) 692-8810  
 Received: 04/05/17 10:15 AM  
 Collected: 4/4/2017

Project: 15167203

**Analytical Results**

**Client Sample Description** 408 **Collected:** 4/4/2017 **Lab ID:** 161706017-0008  
 Bldg 103 E, 2nd Flr Top of safe

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 409 **Collected:** 4/4/2017 **Lab ID:** 161706017-0009  
 Bldg 103 E, 2nd Flr Conference rm north,  
 window E corner

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Client Sample Description** 410 **Collected:** 4/4/2017 **Lab ID:** 161706017-0010  
 Bldg 103 E, 2nd Flr Carpet flr @ P23

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3050B/6010C	Arsenic	1.7	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Barium	ND	5.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Cadmium	ND	0.20	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Chromium	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Lead	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Selenium	ND	1.0	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF
3050B/6010C	Silver	ND	0.50	µg/100 cm <sup>2</sup>	4/10/2017	ED	4/11/2017	WF

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit  
 RL - Reporting Limit (Analytical)

**RCRA Metals minus Hg  
-Lead (Pb) Chain of Custody**



EMSL ANALYTICAL INC.  
LABORATORY PRODUCTS TRAINING

EMSL Order ID (Lab Use Only):

161706017

Indianapolis, IN 46205

PHONE: (317) 803-2997

FAX: (317) 803-3047

Company: Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Different <input type="checkbox"/> Same if Bill to is Different note instructions in Comments**	
Street: 11600 Lilburn Park Dr.		Third Party Billing requires written authorization from third party	
City: St. Louis	State/Province: MO	Zip/Postal Code: 63146	Country: US
Report To (Name): Rick Whitney		Telephone #: 314-569-9368	
Email Address: rhwhitney@terracon.com		Fax #: 314-692-8810	Purchase Order:
Project Name/Number: 15167203		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

atrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	<input type="checkbox"/>
Wipe*      ASTM <input checked="" type="checkbox"/> non ASTM <input type="checkbox"/> *If no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	<input checked="" type="checkbox"/>
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Rick Whitney      Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date Sampled	Result
401	Bldg 103E 1st Flr N22 Desk Top	100 cm <sup>2</sup>	4/4/17	0759
402	Bldg 103E 1st Flr N23 Top of Safe	↓	↓	0805
403	Bldg 103E 1st Flr N24 Sta #123			0812
404	Bldg 103E 1st Flr P26 Store Rm Box			0821
405	Bldg 103E 1st Flr N26 Conference Rm			0838

Client Sample #'s: 401 - 410      Total # of Samples: 10

Relinquished (Client): (b) (6)      Date: 4-4-17      Time:      Received (Lab): (b) (6)      Date: 4-5-17      Time: 10:45

Comments: RCRA metals minus Mercury (Hg)  
Bill To: Terracon, 11600 Lilburn Park Dr., St. Louis, MO, 63146, US  
Attention: Rick Whitney Phone: 314-569-9368 Email: rhwhitney@terracon.com Purchase Order:



