

## **Close Out Documents**

**AP-75: 4620 Clayton St.**

Structural Demolition

**Prepared for:**

Kiewit Infrastructure Co.  
Attn: Jenn Bradtmueller  
160 Inverness Drive West, Suite 110  
Englewood CO 80112

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# 1. Closeout Letter

December 26, 2018

Kiewit Infrastructure Co.  
160 Inverness Drive West, Suite 110  
Englewood, CO 80112

**Re: SSCR AP-75 4620 Clayton St.**

Dear Kiewit Infrastructure Co.

This letter is confirm that all the work associated with the demolition of the structure located at 4620 Clayton St. Denver, CO 80216, also referred as parcel AP-75, is complete.

The scope of work included the removal of regulated building materials (RBMs), demolition of a 957 square foot structure, demolition of a 211 square foot shed, and the removal of the curb and driveway.

This document has been prepared to furnish you with key documents associated with this project for your records.

On behalf of the JKS Industries team, we would like to extend our appreciation to working with you on this project and look forward to working with you in the future.

Regards,



Jeffrey Knight,  
President

## 2. CDPHE Demolition Permit

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## DEMOLITION APPROVAL NOTICE

This approval notice is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008 and the Colorado Air Pollution Prevention and Control Act C.R.S. (25-7-101 and 25-7-501 et seq). This notice signifies that the structure was inspected for asbestos, luminous exit signs (containing radioactive material), and Ozone-Depleting Refrigerants and the demolition contractor has properly notified the Colorado Department of Public Health and Environment pursuant to Regulation No. 8, Part B.

As a contractor, you may be subject to other demolition licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division, strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 8/1/2018.

The actual scheduled work dates are from 8/1/2018 through 8/3/2018.

Approval issued on: 7/23/2018

Record number: 139966

**Notice Number: 18DE4828D**

For the location specified below:

**Residential House**

**4620 Clayton St.**

**Denver**

**Denver County**

Fee Paid: \$55.00

Check number: 1544

Asbestos Building Inspector:

**Logan Greenfield**

Cerification No.: 20715

Inspection Date: 04/27/2018


This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by: TS





# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM

INCOMPLETE APPLICATIONS WILL BE RETURNED

(Notice will be mailed to the demolition contractor unless specified otherwise)

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 55.00

(See instruction #1 on reverse side)

Submit form to:

Permit Coordinator  
Colorado Dept. of Public Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

Colorado Department of Public Health and Environment

<b>Demolition Contractor</b>	Company Name: JKS Industries, LLC		Building Name: Residential House (AP-75)		
	Street: 747 Sheridan Blvd. #9A		Square footage of footprint of facility or portion of facility to be demolished 957		
	City: Lakewood	State: CO	Zip Code: 80214	Street: 4620 Clayton St	
	Telephone # (303) 238-0207	Fax # (303) 238-0452	City: Denver		County: Denver
	Project Manager: Jeffrey Knight		Cell Phone # (720) 402-4410		Zip Code: 80216
	Proposed Start Date 8/1/2018		Proposed Completion Date 8/3/2018		
I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.		Method/Mean of Demolition: <input checked="" type="checkbox"/> Wrecking <input type="checkbox"/> Burning <sup>†</sup> <input type="checkbox"/> Implosion <input type="checkbox"/> Moving <input type="checkbox"/> Other, specify:			
Signature:		Print Name: JEFFREY KNIGHT			
Landfill Receiving Building Debris: DADS		† Burning requires additional authorization – Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator			
<b>Asbestos Removal Contractor</b>	General Abatement Contractor (GAC) NA		Owner's Name: Colorado Department of Transportation		
	CDPHE Asbestos Permit #	Total Quantity of Asbestos Removed		Street Address: 2000 S Holly St.	
	Date Removal Completed	Telephone #		City: Denver	
	Type(s) of Asbestos-Containing Material Removed:		State: CO	Zip Code: 80222	Contact's Name: Anthony Davito
Telephone #		Telephone # (303) 512-5900			
<b>Certified Asbestos Inspector Certification</b>	With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: (check appropriate box(es)):				
	<input type="checkbox"/> Vinyl asbestos floor tile (VAT) <input type="checkbox"/> VAT mastic <input type="checkbox"/> Tar/asphalt impregnated roofing <input type="checkbox"/> Asphaltic pipe coatings <input type="checkbox"/> Spray-applied tar coatings <input type="checkbox"/> Caulking <input type="checkbox"/> Glazing <input type="checkbox"/> Other, specify:				
	Signature: (In Blue Ink) 		Printed Name: Logan Greenfield		
	Date of Final Inspection April 27, 2018	CO Cert # 20715	Expiration Date Oct. 18, 2018	Telephone # (719) 545-0375	Cell Phone # (719) 250-0036
<b>Building Owner or Contractor</b>	I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).				
	CHECK THE APPROPRIATE BOX:				
	<input type="checkbox"/> Building Owner	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Other	Date: 7/18/18	
Signature:		Print Name: JEFFREY KNIGHT			
<b>THIS BOX IS FOR CDPHE USE ONLY:</b>					
Postmark or Hand Delivery Date: 7/18/18		Approved By:		Code: <input type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380	
Form of Payment & #: CL 1544 \$55		Permit #: 1872248281	Record #: 1399166	Date Issued:	

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

APPROVED  
DATE 7/18/18 CDPHE JWB

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

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**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 8/1/2018.

The actual scheduled work dates are from 8/1/2018 through 8/3/2018.

Approval issued on: 7/23/2018

Record number: 139968

**Notice Number: 18DE4829D**

For the location specified below:

**Residential House-Shed**

**4620 Clayton St.**

**Denver**

**Denver County**

Fee Paid: \$55.00

Check number: 5144

Asbestos Building Inspector:

**Logan Greenfield**

Cerification No.: 20715

Inspection Date: 04/27/2018

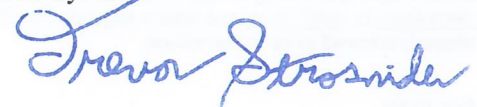
This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by: TS







# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM

INCOMPLETE APPLICATIONS WILL BE RETURNED

(Notice will be mailed to the demolition contractor unless specified otherwise)

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 55.00  
(See instruction #1 on reverse side)

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public  
Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive  
South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

Colorado Department  
of Public Health  
and Environment

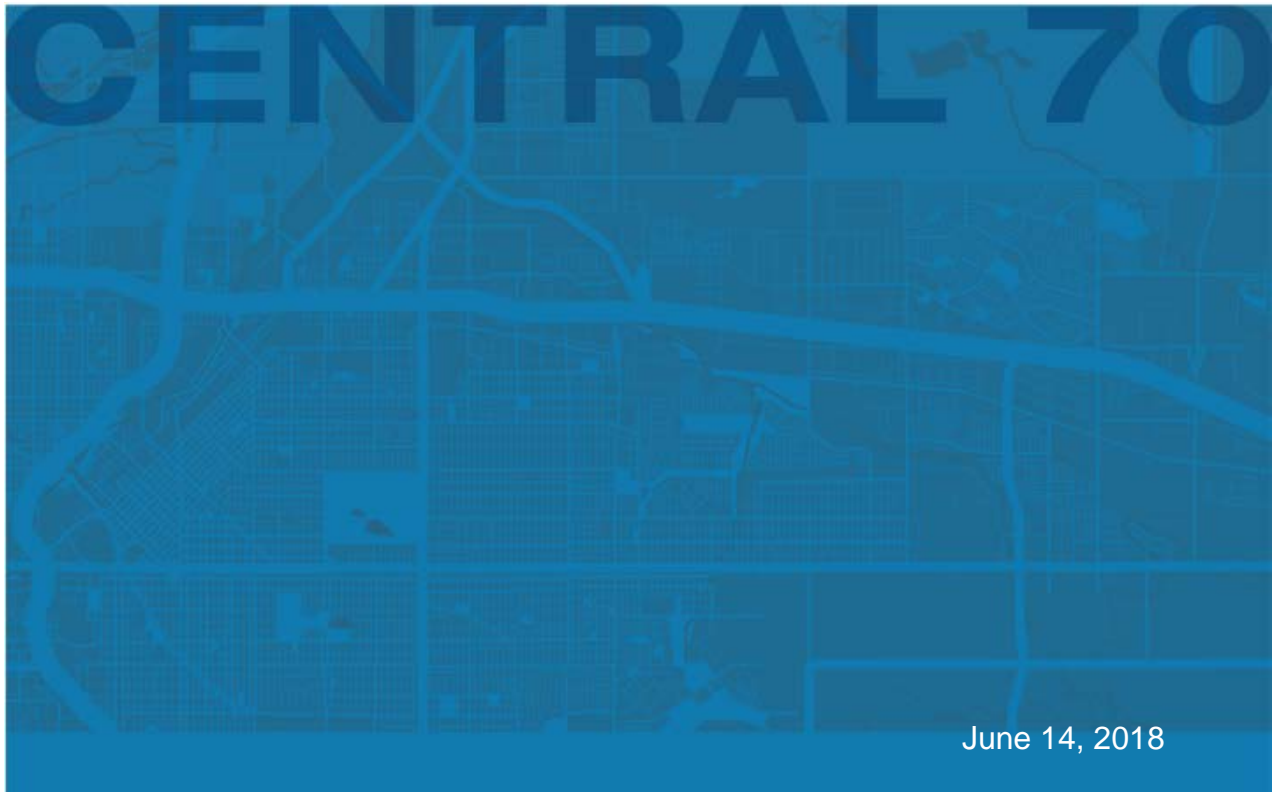
<b>Demolition Contractor</b>	Company Name: JKS Industries, LLC		Building Name: Residential House -Shed (AP-75)		
	Street: 747 Sheridan Blvd. #9A		Square footage of footprint of facility or portion of facility to be demolished (211)		
	City: Lakewood	State: CO	Zip Code: 80214	Street: 4620 Clayton St	
	Telephone # (303) 238-0207	Fax # (303) 238-0452	City: Denver		County: Denver
	Project Manager: Jeffrey Knight		Cell Phone # (720) 402-4410	Zip Code: 80216	Proposed Start Date 8/1/2018
	Proposed Completion Date 8/3/2018		Method/Mean of Demolition:		
	I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.		<input checked="" type="checkbox"/> Wrecking <input type="checkbox"/> Burning <sup>†</sup> <input type="checkbox"/> Implosion <input type="checkbox"/> Moving <input type="checkbox"/> Other, specify:		
	Signature: 	Print Name: JEFFREY KNIGHT	† Burning requires additional authorization – Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator		
Landfill Receiving Building Debris: DADS					
<b>Asbestos Removal Contractor</b>	General Abatement Contractor (GAC) NA		Owner's Name: Colorado Department of Transportation		
	CDPHE Asbestos Permit #	Total Quantity of Asbestos Removed	Street Address: 2000 S Holly St		
	Date Removal Completed	Telephone #	City: Denver	State: CO	Zip Code: 80222
	Type(s) of Asbestos-Containing Material Removed:		Contact's Name: Anthony Davito	Telephone # (303) 512-5900	
<b>Certified Asbestos Inspector Certification</b>	With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: (check appropriate box(es)):				
	<input type="checkbox"/> Vinyl asbestos floor tile (VAT) <input type="checkbox"/> VAT mastic <input type="checkbox"/> Tar/asphalt impregnated roofing <input type="checkbox"/> Asphaltic pipe coatings <input type="checkbox"/> Spray-applied tar coatings <input type="checkbox"/> Caulking <input type="checkbox"/> Glazing <input type="checkbox"/> Other, specify:				
	Signature: (In Blue Ink) 		Printed Name: Logan Greenfield		
	Date of Final Inspection April 27, 2018	CO Cert # 20715	Expiration Date Oct. 18, 2018	Telephone # (719) 545-0375	Cell Phone # (719) 250-0036
<b>Building Owner or Contractor</b>	I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).				
	CHECK THE APPROPRIATE BOX:				
	<input type="checkbox"/> Building Owner	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Other	Date:	
Signature: 		Print Name: JEFFREY KNIGHT			
<b>THIS BOX IS FOR CDPHE USE ONLY:</b>					
Postmark or Hand Delivery Date: 7/18/18		Approved By: 	Code: <input checked="" type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380		
Form of Payment & #: <u>CC 5144 955</u>		Permit #: 180248290	Record #: 139968	Date Issued:	

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

APPROVE  
DATE 7/18/18

### 3. Project Design

## 3a. SSAR



## **Structure Survey Assessment Report AP-75**

4620 Clayton Street

Denver, CO 80216

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**APEC Project # 18-3066 - 010**

**Prepared for**

Kiewit Meridiam Partners

**Prepared by**

*Logan Greenfield*  
Logan Greenfield, CABI & AMS #20715  
VP of Field Services

**Reviewed by**

*Brandice Eslinger*  
Brandice Eslinger, EP, CABI & PD # 5494  
President

# 1 Introduction

All-Phase Environmental Consultants, Inc. (APEC) was contracted to complete an environmental building survey for suspect asbestos-containing materials (ACMs), lead-based paint (LBP), and regulated building materials (RBM) at 4620 Clayton Street, Denver, CO. This survey will identify what materials will need to be abated or removed prior to the future demolition activities.

**Table 1-1 Project Details**

Client Name:	Kiewit Meridiam Partners
Site Location:	4620 Clayton Street, Denver, CO 80216
Building Type	One Building – Single Family Residence
Building Size	Building is approximately 1,466 square feet + Garage
Construction Date:	1942 – Based on The City and County of Denver Assessor's Records
Building Uses:	Residential
Types of Materials to be Disturbed/Description of Proposed Disturbances:	Client intends to demolish the structure. All building materials will be impacted.

This Structure Survey Assessment was conducted as part of the Central 70 Project located in Denver, Colorado. This assessment was conducted in accordance with the Structure Survey Assessment Plan (SSAP), dated March 27, 2018. The SSAP, as defined in Section 23132 of Schedule 17 (Environmental Requirements) of the final Central 70 Project Agreement between Colorado Department of Transportation (CDOT) and Kiewit Meridiam Partners, identifies the procedures for completing building and structure surveys for ACMs, LBP and universal wastes or other Recognized Hazardous Materials (RHMs), as defined by the Resource Conservation and Recovery Act (RCRA); universal waste, as defined by the U.S. Environmental Protection Agency (EPA) and 6 CCR Part 273 of the Colorado Hazardous Waste Regulations; chlorofluorocarbons (CFCs), as defined by the Clean Air Act; and polychlorinated biphenyls (PCBs), as defined by the Toxic Substances Control Act.



## 2 Site Survey Methodology

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### 2.1 ASBESTOS SURVEY

On April 27, 2018, APEC certified personnel Logan Greenfield conducted an asbestos survey for demolition at the aforementioned address. The asbestos survey (inspection/sampling) was completed in accordance with the SSAP and follows guidelines established under the EPA Asbestos Hazard Emergency Response Act (AHERA) program and as required by USEPA regulation 40 Code of Federal Regulations (CFR) Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAP). Bulk sampling of suspected ACMs were conducted in strict accordance with AHERA sampling procedures detailed in 40 CFR 763.86. These include but aren't limited to labeling each sample, recording on a chain-of-custody, taking a photo of the sample and recording the location on a site diagram. Demolition work could disturb materials that contain asbestos and put unprotected workers at risk, violating asbestos regulations, which are enforced by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), the Colorado Department of Public Health and Environment (CDPHE), and the Denver County Health Department. All samples were collected and submitted to EMSL Analytical, Inc. in Denver, CO per APEC chain-of-custody protocol. The laboratory is a member of the National Voluntary Laboratory Accreditation Program (NVLAP) and is qualified to perform the required analysis (Appendix A). The analysis conducted was the EPA Interim Method for the Determination of Asbestos in Bulk Samples, using standard Polarized Light Microscopy (PLM) and dispersion staining as established in 40 CFR Part 763.

***This inspection report and methodology complies with the CDPHE Asbestos Sampling and Report Requirements Memorandum dated February 28, 2018.***

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### 2.2 LEAD-BASED PAINT SURVEY

On April 27, 2018, APEC certified personnel Rick Ralston conducted the lead based paint (LBP) survey. The LBP survey was conducted to evaluate the absence and/or presence of LBP or lead-containing paint (LCP) that will be impacted during future demolition activities. The survey consisted of reviewing and inspecting the interior, exterior and roof system of the structure for suspect LBP or LCP. The testing method was the use of a heat gun and/or scraping a portion of the paint to the substrate (material under the paint). Proper Chain-of-Custody procedures were followed and samples were sent to EMSL Analytical, Inc. in Indianapolis, IN, via Fed Ex. The samples were analyzed by total lead (percent by weight) via Flame Atomic Absorption (FAA) by EPA Method 7420. EMSL is accredited under the American Industrial Hygiene Association's Environmental Lead Proficiency Analytical Testing program. LBP, according to the EPA, is defined as paint that contains lead in concentrations greater than 1.0 milligrams per square centimeter (mg/cm<sup>2</sup>) as measured with an XRF or 5000 parts per million (ppm) when measured by weight, or 0.5 percent by weight (%).

A total of 9 homogeneous paint color variations of suspect LBP areas were identified. One paint chip sample was collected from each suspect homogeneous area and submitted to the laboratory for analysis. Representative photographs of each known LBP were taken and are included in a photographic log (Appendix B), and the paint chip sample locations were recorded and are included in sample location drawing (Figures 3). Descriptions of the suspect homogeneous materials and a list of the collected samples can be viewed in the 'Findings' section.

Based on the analytical results for the 9 samples taken, a Toxicity Characteristic Leachate Procedure (TCLP) sample was analyzed by collecting a representative sample (approximately 105 grams) of combined suspect building materials. The sample results are located in Appendix D.

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## **2.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY**

On April 27, 2018, APEC personnel conducted the RBM inventory consisting of inspecting the interior, exterior and roof system. The inspection was conducted to visually identify and quantify any building materials, devices and equipment suspected of containing potentially regulated materials as they pertain to the EPA Universal Waste Rule (UWR) requirements (40 CFR, Part 273). APECs inventory review consisted of the following : potential mercury-containing thermostats/switches; fluorescent light tubes and compact fluorescent bulbs; items potentially containing polychlorinated biphenyls (PCBs) (generally ballasts found within the fluorescent light fixtures); tritium powered exit signs; smoke detectors potentially containing Americium-241; and Freon-containing refrigeration systems. The Survey of Suspected RBMs are for use by contractors conducting the removal of items from the property. Samples of suspect RBMs are not required for this type of survey, as all determinations are made by visual means.

## 3 Findings

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### 3.1 ASBESTOS SURVEY

A total of 25 bulk samples, including 1 duplicate, were collected from 7 suspect homogenous materials throughout the structure, and the results of the PLM analysis are presented in Table 3-1. No samples were positive for ACMs (i.e. present greater than 1%), however, 14 samples with point count results below 1% are confirmed to be OSHA regulated.

#### Point Counts

Point count analysis occurs for samples with <1% of asbestos. The point count results are also presented in Table 3-1. The laboratory analytical report is included as Appendix C. The following samples were confirmed to be OSHA regulated, due to analyzing at or below 1% of asbestos due to point count analysis:

- 4620CL-R1-1A, 4620CL-R1-1B & 4620CL-R4-1C – Rough Textured Plaster – Not regulated (all below 1%)
- 4620CL-R1-2A, 4620CL-R2-2B, 4620CL-R8-2C, 4620CL-R4-2D & 4620CL-R3-2E – Smooth Textured Plaster – Not regulated (all below 1%)
- 4620CL-R5-3A, 4620CL-R5-3B & 4620CL-R5-3C – Knockdown Textured Plaster – Not regulated (all below 1%)
- 4620CL-R3-4A, 4620CL-R3-4B & 4620CL-R3-4C – Medium Textured Plaster – Not regulated (all below 1%)

#### Duplicate Samples

For quality assurance purposes, a duplicate sample was taken appropriately every 20<sup>th</sup> sample. There were 25 samples obtained, thus 1 duplicate sample (4620CL-R9-5Q) was collected.

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## 3.2 LEAD-BASED PAINT SURVEY

A total of 9 homogeneous paint color variations were analyzed for the presence of LBPs and LCPs (Table 3-2; Figure 3). Under EPA 40 CFR Part 745, LBP is defined as any paint or surface coating that contains lead equal to or exceeding 0.5% (by weight), while LCP is defined as any paint or surface coating containing lead greater than or equal to 0.06% up to 0.5% (by weight). Please note that the regulatory definition of LBP only applies to child-occupied facilities or targeted housing (pre-1978). For all other facilities. Caution should be taken during demolition to minimize cutting, abrading, or otherwise causing an air disturbance to this material and work must be completed in accordance with the OSHA Lead in Construction Standard (29 CFR 1926.62).

Two lead samples (4620CL-1L & 4620CL-4L) are found to be greater than 0.06% by weight and less than 0.5% by weight and is considered LCP (Table 3-2). Two samples (4620CL-8L & 4620CL-9L) had lead concentrations greater than 0.5% by weight and is considered LBP. The remaining 5 sample results were less than the LCP and LBP thresholds, and are considered non-lead containing paint (NLC). The laboratory analytical report is included in Appendix D.

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### 3.2.1 TCLP LEAD ANALYTICAL RESULTS

Since two samples were analyzed to be LBP and two samples analyzed as LCP, TCLP analysis of lead was performed. TCLP analysis simulates the potential for the demolished building materials to leach lead if placed in the landfill and results of the analysis determine if the materials will be considered hazardous waste. TCLP analysis was performed for landfill compliance. The Toxicity Characteristic (TC) maximum concentration is 5 milligrams per liter (mg/L). The results of the TCLP analysis is 0.44 mg/L, which is below the regulated limit and therefore not considered hazardous. The analytical report is included in Appendix D.

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## 3.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY

Several suspect RBMs were visually identified throughout the structure. RBMs that are a cause of concern, when discovered, are discussed below. A complete list of the RBMs is presented in Table 3-3, and selected locations of the RBMs are depicted in Figure 4.

## 4 Conclusions and Recommendations

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### 4.1 ASBESTOS

No ACMs were identified throughout the structure; however, if additional suspect materials, not sampled during this investigation, are identified during demolition, they should either be assumed to be ACM or should be sampled prior to disturbance.

Prior to demolition activities, all friable and non-friable (that can or will be rendered friable) ACM that may be impacted during the demolition must be abated by a Colorado Certified Asbestos Abatement Contractor as required by NESHAP and the CDPHE – Air Pollution Control Division: Asbestos. The exception are Category I & II Non-Friable ACMs that can, with best management practices, remain during the activities and remain non-friable, i.e. not able to be reduced to a dust. Activities such as grinding, excessive munching of materials, sawing, jack-hammering, etc. are strictly prohibited.

According to AHERA, EPA, and the CDPHE, materials testing at less than (<) or equal to 1% asbestos fibers are not considered to be an ACM. However, any materials containing asbestos still need to be regulated. OSHA protocol must be followed when handling materials containing ANY amount of asbestos. Proper personal protective equipment (PPE) and engineering controls must be utilized if these materials will be impacted during demolition activities.

---

### 4.2 LEAD-BASED PAINT

Lead was detected at concentrations above the LCP threshold in 2 of the 9 samples, and above the LBP threshold in 2 of the 9 samples. The remaining 5 samples are considered NLC. Although LCP/LBP was identified in the samples analyzed, the TC limit of 5 mg/L was not exceeded in the TCLP lead analysis.

TCLP results confirmed that the waste stream is not hazardous with respect to lead content.

While the TCLP results indicate that the waste stream is not characteristically hazardous with respect to lead content, LCP and LBP are still present in the building materials. Therefore, the contractor responsible for demolition of this structure is notified with receipt of this report of the presence or potential presence of LCP and/or LBP in the building materials that comprise the building. The contractor should also notify their employees of the presence of LCP or LBP prior to any disturbance, and make the US Department of Labor Occupational Safety and Health Administration publication number 3142-12R 2004 available to their workers. (“Lead in Construction”, <http://www.osha.gov/Publications/osha3142.pdf>). The standards address topics such as permissible exposure limits (PELs) for workers, exposure assessment, protection of employees during assessment of exposure, employee notification, PPE, medical surveillance, along with other topics related to working with LCP and LBP.

---

### 4.3 REGULATED BUILDING MATERIALS

Materials found during the regulated materials inventory within the building may require special handling or disposal prior to demolition activities. If abatement is needed, APEC recommends that the asbestos contractor or general contractor selected by the client properly dispose of these regulated materials, per applicable regulations.

With regards to RBMs, if listed, it is likely that the ballasts in the fluorescent light fixtures do contain PCBs. Where a manufacturer's label is present indicating "no PCBs", the ballast can be disposed of with recyclable metal or with other municipal waste. During removal for disposal as part of the demolition activities, each ballast should be visually inspected for the manufacturer's label indicating "no PCBs". If the label does not have this notation, the ballast should be considered PCB-containing and should be disposed of as a hazardous waste in accordance with local, state, and federal regulatory guidelines. Refrigerators and air conditioning units contain freon which will need to be reclaimed or taken to a facility capable of this activity. Mercury containing thermostats will need to be disposed of at a facility certified to take this type of material. The contractor should also carefully remove all associated fluorescent light tubes and compact fluorescent lights and recycle or dispose of these materials according to applicable regulations.

This inspection was primarily relevant to the Federal UWR requirements under 40 CFR 273. It should be noted that contractors submitting bids for removal of the RBMs should verify quantities, conditions, and locations of all RBMs prior to bid submittals and initiating demolition activities. The contractor is also responsible for proper recycling and/or disposal of the RBMs, and should follow all federal, state and local regulations when handling these materials.

## 5 Limitations

This Structure Survey Assessment Report was prepared by All-Phase Environmental Consultants, Inc., at the request of and for the sole benefit of Kiewit Meridiam Partners, or any entity controlling, controlled by, or under common control with Colorado Department of Transportation. APECs certified inspectors used reasonable diligence and professional judgement to identify all suspect asbestos-containing materials, lead based paint, and regulated building materials in the property. APEC will not be held liable for property damage or any loss of property value due to the inspection. This report is not an abatement plan and is intended to be informational only; APEC will not be held responsible for the mishandling of the information contained herein.

APEC utilized destructive inspection methods in performing this survey, however accessibility may have been a limiting condition. If additional impacted suspect materials are discovered during related work for which there are no sample documentation/results, APEC recommends pursuing one of the following alternatives: Sample and analyze the discovered suspect material(s) to determine whether it contains asbestos, lead or other regulated materials; or assume the material(s) to be containing, quantify and remove on a unit cost basis.

Notwithstanding any provision to the contrary, the total liability of "All Phase Environmental Consultants, Inc.", and its employees, officers or directors be liable in contract, tort, strict liability warranty or otherwise, for any special, incidental or consequential damages, such as but not limited to, delay, disruption, loss of product, loss of anticipated profits or revenue, damages, cost, and expenses, including attorney's fees, shall not exceed the aggregate amount paid to All Phase Environmental Consultants, Inc. under this Agreement regardless of the legal theory under which such liability is imposed.

## Tables

Table 3-1A	Asbestos Containing OSHA Regulated Samples
Table 3-1B	Non-Asbestos Containing Samples
Table 3-2	Summary of Paint Chip Laboratory Analysis for Lead
Table 3-3	Summary of Regulated Building Materials



**Table 3-1A Asbestos Containing OSHA Regulated Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification	Estimated Quantity (Sq. ft.)
4620CL-R1-1A	ROOM 1	0.25% CHRYSOTILE	Point Count	Good	ROUGH TEXTURED PLASTER	WALLS OF ROOMS 1 ,4 AND STAIRWELL	OSHA REGULATED	592
4620CL-R1-1B		<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R4-1C	ROOM 4	<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R1-2A	ROOM 1	<0.25% CHRYSOTILE	Point Count	Good	SMOOTH TEXTURED PLASTER	WALLS OF ROOMS 2, 6,7 & 8 CEILINGS OR ROOMS1, 2, 3, 4, 6 ,7 & 8		1,323
4620CL-R2-2B	ROOM 2	0.25% CHRYSOTILE	Point Count	Good				
4620CL-R8-2C	ROOM 8	0.25% CHRYSOTILE	Point Count	Good				
4620CL-R4-2D	ROOM 4	<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R3-2E	ROOM 3	<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R5-3A	ROOM 5	0.50% CHRYSOTILE	Point Count	Good	KNOCKDOWN TEXTURED PLASTER	WALLS AND CEILING OF ROOM 5		196
4620CL-R5-3B		<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R5-3C		<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R3-4A	ROOM 3	<0.25% CHRYSOTILE	Point Count	Good	MEDIUM TEXTURED PLASTER	WALLS OF ROOM 3	312	
4620CL-R3-4B		<0.25% CHRYSOTILE	Point Count	Good				
4620CL-R3-4C		<0.25% CHRYSOTILE	Point Count	Good				

ND=Non-Detect  
 PLM=Polarized Light Microscopy  
 NA=Not Applicable  
 RACM=Regulated Asbestos Containing Materials

**Table 3-1B Non-Asbestos Containing Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4620CL-R10-5A	ROOM 10	ND	PLM	Good	KNOCKDOWN TEXTURED DRYWALL	WALLS AND CEILINGS OF ROOMS 9,10,11,12,13 & 14	NA
4620CL-R9-5B	ROOM 9	ND	PLM	Good			NA
4620CL-R11-5C	ROOM11	ND	PLM	Good			NA
4620CL-R14-5D	ROOM 14	ND	PLM	Good			NA
4620CL-R13-5E	ROOM 13	ND	PLM	Good			NA
4620CL-R9-5Q	ROOM 9	ND	PLM	Good			NA
4620CL-G-6A	GARAGE	ND	PLM	Good	DRYWALL/JOINT COMPOUND	GARAGE	NA
4620CL-G-6B		ND	PLM	Good			NA
4620CL-G-6C		ND	PLM	Good			NA
4620CL-EX-7A	EXTERIOR	ND	PLM	Good	ROOFING	ROOF	NA
4620CL-EX-7B		ND	PLM	Good			NA
ND=Non-Detect PLM=Polarized Light Microscopy NA=Not Applicable							

Table 3-2 Summary of Paint Chip Analysis for Lead

Sample Number	Sample Location	Lead Concentration (% wt.)	Component	Paint Description	Classification
<b>4620CL-1L</b>	<b>Room 1</b>	<b>0.081</b>	<b>Plaster</b>	<b>White</b>	<b>LCP</b>
4620CL-2L	Room 2	0.045	Plaster	White	NLC
4620CL-3L	Room 7	<0.010	Plaster	White	NLC
<b>4620CL-4L</b>	<b>Room 9</b>	<b>0.11</b>	<b>Wood</b>	<b>White</b>	<b>LCP</b>
4620CL-5LQ	Room 9	0.037	Wood	White	NLC
4620CL-6L	Room 1	<0.010	Metal	Green	NLC
4620CL-7L	Room 13	<0.010	Drywall	Red	NLC
<b>4620CL-8L</b>	<b>External Siding</b>	<b>3.8</b>	<b>Stucco</b>	<b>Brown</b>	<b>LBP</b>
<b>4620CL-9L</b>	<b>Garage Siding</b>	<b>4.0</b>	<b>Metal</b>	<b>Gray</b>	<b>LBP</b>

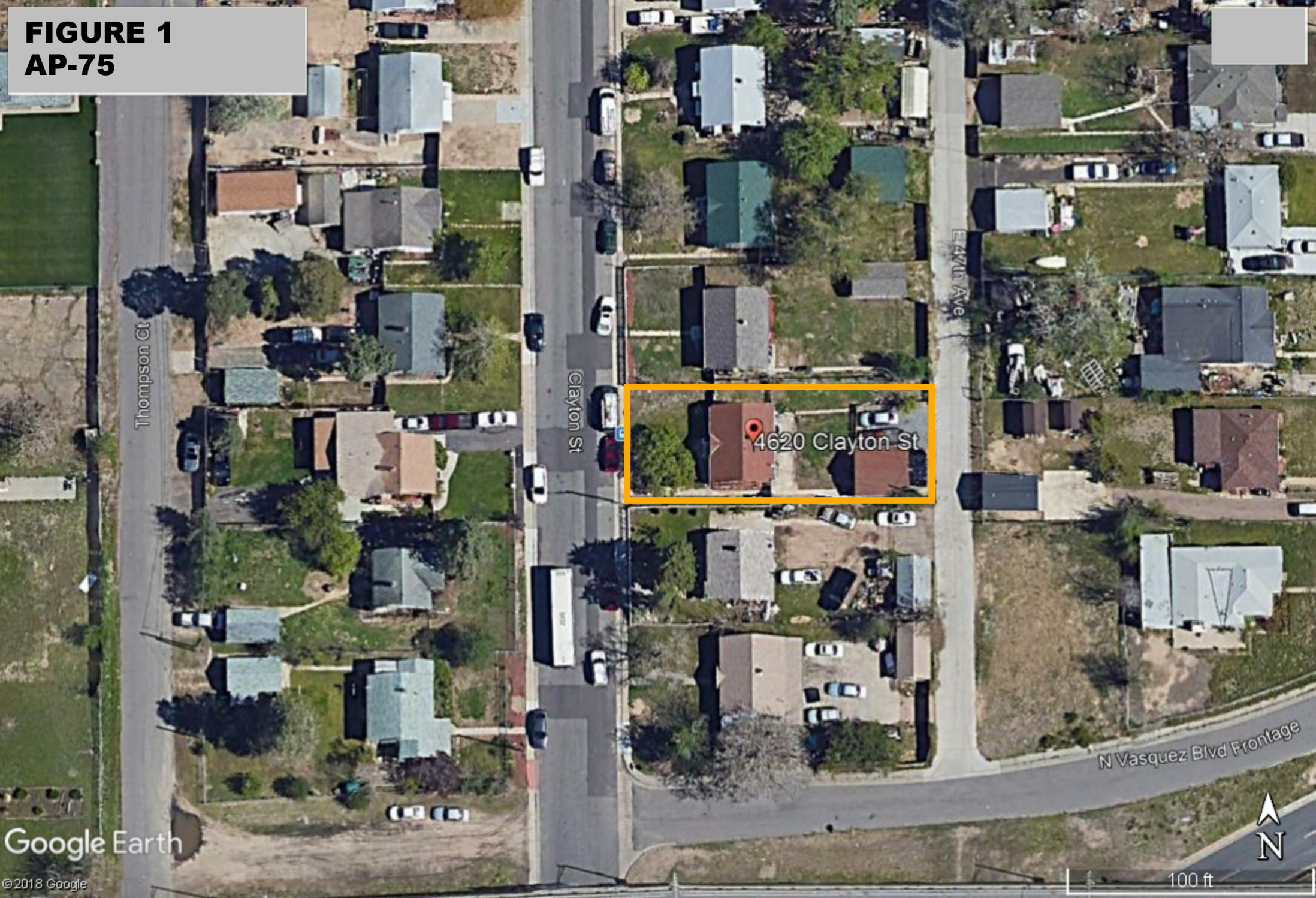
**Table 3-3 Summary of Regulated Building Materials**

<b>Room</b>	<b>Material</b>	<b>Location</b>	<b>Quantity Fixture/Bulbs each</b>
Room 3	Fluorescent	Ceiling	1 fixture 4 bulbs
Room 1	Thermostat-Digital	South Wall	1
Exterior	Gas Main	North West Corner	1
Room 9	Electrical Breaker Box	North of Stairs	1
Exterior	Halogen Security Light	South End of Garage	1
Exterior	Electrical Meter	North West Corner	1

## Figures

- Figure 1 Site Location
- Figure 2 Asbestos Bulk Sample Locations
- Figure 3 Lead-Based Paint Sample Locations
- Figure 4 Regulated Building Materials

**FIGURE 1**  
**AP-75**



Thompson Ct

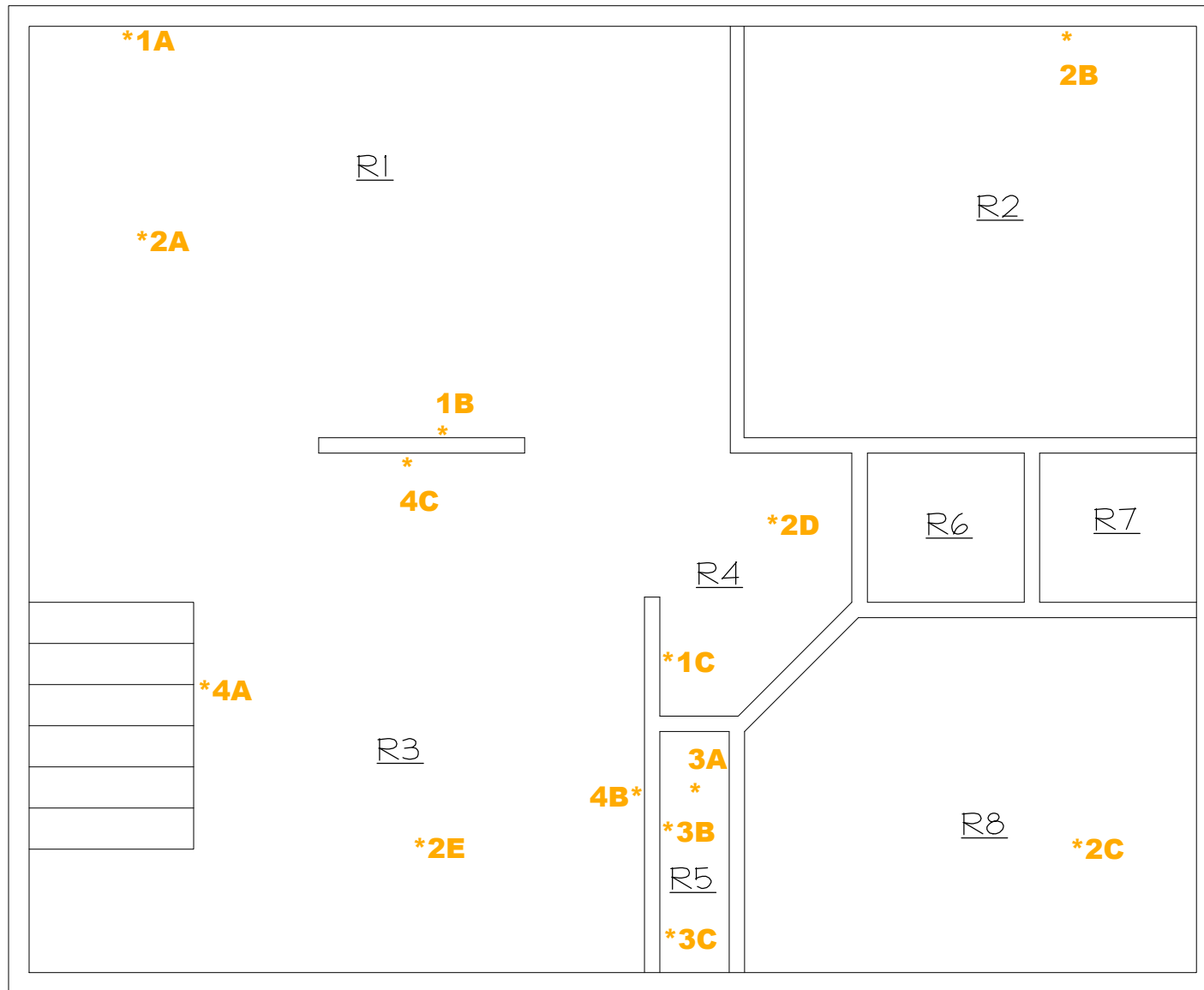
Clayton St

4620 Clayton St

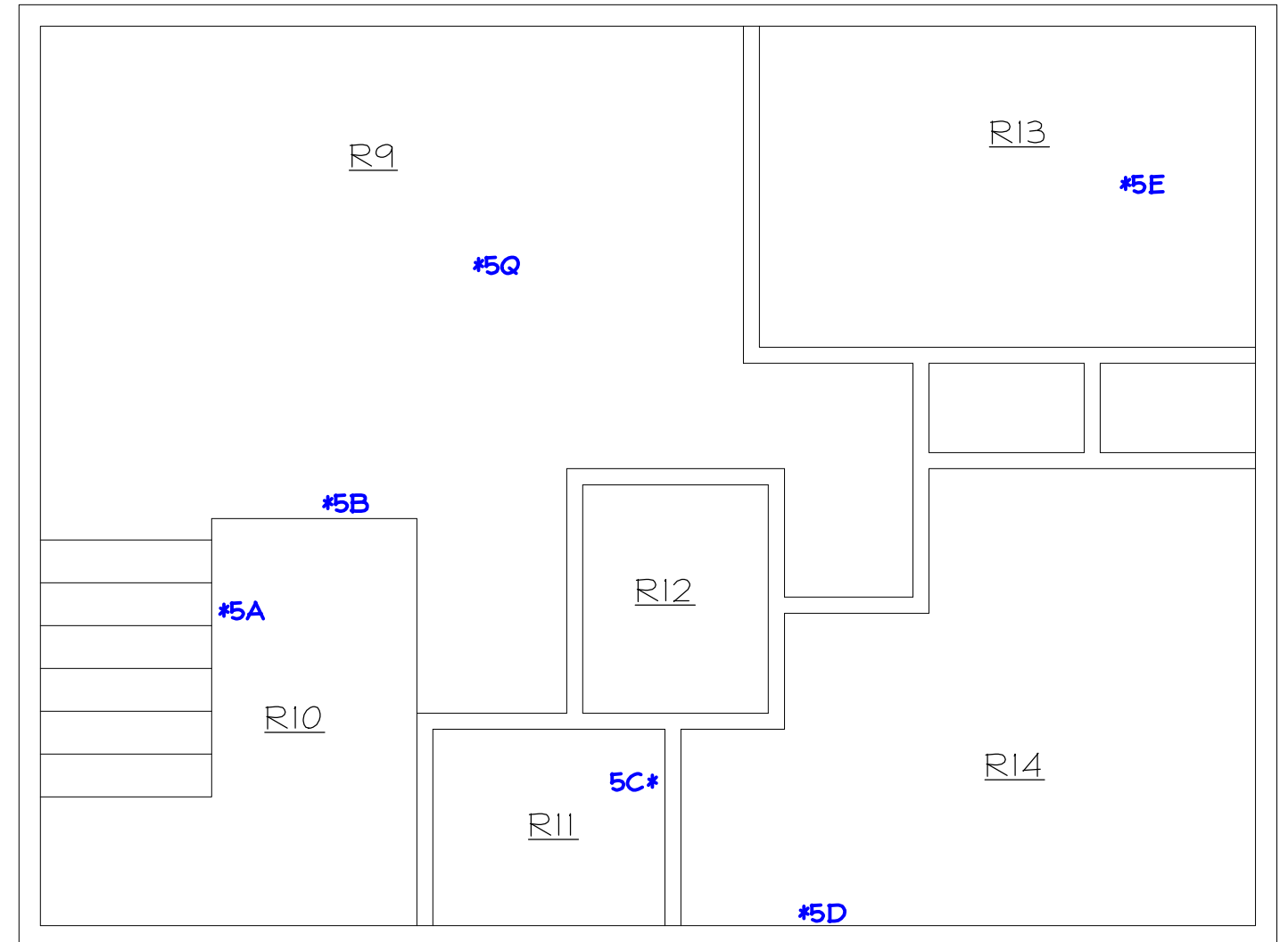
E 47th Ave

N Vasquez Blvd Frontage





UPPER LEVEL



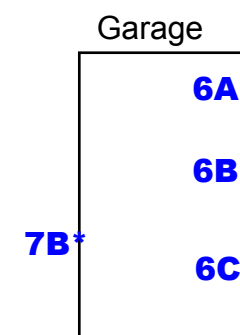
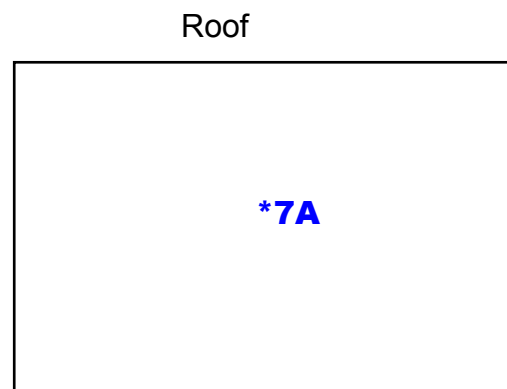
LOWER LEVEL



DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/4" = 1'-0"

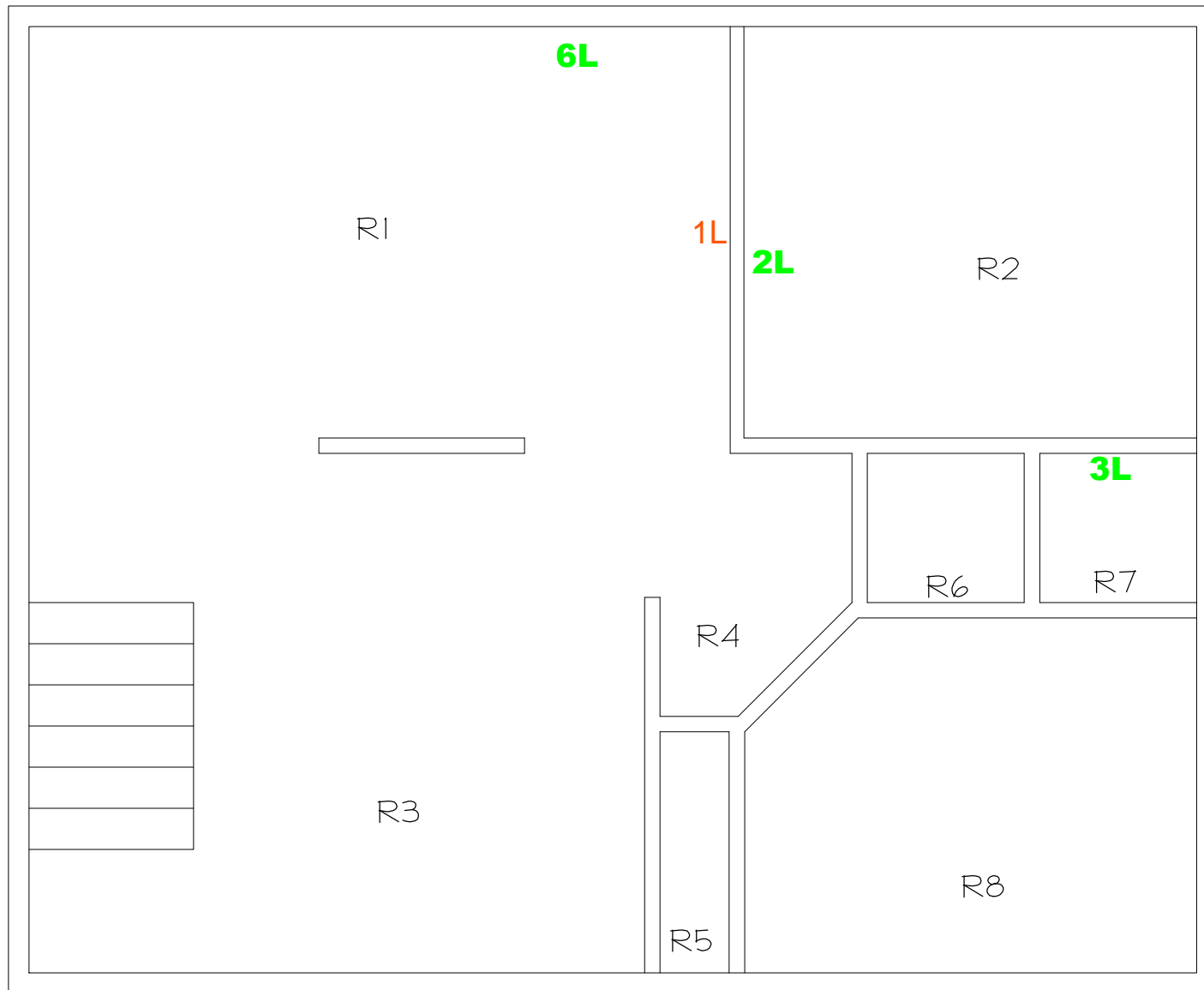
- R1 = Room Numbers
- 4B = Asbestos Samples (Detect)
- 4B = Asbestos Samples (Non-Detect)
- 4B = OSHA Regulated Samples (1% or less)

Roof and Garage not to scale

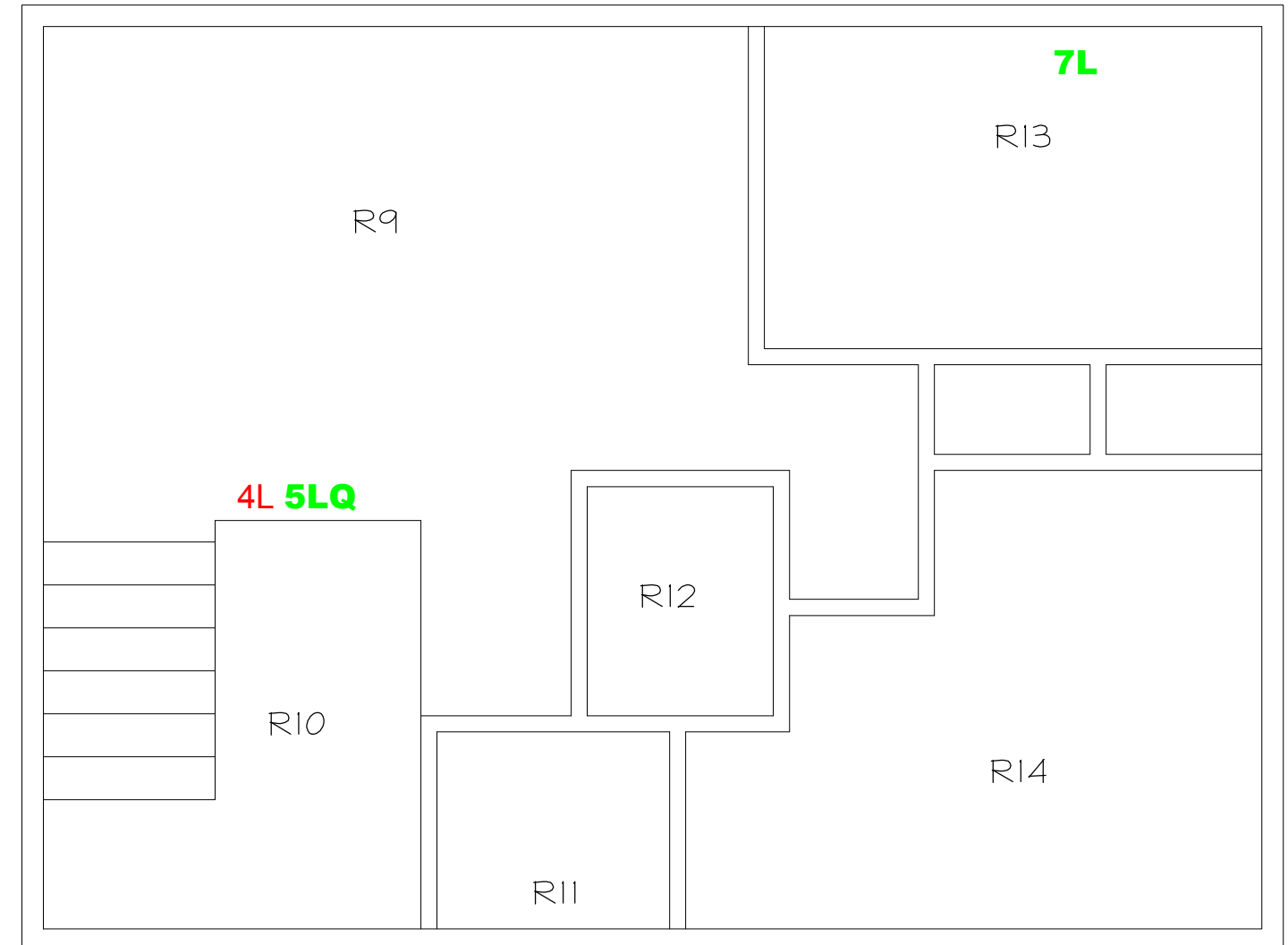


**FIGURE 2 - Asbestos Bulk Sample Locations**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-75  
 4620 Clayton St., Denver, CO  
 April 27, 2018  
 APEC #: 18-3066

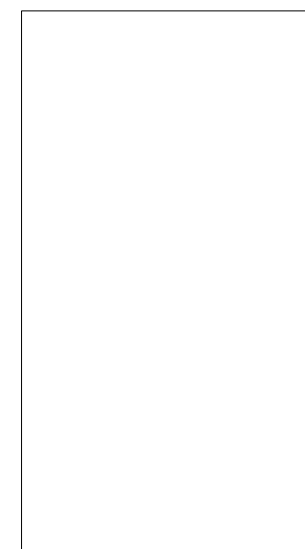
**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375



UPPER LEVEL



LOWER LEVEL



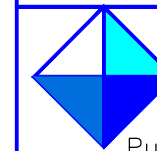
GARAGE



DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/4" = 1'-0"

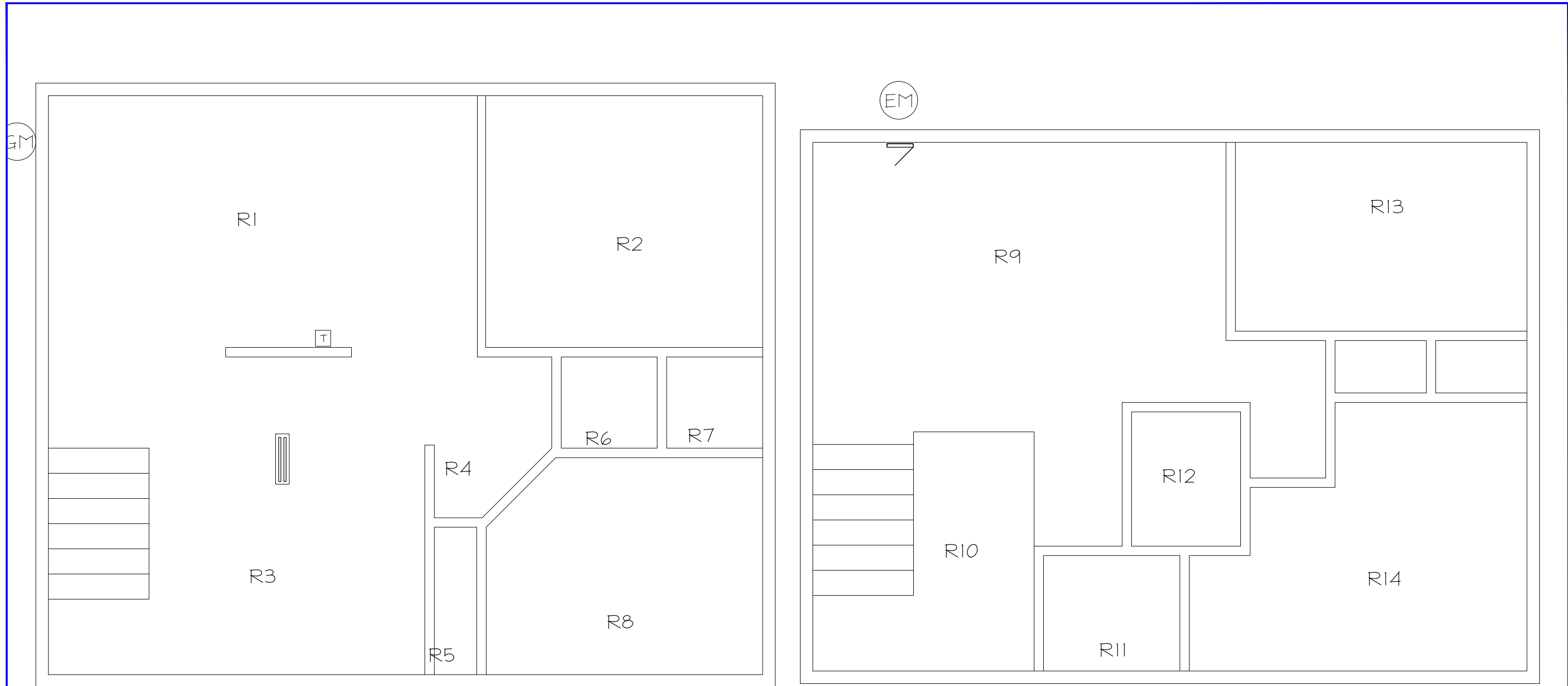
- R1 = Room Numbers
- 4 = Lead Base Paint (Detect)
- 4 = Lead Containing Paint (Detect)
- 4 = Lead Base Paint (Non-Detect)

**FIGURE 3 - Lead-Based Paint Sample Locations**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-75  
 4620 Clayton St., Denver, CO  
 April 27, 2018  
 APEC #: 18-3066



**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375





UPPER LEVEL

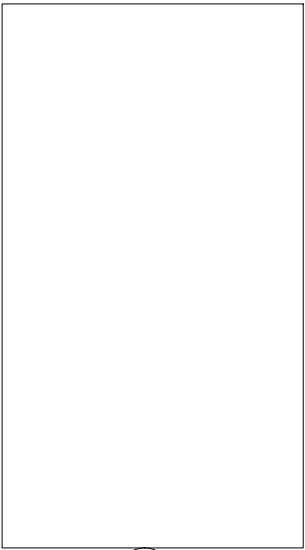
LOWER LEVEL



DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/4" = 1'-0"

- RI = Room Numbers
- EM = Electrical Meter
- GM = Gas Meter
- ⌋ = Breaker Panel

- = Fluorescent Lights
- = Hallogen Lights
- = Thermostat



GARAGE

**FIGURE 4 - Regulated Building Material**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-75  
 4620 Clayton St., Denver, CO  
 April 27, 2018  
 APEC #: 18-3066

**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375

**A**

**ASBESTOS AND LEAD  
CERTIFICATIONS**





Colorado Department  
of Public Health  
and Environment

## ASBESTOS CERTIFICATION\*

This certifies that

**Logan Greenfield**

**Certification No.: 20715**

has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Building Inspector\***

**Issued: October 18, 2017**

**Expires: October 18, 2018**

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

Authorized APCD Representative  
SEAL



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Logan Greenfield

20715

*Has Successfully Completed the EPA- Approved Annual Asbestos Refresher Training Course  
Under Section 206 of the Toxic Substance Control Act (TSCA), Title II.*

**BUILDING INSPECTOR**

Course Date: September 20, 2017  
Certificate No.: R17-1661-AI-CO  
No. of Hours: 4  
Expiration Date: September 20, 2018  
Certification not valid without watermark

A handwritten signature in black ink that reads "Frank Hulce".

Frank Hulce - Instructor

A handwritten signature in black ink that reads "Danaya Benedetto".

Danaya Benedetto- Training Program Manager



Colorado Department  
of Public Health  
and Environment

## LEAD-BASED PAINT CERTIFICATION\*

This certifies that

**Richard L. Ralston**

**Certification No.: 9130**

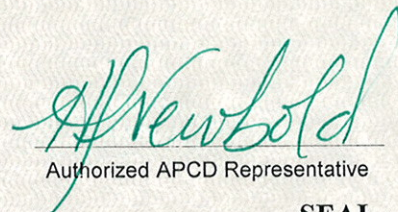
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control  
Commission Regulation No. 19, and is hereby certified by the state of  
Colorado in the following discipline:

**Risk Assessor\***

**Issued: February 10, 2017**

**Expires: February 10, 2019**

*\* This certificate is valid only with the possession of a valid  
lead-based paint training certificate in the discipline specified  
above, issued by either a Colorado approved training provider,  
an EPA approved training provider, or a training provider  
approved by another EPA authorized program.*

  
Authorized APCD Representative

**SEAL**



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Richard Ralston

*Has successfully completed the required training hours and passed the examination required by the Colorado Department of Public Health and Environment for:*

**Lead-Based Paint Risk Assessor Refresher**

*For the purposes of accreditation under the Colorado Department of Public Health and Environment Regulation No. 19 and other standard developed by EPA pursuant to Title IV of TSCA*

Course Date: April 6, 2016  
Certificate No.: R16-031-LRA-CO  
No. of Hours: 8  
Expiration Date: April 6, 2019

Certification not valid without watermark

*Luis E. Peon*

Luis Peon - Instructor

*Danaya Benedetto*

Danaya Benedetto - Training Program Manager

United States Department of Commerce  
National Institute of Standards and Technology



**Certificate of Accreditation to ISO/IEC 17025:2005**

NVLAP LAB CODE: 200828-0

**EMSL Analytical, Inc.**  
Denver, CO

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*


**Asbestos Fiber Analysis**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2018-04-01 through 2019-03-31

*Effective Dates*



  
For the National Voluntary Laboratory Accreditation Program



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**EMSL Analytical, Inc.**

1010 Yuma Street  
Denver, CO 80204  
Ms. Amanda Lang  
Phone: 303-740-5700  
Email: [alang@emsl.com](mailto:alang@emsl.com)  
<http://www.emsl.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200828-0**

**Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

**Airborne Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read "Dana S. Laman".

For the National Voluntary Laboratory Accreditation Program





## AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

### **EMSL Analytical, Inc.**

6340 Castleplace Drive, Indianapolis, IN 46250

Laboratory ID: 157245

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

#### **LABORATORY ACCREDITATION PROGRAMS**

- |   |                                      |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> <b>INDUSTRIAL HYGIENE</b>         | Accreditation Expires: June 01, 2019 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL LEAD</b>         | Accreditation Expires: June 01, 2019 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL MICROBIOLOGY</b> | Accreditation Expires: June 01, 2019 |
| <input type="checkbox"/> <b>FOOD</b>                                  | Accreditation Expires:               |
| <input type="checkbox"/> <b>UNIQUE SCOPES</b>                         | Accreditation Expires:               |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

William Walsh, CIH  
Chairperson, Analytical Accreditation Board

Cheryl O. Morton  
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 05/31/2017



## AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

### EMSL Analytical, Inc.

6340 Castleplace Drive, Indianapolis, IN 46250

Laboratory ID: **157245**

Issue Date: 05/31/2017

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

### Environmental Lead Laboratory Accreditation Program (ELLAP)

**Initial Accreditation Date: 09/01/2002**

Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description <i>(for internal methods only)</i>
<b>Paint</b>		EPA SW-846 3050B	
		EPA SW-846 3051A	
		EPA SW-846 7000B	
<b>Soil</b>		EPA SW-846 3050B	
		EPA SW-846 3051A	
		EPA SW-846 7000B	
<b>Settled Dust by Wipe</b>		EPA SW-846 3050B	
		EPA SW-846 3051A	
		EPA SW-846 7000B	
<b>Airborne Dust</b>		NIOSH 7082	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

**B**

POSITIVE LEAD SAMPLE  
MATERIAL PHOTOGRAPHS





**LCP – White**

Sample Represented –  
4620CL-1L



**LBP – Brown (behind siding on House)**

Sample Represented –  
4620CL-4L



**LCP – White**

Sample Represented –  
4620CL-8L



**LBP – Gray (Garage)**

Sample Represented –  
4620CL-9L

C

LABORATORY RESULTS &  
CHAIN OF CUSTODY -  
ASBESTOS





# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018

**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R1-1A-Skim Coat 221802874-0001	Rough Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R1-1A-Plaster 221802874-0001A	Rough Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R1-1B-Skim Coat 221802874-0002	Rough Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R1-1B-Plaster 221802874-0002A	Rough Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R4-1C-Skim Coat 221802874-0003	Rough Textured Plaster	White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R4-1C-Plaster 221802874-0003A	Rough Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R1-2A-Skim Coat 221802874-0004	Smooth Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R1-2A-Plaster 221802874-0004A	Smooth Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018  
**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R2-2B-Skim Coat 221802874-0005	Smooth Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R2-2B-Plaster 221802874-0005A	Smooth Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R8-2C-Skim Coat 221802874-0006	Smooth Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R8-2C-Plaster 221802874-0006A	Smooth Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R4-2D-Skim Coat 221802874-0007	Smooth Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R4-2D-Plaster 221802874-0007A	Smooth Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R3-2E-Texture 221802874-0008	Smooth Textured Plaster	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R3-2E-Skim Coat 221802874-0008A	Smooth Textured Plaster	White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10





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**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018

**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R3-2E-Plaster 221802874-0008B	Smooth Textured Plaster	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	<1% Chrysotile
4620CL-R5-3A-Texture 221802874-0009	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R5-3A-Skim Coat 221802874-0009A	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4620CL-R5-3A-Plaster 221802874-0009B	Knockdown Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
Inseparable paint / coating layer included in analysis					
4620CL-R5-3B-Texture 221802874-0010	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R5-3B-Skim Coat 221802874-0010A	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4620CL-R5-3B-Plaster 221802874-0010B	Knockdown Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R5-3C-Texture 221802874-0011	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R5-3C-Skim Coat 221802874-0011A	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10



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**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
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**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018  
**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R5-3C-Plaster 221802874-0011B	Knockdown Textured Plaster	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	<1% Chrysotile
4620CL-R3-4A-Texture 221802874-0012	Medium Textured Plaster	White Non-Fibrous Heterogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R3-4A-Skim Coat 221802874-0012A	Medium Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4620CL-R3-4A-Plaster 221802874-0012B	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R3-4B-Texture 221802874-0013	Medium Textured Plaster	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R3-4B-Skim Coat 221802874-0013A	Medium Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4620CL-R3-4B-Plaster 221802874-0013B	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4620CL-R3-4C-Texture 221802874-0014	Medium Textured Plaster	White Non-Fibrous Heterogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R3-4C-Skim Coat 221802874-0014A	Medium Textured Plaster	White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10



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**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
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**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018

**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R3-4C-Plaster 221802874-0014B	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	<1% Chrysotile
4620CL-R10-5A-Texture 221802874-0015	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R10-5A-Drywall 221802874-0015A	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-R9-5B-Texture 221802874-0016	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R9-5B-Drywall 221802874-0016A	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-R11-5C-Texture 221802874-0017	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4620CL-R11-5C-Mesh 221802874-0017A	Knockdown Textured Plaster	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
4620CL-R11-5C-Drywall 221802874-0017B	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-R14-5D-Texture 221802874-0018	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10



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**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018

**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R14-5D-Dry wall 221802874-0018A	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-R13-5E-Texture 221802874-0019	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4620CL-R13-5E-Dry wall 221802874-0019A	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose <1% Glass	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-R9-5Q-Texture 221802874-0020	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4620CL-R9-5Q-Dry wall 221802874-0020A	Knockdown Textured Plaster	Brown/White Fibrous Homogeneous	15% Cellulose <1% Glass	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-G-6A-Joint Compound 221802874-0021	Drywall/Joint Compound	White Non-Fibrous Homogeneous	Inseparable paint / coating layer included in analysis		None Detected
4620CL-G-6A-Drywall 221802874-0021A	Drywall/Joint Compound	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-G-6B-Joint Compound 221802874-0022	Drywall/Joint Compound	White Non-Fibrous Homogeneous	Inseparable paint / coating layer included in analysis		None Detected
4620CL-G-6B-Drywall 221802874-0022A	Drywall/Joint Compound	Brown/White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/01/2018 14:45:10



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**EMSL Order:** 221802874  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018  
**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-G-6C-Joint Compound 221802874-0023	Drywall/Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4620CL-G-6C-Drywall all 221802874-0023A	Drywall/Joint Compound	Brown/Pink Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4620CL-EX-7A 221802874-0024	Roofing	Gray/Black Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
4620CL-EX-7B-Shingle 1 221802874-0025	Roofing	Gray/Red/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
4620CL-EX-7B-Shingle 2 221802874-0025A	Roofing	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected

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**Received Date:** 04/27/2018 10:00 AM  
**Analysis Date:** 05/01/2018  
**Collected Date:** 04/27/2018

**Project:** 18-3066 - D70 - 4620 Clay (CDOT)

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

### Report Comments:

Sample Receipt Date:	04/27/2018	Sample Receipt Time:	10:00 AM
Analysis Completed Date:	05/01/2018	Analysis Completed Time:	2:40 PM

### **Analyst(s):**

Amanda Lang PLM (19)

Molly Elkins PLM (38)

### **Samples Reviewed and approved by:**

Amanda Lang, Asbestos Laboratory Manager  
or other approved signatory

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EMSL Order:	221802874
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	CDOT

Attn: **Logan Greenfield**  
**All-Phase Environmental Consultants, Inc**  
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Phone: (719) 545-0375  
Fax: (719) 542-2807  
Received: 04/27/18 10:00 AM  
Analysis Date: 5/8/2018  
Collected: 4/27/2018

Project: **18-3066 - D70 - 4620 Clay**

### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R1-1A-Plaster <i>221802874-0001A</i>	Rough Textured Plaster	Gray Non-Fibrous  Homogeneous		99.75% Non-fibrous (other)	<b>0.25% Chrysotile</b>
4620CL-R1-1B-Plaster <i>221802874-0002A</i>	Rough Textured Plaster	Gray Non-Fibrous  Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
4620CL-R4-1C-Plaster <i>221802874-0003A</i>	Rough Textured Plaster	Gray Non-Fibrous  Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
4620CL-R1-2A-Plaster <i>221802874-0004A</i>	Smooth Textured Plaster	Gray Non-Fibrous  Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
4620CL-R2-2B-Plaster <i>221802874-0005A</i>	Smooth Textured Plaster	Gray Non-Fibrous  Homogeneous		99.75% Non-fibrous (other)	<b>0.25% Chrysotile</b>
4620CL-R8-2C-Plaster <i>221802874-0006A</i>	Smooth Textured Plaster	Gray Non-Fibrous  Homogeneous		99.75% Non-fibrous (other)	<b>0.25% Chrysotile</b>
4620CL-R4-2D-Plaster <i>221802874-0007A</i>	Smooth Textured Plaster	Gray Non-Fibrous  Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
4620CL-R3-2E-Plaster <i>221802874-0008B</i>	Smooth Textured Plaster	Gray Non-Fibrous  Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
4620CL-R5-3A-Plaster <i>221802874-0009B</i>	Knockdown Textured Plaster	Gray Non-Fibrous  Homogeneous		99.50% Non-fibrous (other)	<b>0.50% Chrysotile</b>

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.  
Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 05/08/2018 14:50:44



**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204  
Phone/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> [denverlab@emsl.com](mailto:denverlab@emsl.com)

EMSL Order: 221802874  
CustomerID: ALLP62  
CustomerPO:  
ProjectID: CDOT

Attn: **Logan Greenfield**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO 81003**

Phone: (719) 545-0375  
Fax: (719) 542-2807  
Received: 04/27/18 10:00 AM  
Analysis Date: 5/8/2018  
Collected: 4/27/2018

Project: **18-3066 - D70 - 4620 Clay**

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4620CL-R5-3B-Plaster <i>221802874-0010B</i>	Knockdown Textured Plaster	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
4620CL-R5-3C-Plaster <i>221802874-0011B</i>	Knockdown Textured Plaster	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
4620CL-R3-4A-Plaster <i>221802874-0012B</i>	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
4620CL-R3-4B-Plaster <i>221802874-0013B</i>	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
4620CL-R3-4C-Plaster <i>221802874-0014B</i>	Medium Textured Plaster	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.  
Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 05/08/2018 14:50:44





**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204  
Phone/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> [denverlab@emsl.com](mailto:denverlab@emsl.com)

EMSL Order:	221802874
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	CDOT

Attn: <b>Logan Greenfield</b> <b>All-Phase Environmental Consultants, Inc</b> <b>721 West 9th Street</b> <b>Pueblo, CO 81003</b>	Phone: (719) 545-0375 Fax: (719) 542-2807 Received: 04/27/18 10:00 AM Analysis Date: 5/8/2018 Collected: 4/27/2018
Project: <b>18-3066 - D70 - 4620 Clay</b>	

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

**Report Comments:**

Sample Receipt Date::	4/27/2018	Sample Receipt Time:	10:00 AM
Analysis Completed Date:	5/8/2018	Analysis Completed Time:	2:31 PM

**Analyst(s):**

Timothy Kleehammer PLM 400 Point Count (14)

**Samples reviewed and approved by:**

Amanda Lang, Asbestos Laboratory Manager  
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 05/08/2018 14:50:44



EMSL ANALYTICAL, INC.  
LABORATORY - PRODUCTS - TRAINING

### Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

**221802874**

Denver, CO 80204

PHONE (303) 740-5700

FAX (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 18-3066-D 70-4620 clay		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

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

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

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	<b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	<b>TEM - Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
<b>PLM - Bulk (reporting limit)</b> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	<b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	<b>Soil/Rock/Vermiculite</b> <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		<b>Filter Pore Size (Air Samples):</b> <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm

Check For Positive Stop - Clearly Identify Homogenous Group     Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: Logan Greenfield     Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4620CL-R1-1A	Rough Textured Plaster	---	4-27-18
4620CL-R1-1B	↓	---	↓
4620CL-R4-1C		---	
4620CL-R1-2A	Smooth Textured Plaster	---	
4620CL-R2-2B	↓	---	
4620CL-R8-2C		---	
4620CL-R4-2D		---	
4620CL-R3-2E	↓	---	

Client Sample # (s): \_\_\_\_\_ Total # of Samples: **25**

Relinquished (Client): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received (Lab): [Signature] Date: 4/27/18 Time: 10:00am

Comments/Special Instructions: WI



EMSL ANALYTICAL, INC  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Chain of Custody**  
EMSL Order Number (Lab Use Only):

Denver, CO 80204  
PHONE (303) 740-5700  
FAX (303) 741-1400

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

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4620CL-R5-3A	Knockdown Textured Plaster	—	4-27-18
4620CL-R5-3B	↓	—	↓
4620CL-R5-3C	↓	—	
4620CL-R3-4A	Medium Textured Plaster	—	
4620CL-R3-4B	↓	—	
4620CL-R3-4C	↓	—	
4620CL-R10-5A	Knockdown Textured Drywall	—	
4620CL-R9-5B	↓	—	
4620CL-R11-5C	↓	—	
4620CL-R14-5D	↓	—	
4620CL-R13-5E	↓	—	
4620CL-R9-5Q	↓	—	
4620CL-G-6A	Drywall/ Joint Compound	—	
4620CL-G-6B	↓	—	
4620CL-G-6C	↓	—	
4620CL-EX-7A	Roofing	—	
4620CL-EX-7B	↓	—	
*Comments/Special Instructions:			

**D**

LABORATORY RESULTS &  
CHAIN OF CUSTODY -  
LEAD & TCLP





# EMSL Analytical, Inc.

6340 CastlePlace Dr., Indianapolis, IN 46250

Phone/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com>

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

EMSL Order:	161807722
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	

Attn: **Richard Ralston**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO**

Phone: (719) 225-6953  
 Fax: (719) 542-2807  
 Received: 04/30/18 10:10 AM  
 Collected:

Project: **Central 70 / 18-3066-**

## Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>RDL</i>	<i>Lead Concentration</i>
4620CL -1L 161807722-0001		4/30/2018 Site: WHITE PLASTER R1	0.010 % wt	0.081 % wt
4620CL - 2L 161807722-0002		4/30/2018 Site: WHITE PLASTER R2	0.010 % wt	0.045 % wt
4620CL - 3L 161807722-0003		4/30/2018 Site: WHITE PLASTER R7	0.010 % wt	<0.010 % wt
4620CL - 4L 161807722-0004		4/30/2018 Site: WHITE WOOD R9	0.010 % wt	0.11 % wt
4620CL - 5LQ 161807722-0005		4/30/2018 Site: WHITE FLOOR R9	0.010 % wt	0.037 % wt
4620CL - 6L 161807722-0006		4/30/2018 Site: GREEN DOOR - MITHSE R1	0.010 % wt	<0.010 % wt
4620CL - 7L 161807722-0007		4/30/2018 Site: RED DRYWALL R13	0.010 % wt	<0.010 % wt
4620CL - 8L 161807722-0008		4/30/2018 Site: BROWN - WALL - HOUSE STORY	0.25 % wt	3.8 % wt
4620CL - 9L 161807722-0009		4/30/2018 Site: GRAY - WALL - GARAGE STORY	0.25 % wt	4.0 % wt

Doug Wiegand, Laboratory Manager  
or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--ELLAP 157245, OH E10040

Initial report from 05/01/2018 15:34:57

4620CL Lead



EMSL ANALYTICAL, INC. LABORATORY PRODUCTS TRAINING

Chain of Custody EMSL Order Number (Lab Use Only)

161807722

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINDAMINSON NJ 08077 PHONE (800) 220-3675 FAX (856) 658-3502

PHONE FAX

Company: All Phase Environmental
Street: 721 9th Street
City: Pueblo State/Province: CO Zip/Postal Code: Country:
Report To (Name): Richard Racso
Email Address: Rick@allphaseenv.com
Project Name/Number: CENTRAL 70/18-3066
U.S. State Samples Taken: Colorado

Turnaround Time (TAT) Options\* - Please Check
3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week
\*For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability.

Asbestos
PCM - Air PLM - Bulk TEM - Bulk
TEM - Air 4-4.5hr TAT(AHERA ONLY)
TEM - Water TEM - Dust
Soil/Rock/Vermiculite

Lead (Pb) Materials Science
Flame Atomic Absorption ICP
Graphite Furnace Atomic Absorption Other:
Common Particle ID (large particles) Full Particle ID (environmental dust)

Microbiology
Wipe and Bulk Samples Air Samples
Water Samples Legionella
Real Time Q-PCR (See Analytical Guide for Code)
IAQ
Nuisance Dust NIOSH D500 D600

\*\*Comments/Special Instructions:

Client Sample #'s Total # of Samples:
Relinquished (Client): R. Rabston Date: 4/27/2018 Time:
Received (Lab): CS Date: 4/27/18 Time: 10:00 am WI

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide
Controlled Document-OneChain-R3-11/8/2011 Rec'd Brown 4/30/18 10:10

4620CL  
LEAD



EMSL ANALYTICAL, INC  
LABORATORY • PRODUCTS • TRAINING

Chain of Custody  
EMSL Order Number (Lab Use Only)

161807722

PRINT  
FAX

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4620CL-1L	white <sup>PLASTER</sup> <del>PLASTER</del> R <sub>1</sub>	N/A	4/26/2018
4620CL-2L	white Plaster R <sub>2</sub>	↓	↓
4620CL-3L	white Plaster R <sub>7</sub>		
4620CL-4L	white wood R <sub>9</sub>		
4620CL-5L	white wood R <sub>9</sub>		
4620CL-6L	GREEN DOW-MIKE R <sub>1</sub>		
4620CL-7L	Red Drywall R <sub>13</sub>		
4620CL-8L	BROWN - wall - <del>CARPET</del> <sup>HOUSE STAIN</sup>		
4620CL-9L	GRAY - wall - GARAGE STAIN		
*Comments/Special Instructions:			

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

**EMSL Analytical, Inc.**

6340 CastlePlace Dr., Indianapolis, IN 46250

Phone/Fax: (317) 803-2997 / (317) 803-3047

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

EMSL Order: 161807767

CustomerID: 32PHAS54

CustomerPO:

ProjectID:

Attn: **Richard Ralston**  
**All Phase Environmental, Inc.**  
**8792 Lauder Circle**  
**Suite 200**  
**Huntington Beach, CA 92646-2222**

Phone: (714) 593-3800  
 Fax: (714) 593-0012  
 Received: 04/30/18 10:10 AM  
 Collected:

Project: **Central 70 / 18-3066-****Test Report: Toxicity Characteristic Leachate Procedure (1311/7000B)**

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>RDL</i>	<i>Lead Concentration</i>
4620CL - TCLP 161807767-0001		5/1/2018	0.40 mg/L	0.44 mg/L

\_\_\_\_\_  
 Doug Wiegand, Laboratory Manager  
 or other approved signatory

This report relates only to those items tested. Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN

Initial report from 05/03/2018 15:54:39





EMSL ANALYTICAL, INC. LABORATORY PRODUCTS TRAINING

Chain of Custody EMSL Order Number (Lab Use Only)

161807767

EMSL ANALYTICAL, INC. 200 Route 130 NORTH CINDAMINSON NJ 08077 Phone (800) 220-3675 FAX (856) 658-3502

PHONE: FAX:

Company: All Phase Environmental
Street: 721 9th Street
City: Pueblo State/Province: CO Zip/Postal Code: Country:
Report To (Name): Richard RACS700 Telephone #:
Email Address: Rick@allphaseenv.com Purchase Order:
Project Name/Number: CENTRAL 70 / 18-3066 Please Provide Results: Fax Email Mail
U.S. State Samples Taken: Colorado Connecticut Samples: Commercial Residential

Turnaround Time (TAT) Options\* - Please Check

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

\*For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test. Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)

Asbestos

PCM - Air NIOSH 7400 w/ 8hr. TWA
TEM - Air 4-4.5hr TAT(AHERA ONLY) AHERA 40 CFR, Part 763 NIOSH 7402 EPA Level II ISO 10312
TEM - Water Fibers >10µm Waste Drinking All Fiber Sizes Waste Drinking
PLM - Bulk PLM EPA 600/R-93/116 PLM EPA NOB (<1%) NYS 198.1 (friable-NY) NYS 198.6 (non-friable-NY) Point Count 400 (<0.25%) 1000 (<0.1%) Point Count w/ Gravimetric 400 (<0.25%) 1000 (<0.1%)
TEM - Dust Microvac - ASTM D 5755 Wipe-ASTM D6480
TEM - Bulk TEM EPA NOB NYS NOB 198.4 (non-friable-NY) Chatfield SOP
Soil/Rock/Vermiculite PLM CARB 435 - A (0.25% sensitivity) PLM CARB 435 - B (0.1% sensitivity) TEM CARB 435 - B (0.1% sensitivity) EPA Reg. 1 Screening Protocol (Qualitative)
Other:

Lead (Pb)

Flame Atomic Absorption Chips SW846-7000B or AOAC 974.02 Soil SW846-7000B/7420 Air NIOSH 7082 Wastewater SM3111B or SW846-7000B/7420 ASTM Wipe SW846-7000B/7420 non ASTM Wipe SW846-7000B/7420 TCLP SW846-1311/7420/SM 3111B
ICP Air NIOSH 7300 Modified non ASTM Wipe SW846-6010B or C ASTM Wipe SW846-6010B or C Soil SW846-6010 B or C Waste Water SW846-6010B or C TCLP SW846-6010B or C
Graphite Furnace Atomic Absorption Soil SW846-7421 Wastewater EPA 200.9 Air NIOSH 7105 Drinking Water EPA 200.9
Other:

Materials Science

Common Particle ID (large particles) Full Particle ID (environmental dust) Basic Material ID (solids) Advanced Material ID Physical Testing (Tensile, Compression) Combustion-by-products (soot, char, etc.) X-Ray Fluorescence (elem. analysis) X-Ray Diffraction (Crystalline Part.) MMVF's (Fibrous glass, RCF's) Particle Size (sieve/microscopy/laser) Combustible Dust Petrographic Examination
Other:

Microbiology

Wipe and Bulk Samples Mold & Fungi - Direct Examination Mold & Fungi Culture (Genus Only) Mold & Fungi Culture (Genus & Species) Bacterial Count & ID (Up to Three Types) Bacterial Count & ID (Up to Five Types) MRSA Pseudomonas aeruginosa
Water Samples Total Coliform & E.coli (P/A) Fecal Coliform (SM 9222D) Sewage Screen Heterotrophic Plate Count (SM 9215)
Air Samples Mold & Fungi (Spore Trap) Mold & Fungi Culture (Genus Only) Mold & Fungi (Genus & Species) Bacterial Culture & ID (Up to Three Types) Bacterial Culture & ID (Up to Five Types) Endotoxin Testing
Real Time Q-PCR (See Analytical Guide for Code) Code:
Legionella Level 1 Level 2 Level 3 Level 4
Other:

IAQ

Nuisance Dust NIOSH 0500 0600 Airborne Dust PM10 TSP Silica Analysis: All Species Silica Analysis - Single Species Alpha Quartz Cristobalite Tridymite HVAC Efficiency Carbon Black Airborne Oil Mist Radon Testing: Call for Kit and COC
Other:

\*\*Comments/Special Instructions: ANALYZE ONLY IF LEAD SAMPLE AT .5" OR ABOVE .5µg AIR BOUND TO CHIP -4620CL

Client Sample #'s Total # of Samples:
Relinquished (Client): R Rabston Date: 4/27/18 Time:
Received (Lab): CS Date: 4/27/18 Time: 10:00 am WI

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

Rec'd Braun 4-30-18 10:10



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Chain of Custody

**EMSL Order Number** *(Lab Use Only):*

161807767

PHONE:  
FAX:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4620CL-TCIP	TCIP		

**\*Comments/Special Instructions:**

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

## 3b. Pre-Demolition Engineering Survey



Pre-Demolition Survey  
And General Demolition Plan  
For  
**4620 Clayton Street**  
**Denver, CO 80216**



Engineers: David A. Poe, P.E., S.E.  
Glen L. Wilson, E.I.

June 28, 2018  
Project No: 180113

June 28, 2018

Stephen P. Di Nardo  
JKS Industries, LLC  
747 Sheridan Blvd #9A  
Lakewood, CO 80214

Re: 4620 Clayton Street, Denver, CO 80216  
Pre-Demolition Engineering Survey per OSHA 1926.850(a)  
And General Demolition Plan

Date of Observation: 06/26/18

Dear Mr. Di Nardo:

At the request of JKS Industries (JKS), a representative from Anchor Engineering, Inc. (AEI) performed a site observation at the above-referenced structure on Tuesday, June 26, 2018.

For the purpose of this report, there are two buildings on the property. The front elevation of the residence faces west and is parallel to Clayton Street. There is a detached garage at the southeast corner of the property adjacent to the alley. At the time of our visit the buildings were vacant.

The purpose of our site visit was twofold:

1. To give an assessment of the current condition of the structure as it relates to structurally related hazards before the proposed demolition activities. OSHA 1926.850 is stated below, along with project specific applicability to the subject building.

- a. **OSHA 1926.850(a):** *Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed.*

**Project Specific Applicability:** The information contained in this report satisfies the requirement of this guideline. The subcontractor shall review this report and make a copy available to all employees on the project at the pre-project meeting, and it shall also be included in the job site books.

- b. **OSHA 1926.85(b):** *When employees are required to work within a structure to be demolished which has been damaged by fire, flood, explosion, or other cause, the walls or floor shall be shored or braced.*

**Project Specific Applicability:** 4620 Clayton Street, Denver, CO 80216 has not been damaged by any fire, flood, explosion, or any other event. Therefore, no shoring or bracing is required.

- c. **OSHA 1926.850(c):** *All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.*

**Project Specific Applicability:** The contractor and subcontractor will ensure all electric, gas, water, steam, sewer, and other services are to be cut off prior to any work being performed. Contractor shall confirm with KMP through the pre-demolition check list and present the necessary information in the pre-demolition meetings.

- d. **OSHA 1926.850(d)**: *If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.*

**Project Specific Applicability**: The demolition of 4620 Clayton Street, Denver, CO 80216 does not require any power, water or other utilities.

- e. **OSHA 1926.850(e)**: *It shall also be determined if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated before demolition is started.*

**Project Specific Applicability**: All types of hazardous chemicals, gases, explosives, flammable materials, or other dangerous substances shall be removed from the structure prior to demolition as part of the pre cleaning phase during the environmental remediation. All materials are to be documented, manifested, and included in the environmental close out documents.

- f. **OSHA 1926.850(f)**: *Where a hazard exists from fragmentation of glass, such hazards shall be removed.*

**Project Specific Applicability**: All hazards from fragmentation of glass shall be removed in the normal course of demolition.

- g. **OSHA 1926.850(g)**: *Where a hazard exists to employees falling through wall openings, the opening shall be protected to a height of approximately 42 inches.*

**Project Specific Applicability**: No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- h. **OSHA 1926.850(h)**: *When debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Signs, warning of the hazard of falling materials, shall be posted at each level. Removal shall not be permitted in this lower area until debris handling ceases above.*

**Project Specific Applicability**: No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- i. **OSHA 1926.850(i)**: *All floor openings, not used as material drops, shall be covered over with material substantial enough to support the weight of any load which may be imposed. Such material shall be properly secured to prevent its accidental movement.*

**Project Specific Applicability**: The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

**OSHA 1926.850(j)**: *Except for the cutting of holes in floors for chutes, holes through which to drop materials, preparation of storage space, and similar necessary preparatory work, the demolition of exterior walls and floor construction shall begin at the top of the structure and proceed downward. Each story of exterior wall and floor construction shall be removed and dropped into the storage space before commencing the removal of exterior walls and floors in the story next below.*

**Project Specific Applicability**: The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

- j. 1926.850(k): *Employee entrances to multistory structures being demolished shall be completely protected by sidewalk sheds or canopies, or both, providing protection from the face of the building for a minimum of 8 feet. All such canopies shall be at least 2 feet wider than the building entrances or openings (1 foot wider on each side thereof), and shall be capable of sustaining a load of 150 pounds per square foot.*

Project Specific Applicability: Not applicable. Building is a single story structure. No employees are permitted to enter the structure once demolition begins.

2. Provide a general outline of the demolition procedures and sequence that is proposed to be used in the demolition of the subject structure. These outlined procedures/sequences are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations.

No architectural or structural drawings were provided for our review.

The residence is a single-story residential structure and is assumed to be founded on a spread footings. The structure has a full basement with concrete foundation walls and an assumed concrete slab on grade floor. The residence is approximately 24'-6"x30' with the long direction oriented north to south. The wall and roof framing is assumed to be composed of dimension lumber framing. The detached garage is approximately 18'x20' with the long direction oriented north to south. It is a wood-framed structure on a concrete foundation with a slab on grade floor.

#### **Existing Condition Observation**

During our site visit we made visual observations around the building perimeters only. The structures were partially exposed in some areas. All of the existing structural systems that were exposed to view appeared to be in good condition. We saw no evidence of noteworthy structural distress. It is our professional opinion that the possibility of un-planned collapse of any portion of the existing structures is very low. Workers may be allowed in the buildings to prepare them for demolition with such activities as removal of materials or other work that does not involve activities that affect existing structural systems.

#### **Outline of Proposed Demolition Procedures, Equipment, and Sequence**

##### **Equipment**

We anticipate demolition for this structure to be completed with heavy equipment including:

- "Track-hoe" excavators capable of reaching structural elements to be demolished. Excavators may be equipped at times with buckets/grapples, hydraulically actuated demolition hammers or shears, and other custom extensions for demolition and/or holding elements for temporary stability.
- Small skid steer loaders may also be utilized from time to time during demolition

##### **Demolition Sequencing**

##### **General**

After the commencement of demolition with heavy equipment, by necessity, structural systems from this point forth will be destroyed. Demolition should proceed as fast as practical until the structure is demolished in its entirety. The lateral stability of the buildings are provided by the perimeter wood-framed walls.

During demolition operations, care must be taken to protect and prevent damage to any active or live utilities both above and below ground.

During demolition, water will be used to wet down the area that is being demolished prior to starting the demolition. During the demolition process a water spray will be used to minimize the fugitive particulate matter emissions. The ground will be sprayed with water either by water truck or some type of water spray to minimize fugitive particulate emissions from haul trucks and demolition equipment.

**Sequence**

The residence superstructure may be collapsed into the basement starting at either the northwest or northeast sides of the building and proceeding thru the length of the building to the south. Do not drive equipment onto the footprint of the building until the structure has been collapsed. The detached garage shall be demolished starting from the east side and proceeding to the west. The alley will require temporary closure during demolition procedures to prevent public endangerment. The south and east sides of the garage are in close proximity to the south and east property lines. The property located to the south is also scheduled for demolition. The property is bordered on the north by a private residence which was not scheduled for demolition at the time of this report. Once the roof, wall, and floor systems are demolished, the slab on grade and foundations can be removed in any sequence.

**Closing**

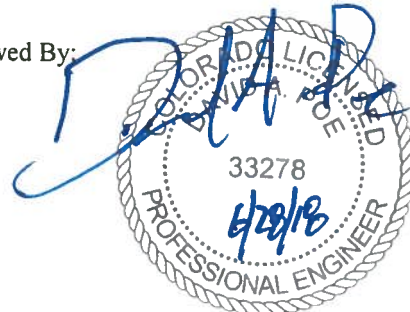
This report constitutes an engineering review and summary of the pre-demolition condition of the structural systems of the subject buildings as well as a general outline of demolition procedures and sequencing. Note that the conclusions drawn are based on visual observations and our expertise and experience with structural engineering of building structures. Unless noted otherwise, no non-destructive or destructive testing of any kind was performed, nor was any formal engineering analysis completed. These procedures/sequences outlined herein are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations. Anchor Engineering, Inc. shall be held harmless for damage of any kind to surrounding structures or property or for injury of any kind to any person or persons. The demolition contractor is responsible for jobsite safety. The conclusions presented in this report are based on conditions noted at the time of the observation. Commentary or recommendations regarding environmental issues are beyond the scope of this report. Should questions arise, or if further information is required regarding the content of this report, please contact our office.

Sincerely,  
Anchor Engineering, Inc.



Glen L. Wilson, E.I.  
Design Engineer

Reviewed By:



The seal is circular with a rope-like border. The text inside the seal reads: "COLORADO LIC. NO. 33278" at the top, "DAVID A. POE" in the center, and "PROFESSIONAL ENGINEER" at the bottom. A handwritten signature "D.A.P." is written over the seal, and the date "6/28/13" is written in blue ink across the bottom of the seal.

David A. Poe, P.E., S.E.  
Principal



## 4. Materials Summary

December 26, 2018

Jenn Bradtmueller  
Kiewit Infrastructure Co.  
160 Inverness Drive West, Suite 110  
Englewood, CO 80112

RE: AP-75 4620 Clayton St. – Summary of Removed Materials

Dear Jenn,

Below is a summary of the materials removed from the structure located at 4620 Clayton St.

<b>Material Removed</b>	<b>Quantity</b>
Regulated Building Materials	5 Lightbulbs and 1 gal Latex Paint
Clean Demolition Debris	403,200 Lbs

If you have any questions or require further information regarding these quantities, please contact me at 303-238-0207.

Sincerely,  
**JKS Industries, LLC**



Jeffrey Knight  
President

## 5. RBM Manifest

<b>WASTE BILL OF LADING &amp; CERTIFICATE OF RECYCLING</b>		P/U Fees: \$25 ___ \$30 ___ \$40 ___ \$45 ___ \$55 ___ \$65 ___ \$75 ___ \$85 ___ \$95 ___ \$105 ___ \$115 ___ \$125 ___ \$135 ___ \$145 ___ \$155 ___ Labor Charges: \$ _____ Off Spec. Charge: \$ _____	BOL#: 27201
<input checked="" type="checkbox"/> Universal Waste <input type="checkbox"/> TSCA Waste <input type="checkbox"/> Special Waste	4' Jumbo ___ 4' Box ___ 8' Jumbo ___ 8' Box ___ HID Box ___ Battery Box ___ 6.5 Gallon Pale ___ 14-G PD ___ 30-G PD ___ 55-G PD ___ CY Bx ___ 95-G PD ___ 55-G SD ___ 85-G SD ___ GL Box ___	Bill To: <u>JKS Inc</u> Name: <u>JKS Industries</u> Address: <u>747 Sheridan Blvd.</u> City, State, Zip: <u>Lakewood Co. 80214</u> Contact: <u>Jeff Knight</u> Phone: <u>720-402-4410</u> Fax: _____ PO# _____ Job# _____	Shipment Date: <u>11/6/18</u>  Emergency Contact (877) 331-2149 Extension 4
Generator Of Waste: Name: _____ Address: _____ City, State, Zip: _____ Contact: _____ Phone: _____ Fax: _____ PO# _____ Job# _____			

<b>WASTE BROKERAGE FACILITY:</b> <input checked="" type="checkbox"/> R8E, LLC 4810 Newport Street Commerce City Colorado 80033-2244 (p) 303-424-4887 (f) 303-424-9193 Email: Mike@R8Enviro.com www.R8Enviro.com	<b>EPA ID#: COR000231449</b> Destination Facility For Universal Waste Large Quantity Handler of Universal Waste Hazardous Waste Transporter/Transfer Facility Used Oil Transporter/Transfer Facility US DOT #: 050108 550 051Q HMP-20746 US DOT #1781660 CO TSCA - EPA Approved PCB Handler
---	---

Container		Waste Common Name	DOT Description	Total Quantity	Unit / Wt. Volume
Count	Type				
		4' & UNDER FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
2	CF	5' & OVER FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	12	ea
		UTUBE FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
		CIRCULAR FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
1	CF	COMPACT FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	49	ea
		HID MERCURY/HALIDE/SODIUM LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	21	ea
		SHIELD/COATED/GROOVED LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
		INCANDESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	36	ea
		UV/ARC/IGNITRON LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
		BROKEN LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
		CRUSHED FLUORESCENT LAMP/S RECYCLING (processed)	Non-DOT Regulated (per 49 CFR 173.164(e))		
		PCB WASTE RECYCLE/INCINERATION/MICROENCAP	RQ, UN3432, Polychlorinated biphenyls, Solid, 9, PGIII, ERG#171		
		NON-PCB BALLAST RECYCLE/MICROENCAPSULATION	Non-RCRA / Non-DOT Regulated Waste		
		ESCRAP RECYCLING	Non-DOT Regulated	110	P
		MERCURY DEVICE RECYCLING	UN3506, Mercury Contained in Manufactured Articles, 8 (6.1), PGIII, ERG#172		
		LEAD ACID BATTERY RECYCLING	UN2794, Batteries, Wet Filled w/ Acid, 8, PGIII, ERG#154		
		ALKALINE BATTERY RECYCLING	Batteries, Dry, sealed, n.o.s. Specail Provision 130		
		NICKEL (Ni-Cad) BATTERY RECYCLING	Batteries, Dry, sealed, n.o.s. Specail Provision 130		
		LITHIUM METAL BATTERY RECYCLING - DOT 173.185(d)	UN3090, Lithium Batteries, 9, PGII, ERG#138		
		LITHIUM Ion BATTERY RECYCLING - DOT 173.185(d)	UN3480, Lithium Batteries, 9, PGII, ERG#138		
		WASTE OIL RECYCLING	Special Waste Liquid	1	GAZ
		WASTE GLYCOL RECYCLING	Special Waste Liquid		
		WASTE AEROSOLS	UN1950, Aerosols, Flammable, 2.1, ERG#126		
71	Gallon	WASTE LATEX PAINT	Special Waste Liquid	71	GAZ
		LOW RADIATION CONTAINING SMOKE DETECTORS	Special Waste Solid, Nuclear Regulatory Law 10 CFR 32.37		
		FIRE EXTINGUISHER(S)	Special Waste Solid		
		METALS RECYCLING	Special Waste Solid		
		MISCELLANEOUS RECYCLING <u>3 MICROWAVES</u>			
		MISCELLANEOUS RECYCLING <u>6 Large Fridges</u>		6	ea

Generator Certification: This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unpaid invoices will be assigned to a licensed Collection Agency and subject to Collection Agency Fee's, Attorney's Fee's, Court Costs and Interest.

Signature: _____	Title: <u>Operator</u>	Print Name: <u>Jesus Casado</u>	Date: <u>11-6-18</u>
Transporter 1 Name: <u>Jesus Casado</u>	Transporter 2 Name: _____	Phone Number: <u>720-245-1685</u>	Phone Number: _____
Signature: _____	Date: <u>11-6</u>	Signature: _____	Date: _____

Receiving, subject to the classification and regulations in effect on the date of issue of the Bill of Lading, the property described above is in apparent good order. Please retain a copy of this document as the "Certification of Recycling" for the items and quantities listed above.

Signature: \_\_\_\_\_ Date: 11/6/18

## 6. Weight Tickets

## 6a. Daily Load Trackers and Associated Truck Tickets

Date: 10-25-18

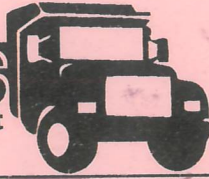
Project: Ap 75-18-313

Prepared By: Jesus Casado

Arrival Time		Departure Time		Load #	Truck #	Material Code	Description	Tons/Yards	Dump Site	Dump Site Ticket Number
025 7:50	am / pm	8:15	am / pm	1	CH376	trash	Demo debris	18 yds	Dads	
8:15	am / pm	8:35	am / pm	2	CH575	trash	Demo debris	18 yds	Dads	
10:00	am / pm	10:20	am / pm	3	CH376	trash	Demo debris	18 yds	Dads	
10:20	am / pm	10:45	am / pm	4	CH575	trash	Demo debris	18 yds	Dads	
11:55	am / pm	12:15	am / pm	5	CH376	trash	Demo debris	18 yds	Dads	
12:10	am / pm	12:25	am / pm	6	CH575	trash	Demo debris	18 yds	Dads	
1:55	am / pm	2:10	am / pm	7	CH376	trash	Demo debris	18 yds	Dads	
2:10	am / pm	2:30	am / pm	8	CH575	trash	Demo debris	18 yds	Dads	
3:55	am / pm	4:25	am / pm	9	CH376	trash	Demo debris	18 yds	Dads	
4:30	am / pm	4:50	am / pm	10	CH575	trash	Demo debris	18 yds	Dads	
1026 7:40	am / pm	8:00	am / pm	11	CH575	trash	Demo debris	18 yds	Dads	
8:00	am / pm	8:20	am / pm	12	CH376	trash	Demo debris	18 yds	Dads	
9:50	am / pm	10:05	am / pm	13	CH575	trash	Demo debris	18 yds	Dads	
10:05	am / pm	10:20	am / pm	14	CH376	trash	Demo debris	18 yds	Dads	
12:00	am / pm	12:20	am / pm	15	CH575	trash	Demo debris	18 yds	Dads	
12:20	am / pm	12:45	am / pm	16	CH376	trash	Demo debris	18 yds	Dads	
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							
	am / pm		am / pm							

Legend:  
**Materials:**  
 R = Recycle  
 T = Trash  
**Description:**  
 Concrete, Asphalt, Asbestos, Lumber,  
 Construction Debris, Trash, Metals,

**CHACON'S**  
construction & transport



No. 8533

2920 W. 73rd Ave.  
Westminster, CO 80030  
Fax 303-331-8259  
PH 720-357-1448

BILL TO:

DISPATCHED BY: *J.H.S*

DATE: *10/25/18*

JOB DESCRIPTION:

TRUCK # *0376*

TANDEM  TRAILER

MATERIAL *Demo*

*Chacon's*  
*Demo homes*

	LOADS	UNLOADS
JOB#	<i>1</i>	<i>DA.DS</i>
LOAD AT	<i>1</i>	<i>DA.DS</i>
<i>4621 Clayton St</i>	<i>1</i>	<i>DA.DS</i>
	<i>1</i>	<i>DA.DS</i>
	<i>1</i>	<i>DA.DS</i>
UNLOAD AT		
<i>DA.DS</i>		
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME <i>7:30</i>		
STOP TIME <i>6:30</i>		
TOTAL HOURS		

OWNER OF TRUCK:

DRIVER'S NAME

AUTHORIZED SIGNATURE

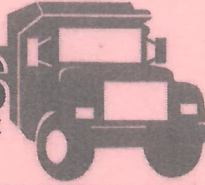
*Jose*

*[Signature]*

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.



**CHACON'S**  
construction & transport



No 50834

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

**BILL TO:** TRES

**DISPATCHED BY:** [Signature]

**DATE** 11 23 18

**JOB DESCRIPTION:**

**TRUCK #** 4312

Hauling debris  
from 4621 Clayton St  
to OROS Landfill

**TANDEM**  **TRAILER**

**MATERIAL** misc

	LOADS	UNLOADS
<b>JOB#</b>	1111	
<b>LOAD AT</b> 4621 CLAYTON ST		
<b>UNLOAD AT</b> OROS LANDFILL		
<b>RATE \$</b>		
<b>HOURLY</b> <input checked="" type="checkbox"/> <b>TONMILE</b> <input type="checkbox"/>		
<b>START TIME</b> 7:30a		
<b>STOP TIME</b> 6:37a		
<b>TOTAL HOURS</b>		
11		

**OWNER OF TRUCK:**

**DRIVER'S NAME**

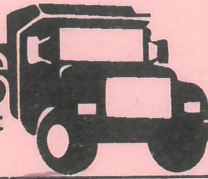
**AUTHORIZED SIGNATURE**

[Signature]

[Signature]

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

**CHACON'S**  
construction & transport



No. 8534

2920 W. 73rd Ave.  
Westminster, CO 80030  
Fax 303-331-8259  
PH 720-357-1448

BILL TO:

DISPATCHED BY:

DATE: 10/26/18

JOB DESCRIPTION:

TRUCK # CH376

Demo homes

TANDEM  TRAILER

MATERIAL Demo

	LOADS	UNLOADS
JOB#	1	DA.DS
LOAD AT 421 Clayton St	1	DA.DS
	1	DA.DS
UNLOAD AT DA.DS		
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME 7:30		
STOP TIME 3:30		
TOTAL HOURS		
8		
OWNER OF TRUCK:		

DRIVER'S NAME

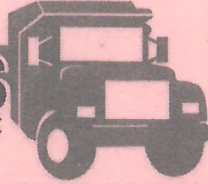
AUTHORIZED SIGNATURE

Jose

[Signature]

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

**CHACON'S**  
construction & transport



Nº 50835

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO: J-K-S

DISPATCHED BY: CHACON'S

DATE 10 26 18	JOB DESCRIPTION: Hauling Dbrse from 4621 Clayton
TRUCK # 41575	
TANDEM <input type="checkbox"/> TRAILER <input checked="" type="checkbox"/>	
MATERIAL MISC	

	LOADS	UNLOADS
JOB#		
LOAD AT 4621 Clayton ST	111	
UNLOAD AT DAPS LANDFILL		
RATE \$		
HOURLY <input checked="" type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME 7:30 AM		
STOP TIME 2:30 PM		
TOTAL HOURS		
7		

OWNER OF TRUCK:

DRIVER'S NAME	AUTHORIZED SIGNATURE
<i>[Signature]</i>	<i>[Signature]</i>

Not due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

## 6b. Waste Weight Tickets



2475530

Denver Arapahoe Disposal  
3500 S Gun Club, PO Box 460397  
Aurora, CO, 80018  
Ph: (720) 876-2620

Original  
Ticket# 3246586

Customer Name	JKSINDUSTRIESLLC	JKS Industri	Carrier	JKS INDUSTRIES	JKS INDUSTRIES
Ticket Date	10/25/2018		Vehicle#	1	Volume
Payment Type	Credit Account		Container		
Manual Ticket#			Driver		
Hauling Ticket#			Check#		
Route			Billing #	0014925	
State Waste Code			Gen EPA ID		
Manifest			Grid		
Destination					
PO					
Profile	( )				
Generator					

	Time	Scale	Operator	Inbound	Gross	2 lb*
In	10/25/2018 06:45:36	MANUAL WT	aramirez		Tare	1 lb*
Out	10/25/2018 06:45:36		aramirez		Net	1 lb
			* Manual Weight		Tons	

Comments 10 loads drop tickets = 100 cyds total for loads 10/25/18

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	CDY-CONST DEBRIS - 100	100.00	Yards				

Total Fees  
Total Ticket

402WM-N

Driver's Signature



Please note: the following manifests were mistakenly labeled as having been for AP-70. After reconciling the load trackers, it was found that these were actually waste from AP-75. No loads were taken from AP-70 on 10/25/2018.

Date: 10-25-18


Ticket#: AP-75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature:  DRIVER

Date: 10-25-18

Ticket#: AP-75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: \_\_\_\_\_ DRIVER

Date: 10-25-18

Ticket#: Ap 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ \_\_\_\_\_ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: \_\_\_\_\_

 DRIVER

Date: 10-25-18

Ticket#: Ap-75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ \_\_\_\_\_ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: \_\_\_\_\_

DRIVER

Date: 10-25-18

Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: \_\_\_\_\_

Date: 10-25-18

Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: \_\_\_\_\_





2475530

Denver Arapahoe Disposal  
3500 S Gun Club, PO Box 460397  
Aurora, CO, 80018  
Ph: (720) 876-2620

Original  
Ticket# 3246586

Customer Name	JKSINDUSTRIESLLC	JKS Industri	Carrier	JKS INDUSTRIES	JKS INDUSTRIES
Ticket Date	10/25/2018		Vehicle#	1	Volume
Payment Type	Credit Account		Container		
Manual Ticket#			Driver		
Hauling Ticket#			Check#		
Route			Billing #	0014925	
State Waste Code			Gen EPA ID		
Manifest			Grid		
Destination					
PO					
Profile	( )				
Generator					

	Time	Scale	Operator	Inbound	Gross	2 lb*
In	10/25/2018 06:45:36	MANUAL WT	aramirez		Tare	1 lb*
Out	10/25/2018 06:45:36		aramirez		Net	1 lb
			* Manual Weight		Tons	
Comments	10 loads drop tickets = 180 cyds total for loads 10/25/18					

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	COY-CONST DEBRIS - 100	180.00	Yards				

Total Fees  
Total Ticket

402WM-N

Driver's Signature



Date: 10-25-18

Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

10 loads x 18 =  
180 yds  
total.

CDY 18 YDS ✓

25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature:  DRIVER

Date: 10-25-18

Ticket#: AP 75

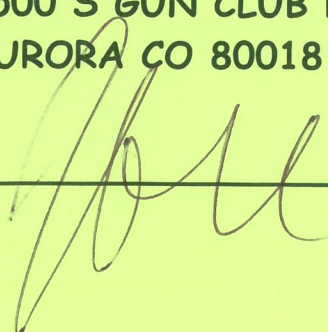
ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓

25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature:  DRIVER

Date: 10-25-18

Ticket#: AP.75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: \_\_\_\_\_

DRIVER

Date: 10-25-18

Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: \_\_\_\_\_

DRIVER



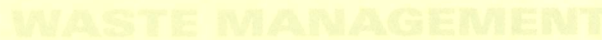
2475292

Denver Arapahoe Disposal  
3500 S Gun Club, PO Box 460397  
Aurora, CO, 80018  
Ph: (720) 876-2620

Original  
Ticket# 3247927

Customer Name	JKSINDUSTRIESLLC	JKS Industri	Carrier	JKS INDUSTRIES	JKS INDUSTRIES
Ticket Date	10/26/2018		Vehicle#	1	Volume
Payment Type	Credit Account		Container		
Manual Ticket#			Driver		
Hauling Ticket#			Check#		
Route			Billing #	0014925	
State Waste Code			Gen EPA ID		
Manifest			Grid		
Destination					
PO					
Profile	( )				
Generator					

	Time	Scale	Operator	Inbound	Gross	2 lb*
In	10/26/2018 07:37:23	MANUAL WT	aramirez		Tare	1 lb*
Out	10/26/2018 07:37:23		aramirez		Net	1 lb
			* Manual Weight		Tons	
Comments	6 loads on 10/26/18 = 100cyds total					



PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	CDY-CONST DEBRIS - 100	100.00	Yards				

Total Fees  
Total Ticket

Driver Signature



Date: 10-26-18

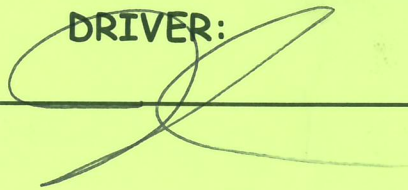
Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: 

DRIVER:

18x6 = 108 CY'S  
TOTAL

Date: 10-26-18

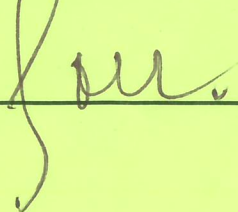
Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

Signature: 

DRIVER:

Date: 10-20-18

Ticket#: AP 75

ACCT#:306-14925

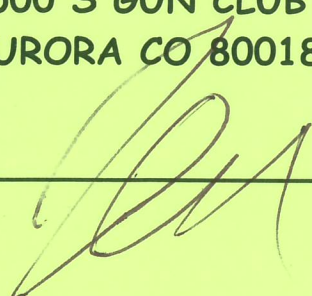
JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_



Date: 10-26-18

Ticket#: AP 75

ACCT#:306-14925

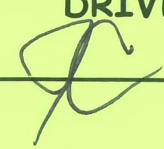
JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_



Date: 10-26-18

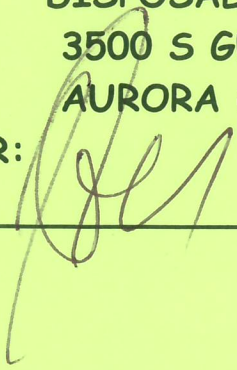
Ticket#: AP 75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER: 

Signature: \_\_\_\_\_

Date: 10-26-18

Ticket#: AP-75

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER: 

Signature: \_\_\_\_\_

## 7. Dump Diversion Summary



**JKS Industries**  
**AP-75: 4620 Clayton St.**

Descriptions		Dump Diversion / Recycle %								
Phase	Activity	Unit of Measure	# of Yards per Container	# of Containers	Total Number of Yards	Pounds Per Yard **	Total Lbs	Recycled Yes/No	Pounds of Recycle or Dump Diversion	% of Recycle or Dump Diversion
Demolition	Demolition Construction Debris	Cubic Yard	18	16	288.00	1,400.00	403,200			
Demolition	Concrete Debris	Cubic Yard	12	-	-	4,050.00	-	x	-	0.00%
Demolition	Trees	Cubic Yard	-	-	-	500.00	-	x	-	0.00%
Demolition	Steel	Lbs	12	-	-	1,000.00	-	x	-	0.00%
Demolition	Copper	Lbs					-	x	-	0.00%
				16	288.00		403,200		-	0.00%

STUDY NOTES

- 1 The source material used for the Volume to Weight conversions came from Waste Management web site.
- 2 Conversions ratio's have been modified based on estimated compaction.

## 8. Daily Logs

ON-SITE DAILY SIGN- IN SHEET

Date : 10-24-18  
Project Name: AP 75  
Project NO: 18-313  
Supervisor:

	NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
10-24	Josus Casado	JC	JRS	4:00PM	6:00PM			
	Jamrob Ramirez	JR	JRS	4:00PM	6:00PM			
10-25	Josus Casado	JC	JRS	7:00 AM	5:00PM			
	Jamrob Ramirez	JR	JRS	7:00 AM	5:00PM			
	Jose Sanchez	JS	Chacon	7:30 AM				
	Jorge Cabrera	JC	Chacon	7:30 AM				
10-26	Josus Casado	JC	JRS	7:00 AM				
	Jamrob Ramirez	JR	JRS	7:00 AM				
	Jorge Cabrera	JC	CHACON'S	7:30 AM				
	Jose Sanchez	JS	Chacon's	7:30 AM				
TOTAL								

**ORR INDUSTRIES LLC DAILY PROJECT LOG**

Job # \_\_\_\_\_ Job Name: \_\_\_\_\_ Report # \_\_\_\_\_  
 Date \_\_\_\_\_ Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_  
 Project Manager \_\_\_\_\_ Superintendent \_\_\_\_\_

<b>Work Performed Today</b>	Weather: _____	
	Temp. Hi _____ Low _____	
	Safety Meeting	
	Topic: _____	
	Work Force	Number
	Project Manager	
	Project Supervisor	
	Operators	
	Laborers	
	Tradesmen	
	Other: _____	
	Other: _____	
	Other: _____	
	Materials Used	Quantity
	Material Purchased/Delivered	

**Problems - Delays, Safety Issues**

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**Subcontractor Progress**

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**Inspections**

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Equipment Rented Today	Rented From	Insp Checklist Complete?	Equipment	Hours

Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite