

# **Close Out Documents**

#### AP-8 – 4618 High St.

Asbestos Abatement and Structural Demolition

#### **Prepared for:**

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

# JKS INDUSTRIES

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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-8 4618 High St.

Dear Kiewit Infrastructure Co.

This letter is confirm that all the work associated with the asbestos abatement and demolition of the structure located at 4618 High St Denver, CO 80216, also referred as parcel AP-8, is complete.

The scope of work included the removal of Regulated Building Materials (RMBs), asbestos abatement, demolition of a 1,305 square foot residential structure with three sheds (1,068 additional SF total), 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 Asbestos Abatement Permit

#### Colorado Department of Public Health and Environment

Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ 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

## ASBESTOS ABATEMENT PERMIT

This permit is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008, the Colorado Air Pollution Prevention and Control Act (25-7-101 or 25-7-501 et seq., C.R.S.) and the following provisions. It is only for the purpose of allowing asbestos abatement.

#### ADDITIONAL PERMIT PROVISIONS:

By performing work under this permit the abatement contractor agrees that the Division may revoke or suspend this permit should the Division find that the contractor:

- has violated or has aided and abetted in the violation of 25-7-101 or 25-7-501 et seq., C.R.S. or Regulation No. 8, Part B, or an order of the Division or Commission,
- has failed to meet any permit and notification requirement or failed to correct any violations cited by the Division during any inspection within a reasonable period of time, as may be determined by the Division,
- has used misrepresentation or fraud in obtaining this permit, or,
- has committed any act or omission which does not meet generally accepted standards of the practice of asbestos abatement.

As a contractor, you may be subject to other 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.

#### THE ORIGINAL PERMIT 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 asbestos abatement permit is valid beginning 10/23/2018 through 11:59 PM on 10/22/2019. The actual scheduled work dates are from 10/23/2018 through 11/2/2018.

Approval issued on: 10/25/2018

Record number: 142799

Notice Number: 18DE7238A-13

Variance:

None

Comments:

None

For the location specified below:

AP-8 residential Bedrooms, kitchen closet, living room 4618 High St. Denver

**Denver County** 

This permit has been issued to:

Fee paid:

Check number:

Project Supervisor:

Andre M. Williams

Cerification No.: 15776

Project AMS:

Logan Greenfield

Cerification No.: 20715

Project Manager:

JKS Industries, LLC

747 Sheridan Blvd Unit 9A Lakewood, CO 80214

Issued by: CLB

#### ASBESTOS ABATEMENT NOTIFICATION and PERMIT APPLICATION FORM

FEE MUST ACCOMPANY THIS FORM. INCOMPLETE APPLICATIONS WILL BE RETURNED.



and Environment

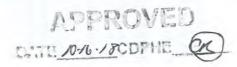
ingle Family Reside	ntial Dw jal. drum,	relling (SFRD) but ≤ 260 LF or 160 SF or a 55-gallon drum	Public and Commercial Building, School, and Single-Family Residential Dwelling: > 260 LF or 160 SF or a 55-gallon drum				
[ code 200 ] [	\$0	Courtesy Notice	[ code 100 ] [	\$0	Courtesy Notice		
[ code 205 ]	\$60	Non-Public Access Notice (Opt Out)	[ code 105 ]	\$80	Non-Public Access Notice		
[ code 210 ]	\$60	Notice	[ code 110 ]	\$80	Notice		
[ code 230 ]	\$180	30-Day Permit	[ code 130/232 ]	\$400	30-Day P&C/SFRD Permit		
[ code 290 ]	\$300	90-Day Permit	[ code 190/292 ] [	\$800	90-Day P&C/SFRD Permit		
[ code 265 ]	\$420	365-Day Permit	[ code 165/267 ] [	\$1200	365-Day P&C/SFRD Permit		
[ code 180/280 ]	\$55	Notice or Permit Transfer	[code 177]	\$80	Phase 23 of Multiple Phase Permit #		

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

Abatement Contractor			Abatement Site					Building Owner				
Company Name	S Industries			Building Name  AP-8 Residential					Owner Name CDOT			
Street Address 747 Sheridan Blvd. Unit 9A		Specify location in the building where work will take place (e.g. floor, room, wing, etc.)  Bedrooms, Kitchen Closet and Living Room					Contact Athony DaVito					
City		State CO	Zip code 80214	Street Address	4618 H	ligh Street			Street Address 2000 S. Holly St.			
Telephone # Fax # (303) 238-0452		>	City	Count	ty Denver		Zip code 80216	City Denver		State CO	Zip code 80222	
Project Supervisor George Thoma			Cert # 17192	Building Contact Cell Phone # (817) 320-6749		Telephone # (303) 512-5900	Fax # ( )					
Project Personnel			Project Information				Disposal Site					
CO Project Mgr. Name N/A			Start Date				Landfill Name  Denver Arapahoe Disposall					
Cell Phone #	CO Proje	ect Desig	ner#	Start Time End Time AM 5:00 PM		Street Address 3500 South 0	Gun Club R	Road				
CO Project Designer Name	niel Benecke			Check the day(s) of operation: Su M Tu W Th F Sa			City Aurora		State CO	Zip code 80018		
Cell Phone # (303) 232-2660	CO Project Designer #		ner#	Emergency?	Emergency? Type of ACM: TSI, Texture, VAT, etc.		CDPHE Use Only					
Consulting Firm Name All Phase Consulting	g, Inc.	Regi	stration # 15979	Linear Feet / Type			Drums	Postmark or Delivery date	18	Approv	ed by	
A.M.S. Name Logan Greenfield		.(	7.1	SF of TDW			Form of Payment & #		PM req	'd? Y N (W)		
Cell Phone # (719) 545-0375	CO A.M	.S. Cert #			9SF of Paper Duct Wrap			Remil#728APR	dord#190	Date Is	sued:	

Please describe below the work practices and procedures to be employed in conducting the abatement of asbestos. **BE SPECIFIC.** Indicate type(s) of ACBM to be abated (e.g. VAT, ceiling tile, TSI, etc.). Use another page if necessary.

This Phase 13 project will consist in removal and disposal of 3129 SF of TDW and 9 SF of paper duct wrap with in a full containment. The friable materials will be removed using small hand tools (carpenters hammer, cats claw, crow bar and chisels) the material will be kept wet (1500 psi airless sprayer with amended water) The full containment will employ negative air pressure greater than --0.02cw, a fully functional decon, 1'x1' view port and two chamber waste loadout. All work will be in accordance with Colorado Regulation #8 Part B. The full containment will be inspected and cleared by a State Certified AMS.





# 3. 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 11/9/2018. The actual scheduled work dates are from 11/9/2018 through 11/16/2018.

Approval issued on: 11/7/2018

Record number: 143105

Notice Number: 18DE7411D

For the location specified below:

AP-8 Residential

4618 High St.

Denver

**Denver County** 

Fee Paid: \$60.00

Check number: 5642

Asbestos Building Inspector:

Richard L. Ralston

Cerification No.: 4261

Inspection Date:

11/02/2018

This notice has been issued to:

JKS Industries, Inc. 747 Sheridan Blvd. Unit 9A Lakewood, CO 80214

Issued by: TS-

Frevor Strosvider



Colorado Department of Public Health and Environment

# DEMOLITION NOTIFICATION APPLICATION FORM

APPROVED

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 = \$ 60.00 (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

		(See ins	truction #1 on rev	erse sic	ie)				
	Company Name:				Building Name:	n o n - di	metal.		
	JKS Street:	Industries			AP-8 Residential  Square footage of footprint of facility or portion of facility to be demolished				
_		dan Blvd. #9A		Oqualo (ociogo of rostpinio	(1305)	, a			
cto	City:	State:	Zip Code: 80214	Φ	Street:	4618 High	St		
ıtra	Lakewood Telephone #	CO Fax#	00214	Site	City:	County:	ı Di.	Zip Code:	
Ö	(303) 238-0207	(303) 238-0	)452	on	Denver		Denver	80216	
E .	Project Manager:  Jeffrey Knight	(720) 402-4	1410	量	Proposed Start Date		posed Comple	etion Date	
Demolition Contractor	I certify that the Certified Asbestos about any remaining asbestos-condemolished.	Building Inspector h	as informed me	Demolition	Method/Means of Demolition  ✓ Wrecking ☐ Burning ☐	on:	, , ,	Ather specify	
Der	Signature:	Print Name: Jeffre	ey Knight		⊠ Wrecking □ Burning □	implosion 🗀	Moving Li C	other, specify.	
	Landfill Receiving Building Debris:  Denver Arapahoe Disposal Site				<sup>†</sup> Burning requires additional authorization – Please call (303) 692-3100 and to speak to the Open Burning Permit Coordinator				
	General Abatement Contractor (GAC)  JKS Industries				Owner's Name:				
tos val ctor	CDPHE Asbestos Permit # Total Quantity of Asbestos Removed 3138 SF			Owner					
Asbestos Removal Contractor	Date Removal Completed 11/2/2018	Telephone # (303) 238-02		Building	City:		State:	Zip Code: 80222	
A L O	Type(s) of Asbestos-Containing Material Removed: 3129 SF TDW, 9 SF Paper Duct Wrap			Buil	Contact's Name: Anthony DaVi	to	Telephone (303) 5	#	
Certified Asbestos Inspector Certification	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)):    Vinyl asbestos floor tile (VAT)   VAT mastic   Tar/asphalt impregnated roofing   Asphaltic pipe coatings   Spray-applied tar coatings   Caulking   Glazing   Other, specify:						where in the or that any Specify type(s)		
	e 11/02/2018 42	261 021	on Date		(7/9) 225-69	153	( )		
Building Owner or Contractor	I verify that all refrigerants fro 15 (for information on CFC re disposed of in accordance with CHECK THE APPROPRIATE BO	m air conditioning quirements call 69 th 6 CCR 1007-1	/refrigeration applia	erify that	at all luminous exit signs (cor	ntaining radio	active mate	riai) nave been	
Suil wn	Building Owner	Contracto	r 🗆	Other		Date:	11/11	18	
ш o 3	Signature:			Print I	VEFFNEY H	wish t	//		
			THIS BOX IS FOR	CDPH		,	/		
Postmark	or Hand Delivery Date: 11/05	-	Approved By	0/		Code: i	nitial-310	transfer-380	
	ayment & #: ck 5642	\$60	Permit#:	74	11D Record#2/	6 Date	Issued:		
* Regu	lated asbestos-containing mate			aining m	naterial, (b) Category I nonfri	able ACM tha	at has become	me <u>friable</u> , (c)	

#### 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**

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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 postdemolition 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 11/9/2018. The actual scheduled work dates are from 11/9/2018 through 11/16/2018.

Approval issued on: 11/7/2018

Record number: 143106

Notice Number: 18DE7412D

For the location specified below:

AP-8 Bldg. 1

4618 High St.

Denver

**Denver County** 

Fee Paid: \$55.00

Check number: 5642

Asbestos Building Inspector:

Richard L. Ralston

Cerification No.: 4261

Inspection Date: 11/02/2018

This notice has been issued to:

JKS Industries, Inc. 747 Sheridan Blvd. Unit 9A Lakewood, CO 80214

Issued by: TS

Fremo Strosville



Colorado Department of Public Health and Environment

# APPROVED 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)

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

		Anna men							
	Company Name:	dustalos		Building Name:  AP-8 Auxiliary Building 1					
	JKS Industries Street: 747 Sheridan Blvd. #9A				Square footage of footprint of facility or portion of facility to be demolished  453				
actol	City: Lakewood	State: CO	Zip Code: 80214	Site	Street: 4618 High St				
ontr	Telephone # Fax # (303) 238-0207 (303) 238-0452		1452	n Si	City: Denver	County:	Denver	Zip Code: 80216	
on C	Project Manager:  Jeffrey Knight	410	olitic	Proposed Start Date Proposed Completion Date					
Demolition Contractor	I certify that the Certified Asbestos I about any remaining asbestos-contidemolished.	Building Inspector h	as informed me	Demolition	Method/Means of Demoli  ☑ Wrecking ☐ Burning <sup>†</sup> [		Moving □ C	Other, specify:	
De	Signature:	Print Name: Jeffre	ey Knight		Z (Noothing Electrical)				
	Landfill Receiving Building Debris: Denver Arapa	hoe Disposal S	ite		<sup>†</sup> Burning requires additional authorization – Please call (303) 692-31 to speak to the Open Burning Permit Coordinator				
1177	General Abatement Contractor (GAC) N/A			ler	Owner's Name:	CDO	Т		
tos val ctor	CDPHE Asbestos Permit # Total Quantity of Asbestos Removed			Owner	Street:	2000 S Ho	olly St.		
Asbestos Removal Contractor	Date Removal Completed		uilding	City: Denver		State: CO	Zip Code: 80222		
4-0	Type(s) of Asbestos-Containing Material Removed:			Bui	Contact's Name: Anthony DaV	'ito	Telephone (303) 5		
Certified Asbestos Inspector Certification	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)):    Vinyl asbestos floor tile (VAT)   VAT mastic   Tar/asphalt impregnated roofing   Asphaltic pipe coatings   Spray-applied tar coatings   Caulking   Glazing   Other, specify:   Signature: (In Blue Ink)   Printed Name:						where in the or that any Specify type(s)		
ertif	Ruhand Rak	h	Lac.		Picharo RALS.		Phone #		
0	Date of Final Inspection COC	61 02/1	ion Date 28/2019		(719) 225 - G	958	( )	00 I # N	
ng or xtor	I verify that all refrigerants from 15 (for information on CFC red disposed of in accordance with	uirements call 69 n 6 CCR 1007-1	92-3100) I further	verify that	at all luminous exit signs (Co	ontaining rad	loactive mate	riai) riave been	
Building Owner or Contractor	CHECK THE APPROPRIATE BO	X: Contracto	.	Other		Date:	11/11	14	
m 6 8	Signature:			T 0-7-41	Name: TEFFNEY KNIE	34	11		
			THIS BOX IS FOR		The second second		y.=		
Postmark	or Hand Delivery Date: /1/0	1	Approved B	-		Code:	initial-310	transfer-380	
	ayment & #: C/L 5642-	\$55	Permit#:	1076	HAD Record # 4	1100	e Issued:		
* Regu	ulated asbestos-containing mater	ials means (a) fri	able asbestos-cont	taining n	naterial, (b) Category I nonf	riable ACM t	hat has becor	me friable, (c)	

\* Regulated asbestos-containing materials means (a) <u>friable asbestos-containing material</u>, (b) <u>Category I nontriable ACM</u> that has become <u>friable</u>, (c) <u>Category I nontriable ACM</u> that will be or has been subjected to sanding, <u>grinding</u>, <u>cutting</u>, or abrading or (d) <u>Category II</u> 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 <u>demolition</u> or <u>renovation</u> operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

#### 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**

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

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> This demolition approval notice is valid beginning 11/9/2018. The actual scheduled work dates are from 11/9/2018 through 11/16/2018.

Approval issued on: 11/7/2018

Record number: 143108

Notice Number: 18DE7414D

For the location specified below:

AP-8 Bldg. 2

4618 High St.

Denver

**Denver County** 

Fee Paid: \$55.00

Check number: 5642

Asbestos Building Inspector:

Richard L. Ralston

Cerification No.: 4261

Inspection Date: 11/02/2018

This notice has been issued to:

JKS Industries, Inc. 747 Sheridan Blvd. Unit 9A Lakewood, CO 80214



Colorado Department of Public Health and Environment

# DATE 11/6/18 COPHE 96/6 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

		(See Ins	truction #1 on rev	erse sit	10)				
	Company Name:	ad a dead			Building Name:	2 Anviliars	Building 2		
	Street:	ndustries			AP-8 Auxiliary Building 2  Square footage of footprint of facility or portion of facility to be demolished				
ctor	City: Lakewood	lan Blvd. #9A State: CO	Zip Code: 80214	Site	Street: 4618 High St				
ontra	Telephone #	Fax#			City: Denver	County:	Denver	Zip Code: 80216	
on Co	(303) 238-0207 Project Manager: Jeffrey Knight	Cell Phone # (720) 402-4		olitio	Proposed Start Date  Proposed Completion Date    1   0   6   6   6   6   6   6   6   6   6			etion Date	
Demolition Contractor	I certify that the Certified Asbestos about any remaining asbestos-condemolished.	Building Inspector h	as informed me	Demolition	Method/Means of Demolition:				
De	Signature:	Print Name: Jeffre	y Knight		M Wrecking D Burning L		I Moving II c	mici, speeny.	
	Landfill Receiving Building Debris: Denver Arapahoe Disposal Site				<sup>†</sup> Burning requires additional authorization – Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator				
	General Abatement Contractor (GA	N/A	-	er	Owner's Name:	CDO	T		
tos val ctor				Owner	Street:	olly St.	St.		
Asbestos Removal Contractor	Date Removal Completed	te Removal Completed Telephone #					State:	Zip Code: 80222	
Type(s) of Asbestos-Containing Material Removed:			Building	Contact's Name: Telephone # Anthony DaVito (303) 512-5900					
Certified Asbestos Inspector Certification	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)):    Vinyl asbestos floor tile (VAT)   VAT mastic   Tar/asphalt impregnated roofing   Asphaltic pipe coatings   Spray-applied tar coatings   Caulking   Glazing   Other, specify:								
Building Owner or Contractor	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								
M Q P	Building Owner Signature:	Contractor		Other Print I	Vame:	Date:	10/1/18		
	1 m		na Barre Es		TEFFREY KNIS	97			
Poetmark	or Hand Delivery Date: 1/5/	111	Approved By			Code:	initial-310	transfer-380	
-	ayment & #: C/L 5642 \$	12	Permit #:	TH	Record #	212/	te Issued:	- 1311/1463 (5 6/3)	
	lated asbestos-containing mater	ials means (a) fria	111111	aining m		riable ACM t	that has becor	ne friable, (c)	

\* Regulated asbestos-containing materials means (a) <u>friable asbestos-containing material</u>, (b) <u>Category I nonfriable ACM</u> that has become <u>friable</u>, (c) <u>Category I nonfriable ACM</u> that will be or has been subjected to sanding, <u>orinding</u>, <u>cutting</u>, or abrading or (d) <u>Category II</u> 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 <u>demolition</u> or <u>renovation</u> operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

#### 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 postdemolition 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 11/9/2018. The actual scheduled work dates are from 11/9/2018 through 11/16/2018.

Approval issued on: 11/7/2018

Record number: 143107

Notice Number: 18DE7413D

For the location specified below:

AP-8 Bldg. 3

4618 High St.

Denver

**Denver County** 

Fee Paid: \$55.00

Check number: 5642

Asbestos Building Inspector:

Richard L. Ralston

Cerification No.: 4261

Inspection Date: 11/02/2018

This notice has been issued to:

JKS Industries, Inc. 747 Sheridan Blvd. Unit 9A Lakewood, CO 80214

Issued by: TS Strosville



Colorado Department of Public Health and Environment

# 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@stale.co.us

		4013.00				Y			
	Company Name:	1 0.4		Building Name:					
	JKS I	ndustries			AP-8 Auxiliary Building 3 Square footage of footprint of facility or portion of facility to be demolished				
<u>-</u>		lan Blvd. #9A			oquate toolage of toolprint of t	394	ni or idomity to		
cto	City:	State:	Zip Code:	0)	Street:	4618 High St			
ıtra	Lakewood Telephone #	CO Fax #	80214	Sit	City:	County:	151	Zip Code:	
Con	(303) 238-0207	(303) 238-0	452	on	Denver		Denver	80216	
n O	Project Manager:  Jeffrey Knight	Cell Phone # (720) 402-4	410	E	Proposed Start Date Proposed Completion Date			etion Date	
Demolition Contractor	I certify that the Certified Asbestos about any remaining asbestos-cont demolished.	Building Inspector h	Demolition Site	Method/Means of Demolition		1.10	Other specify:		
Del	Signature:	Print Name: Jeffre	y Knight		M Wrecking D Burning D	implosion [	Moving 🗀 C	ruler, specify.	
	Landfill Receiving Building Debris: Denver Arapa	hoe Disposal Si	ite /		<sup>†</sup> Burning requires additional at to speak to the Open Burning	03) 692-3100 and ask			
	General Abatement Contractor (GAC)			<u>_</u>	Owner's Name:	CDOT			
s - o	CDPHE Asbestos Permit#	N/A	Asbestos Removed	Owner	Street:	CDOI			
sto ova act	CDPHE ASDESIOS PEHIJR#	Total Quality of	Aspesios Nemoved	Ó	2000 S Holly St.				
Asbestos Removal Contractor	Date Removal Completed	Telephone #		Building	City: Denver		State: CO	Zip Code: 80222	
. 0	Type(s) of Asbestos-Containing Material Removed:			Bu	Contact's Name: Anthony DaVi	Telephone # (303) 512-5900			
Certified Asbestos Inspector Certification	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)):    Vinyl asbestos floor tile (VAT)   VAT mastic   Tar/asphalt impregnated roofing   Asphaltic pipe coatings   Spray-applied tar coatings   Caulking   Glazing   Other, specify:								
Building Owner or Contractor	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						rial) have been		
m o s	Building Owner Signature:	Contractor		Other Print N	lame:	Date:	11/1/	7 7	
	IN			i	TEFFNEY KNIGH	1		-	
		I	HIS BOX IS FOR	CDPH	USE ONLY:			174 4 1	
Postmark o	or Hand Delivery Date: 1/65/1	4	Approved By	: 5 W	4	Code: 🗹 ir	nitial-310	transfer-380	
	ayment & #: UL 5642	\$5	Permit #	)07L	431) Record #43		Issued:		
* Regu	lated asbestos-containing materi	áls means (a) fria	ble asbestos-conta	ainina m	aterial, (b) Category I nonfria	able ACM tha	t has becon	ne friable, (c)	

\* Regulated asbestos-containing materials means (a) <u>triable asbestos-containing material</u>, (b) <u>Category I nonfriable ACM</u> that has become <u>triable</u>, (c) <u>Category I nonfriable ACM</u> that will be or has been subjected to sanding, <u>grinding</u>, <u>cutting</u>, or abrading or (d) <u>Category II</u> 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 <u>demolition</u> or <u>renovation</u> operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

DATE 11/6/18 CDPHE 9WO

Form: DNA08

Rev. 01/30/08



4. JKS Asbestos Certifications



Colorado Department of Public Health and Environment

# **General Abatement Contractor**

This certifies that

## JKS Industries, LLC

GAC No.: 18531

has met the certification requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos abatement activities in the state of Colorado.

Issued: July 18, 2018

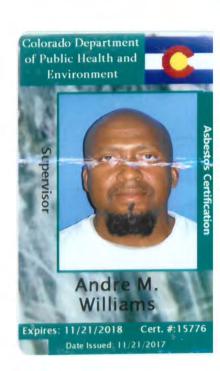
Expires: July 18, 2019

Authorized APCD Representative

SEAL



5. JKS Workers Asbestos Certifications







CERTIFIES THAT

# ANDREE WILLIAMS

Has successfully completed
The EPA— APPROVED AHERA ANNUAL ASBESTOS REFRESHER COURSE for CONTRACTOR/SUPERVISOR

And passed the requirements examination in that discipline

This course is EPA-Approved under Section 206 of the Toxic Substance Control Act (TSCA)

Course Date 09/15/2018

No. Hours

Certificate No. CO091518-02ASR

09/15/2019

This course meets the requirements of AQCC Reg. #8 Part B

Training Director

SACOSON!

#### Midtown Occupational Health Services 2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335

OSHA Asbestos Certification Applicants Name The above individual was seen by me on 3/19/12 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed: Completion and review of the standardized medical questionnaire and work 1. history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101 Reviewed the employer's description of this individual's duties as they relate 2. to asbestos exposure, the anticipated exposure level and the personal protective and respiratory equipment to be utilized by this individual. 3. Review of information from previous medical examinations, if available. A physical examination with emphasis upon the pulmonary, cardiovascular, 4. and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1). Determined that a chest roentgenogram was to was not I required as part of 5. this examination. (note-according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required) Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A 6. Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may may not use a respiratory device while performing his/her required duffes. The employee has been instructed to report any difficulties in using the 7. respirators or any change of physical status to their supervisor or physician. In accordance with OSHA requirements, I have fully explained the results of 8: the medical examination and laboratory tests to the above named patient. In accordance with OSHA I have informed this individual of the health risks. 9. involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

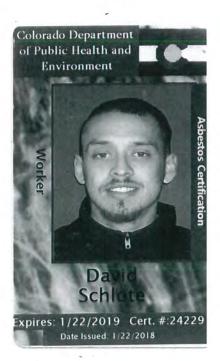
## Midtown Occupational Health Services 2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-63 Fax: (303) 831-6335 **OSHA** Asbestos Certification

There is no detected medical condition which we risk of material health impairment from exposure to asl	bestos, and there are no recommended
limitations on the employee concerning the use of person	onal protective equipment or respirator.
There is a detected medical condition(s) which p See comments below for limitations:	laces this employee at an incheased risk.
Comments/Limitations CYR 2 & new pandy	
m-s	3/19/19
Examining Provider	Date



## Respirator Fit Test

I, Andree Williams, acknowledge that I have been fit tested and trained for the proper use and
care of my respirator. I have read and understand JKS's written respiratory program manual.
Date of Fit Test: 5/7/2018 Fit Test Conductor: Ruben Domingo
Respirator Information
1. Manufacturer: North
2. Model: 7700M 3. Size (Circle one): SMALL MEDIUM LARGE
4. Approval Number: TC-84A-0592
Irritant smoke used (Circle one)?  YES  NO
Please initial the following as each test is completed:
Breathe normally through the respirator
Breathe deeply through the respirator. Be certain that your breaths are deep and regular
Turn your head from one side to the other to the fullest extent about every second without bumping the respirator of your shoulders. Ensure that your movement is complete. Inhale on each side.
Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
Do several jumping jacks to ensure that the respirator does not come loose from your face.
Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
Read the Rainbow Passage
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of while light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no on ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the
end of the rainbow.
Employee Signature: Date: 5/7/18
Fit Test Conductor Signature: The Game Date: 5/7/2018



# INTERNATIONAL



Environmental and Safety Training L.LC.
720 Billings Street Unit F
Aurora, Colorado 80011
Phone # (720) 859-3134
Fax # (720) 859-0660

CERTIFIES THAT

# DAVID J. SCHLOTE

Has successfully completed

The **EPA**– APPROVED **AHERA** ASBESTOS COURSE for **WORKER**And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the **Toxic Substance Control Act (TSCA)** 

Course Date

01/08/2018 - 01/11/2018

No. Hours

32

Certificate No.

CO010818-06AWI

**Expires** 

01/11/2019

This course meets the requirements of AQCC Reg. #8



Invalid without raised seal

Training Director

#### Midtown Occupational Health Services 2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335

**OSHA** Asbestos Certification

Applicant	ts Name David Schlofe
The above	e individual was seen by me on 2/14/14 in accordance to 29 CFR 1(Asbestos Certification) and 29 CFR 1910.134 (Respirator Certification). The following
1.	Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.	Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.	Review of information from previous medical examinations, if available.
4.	A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.	Determined that a chest roentgenogram was was not required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.	Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may may not use a respiratory device while performing his/her required duties.
7.	The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.	In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.	In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

# Midtown Occupational Health Services 2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335 OSHA Asbestos Certification

There is a detected medical condition(s) which places th	is employee at an increased risk.
See comments below for limitations:  Comments/ Limitations CXA B A Para Care Comments	Matthew Edwards, PAC Midtown Occupational Health Services, P.C. 2490 W. 26th Ave., Bidg, A. Suite 300
	Denver, CO 80211

## Respirator Fit Test

I, David Schlote, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.
Date of Fit Test: 05 07 2018 Fit Test Conductor: Ruben Omy
Respirator Information  1. Manufacturer: North  2. Model: 7700M  3. Size (Circle one): SMALL  4. Approval Number: TC-84A-0592
Irritant smoke used (Circle one)?  YES  NO
Please initial the following as each test is completed:  Breathe normally through the respirator
Breathe deeply through the respirator. Be certain that your breaths are deep and regular
Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
Do several jumping jacks to ensure that the respirator does not come loose from your face.
Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
Read the Rainbow Passage
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.
Fit Test Conductor Signature: Date: 05/07/2016
Fit Test Conductor Signature: Date: 05/07/2018



# INTERNATIONAL



Environmental and Safety Training L.LC. 720 Billings Street Unit F Aurora, Colorado 80011 Phone # (720) 859-3134 Fax # (720) 859-0660

CERTIFIES THAT

# DEISY YANETH ARELLANOS LOPEZ

Has successfully completed
The EPA- APPROVED AHERA ASBESTOS COURSE for WORKER
And passed the requirements examination in that discipline

This course is EPA-Approved under Section 206 of the Toxic Substance Control Act (TSCA)

Course Date

04/16/2018 - 04/19/2018

Exam Date

04/19/2018

No. Hours

32

Certificate No

CO041918-07AWI

Expires

04/19/2019

M

This course meets the

AQCC Reg. #8 Part B

requirements of

Training Director

Invalid without raised sea

# Colorado Occupational **Medical Partners**

# OSHA ASBESTOS/HAZARDOUS MATERIALS/RESPIRATOR CERTIFI

	OCS MATERIALS / RESPIRATOR CERTIFICATION
III accordance with Corri	20 CFR 1225
	00 0000 4045
	OU CLID 4049
he array is	29 CFR 1910.134(b) Respirator Certification
ne examining physician will provide the	employer with a weith
1 (71)	which opinion which shall contain the following:
1. This is to certify that on this date:	5/5/18 and in and in
.1	5/3/18, and in accordance with regulations as indicate
above, I have performed a compre	chensive examination on Deisy Arellanos
whose Social Security Number is	,
2. Based on my findings, I have deter	rmined that this individual
() IS NOT medic	rnined that this individual a respirator device while performing his / her required work tasks, and cally cleared for work with ( ) ASBESTOS
	( ) 110DE3103
3. The results of my exemination	() HAZARDOUS MATERIALS
5. The results of my examination ()	HAVE (HAVE NOT detected a medical condition which would
place the employee at increased ris	HAVE (A) HAVE NOT detected a medical condition which would be of material health impairment from exposure to
() RESPIRATORY EQUIPMEN	T () ASBESTOS () HAZARDOUS MATERIALS
4 *	() HAZARDOUS MATERIALS
4. In accordance with OSHA requirer	nents, I have informed the above-named patient of medical conditions
which could result from his / her ex	sposure to
() RESPIRATORY EQUIPMENT	T () ASBESTOS () HAZARDOUS MATERIALS
	() MATERIALS
<ol><li>In accordance with OSHA requiren</li></ol>	nent, I have fully explained the results of the medical examination
and laboratory tests to the above-na	amed patient
	pationt.
6. COMMENTS:	· ·
in the second se	
EMPLOYEE HAS DEEN ADVISOR	
LANATION OF MEDICAL CONDUCTION	RESULT OF THE EVALUATION AND HAS BEEN GIVEN AN
REASED RISK OF LING CANCER ATTENDED	HAT MAY RESULT FROM ASBESTOS EXPOSURE, AND OF THE

T INCREASED RISK OF LUNG CANCER ATTRIBUTABLE TO THE COMBINED EFFECT OF SMOKING AND ASBESTOS

The complete medical examination on the above-named individual will be forwarded to the employer pending final eview and interpretation of any additional medical data collected.

Examining Physician / Provider



# Respirator Fit Test

care of my respirator. I have read and understand	
Date of Fit Test: 5/14/2016	Fit Test Conductor: Ruber Down
Respirator Information	
Manufacturer: North	
2. Model: 7700M	
3. Size (Circle one).	DIUM LARGE
4. Approval Number: TC-84A-0592	
Irritant smoke used (Circle one)?	NO
Please initial the following as each test is comple	eted:
Breathe normally through the respirator	
Breathe deeply through the respirator. Be ce	
your shoulders. Ensure that your movement	
Nod your head up and down to the fullest ex Ensure that your movement is complete and	tent about every second without bumping the respirator on your chest. can be completed quickly. Inhale when you are facing up.
427	respirator does not come loose from your face.
Move your mouth to its fullest extent; for exmouth as necessary without compromising	cample, yawn, move your jaw around, etc. Ensure that you can move your the fit of the respirator.
Read the Rainbow Passage	
When the sunlight strikes raindrops in the a	ir, they act like a prism and form a rainbow. A rainbow is a division of white
light into many beautiful colors. These take	the shape of a long round arch with its path high above and its two ends cording to legend, a boiling pot of gold at one end. People look, but no one ing beyond his reach his friends say he is looking for the pot of gold at the
* A A	-1. 12010
Employee Signature: Durfus Ju	Date:
	Date: 5/14/2018
Fit Tost Conductor Signature:	Date.



# INTERNATIONAL



Environmental and Safety Training L.LC. 720 Billings Street Unit F Aurora, Colorado 80011 Phone # (720) 859-3134 Fax # (720) 859-0660

CERTIFIES THAT

# LUCIA GASPAR DOMINGO

Has successfully completed

The **EPA**– APPROVED **AHERA** ASBESTOS COURSE for **WORKER**And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the **Toxic Substance Control Act (TSCA)** 

Course Date

06/04/2018 - 06/07/2018

Exam Date

06/07/2018

No. Hours

32

Certificate No

CO060718-18AWI

**Expires** 

06/07/2019

Invalid without raised seal

1 warmont

Training Director

This course meets the

AQCC Reg. #8 Part B

requirements of

#### Midtown Occupational Health Services 2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335

**OSHA** Asbestos Certification Applicants Name The above individual was seen by me on G-28-18in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed: Completion and review of the standardized medical questionnaire and work 1. history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101 2. Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level and the personal protective and respiratory equipment to be utilized by this individual. NIA Review of information from previous medical examinations, if available. 3. A physical examination with temphasis upon the pulmonary, cardiovascular, 4. and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratery volume at one second (FEV-1). 5. Determined that a chest roentgenogram (was D was not D required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required) 6. Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined by individual may may not use a respiratory device while performing his/her required duties. JUN 28 2018 The employee has been instructed to report any difficulties in using the 7. respirators or any change of physical status to their supervisor or physician. In accordance with OSHA requirements, I have fully explained the results of 8: the medical examination and laboratory tests to the above named patient. 9. In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will

reduce the risk of lung cancer.

# Midtown Occupational Health Services 2420 W. 26<sup>th</sup> Ave. Stc. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-63 Fax: (303) 831-6335 **OSHA** Asbestos Certification

risk of material health impair	edical condition which would pla ment from exposure to asbestos, concerning the use of personal pr	and there are no recommended	
There is a detected me See comments below for lim	dical condition(s) which places thitations:	iis employee at an incheased ris	k.
Comments/ Limitations	Matthew Edwards, PAC Midtown Occupational		
2	Health Services, P.C. 2490 W. 26th Ave., Bidg, A, Sulty Denver, CO 80211		
Examining Provider	-	)6-28-2018	



Date

Respirator Fit Test
I,, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.
care of my respirator. I have read and understand JKS's written respiratory program manual.
Date of Fit Test: 7-10-18Fit Test Conductor: Mothew C. Over
Respirator Information
<ol> <li>Manufacturer: North</li> <li>Model: 7700M</li> </ol>
3. Size (Circle one): SMALL MEDIUM LARGE
4. Approval Number: TC-84A-0592
Irritant smoke used (Circle one)?  YES  NO
Please initial the following as each test is completed:
Breathe normally through the respirator
Breathe deeply through the respirator. Be certain that your breaths are deep and regular
Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
Do several jumping jacks to ensure that the respirator does not come loose from your face.
Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
Read the Rainbow Passage
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.
Employee Signature: Lucia Barper Donnige Date: 7/10/18
Fit Test Conductor Signature: Matter Over Date: 7/10/18

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of Blod COLORADO SPRINGS, CO. 80916
of Blod COLORADO SPRINGS, CO. 80916
of (719) 380-9660
par (719) 380-9660
Surveillance - Asbestos

Colorado Department of Public Health and Environment

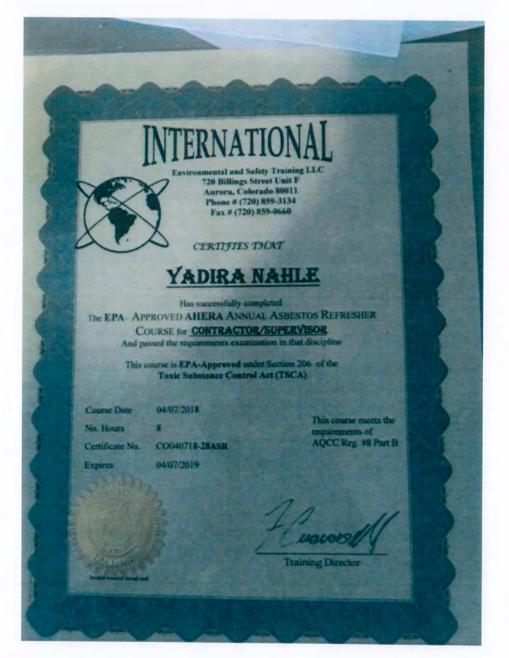
Supervisor

**Asbestos Certification** 

Martha Yadir Nahle

Expires: 4/16/2019 Cert. #:18186

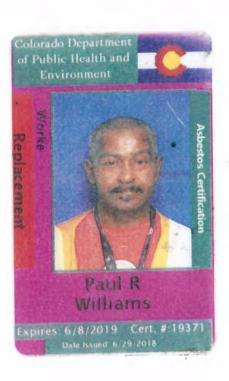
Date Issued: 4/16/2018



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Continue-Flow Respirator    Supplied-Air Respirator	per la constante l	
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Dust Mask 11/2 Face with Canisters 11/1/16/16	Cotton Seed / Duid	
Make	Cadmium Formakdeflyde	8
Special Work Conditions (Check ALL That Apply When Wearing Respirator)	Mottrylene Chloride Lead	
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# Respirator Fit Test

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Date of Fit Test: 10 - 08-18	Fit Test Con	nductor:66	Thomas
Respirator Information  1. Manufacturer: North  2. Model: 7700M  3. Size (Circle one): SMALL  4. Approval Number: TC-84A-0592	MEDIUM LAR	GE	
Irritant smoke used (Circle one)?	ES NO		
Please initial the following as each test is com  MN  Breathe normally through the respirator	pleted:		
Breathe deeply through the respirator. Be	certain that your b	reaths are deep	and regular
Turn your head from one side to the other your shoulders. Ensure that your moveme	to the fullest exter nt is complete. Inha	nt about every s ale on each side	second without bumping the respirator on e.
Nod your head up and down to the fullest Ensure that your movement is complete a	extent about every nd can be complete	second withoused quickly. Inha	at bumping the respirator on your chest. le when you are facing up.
Do several jumping jacks to ensure that the	e respirator does n	ot come loose	from your face.
Move your mouth to its fullest extent; for mouth as necessary without compromising			ound, etc. Ensure that you can move your
NN Read the Rainbow Passage			
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Employee Signature: Mansha Wo	/m	D	ate: 10 -8-18
Fit Test Conductor Signature:		D	ate: 10 - 8 18



# INTERNATIONAL



Environmental and Safety Training LLC 720 Billings Street Unit F Aurora, Colorado 80011 Phone # (720) 859-3134 Fax # (720) 859-0660

CERTIFIES THAT

# PAUL WILLIAMS

Has successfully completed

The EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER

COURSE for CONTRACTOR/SUPERVISOR

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the **Toxic Substance Control Act (TSCA)** 

Course Date

05/04/2018

No. Hours

8

Certificate No.

CO050418-22ASR

**Expires** 

05/04/2019



Invalid without raised seal

Training Director

This course meets the

requirements of AQCC Reg. #8 Part B

#### Midtown Occupational Health Services 2420 W. 26th Ave. Ste. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335

OSHA Asbestos Certification Applicants Name The above individual was seen by me on 6-17-18 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed: 1. Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101 Reviewed the employer's description of this individual's duties as they relate 2. to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual. 3. Review of information from previous medical examinations, if available. A physical examination with emphasis upon the pulmonary, cardiovascular, 4. and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1). Determined that a chest roentgenogram was was not was not required as part of 5. this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required) Reviewed OSIFA's Medical Evaluation Questionnaire in Appendix C Part A 6. Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may promay not use a respiratory device while performing his/her required duties. The employee has been instructed to report any difficulties in using the 7. respirators or any change of physical status to their supervisor or physician. In accordance with OSHA requirements, I have fully explained the results of 8.

9. In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

the medical examination and laboratory tests to the above named patient.

# Midtown Occupational Health Services 2420 W. 26<sup>th</sup> Avc. Stc. 200-D Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335 OSHA Asbestos Certification

There is no detected medical condition which wisk of material health impairment from exposure to a limitations on the employee concerning the use of pe	asbestos, and there are no recommended
There is a detected medical condition(s) which See comments below for limitations:	places this employee at an increased risk.
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Comments/ Limitations	
	JUN 1 5 2018
Examining Provided when Co Ce	10 D
Examining Providery	Date

Lawrence Cedillo D.O.
Midtown Occupational
Health Services, P.C.
2490 W. 26th Ave., Bldg. A, Suite 300
Denver, CO 80211
303-831-9393

# Midtown Occupational Health Services

2490 W 26th Avenue Building A. Suite 300 Denver, CO 80211

Williams, Pau	al .					1	D: 0174	Age: 50 (	3/9/1968)	
Gender	Male			Helgi			3 In	-4		
Ethnicity	African			Welg	ht	16	66 lb	BMI 25.2		
FVC (ex only)						Y	our FEV	1 / Predicte	d: 96%	
Test Date	6/15/2018	10:48:16 AM	1	Interp	oretation			the first of the same of the	Value Selection	Best Value
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			Pro							
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FVC [L]	3.90	3.02	4.29	4.29	4.16	4.13	110			
FEV1 [L]	3,12	2.84	3.00	3.00	2.98	2,80	96			
FEVI/FVC [%]	80.0	69.6	69.9	69.9	71.6	67.7*	87			
FEF25-75 [L/s]	3.15	1.47	1.69	1.69	1,88	1.47	54			
PEF [L/s]	8,34	5.83	9.28	9,28	8.68	9.10	111			
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> Lawrence Cedillo D.O. Midtown Occupational Health Services, P.C. 2490 W. 26th Ave., Bldg. A, Sulte 300 Denver, CO 80211 303-831-9393

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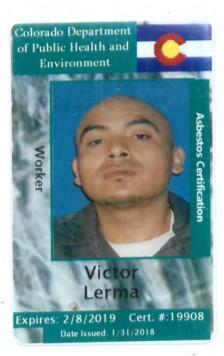
# JKS INDUSTRIES

# RESPIRATOR FIT TEST

# APPENDIX A - NORTH

EMPLOYEES WORKING UNDER THIS RESPIRATOR PROGRAM MUST ACKNOWLEDGE BY SIGNING THIS FORM. THEY HAVE BEEN FIT TESTED AND HAVE BEEN TRAINED FOR THE PROPER USE AND CARE OF THEIR RESPIRATOR. THEY HAVE READ AND UNDERSTAND THE COMPANY'S WRITTEN RESPIRATOR PROGRAM MANUAL.

Paul R. W	illiams
EMPLOYEE NAME PRINTED OF	
3/26/2018	
DATE OF FUT TEST /	O. Domyo
FIT TEST CONDUCTOR	
RESPIRATOR:	
1. MANUFACTURER:	North
2. MODEL:	00M
3. SIZE: Medium	
4. APPROVAL NUMBER:	TC-84A-0592
IRRITANT SMOKE X	
aw	
TESTING AGENT	



# INTERNATIONAL



Environmental and Safety Training L.LC. 720 Billings Street Unit F Aurora, Colorado 80011 Phone # (720) 859-3134 Fax # (720) 859-0660

CERTIFIES THAT

# VICTOR A. LERMA

Has successfully completed

The EPA-APPROVED AHERA ANNUAL ASBESTOS REFRESHER

COURSE for WORKER

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the **Toxic Substance Control Act (TSCA)** 

Course Date

01/13/2018

No. Hours

8

Certificate No.

CO011318-22AWR

**Expires** 

01/13/2019

This course meets the requirements of AQCC Reg. #8



Invalid without raised seal

Training Director

# Midtown Occupational Health Services 2490 W. 26th Ave. Ste. 300-A Denver, CO 80211 Phone: (303) 831-9393 Fax: (303) 831-6335

**OSHA Asbestos Certification** 

Applicant	s Name Villa Colomb
The above 1926.110 was prefo	e individual was seen by me on <u>02 12 18</u> in accordance to 29 CFR 1(Asbestos Certification) and 29 CFR 1910.134 (Respirator Certification). The following rmed:
1.	Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.	Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.	Review of information from previous medical examinations, if available.
4.	A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.	Determined that a chest roentgenogram was was not required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.	Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may may not use a respiratory device while performing his/her required duties.
7.	The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.	In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.	In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

#### Midtown Occupational Health Services 2490 W. 26th Ave. Ste. 300-A Denver, CO 80211 Fax: (303) 831-6335 Phone: (303) 831-9393 **OSHA** Asbestos Certification

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator. There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations: Comments/ Limitations\_

> Richard Kraus M.S., PA.-C Midtown Occupational Health Services, P.C. 2490 W. 26th Ave., Bldg. A, Suite 300 Denver, CO 80211 303-831-9393

# Respirator Fit Test

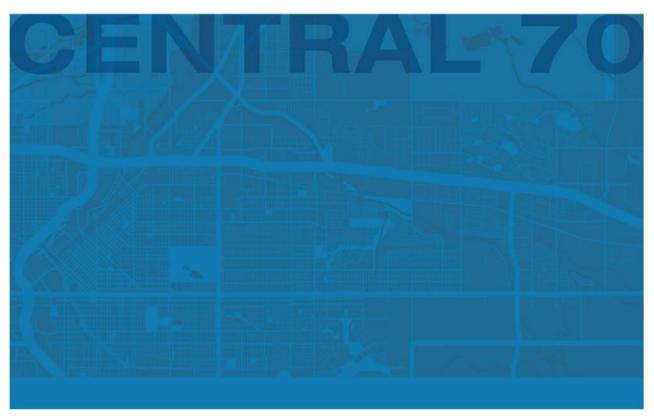
I, Wicker Lumb, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.
Date of Fit Test: 05-072018 Fit Test Conductor: Ruber Omning
Respirator Information  1. Manufacturer: North  2. Model: 7700M  3. Size (Circle one): SMALL MEDIUM LARGE  4. Approval Number: TC-84A-0592
Irritant smoke used (Circle one)?
Please initial the following as each test is completed:  Breathe normally through the respirator
Breathe deeply through the respirator. Be certain that your breaths are deep and regular
Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
Do several jumping jacks to ensure that the respirator does not come loose from your face.
Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
Read the Rainbow Passage
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.
Employee Signature: Date: 5-7-16
Date: 5/7/1016



6. Project Design



# 6a. SSAR



August 16, 2018



# **Structure Survey Assessment Report AP-8**

4618 High Street

Denver, CO 80216

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# LIST OF REPORT ACRONYMS/ABBREVIATIONS

**ACMs** Asbestos Containing Materials

AHERA Asbestos Hazard Emergency Response Act

**APEC** All-Phase Environmental Consultants

**AMS** Air Monitoring Specialist

CABI Colorado Asbestos Building InspectorCDOT Colorado Department of Transportation

**CDPHE** Colorado Department of Public Health and Environment

**CFCs** Chlorofluorocarbons

**CFR** Code of Federal Regulations **EP** Environmental Professional

**EPA** Environmental Protection Agency

**FAA** Flame Atomic Absorption

LBP Lead Based Paint
LCP Lead Containing Paint
mg/L Milligrams per Liter

**NESHAP** National Emissions Standards for Hazardous Air Pollutants

**NVLAP** National Voluntary Laboratory Accreditation Program

**OSHA** Occupational Safety and Health Administration

PCBs Polychlorinated Biphenyls

**PD** Project Designer

PEL Permissible Exposure Limits
PLM Polarized Light Microscopy
PPE Personal Protective Equipment

ppm Parts Per Million

**RACM** Regulated Asbestos Containing Material

**RBM** Regulated Building Materials

**RCRA** Resource Conservation and Recovery Act

RHMs Recognized Hazardous Materials
SSAP Structure Survey Assessment Plan

TC Toxicity Characteristic

TCLP Toxicity Characteristic Leaching Procedure
USEPA U.S. Environmental Protection Agency

**UWR** EPA Universal Waste Rule

# LIST OF SAMPLING ACRONYMS/ABBREVIATIONS

BMBrick/Mortar CB Cove Base CC Concrete

CER Ceramic Block

CM Ceramic Tile/Mortar

**CMU** Concrete Masonry Unit/Mortar

CP Carpet CT Ceiling Tile

D Drywall (no surfacing) DJ Drywall/Joint Compound

F Flooring FT Floor Tile IN Insulation L Linoleum М Mastic

MF Multiple layered Flooring

MT Mortar

PC Popcorn Ceiling

PL Plaster

PM Panel/Mastic R Roofing RF

Roof Flashing

S Siding ST Stucco

Texture (no substrate) Т TC **Textured Composite Board** 

TD **Textured Drywall** 

Thermal System Insulation TSI

**VB** Vapor Barrier

VΡ Vent Paste (heating/cooling systems) VW Vent Wrap (heating/cooling systems)

WC Window Caulk

WD Wallpapered Drywall

# **Tables**

Table 1	Project Details
Table 2	Asbestos Containing Samples
Table 3	Non-Asbestos Containing Samples
Table 4	Summary of Paint Chip Laboratory Analysis for Lead
Table 5	Summary of Regulated Building Materials

# **Figures**

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

# Appendices

Appendix A	Asbestos and Lead Inspector (s) Certifications
Appendix B	Positive Asbestos & Lead Sample Material Photographs
Appendix C	Laboratory Results & Chain of Custody – Asbestos
Appendix D	Laboratory Results & Chain of Custody – Lead & TCLP

APEC Project # 18-3066 - 008

Prepared for

**Kiewit Meridiam Partners** 

Prepared by

Logan Greenfield, CABI & AMS #20715

VP of Field Services

Reviewed by

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 4618 High Street, Denver, Colorado. This survey will identify materials that will need to be abated or removed prior to the future demolition activities.

Table 1 Project Details

Client Name:	Kiewit Meridiam Partners
Site Location:	4618 High St., Denver, CO 80216
Building Type	Single family residence and 3 out buildings
Building Size	Building is approximately 733 square feet
Construction Date:	1886 – Based on 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 23.13.2 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

## 2.1 ASBESTOS SURVEY

On May 10 and August 2, 2018, APEC certified personnel Logan Greenfield conducted an asbestos survey for demolition at 4618 High St., Denver, CO 80216. The asbestos survey (inspection/sampling) was completed in accordance with the SSAP and follows guidelines established under the U.S. EPA Asbestos Hazard and 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 was performed in strict accordance with AHERA sampling procedures detailed in 40 CFR 763.86. These include but aren't limited to labeling each sample. recording each sample 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 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.

#### 2.2 LEAD-BASED PAINT SURVEY

On May 10, 2018, APEC certified personnel Rick Ralston conducted the LBP survey. The lead 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 Cinnaminson, NJ, 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/cm²) as measured with an X-ray fluorescence (XRF) or 5,000 parts per million (ppm) when measured by weight, or 0.5 percent (%) by weight.

A total of 16 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 LBP and LCP were taken and are included in a photographic log (Appendix B). The paint chip sample locations were recorded and are included on the sample location drawing (Figure 3). Descriptions of the suspect homogeneous materials and a list of the collected samples are described in the 'Findings' section.

Based on the analytical results for the 16 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.

### 2.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY

On May 10, 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 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.

Although not a "regulated material", items such as gas meters, electrical meters and electrical panels are listed with the RBM inventory. These materials will require removal and/or disconnection prior to demolition and until done so should be handled with care.

# 3 Findings

#### 3.1 ASBESTOS SURVEY

A total of 43 bulk samples, including 2 duplicate sample, were collected from 12 suspect homogenous materials throughout the structure, and the results of the PLM analysis are presented in Table 2 and table 3. The following samples were positive for ACMs (i.e. present greater than 1%):

## Regulated Asbestos Containing Materials (RACM)

- 4618H-R10-1A, 4618H-R9-1B, 4618H-R8-1C, 4618H-R5-1D, 4618H-R6-1E, 4618H-R1-1F, and 4618H-R2-1G Textured drywall Walls in rooms 1, 2, 4, 5, 6, 7, 8, 9, and 10; Ceiling of room 2
- 4618H-R9-4A, 4618H-R10-4B, 4618H-R6-4C, 4618H-R6-4Q, 4618H-R5-4D, and 4618H-R1-4E
   Hand textured drywall Ceilings in rooms 1, 4, 5, 6, 7, 8, 9, and 10
- 4618H-R6-8A, 4618H-R1-8B, and 4618H-R5-8C— Vent wrap supply ducts in rooms 1, 5, and

#### **Point Counts**

Point count analysis occurs for samples with <1% of asbestos. Point count results were not needed because the initial results did not exceed 1% asbestos. The laboratory analytical report is included as Appendix C.

# **Duplicate Samples**

For quality assurance purposes, duplicate samples are taken approximately every 20<sup>th</sup> sample. Duplicate samples are listed as a duplicate (Q) in the sample location column of Table 2 or Table 3. Two samples, 4618H-R6-4Q and 4618H-HEX-12Q, were collected because a total of 41 samples were obtained.

#### 3.2 LEAD-BASED PAINT SURVEY

A total of 16 homogeneous paint color variations were analyzed for the presence of LBPs and LCPs (Table 4, 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). 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 (4618H-4L and 4618H-10L) were found to be greater than 0.06% by weight and less than 0.5% by weight and are considered LCP. Two samples (4618H-14L & 4618H-15L) had lead concentrations greater than 0.5% by weight and is considered LBP (Table 4). The remaining 12 samples 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.

#### 3.2.1 TCLP LEAD ANALYTICAL RESULTS

Since multiple samples analyzed as a LCP and LBP, 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 <0.40 mg/L, which is below the regulated limit and therefore not considered hazardous. The analytical report is included in Appendix D.

## 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. The following non-regulated hazardous building materials were identified at the property: water heater, refrigerator, gas main, electrical breaker box, furnace, water meter, and electrical meter. Although these items are non-regulated, they will need to be removed prior to demolition. A complete list of the RBMs is presented in Table 5, and selected locations of the RBMs are depicted in Figure 4.

# 4 Conclusions and Recommendations

#### 4.1 ASBESTOS

Approximately 3,129 square feet of RACM was identified as surfacing material on walls and ceilings in rooms 1, 2, 4, 5, 6, 7, 8, 9, and 10 and approximately 9 square feet of RACM vent wrap was observed on 3 supply register vents. These materials will require abatement due to being rendered friable easily prior to demolition of the structures.

No other ACM was identified throughout the structures; 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.

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 16 samples, and above the LBP threshold in 2 of the 16 samples. The remaining 12 samples are considered non-lead containing (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. No lead abatement is required prior to demolition.

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 OSHA 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, personal protective equipment (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, it is likely that the ballasts in the fluorescent light fixtures do contain PCBs. Where a manufactures' 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 manufacture'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 2	Asbestos Containing Samples
Table 3	Non-Asbestos Containing Samples
Table 4	Summary of Paint Chip Laboratory Analysis for Lead
Table 5	Summary of Regulated Building Materials

**Table 2 Positive Asbestos Containing Samples** 

Sample	Lab Results/	Detection	Condition	Material	Material	NESHAP	<b>Estimated Quantity</b>
Location	Asbestos Type	Method(s)		Description	Location	Classification	(Sq. ft.)
ROOM 10	TEXTURE 2% CHRYSOTILE	PLM	Good	TEXTURED DRYWALL	ROOMS 1,2,4,5,6,7,8,9 &10 CEILING OF ROOM 2	RACM	-2214
ROOM 9	TEXTURE 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 8	TEXTURE 3% CHRYSOTILE	PLM	Good			RACM	
ROOM 5	TEXTURE 2 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 6 ROOM 1 ROOM 2		Homogeneou	us to Samples 4	4618H-R10-1A, 4618H	-R9-1B, 4618H-R8-1C	& 4618H-R5-1D	
ROOM 9	TEXTURE 2% CHRYSOTILE	PLM	Good		CEILINGS OF 1,4,5,6,7,8,9 &10	RACM	915
ROOM 10	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 6	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 6	TEXTURE 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good	HAND TEXTURED DRYWALL		RACM	
ROOM 5	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 1	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ROOM 6	VENT WRAP 35%CHRYSOTILE	PLM	Good	VENT WRAP	SUPPLY DUCT REGISTERS	RACM	9
ROOM 1	VENT WRAP 75%CHRYSOTILE	PLM	Good			RACM	
ROOM 5	VENT WRAP 80%CHRYSOTILE	PLM	Good			RACM	
	ROOM 10  ROOM 9  ROOM 8  ROOM 5  ROOM 6  ROOM 1  ROOM 2  ROOM 9  ROOM 10  ROOM 6  ROOM 6  ROOM 6  ROOM 6  ROOM 6  ROOM 6  ROOM 6	ROOM 10  TEXTURE 2% CHRYSOTILE  TEXTURE 2% CHRYSOTILE  ROOM 9  TEXTURE 2% CHRYSOTILE  ROOM 8  TEXTURE 3% CHRYSOTILE  TEXTURE 2 2% CHRYSOTILE  TEXTURE 2 2% CHRYSOTILE  JOINT COMPOUND 2% CHRYSOTILE  ROOM 6 ROOM 1 ROOM 2  ROOM 9  TEXTURE 2% CHRYSOTILE  ROOM 6 ROOM 10 TEXTURE 2% CHRYSOTILE  ROOM 6 TEXTURE 2% CHRYSOTILE  TEXTURE 2% CHRYSOTILE  ROOM 6  TEXTURE 2% CHRYSOTILE  ROOM 5  TEXTURE 2% CHRYSOTILE  TEXTURE 2% CHRYSOTILE  ROOM 1  TEXTURE 2% CHRYSOTILE  TEXTURE 2% CHRYSOTILE  TEXTURE 2% CHRYSOTILE  ROOM 1  TEXTURE 2% CHRYSOTILE  ROOM 1  TEXTURE 2% CHRYSOTILE  ROOM 6  VENT WRAP 75% CHRYSOTILE  VENT WRAP 75% CHRYSOTILE	ROOM 10  TEXTURE 2% CHRYSOTILE ROOM 9  TEXTURE 2% CHRYSOTILE ROOM 8  TEXTURE 3% CHRYSOTILE TEXTURE 2% CHRYSOTILE ROOM 5  TEXTURE 2 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE TEXTURE 2 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE ROOM 6 ROOM 1 ROOM 2  ROOM 9  TEXTURE 2 2% CHRYSOTILE PLM  Homogeneous ROOM 10 TEXTURE 2% CHRYSOTILE ROOM 6 ROOM 10 TEXTURE 2% CHRYSOTILE ROOM 6 TEXTURE 2% CHRYSOTILE ROOM 1 TEXTURE 2% CHRYSOTILE ROOM 5 TEXTURE 2% CHRYSOTILE ROOM 6 TEXTURE 2% CHRYSOTILE ROOM 1 TEXTURE 2% CHRYSOTILE ROOM 3 TEXTURE 2% CHRYSOTILE ROOM 4 TEXTURE 2% CHRYSOTILE ROOM 5 TEXTURE 2% CHRYSOTILE ROOM 6 TEXTURE 2% CHRYSOTILE ROOM 1 TEXTURE 2% CHRYSOTILE ROOM 1 TEXTURE 2% CHRYSOTILE ROOM 2	Location   Asbestos Type   Method(s)	ROOM 10   TEXTURE 2% CHRYSOTILE   PLM   Good   DRYWALL	Location   Asbestos Type   Method(s)   Description   Location	Cocation   Asbestos Type   Method(s)   Description   Location   Classification

ND=Non-Detect PLM=Polarized Light Microscopy

NA=Not Applicable RACM=Regulated Asbestos Containing Materials

**Table 3 Non-Asbestos Containing Samples** 

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4618H-R3-2A		ND	PLM	Good	SMOOTH TEXTURED DRYWALL	STAIRWELL	NA
4618H-R3-2B	ROOM 3	ND	PLM	Good			NA
4618H-R3-2C	1	ND	PLM	Good			NA
4618H-R10-3A	ROOM 10	ND	PLM	Good		WALLS OF ROOMS 1,2,4,5,6,7,8,9 &10	NA
4618H-R9-3B	ROOM 9	ND	PLM	Good	TEXTURED PLASTER		NA
4618H-R6-3C	DOOMS	ND	PLM	Good			NA
4618H-R6-3D	ROOM 6	ND	PLM	Good			NA
4618H-R5-3E	ROOM 5	ND	PLM	Good			NA
4618H-R1-3F	DOOM 4	ND	PLM	Good			NA
4618H-R1-3G	ROOM 1	ND	PLM	Good			NA
4618H-R2-5A	ROOM 2	ND	PLM	Good	LINOLEUM	FLOOR OF ROOM 2	NA
4618H-R2-5B	ROOM 2	ND	PLM	Good			NA
4618H-B-6A		ND	PLM	Good		WALLS OF BASEMENT	NA
4618H-B-6B	BASEMENT	ND	PLM	Good	SMOOTH TEXTURED DRYWALL		NA
4618H-B-6C		ND	PLM	Good	]		NA
4618H-B-7A	DAGEMENT	ND	PLM	DAMAGED	PAPER BARRIER	BETWEEN HVAC	NA
4618H-B-7B	BASEMENT	ND	PLM				NA
4618H-S2-9A	SHED 2	ND	PLM	Good	STUCCO ON ADOBE SHED EAST OF HOUSE	EVTEDIOD OF	NA
4618H-S2-9B		ND	PLM	Good			NA
4618H-S2-9C		ND	PLM	Good	]		NA

Sample Name	Sample Location		Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4618H-HEX-10A	EXTERIOR	ND	PLM	Good	VAPOR BARRIER	HOUSE	NA
4618H-HEX-10B	EXTERIOR	ND	PLM	Good	VAPOR BARRIER		NA
4618H-S1-11A	SHED 1	ND	PLM	Good	ISHINGLE SIDING	SHED 1	NA
4618H-S1-11B		ND	PLM	Good			NA
4618H-HEX-12A		ND	PLM	Good	ROOFING	ROOF OF HOUSE	NA
4618H-HEX-12Q	EXTERIOR	ND	PLM	Good			NA
4618H-HEX-12B		ND	PLM	Good			NA

ND=Non-Detect PLM=Polarized Light Microscopy NA=Not Applicable

 Table 4
 Summary of Paint Chip Analysis for Lead

Sample Number	Sample Location	Lead Concentration (% wt.)	Component	Paint Description	Classification
4618H-1L	Room 10	<0.0080	Drywall	Gray	NLC
4618H-2L	Room 10	<0.0080	Drywall	Lime Green	NLC
4618H-3L	Room 10	<0.0080	Drywall	Dark Blue	NLC
4618H-4L	Room 10	0.38	Plaster	Mint Green	LCP
4618H-5L	Room I	<0.0080	Drywall	Gray/Orange	NLC
4618H-6L	Room 8	<0.0080	Drywall	White/Silver	NLC
4618H-7L	Door Seperating Room 10 & Room 8	<0.0099	Wood	Brown	NLC
4618H-8L	Room 2	<0.0080	Drywall	Green	NLC
4618H-9L	RIO	<0.0080	Drywall	White	NLC
4618H-10L	Room 5	0.31	Plaster	Pink	LCP
4618H-11L	Room II-Basement	<0.0080	Drywall	White	NLC
4618H-12L	Exterior	0.017	Brick	Maroon	NLC
4618H-13L	Exterior	<0.0080	Wood	White	NLC
4618H-14L	Exterior	0.77	Wood	Blue	LBP
4618H-15L	Exterior	0.78	Wood	Purple	LBP
4618H-16L	Exterior	<0.0080	Pipe-Metal	Black	NLC

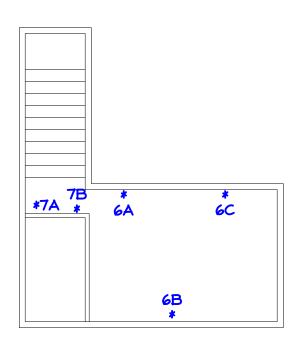
**Table 5 Summary of Regulated Building Materials** 

Room	Material	Location	Quantity Fixture/Bulbs each
Room 6	Refrigerator	North Side	I
Baement	Furance	West End of North Room	I
Baement	Water Heater	West End of North Room	I
Room 6	Window AC	South Side	1
Exterior	Electrical Meter	East Side of House	1
Exterior	Breaker Box	East Side of House	1
Exterior	Gas Meter	South Side of House	1
Exterior	Water Meter	West End of House	1
Exterior	Street Light Pole	West End of House	1

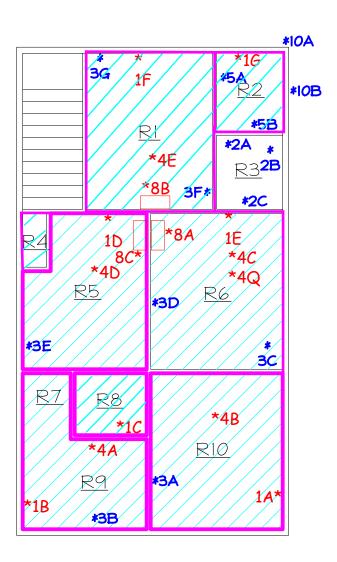
#### **Figures**

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





**BASEMENT** 



**12B** 12Q \* I2A

MAIN FLOOR ROOF

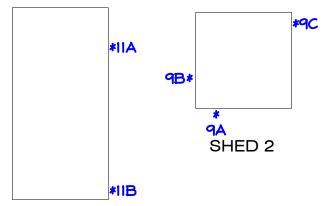
= Positive Asbestos at Ceiling = Positive Asbestos at Walls

= Room Numbers

4B = Asbestos Samples (Detect)

= Asbestos Samples (Non-Detect)

= Vent Boot Wrap Positive for Asbestos



SHED 1



APPROVED: B.N.E.

SCALE: 1/8" = 1'-0"

#### FIGURE 2 - Asbestos Bulk Sample Locations

CENTRAL 70 - Structure Survey Assessment Map

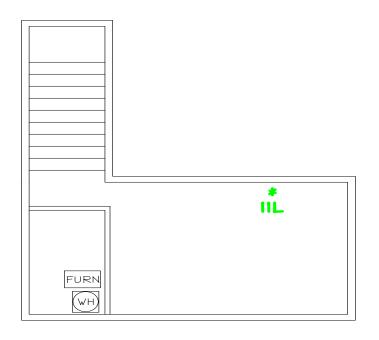
AP-8

4618 High St., Denver, CO

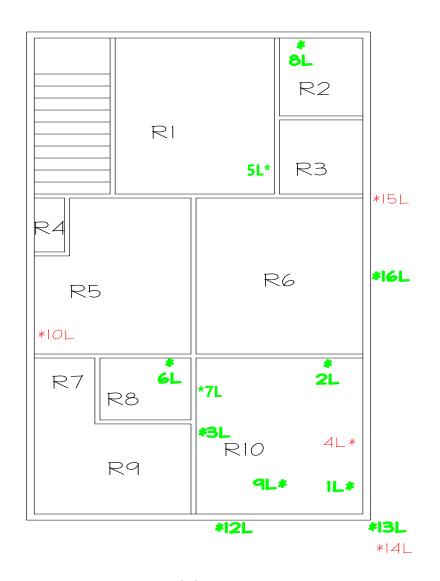
May 10, 2018

APEC #: 18-3066

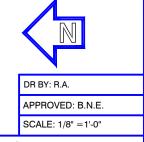




**BASEMENT** 



MAIN FLOOR



= Room Numbers

= Lead Base Paint (Detect)

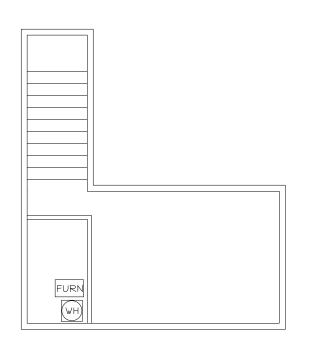
= Lead Containing Paint (Detect) = Lead Base Paint (Non-Detect)

FIGURE 3 - Lead-Based Paint Sample Locations CENTRAL 70 - Structure Survey Assessment Map 4618 High St., Denver, CO

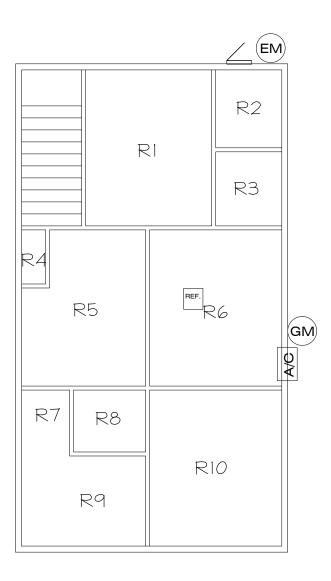
APEC #: 18-3066 ENVIRONMENTAL CONSULTANTS, INC.
721 W 9TH STREET
Pueblo, CO 81003 Ph: (719) 545-0375

AP-8

May 10, 2018







MAIN FLOOR





EM = Electrical Meter

GM = Gas Meter = Breaker Panel

WM = Water Meter

Street light pole

= Water Heater

FURN = Furnace

A/C = Window Air Conditioning Unit

REF = Refrigerator



DR BY: R.A.

APPROVED: B.N.E.

SCALE: 1/8" = 1'-0"

#### FIGURE 4 - Regulated Building Materials

CENTRAL 70 - Structure Survey Assessment Map

AP-8

4618 High St., Denver, CO

May 10, 2018

APEC #: 18-3066





## 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



Frenk Hulce

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

Frank Hulce - Instructor

-Aanaya Boneditts

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 Peon - Instructor

Hamaya Baneditts

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 Communique dated January 2009).

2018-04-01 through 2019-03-31

Effective Dates



For the National Voluntary Laboratory Accreditation Program



#### AIHA Laboratory Accreditation Programs, LLC

acknowledges that

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

200 Route 130 North, Cinnaminson, NJ 08077 Laboratory ID: 100194

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

- ✓ INDUSTRIAL HYGIENE
- ✓ ENVIRONMENTAL LEAD
- ✓ ENVIRONMENTAL MICROBIOLOGY
- ☐ FOOD
- **☐** UNIQUE SCOPES

Accreditation Expires: September 01, 2018 Accreditation Expires: September 01, 2018 Accreditation Expires: September 01, 2018

Accreditation Expires: 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 (<a href="https://www.aihaaccreditedlabs.org">www.aihaaccreditedlabs.org</a>) for the most current Scope.

Un much

William Walsh, CIH
Chairperson, Analytical Accreditation Board

Revision 15: 03/30/2016

Cheryl O. Morton

Managing Director, AIHA Laboratory Accreditation Programs, LLC

Date Issued: 08/31/2016



#### AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

Laboratory ID: **100194** 

#### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Issue Date: 08/31/2016

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 analysis is not included as part of the NLLAP.

#### **Environmental Lead Laboratory Accreditation Program (ELLAP)**

**Initial Accreditation Date: 01/18/1995** 

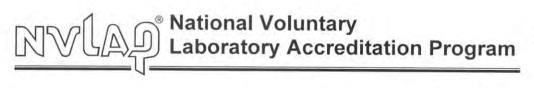
Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description (for internal methods only)
Paint		EPA SW-846 3050B	
Paint		EPA SW-846 7000B	
Soil		EPA SW-846 3050B	
5011		EPA SW-846 7000B	
Cottled Duct by Wine		EPA SW-846 3050B	
Settled Dust by Wipe		EPA SW-846 7000B	
Airborne Dust		NIOSH 7082	
Composited Wines		EPA SW-846 3050B	
Composited Wipes		EPA SW-846 7000B	

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

Effective: 05/04/2015

100194\_Scope\_ELLAP\_2016\_08\_31

Page 1 of 1





#### 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 http://www.emsl.com

#### ASBESTOS FIBER ANALYSIS

#### **NVLAP LAB CODE 200828-0**

#### **Bulk Asbestos Analysis**

Code Description

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

Code Description

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.

For the National Voluntary Laboratory Accreditation Program



# POSITIVE ASBESTOS & LEAD SAMPLE MATERIAL PHOTOGRAPHS



Samples Represented –
4618H-R10-1A
4618H-R9-1B
4618H-R8-1C
4618H-R5-1D
4618H-R6-1E
4618H-R1-1F
4618H-R2-1G

**Textured Drywall** 



Samples Represented – 4618H-R9-4A 4618H-R10-4B 4618H-R6-4C 4618H-R6-4Q 4618H-R5-4D 4618H-R1-4E

Hand Textured Drywall



Vent Wrap

Samples Represented – 4618H-R6-8A 4618H-R1-8B 4618H-R1-8C





Sample Represented – 4618H-15L



# LABORATORY RESULTS & CHAIN OF CUSTODY - ASBESTOS



**Customer PO:** 

Project ID: CDOT

Attention: Logan Greenfield Phone: (719) 250-0036

 All-Phase Environmental Consultants, Inc
 Fax:
 (719) 542-2807

 721 West 9th Street
 Received Date:
 05/14/2018 9:40 AM

 Pueblo, CO 81003
 Analysis Date:
 05/16/2018 - 05/18/2018

Collected Date: 05/10/2018

Project: 18-3066-C70-AP-8 (CDOT)

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

1618H-R10-1A-Text To 1618H-R10-1A-Text To 121803357-0001  1618H-R10-1A-Dry To 1618H-R10-1A-Dry vall	Description  Textured Drywall  Textured Drywall  Textured Drywall	Appearance Gray/White Non-Fibrous Heterogeneous  White Fibrous Homogeneous	% Fibrous  Inseparable paint / coating layer include 20% Cellulose	65% Gypsum	% Type 2% Chrysotile None Detected
ire 221803357-0001 1618H-R10-1A-Dry Ti vall 221803357-0001A	Textured Drywall	Non-Fibrous Heterogeneous White Fibrous		83% Non-fibrous (Other) ed in analysis 65% Gypsum	
221803357-0001 8618H-R10-1A-Dry To vall 221803357-0001A		Heterogeneous  White Fibrous		ed in analysis 65% Gypsum	None Detected
9618H-R10-1A-Dry To vall 921803357-0001A		White Fibrous		65% Gypsum	None Detected
vall 221803357-0001A		Fibrous		65% Gypsum	None Detected
vall 221803357-0001A		Fibrous	20% Cellulose	• •	None Detected
21803357-0001A	Textured Drywall			1EO/ Non fibrous (Others)	
	Textured Drywall	Homogeneous		15% Non-fibrous (Other)	
	Textured Drywall				
618H-R9-1B-Textu Te		Gray/White		15% Ca Carbonate	None Detected
e 1		Non-Fibrous		85% Non-fibrous (Other)	
21803357-0002		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
618H-R9-1B-Textu To	Textured Drywall	White/Red/Yellow		15% Ca Carbonate	2% Chrysotile
e 2		Fibrous		83% Non-fibrous (Other)	
221803357-0002A		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
618H-R9-1B-Tape To	Textured Drywall	Yellow	98% Cellulose	2% Non-fibrous (Other)	None Detected
21803357-0002B		Non-Fibrous			
		Homogeneous			
618H-R9-1B-Joint To	Textured Drywall	White		15% Ca Carbonate	2% Chrysotile
Compound		Fibrous		83% Non-fibrous (Other)	
221803357-0002C		Homogeneous			
618H-R9-1B-Dryw To	Textured Drywall	White	20% Cellulose	65% Gypsum	None Detected
ıll		Fibrous		15% Non-fibrous (Other)	
221803357-0002D		Homogeneous			
			Inseparable paint / coating layer include	ed in analysis	
.618H-R8-1C-Textu To	Textured Drywall	White/Beige		15% Ca Carbonate	3% Chrysotile
е		Non-Fibrous		82% Non-fibrous (Other)	
21803357-0003		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

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



**Customer PO:** 

Project ID: CDOT

Attention: Logan Greenfield Phone: (719) 250-0036

All-Phase Environmental Consultants, Inc Fax: (719) 542-2807
721 West 9th Street Received Date: 05/14/2018 9:40 AM

721 West 9th Street Received Date: 05/14/2018 9:40 AM
Pueblo, CO 81003 Analysis Date: 05/16/2018 - 05/18/2018
Collected Date: 05/10/2018

Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-As	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-R8-1C-Dryw	Textured Drywall	White	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0003A		Homogeneous			
4618H-R5-1D-Textu	Textured Drywall	Gray/White		15% Ca Carbonate	None Detected
re 1		Non-Fibrous		85% Non-fibrous (Other)	
221803357-0004		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
4618H-R5-1D-Textu	Textured Drywall	White/Blue		15% Ca Carbonate	2% Chrysotile
re 2		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0004A		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
4618H-R5-1D-Tape	Textured Drywall	Yellow	98% Cellulose	2% Non-fibrous (Other)	None Detected
21803357-0004B		Fibrous			
		Homogeneous			
4618H-R5-1D-Joint	Textured Drywall	White		15% Ca Carbonate	2% Chrysotile
Compound		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0004C		Homogeneous			
4618H-R5-1D-Dryw	Textured Drywall	White	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0004D		Homogeneous			
1618H-R6-1E-Textur	Textured Drywall	Gray/White		15% Ca Carbonate	None Detected
e 1		Non-Fibrous		85% Non-fibrous (Other)	
221803357-0005		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
4618H-R6-1E-Textur	Textured Drywall	Beige		15% Ca Carbonate	None Detected
e 2		Non-Fibrous		85% Non-fibrous (Other)	
221803357-0005A		Heterogeneous			
			Inseparable paint / coating layer include	ed in analysis	
4618H-R6-1E-Dryw	Textured Drywall	White	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0005B		Homogeneous			

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



**Customer PO:** 

Project ID: CDOT

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-As	<u>Asbestos</u>		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type	
4618H-R1-1F-Textur	Textured Drywall	White		20% Ca Carbonate	None Detected	
е		Non-Fibrous		80% Non-fibrous (Other)		
221803357-0006		Homogeneous				
			Inseparable paint / coating layer include	ed in analysis		
4618H-R1-1F-Dryw	Textured Drywall	Brown/White	15% Cellulose	65% Gypsum	None Detected	
all		Fibrous		20% Non-fibrous (Other)		
221803357-0006A		Homogeneous				
4618H-R2-1G-Textu	Textured Drywall	White		20% Ca Carbonate	None Detected	
re		Non-Fibrous		80% Non-fibrous (Other)		
221803357-0007		Homogeneous				
			Inseparable paint / coating layer include	ed in analysis		
4618H-R2-1G-Dryw	Textured Drywall	Brown/White	15% Cellulose	65% Gypsum	None Detected	
all		Fibrous		20% Non-fibrous (Other)		
221803357-0007A		Homogeneous				
4618H-R3-2A-Dryw	Smooth Textured	White/Beige	20% Cellulose	65% Gypsum	None Detected	
all	Drywall	Fibrous		15% Non-fibrous (Other)		
221803357-0008		Heterogeneous				
			Inseparable paint / coating layer include	ed in analysis		
4618H-R3-2B-Dryw	Smooth Textured	Beige	20% Cellulose	65% Gypsum	None Detected	
all	Drywall	Fibrous		15% Non-fibrous (Other)		
221803357-0009		Heterogeneous				
		Inseparable paint / coating layer included in analysis				
4618H-R3-2C-Dryw	Smooth Textured	Brown/White	15% Cellulose	65% Gypsum	None Detected	
all	Drywall	Fibrous		20% Non-fibrous (Other)		
221803357-0010		Homogeneous				
			Inseparable paint / coating layer include	ed in analysis		
4618H-R10-3A-Skim	Textured Plaster	White/Green		10% Ca Carbonate	None Detected	
Coat		Non-Fibrous		90% Non-fibrous (Other)		
221803357-0011		Heterogeneous				
			Inseparable paint / coating layer include	ed in analysis		

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-Asbestos		<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous % Non-Fibrous		% Type	
4618H-R10-3A-Plas	Textured Plaster	Beige		5% Ca Carbonate	None Detected	
ter		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0011A		Homogeneous				
4618H-R9-3B-Skim	Textured Plaster	White/Green		10% Ca Carbonate	None Detected	
Coat		Non-Fibrous		90% Non-fibrous (Other)		
221803357-0012		Heterogeneous				
			Inseparable paint / coating layer inclu-	ded in analysis		
4618H-R9-3B-Plaste	Textured Plaster	Beige		5% Ca Carbonate	None Detected	
r		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0012A		Homogeneous				
4618H-R6-3C-Skim	Textured Plaster	White/Green		10% Ca Carbonate	None Detected	
Coat		Non-Fibrous		90% Non-fibrous (Other)		
221803357-0013		Heterogeneous				
			Inseparable paint / coating layer inclu	ded in analysis		
4618H-R6-3C-Plaste	Textured Plaster	Beige		5% Ca Carbonate	None Detected	
r		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0013A		Homogeneous				
4618H-R6-3D-Skim	Textured Plaster	White/Green		10% Ca Carbonate	None Detected	
Coat		Non-Fibrous		90% Non-fibrous (Other)		
221803357-0014		Heterogeneous				
			Inseparable paint / coating layer inclu-	ded in analysis		
4618H-R6-3D-Plaste	Textured Plaster	Beige		5% Ca Carbonate	None Detected	
r		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0014A		Homogeneous				
4618H-R5-3E-Skim	Textured Plaster	White		5% Ca Carbonate	None Detected	
Coat		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0015		Homogeneous				
			Inseparable paint / coating layer inclu	ded in analysis		
4618H-R5-3E-Plaste	Textured Plaster	Gray		5% Ca Carbonate	None Detected	
r		Non-Fibrous		95% Non-fibrous (Other)		
221803357-0015A		Homogeneous				

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



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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-As	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Fibrous % Non-Fibrous	
1618H-R1-3F-Skim	Textured Plaster	White		5% Ca Carbonate	None Detected
Coat		Non-Fibrous		95% Non-fibrous (Other)	
221803357-0016		Homogeneous			
			Inseparable paint / coating layer includ	ed in analysis	
1618H-R1-3F-Plaste	Textured Plaster	Gray		5% Ca Carbonate	None Detected
		Non-Fibrous		95% Non-fibrous (Other)	
221803357-0016A		Homogeneous			
1618H-R1-3G-Skim	Textured Plaster	Beige		100% Non-fibrous (Other)	None Detected
Coat		Non-Fibrous			
221803357-0017		Homogeneous			
1618H-R1-3G-Plast	Textured Plaster	Gray		100% Non-fibrous (Other)	None Detected
er		Non-Fibrous			
221803357-0017A		Homogeneous			
1618H-R9-4A-Textu	Hand Textured Drywall	Beige		15% Ca Carbonate	2% Chrysotil
e		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0018		Heterogeneous			
			Inseparable paint / coating layer includ	ed in analysis	
1618H-R9-4A-Dryw	Hand Textured Drywall	Beige	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0018A		Homogeneous			
4618H-R10-4B-Text	Hand Textured Drywall	White/Beige		98% Non-fibrous (Other)	2% Chrysotil
ıre		Non-Fibrous			
221803357-0019		Heterogeneous			
			Inseparable paint / coating layer includ	ed in analysis	
l618H-R10-4B-Dry	Hand Textured Drywall	White/Beige	20% Cellulose	65% Gypsum	None Detected
vall		Fibrous		15% Non-fibrous (Other)	
221803357-0019A		Homogeneous			
4618H-R6-4C-Textu	Hand Textured Drywall	White/Beige		15% Ca Carbonate	2% Chrysotil
е		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0020		Heterogeneous			
			Inseparable paint / coating layer includ	ed in analysis	

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-Asi	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-R6-4C-Dryw	Hand Textured Drywall	White/Beige	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0020A		Homogeneous			
4618H-R6-4Q-Textu	Hand Textured Drywall	White/Beige		15% Ca Carbonate	2% Chrysotile
re		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0021		Heterogeneous			
			Inseparable paint / coating layer include	d in analysis	
4618H-R6-4Q-Tape	Hand Textured Drywall	Brown	98% Cellulose	2% Non-fibrous (Other)	None Detected
221803357-0021A		Fibrous			
		Homogeneous			
4618H-R6-4Q-Joint	Hand Textured Drywall	White		15% Ca Carbonate	2% Chrysotile
Compound		Non-Fibrous		83% Non-fibrous (Other)	
221803357-0021B		Homogeneous			
			Inseparable paint / coating layer include	d in analysis	
4618H-R6-4Q-Dryw	Hand Textured Drywall	White	20% Cellulose	65% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0021C		Homogeneous			
1618H-R5-4D-Textu	Hand Textured Drywall	Beige		10% Ca Carbonate	2% Chrysotile
е		Non-Fibrous		88% Non-fibrous (Other)	
221803357-0022		Heterogeneous			
			Inseparable paint / coating layer include	d in analysis	
1618H-R5-4D-Dryw	Hand Textured Drywall	Brown/White	15% Cellulose	70% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0022A		Homogeneous			
618H-R1-4E-Textur	Hand Textured Drywall	Beige		10% Ca Carbonate	2% Chrysotile
:		Non-Fibrous		88% Non-fibrous (Other)	
221803357-0023		Heterogeneous			
			Inseparable paint / coating layer include	d in analysis	
618H-R1-4E-Dryw	Hand Textured Drywall	Brown/White	15% Cellulose	70% Gypsum	None Detected
all		Fibrous		15% Non-fibrous (Other)	
221803357-0023A		Homogeneous			

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-A	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-R2-5A-Linole	Linoleum	Gray/White	25% Cellulose	65% Non-fibrous (Other)	None Detected
um		Fibrous	10% Glass		
221803357-0024		Homogeneous			
4618H-R2-5A-Masti	Linoleum	Tan		100% Non-fibrous (Other)	None Detected
С		Non-Fibrous			
221803357-0024A		Homogeneous			
4618H-R2-5B-Linole	Linoleum	Gray/Beige	45% Cellulose	50% Non-fibrous (Other)	None Detected
um		Fibrous	5% Glass		
221803357-0025		Homogeneous			
4618H-R2-5B-Masti	Linoleum	Tan		100% Non-fibrous (Other)	None Detected
С		Non-Fibrous			
221803357-0025A		Homogeneous			
4618H-B-6A-Textur	Smooth Textured	White/Black		15% Ca Carbonate	None Detected
е	Drywall	Non-Fibrous		85% Non-fibrous (Other)	
221803357-0026		Heterogeneous			
			Inseparable paint / coating layer include	led in analysis	
4618H-B-6A-Tape	Smooth Textured	Yellow	98% Cellulose	2% Non-fibrous (Other)	None Detected
221803357-0026A	Drywall	Fibrous			
		Homogeneous			
4618H-B-6A-Joint	Smooth Textured	White		20% Ca Carbonate	None Detected
Compound	Drywall	Non-Fibrous		80% Non-fibrous (Other)	
221803357-0026B		Homogeneous			
4618H-B-6A-Drywa	Smooth Textured	White	20% Cellulose	65% Gypsum	None Detected
II	Drywall	Fibrous		15% Non-fibrous (Other)	
221803357-0026C		Homogeneous			
4618H-B-6B-Textur	Smooth Textured	White		20% Ca Carbonate	None Detected
e	Drywall	Non-Fibrous		80% Non-fibrous (Other)	
221803357-0027		Heterogeneous			
			Inseparable paint / coating layer include	led in analysis	
			· · · · · · · · · · · · · · · · · · ·		

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-As	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-B-6B-Tape 221803357-0027A	Smooth Textured Drywall	Yellow Non-Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
4618H-B-6B-Joint Compound 221803357-0027B	Smooth Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4618H-B-6B-Drywal I 221803357-0027C	Smooth Textured Drywall	White/Beige Fibrous Homogeneous	20% Cellulose	65% Gypsum 15% Non-fibrous (Other)	None Detected
4618H-B-6C-Joint Compound 221803357-0028	Smooth Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4618H-B-6C-Drywal I 221803357-0028A	Smooth Textured Drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4618H-B-7A 221803357-0029	Paper Barrier	Tan/Black Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
4618H-B-7B 221803357-0030	Paper Barrier	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
4618H-R6-8A 221803357-0031	Vent Wrap	Beige Fibrous Homogeneous	55% Cellulose	10% Non-fibrous (Other)	35% Chrysotile
4618H-R1-8B 221803357-0032	Vent Wrap	Green/Beige Fibrous Homogeneous	15% Cellulose	10% Non-fibrous (Other)	75% Chrysotile
4618H-S2-9A 221803357-0033	Stucco	Gray/Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

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Project: 18-3066-C70-AP-8 (CDOT)

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

			Non-A	<u>Asbestos</u> % Type	
Sample	Description	Appearance	% Fibrous % Non-Fibrous		
4618H-S2-9B 221803357-0034	Stucco	Gray/Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4618H-S2-9C 221803357-0035	Stucco	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4618H-HEX-10A 221803357-0036	Vapor Barrier	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (Other)	None Detected
4618H-HEX-10B 221803357-0037	Vapor Barrier	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (Other)	None Detected
4618H-S1-11A-Shin gle 221803357-0038	Shingle Siding	Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (Other)	None Detected
4618H-S1-11A-Mast ic 221803357-0038A	Shingle Siding	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4618H-S1-11B-Shin gle 221803357-0039	Shingle Siding	Gray/Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
4618H-S1-11B-Mast ic 221803357-0039A	Shingle Siding	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4618H-HEX-12A-Shi ngle 221803357-0040	Roofing	Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (Other)	None Detected
4618H-HEX-12A-Ma stic 221803357-0040A	Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

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



**Customer PO:** 

Project ID: CDOT

Collected Date: 05/10/2018

Attention: Logan Greenfield Phone: (719) 250-0036

All-Phase Environmental Consultants, Inc Fax: (719) 542-2807
721 West 9th Street Received Date: 05/14/2018 9:40 AM

Project: 18-3066-C70-AP-8 (CDOT)

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

Sample Desc	Description		Non-Asbestos		<u>Asbestos</u>
		Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-HEX-12A-Tar	Roofing	Black	20% Glass	80% Non-fibrous (Other)	None Detected
Felt		Fibrous			
221803357-0040B		Homogeneous			
4618H-HEX-12Q-Shi	Roofing	Black	8% Glass	92% Non-fibrous (Other)	None Detected
ngle		Fibrous			
221803357-0041		Homogeneous			
4618H-HEX-12Q-Ma	Roofing	Black		100% Non-fibrous (Other)	None Detected
stic		Non-Fibrous			
221803357-0041A		Homogeneous			
4618H-HEX-12Q-Tar	Roofing	Black	25% Glass	75% Non-fibrous (Other)	None Detected
Felt		Fibrous			
221803357-0041B		Homogeneous			
4618H-HEX-12B-Shi	Roofing	Black	10% Glass	90% Non-fibrous (Other)	None Detected
ngle		Fibrous			
221803357-0042		Homogeneous			
4618H-HEX-12B-Ma	Roofing	Black		100% Non-fibrous (Other)	None Detected
stic		Non-Fibrous			
221803357-0042A		Homogeneous			
4618H-HEX-12B-Tar	Roofing	Black	20% Glass	80% Non-fibrous (Other)	None Detected
Felt		Fibrous			
221803357-0042B		Homogeneous			

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

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



Customer PO:

Molly Elkins

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:** 05/14/2018 9:40 AM **Analysis Date:** 05/16/2018 - 05/18/2018

Collected Date: 05/10/2018

Project: 18-3066-C70-AP-8 (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.

atcett

#### **Report Comments:**

Sample Receipt Date: 05/14/2018 Sample Receipt Time: 9:40 AM

Analysis Completed Date: 05/18/2018 Analysis Completed Time: 1:36 PM

Analyst(s):

Gentry Catlett PLM (19)

Molly Elkins PLM (9)

Timothy Kleehammer PLM (60)

Samples Reviewed and approved by:

Amanda Lang, Asbestos Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

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

OrderID: 221803357



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

221803357

EMSL Analytical, Inc. 1010 Yuma Street

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

	_			<u> </u>		
Company : All-Phase Environm	ental Consu	ıltants, Inc.	EMSL-B If Bill to is Diff	ill to: Different lerent note instructions in Com		
Street: 721 W. 9th Street			Third Party Billing red	quires written authorization	n from third party	
City: Pueblo State/Province: CO		Zip/Postal Code: 81003 Country: United States				
Report To (Name): Logan Greer	ifield		Telephone #: 719-250-0036			
Email Address: logan@allphas	eenvironme	ental.com	Fax #:	Purchase C	order:	
Project Name/Number: 18-30	66- C70	-AP-8	Please Provide Results	FAX ✓ E-	mail Mail	
U.S. State Samples Taken: CO			Connecticut Samples: [		sidential	
, 			T) Options* – Please Che		1 (= 5	
3 Hour 6 Hour  *For TEM Air 3 hr through 6 hr, please c	24 Hour	48 Hour		36 Hour 📗 1 Week		
an authorization form for this ser						
PCM - Air Check if samples ar	e from NY	TEM - Air	4.5hr TAT (AHERA only)	TEM- Dust		
☐ NIOSH 7400		AHERA 40 C	FR, Part 763	☐ Microvac - ASTM	D 5755	
☐ w/ OSHA 8hr. TWA		□ NIOSH 7402		☐ Wipe - ASTM D64	80	
PLM - Bulk (reporting limit)		EPA Level !		☐ Carpet Sonication	(EPA 600/J-93/167)	
PLM EPA 600/R-93/116 (<1%)		☐ ISO 10312		Soil/Rock/Vermiculi	<u>te</u>	
☐ PLM EPA NOB (<1%)		TEM - Bulk		☐ PLM CARB 435 -	A (0.25% sensitivity)	
Point Count		☐ TEM EPA NO	В	☐ PLM CARB 435 -	B (0.1% sensitivity)	
Point Count ☐ 400 (<0.25%)  ☐ 1000 (<0.1%)		NYS NOB 198	8.4 (non-friable-NY)	☐ TEM CARB 435 - B (0.1% sensitivity)		
Point Count w/Gravimetric		Chatfield SOF	)	☐ TEM CARB 435 -	C (0.01% sensitivity)	
☐ 400 (<0.25%) ☐ 1000 (<0.1%)		☐ TEM Mass Ar	alysis-EPA 600 sec. 2.5	☐ TEM Qual, via Filt	ration Technique	
☐ NYS 198.1 (friable in NY)		TEM - Water: El	PA 100.2	TEM Qual, via Dro	p-Mount Technique	
NYS 198.6 NOB (non-friable-N	Y)	Fibers >10µm	☐ Waste ☐ Drinking	Other:		
☐ NIOSH 9002 (<1%)		All Fiber Sizes [	☐ Waste ☐ Drinking	Ī		
☐ Check For Positive Stop - Cle	early Identify	/ Homogenous G	roup   Filter Pore Size (/	Air Samples): 🔲 0.8	µm 🔲 0.45μm	
Samplers Name: Logan	_		Samplers Signature:	To st	111	
Jampiers Hame.	4, 60,0		Samplers Signature.	Volume/Area (Air)	Date/Time	
Sample #		Sample Description	on	HA # (Bulk)	Sampled	
4618H-RIO-1A	Textu	red Dry	vall	,	5-10-18	
4618H-R9-1B		ì				
4618H-RB-1C						
4618H-R5-1D		<del></del>				
4618H-RG-1E						
46184-RI-1F						
4618H-R2-1G						
4618H-R3-2A 5mg	ooth.	textured	Drywall		. 1	
Client Sample # (s):				Total # of Samples:	42	
Relinquished (Client):		Date:	,	Time	:	
Received (Lab):	<del>}</del>	Date:	5/14/18	Time E 49517364	9:40 am	
Comments/Special Instructions:	<i>u</i>				1 /	
			SMF.	E412136	14993 2/5	

Page 1 of <u>3</u> pages



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

EMSL Analytical, Inc. 1010 Yuma Street

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
4618H-R3-2B	Smooth textured Drywall		5-10-18
4618H-R3-2C	<b>√</b>		_ l
4618H-RIO-3A	Textured Plaster		
161BH-R9-3B			
4618H-R6-3C			
4618H-R6-3D			
4618H-R5-3E			
4618H-R1-3F			
4618H-R1-39	<u> </u>		
4618H-R9-4A	Hand textured Drywall		<u> </u>
4618H-R10-4B			
4618H-R6-4C	•		
46184-86-40			
4618H-R5-4D			
1618H-RI-4E	ullet		
1618H-R2-5A	Linoleum		
1618H-R2-5B			
1618H-B-6A	Smooth textured Drywall		
4618H-B-6B			
1618H-B-60	V		
1618H-B-7A	Paper Barrier		
1618H-B-7B	· V		
1618H-R4-8A	Paper Barrier  Vent Wrap  V		
1618H-RI-8B	√ · · · · · · · · · · · · · · · · · · ·		<b>V</b> —

Page 2 of 3 pages

OrderID: 221803357



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

EMSL Analytical, Inc. 1010 Yuma Street

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
1618H-52-9A	Stucco		5-10-18
1618H-52-9B	1.		
1618H-52-9c	V		
618H-HEX-10A	Vapor Barrier  Shingle Siding		
618H-HEX-10B			
1618H-51-11A	Shingle Siding		
14184-51-118			
1618H-HEX-12A	Roofing		
6184-HEX-12Q			
618H-HEX-12B			V
			<del> </del>
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			_
			1
	<del></del>		
*Comments/Special Instr	uctions:		

Page 3 of 3 pages



EMSL Order: 221805958 Customer ID: ALLP62

Customer PO: Project ID:

Attention: Logan Greenfield Phone: (719) 250-0036

All-Phase Environmental Consultants, Inc Fax: (719) 542-2807
721 West 9th Street Received Date: 08/02/2018 9:05 AM

Pueblo, CO 81003 Analysis Date: 08/03/2018 Collected Date: 08/02/2018

Project: 18-3066-CDOT-A-AP8

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

			Non-A	<u>Asbestos</u>	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
4618H-R5-8C	Vent Wrap	Tan/White		20% Non-fibrous (Other)	80% Chrysotile
221805958-0001		Fibrous			
		Homogeneous			

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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 or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Initial report from: 08/03/2018 12:27:59



manda Sang

EMSL Order: 221805958 Customer ID: ALLP62

Customer PO: Project ID:

Attention: Logan Greenfield Phone: (719) 250-0036

All-Phase Environmental Consultants, Inc Fax: (719) 542-2807
721 West 9th Street Received Date: 08/02/2018 9:05 AM

Pueblo, CO 81003 Analysis Date: 08/03/2018 Collected Date: 08/02/2018

Project: 18-3066-CDOT-A-AP8

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: 08/02/2018 Sample Receipt Time: 9:05 AM

Analysis Completed Date: 08/03/2018 Analysis Completed Time: 12:19 PM

Analyst(s):

Amanda Lang PLM (1)

Samples Reviewed and approved by:

Amanda Lang, Asbestos Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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 or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on

Initial report from: 08/03/2018 12:27:59





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

EMSL Analytical, Inc. 1010 Yuma Street

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

Company: All-Phase Environmental Consultants, Inc.			EMSL-Bill to: Different  Same If Bill to is Different note instructions in Comments**				
Street: 721 W. 9th Stree	et		Third Party Billing requires written authorization from third party				
City: Pueblo	Sta	te/Province: CO	Zip/Postal Code: 81003 Country: United States				
Report To (Name): Logar	n Greenfield		Telephone #: 719-250-0	036			
Email Address: logan@	allphaseenviror	nmental.com	Fax #:	Purchase C	order:		
Project Name/Number:/		<del>*</del>	Please Provide Results:	<del></del>			
U.S. State Samples Take			Connecticut Samples:		sidential		
			T) Options* – Please Che				
3 Hour 6 Hou			nium charge for 3 Hour TEM AH	6 Hour 1 Week			
an authorization form t	for this service. Anal	scriedule. There is a prei lysis completed in accorda	nium charge for 3 Hour TEM AH nce with EMSL's Terms and Con	cka or EPA Level II TAT.	tical Price Guide.		
PCM - Air	mples are from N	Y <u>TEM – Air</u> 4-	4.5hr TAT (AHERA only)	TEM- Dust			
☐ NIOSH 7400		☐ AHERA 40 C	FR, Part 763	☐ Microvac - ASTM	D 5755		
☐ w/ OSHA 8hr. TWA		NIOSH 7402		│ □ Wipe - ASTM D64	80		
PLM - Bulk (reporting lin		☐ EPA Level II		☐ Carpet Sonication	(EPA 600/J-93/167)		
PLM EPA 600/R-93/11	6 (<1%)	☐ ISO 10312		Soil/Rock/Vermiculi	<u>te</u>		
☐ PLM EPA NOB (<1%)		TEM - Bulk		☐ PLM CARB 435	A (0.25% sensitivity)		
Point Count		☐ TEM EPA NO	B	☐ PLM CARB 435 -	B (0.1% sensitivity)		
□ 400 (<0.25%) □ 1000	(<0.1%)	☐ NYS NOB 19	8,4 (non-friable-NY)	☐ TEM CARB 435 -	B (0.1% sensitivity)		
Point Count w/Gravimetric	<b>&gt;</b>	☐ Chatfield SOF	>	☐ TEM CARB 435 -	C (0.01% sensitivity)		
□ 400 (<0.25%) □ 1000	(<0.1%)	☐ TEM Mass Ar	nalysis-EPA 600 sec. 2.5	☐ TEM Qual. via Filtration Technique			
☐ NYS 198.1 (friable in f	NY)	TEM - Water: E	PA 100,2	☐ TEM Qual. via Drop-Mount Technique			
☐ NYS 198.6 NOB (non-	-friable-NY)	Fibers >10µm	☐ Waste ☐ Drinking	Other:			
☐ NIOSH 9002 (<1%)		All Fiber Sizes	☐ Waste ☐ Drinking	<del></del>			
☐ Check For Positive S	top – Clearly Ide	ntify Homogenous G	roup Filter Pore Size (A	Air Samples): 🔲 0.8	µm		
		0 . 1		1	1-10		
Samplers Name: Log	an aree	utield	Samplers Signature:	1 A	per		
Sample #		Sample Descripti	on	Volúme/Area (Air) 4 HA # (Bulk)	Date/Time Sampled		
4618H-R5-BC		Vent w			8-2-18		
701011- 13 00		Verel 10	Tap		D 2 10		
					_		
<u> </u>							
		_		}	}		
	_	•					
ļ <del>-</del>	<del>-</del>	<del></del> .	<del></del>				
Client Sample # (s):				Total # of Samples:			
Relinquished (Client):	Z_ A	Date	0 7 10		9:05		
Received (Lab):	/ /	T Date	-C1 /	Time			
Comments/Special Instr	uctions:		<u> </u>				
					W.I		

Page 1 of \_\_\_\_\_\_ pages

1

# LABORATORY RESULTS & CHAIN OF CUSTODY LEAD & TCLP



#### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077 (856) 303-2500 / (856) 786-5974

http://www.EMSL.com cinnaminsonleadlab@emsl.com EMSL Order: CustomerID: CustomerPO:

ProjectID:

201805190

ALLP62

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

(719) 225-6953 Phone: Fax: (719) 542-2807 Received: 05/14/18 10:30 AM

Collected: 5/10/2018

Project: 18-3066-C70-L-AP-8

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

Client Sample Desc	rivtion Lab ID Collected	Analyzed	Weight	Lead <b>Concentration</b>
-	1	•	- v	
4618H-1L	201805190-0001 5/10/2018	5/16/2018	0.2553 g	<0.0080 % wt
40401101	Site: R10- Gray	F/4.0/204.0	0.0544 =	.0.0000 0/+
4618H-2L	201805190-0002 5/10/2018	5/16/2018	0.2541 g	<0.0080 % wt
40401101	Site: R10- Lime Green	5/40/0040	0.0500	0.0000.0/1
4618H-3L	201805190-0003 5/10/2018	5/16/2018	0.2588 g	<0.0080 % wt
404011.41	Site: R10- Dark Blue	5/40/0040	0.0500	0.00.0/1
4618H-4L	201805190-0004 5/10/2018	5/16/2018	0.2598 g	0.38 % wt
	Site: R10- Mint Green	7/10/00/0		
4618H-5L	201805190-0005 5/10/2018	5/16/2018	0.2516 g	<0.0080 % wt
10101101	Site: R1- Gray W/Orange	5/40/0040	0.054=	0.0000.0/
4618H-6L	201805190-0006 5/10/2018	5/16/2018	0.2517 g	<0.0080 % wt
	Site: R8- White/Silver	7/10/00/0	2.221	
4618H-7L	201805190-0007 5/10/2018	5/16/2018	0.2011 g	<0.0099 % wt
	Site: R10/R8- Door- Brown			
4618H-8L	201805190-0008 5/10/2018	5/16/2018	0.2535 g	<0.0080 % wt
	Site: R2- Green			
4618H-9L	201805190-0009 5/10/2018	5/16/2018	0.2517 g	<0.0080 % wt
	Site: R10- White			
4618H-10L	201805190-0010 5/10/2018	5/16/2018	0.2530 g	0.31 % wt
	Site: R5- Pink			
4618H-11L	201805190-0011 5/10/2018	5/16/2018	0.2524 g	<0.0080 % wt
	Site: Basement- White			
4618H-12L	201805190-0012 5/10/2018	5/16/2018	0.2536 g	0.017 % wt
1	Site: Exterior- Maroon			
4618H-13L	201805190-0013 5/10/2018	5/16/2018	0.2531 g	<0.0080 % wt
	Site: Exterior- White			
4618H-14L	201805190-0014 5/10/2018	5/16/2018	0.2518 g	0.77 % wt
	Site: Exterior- Blue			
4618H-15L	201805190-0015 5/10/2018	5/16/2018	0.2555 g	0.78 % wt
	Site: Exterior- Purple			

Phillip Worby, Lead Laboratory Manager or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % 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. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 05/17/2018 10:21:30



#### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077 (856) 303-2500 / (856) 786-5974

http://www.EMSL.com cinnaminsonleadlab@emsl.com EMSL Order: CustomerID: 201805190

ALLP62

CustomerPO: ProjectID:

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

(719) 225-6953 Phone: Fax: (719) 542-2807 Received: 05/14/18 10:30 AM

Collected: 5/10/2018

Project: 18-3066-C70-L-AP-8

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

Client Sample Descriptio	n Lab ID	Collected	Analyzed	Weight	Lead <b>Concentration</b>
4618H-16L	201805190-0016	5/10/2018	5/16/2018	0.2534 g	<0.0080 % wt
	Site: Exterior- Bl	ack			

Phillip Worby, Lead Laboratory Manager or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % 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. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 05/17/2018 10:21:30

OrderID: 201805190



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

201805190

EMSL Analytical, Inc. 200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675 (856) 786-5974

Company : All-Phase Environmental Consultants, Inc.				EMSL-Bill to: ☑ Same ☐ Different  If Bill to is Different note instructions in Comments**				
Street: 721 W. 9th Street								
City:Pueblo		Province: CO	Third Party Billing requires written authorization from third party  Zip/Postal Code: 81003 Country: US					arty
Report To (Name): Richa		Tovilice. CO	-	ne #: 719-54			Jountry. 00	
		montal com		ie #: / 10 0	0 0070			
Email Address: rick@all			Fax #:	15.50/12/02/02			Purchase Order	
Project Name/Number: /	672	C70-L-AP-8		rovide Resu				
U.S. State Samples Take						ble 🗌	Residential/Tax	Exempt
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Air		NIOSH 7082		Flame Ator	nic Absorption	1	4 µg/filter	
		NIOSH 7105			Furnace AA		03 µg/filter	
		NIOSH 7300M/NIOS	SH 7303	ICF	P-OES		.5 µg/filter	Ē
Wipe* ASTM		SW846-70008	В	Flame Ator	nic Absorption	_	0 μg/wipe	
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TCLP		SW846-1311/7000B/S			nic Absorption		mg/L (ppm)	
			SW846-1311/SW846-6010B or C		ICP-OES		mg/L (ppm)	
SPLP		SW846-1312/7000B/SM 3111B SW846-1312/SW846-6010B or C		Flame Atomic Absorption ICP-OES			mg/L (ppm)	
		22 CCR App. II, 7000		Flame Atomic Absorption			0.1 mg/L (ppm) 40 mg/kg (ppm)	
TTLC		22 CCR App. II, SW846-6		ICP-OES		2 mg/kg (ppm)		
071.0		22 CCR App. II, 7000		Flame Atomic Absorption			mg/L (ppm)	F
STLC		22 CCR App. II, SW846-6		ICP-OES			mg/L (ppm)	
Soil		SW846-7000B		Flame Atomic Absorption		_	mg/kg (ppm)	
		SW846-6010B or C		ICP-OES		2 m	ng/kg (ppm)	
Wastewater Unpress		SM3111B/SW846-7000B		Flame Atomic Absorption		0.4	mg/L (ppm)	
Wastewater Unpress Preserved with HNO <sub>3</sub> pl		EPA 200.9			Furnace AA		3 mg/L (ppm)	
Treserved Warrings pr		EPA 200.7			P-OES		0 mg/L (ppm)	
Drinking Water Unpres	erved	EPA 200.8			P-MS	_	1 mg/L (ppm)	
Preserved with HNO <sub>3</sub> pl		EPA 200.9 EPA 200.5			Furnace AA P-OES	_	3 mg/L (ppm)	
		40 CFR Part 50		ICP-OES		_	0.003 mg/L (ppm) 12 µg/filter	
TSP/SPM Filter		40 CFR Part 50		Graphite Furnace AA			3.6 µg/filter	
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Controlled Document — COC-25 Lead (Pr	DI - 48- 1/(8/501)	Page 1 of	pages		2114/1	8-60		

OrderID: 201805190



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

201805190

EMSL Analytical, Inc. 200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675 FAX: (856) 786-5974

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

Sample #	Location	Volume/Area	Date/Time Sampled
4618H-3L	RIO - Dark Blue		5-10-18
4618H-4L	RIO - Mint Green	-	
4618H-5L	RI - Gray w/orange		
04618H-6L	R8 - White/silver		
4618H-7L	RID/R8 - Door - Brown		
4618H-BL	R2 - Green		
4618H-9L	RIO-White		
4618H-10L	R5-Pink		
4618H-11L	Basement - White		
4618H-12L	Exterior - maroon		
4618H-13L	Exterior - White	-	
46184-144	Exterior - Blue		
4618H-15L	Exterior - Purple		
4618H-16L	Exterior - Black		V
Comments/Spe	ecial Instructions:		

Page  $\underline{2}$  of  $\underline{2}$  pages



#### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856) 303-2500 / (856) 786-5974

http://www.EMSL.com cinnaminsonleadlab@emsl.com EMSL Order: CustomerID: 201805607

ALLP62

CustomerPO: ProjectID:

**Richard Ralston** 

All-Phase Environmental Consultants, Inc 721 West 9th Street

Pueblo, CO

Phone: (719) 225-6953 Fax: (719) 542-2807 Received: 05/23/18 2:55 PM Collected: 5/11/2018

Project: 18-3066-C70- T- AP- 14

#### Test Report: Toxicity Characteristic Leachate Procedure (1311/7000B)

				Lead
Client Sample Description	on Lab ID	Collected	Analyzed	Concentration
4617 / 4625-T	201805607-000	01 5/11/2018	5/29/2018	<0.40 mg/L
	Site: Entire 2 S	Structures		

Phillip Worby, Lead Laboratory Manager or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

Initial report from 05/29/2018 11:55:52

OrderID: 201805607



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

EMSL Analytical, Inc. 200 Route 130 North

201805607

Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

Company : All-Phase Environmental	Consultants, Inc.		to: Same Different	
Street: 721 W. 9th Street			es written authorization from third	narty
	/Province: CO	Zip/Postal Code: 81003	Country: US	party
Report To (Name): Richard Ralston		Telephone #: 719-545-037		
Email Address: rick@allphaseenviror	The state of the s	Fax #:	Purchase Orde	
Project Name/Number: 18 - 3066 -				r:
		Please Provide Results:		_
U.S. State Samples Taken: CO		Options* - Please Chec	al/Taxable 🗌 Residential/Ta	x Exempt
	4 Hour 48 Hour	72 Hour 96		2 Week
		's Terms and Conditions located		_ Z Week
Matrix	Method	Instrumen		Check
Chips 🗌 % by wt. 🔲 mg/cm² 🔲 ppm (mg/kg	SW846-7000B	Flame Atomic Abs	orption 0.01%	
Air	NIOSH 7082	Flame Atomic Abs	orption 4 µg/filter	
	NIOSH 7105	Graphite Furnaci		
	NIOSH 7300M/NIOSH		0.5 µg/filter	1 6
Wipe* ASTM	SW846-7000B	Flame Atomic Abs		
non ASTM non ASTM string non ASTM assumed	SW846-6010B or (	C ICP-OES	1.0 µg/wipe	
TCLP	SW846-1311/7000B/SM	3111B Flame Atomic Abs	orption 0.4 mg/L (ppm)	T T
	SW846-1311/SW846-601	0B or C ICP-OES	0.1 mg/L (ppm)	
SPLP	SW846-1312/7000B/SM	3111B Flame Atomic Abs	orption 0.4 mg/L (ppm)	
SI EI	SW846-1312/SW846-601	0B or C ICP-OES	0.1 mg/L (ppm)	
TTLC	22 CCR App. II, 7000B	77420 Flame Atomic Absorption	9 9 11 1	
	22 CCR App. II, SW846-601		2 mg/kg (ppm)	
STLC	22 CCR App. II, 7000B			
	22 CCR App. II, SW846-601		0.1 mg/L (ppm)	
Soil	SW846-7000B	Flame Atomic Abs		
	SW846-6010B or 0		2 mg/kg (ppm)	
Wastewater Unpreserved	SM3111B/SW846-70		3 (1-1-7)	
Preserved with HNO <sub>3</sub> pH < 2	EPA 200.9	Graphite Furnace	5 11 7	
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	
Drinking Water Unpreserved	EPA 200.8 EPA 200.9	ICP-MS Graphite Furnace	0.001 mg/L (ppm) e AA 0.003 mg/L (ppm)	
Preserved with HNO <sub>3</sub> pH < 2	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	
	40 CFR Part 50	ICP-OES	12 µg/filter	<del>                                      </del>
TSP/SPM Filter	40 CFR Part 50	Graphite Furnace		H
Other:				
Name of Sampler: Richano	RALSTON	Signature of Sampler:	Rhalsto	
Sample # Loca		Volume/Area	Date/Time	Sampled
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1617/4625-T Enfire 2	2 Structures	<u> </u>	3-71-	10
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		1 - 11		



# 6b. Asbestos Abatement Project Design



Industrial Hygiene, Safety & Environmental Services

(Version 1, 10/22/18)

# ASBESTOS ABATEMENT PROJECT DESIGN

#### SINGLE FAMILY RESIDENCE ABATEMENT PROJECT

#### 4618 N. HIGH STREET DENVER, COLORADO 80216

#### PREPARED FOR:

JKS Industries, LLC 747 Sheridan Blvd., #9A Lakewood, Colorado 80214

October 22, 2018

FEI Project Number: AS18207-8

Prepared By: Nicolas D. Vasquez, CDPHE Cert #22566 Foothills Environmental

> Foothills Environmental, Inc. 11099 W. 8<sup>th</sup> Ave. Lakewood, Colorado 80215 Phone: 303-232-2660

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APPENDIX A – Drawings

APPENDIX B – Certificates

#### 1.0 Scope of Work

#### 1.1 Materials Identified for Removal

The General Abatement Contractor (GAC) will be performing the removal of asbestos containing material(s) as indicated in the table below. This information was gathered from the inspection report prepared by All-Phase Environmental Consultants (APEC) dated August 16, 2018. A copy of the Inspection and this Project Design will be available onsite during the course of the project. The total amount of actual asbestos containing material to be removed is estimated to be greater than 160 sf/260 lf or the equivalent of a 55 gallon drum.

The following ACM was identified for removal prior to demolition:

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Lucation	NESHAP Classification	Estimated Quantity (Sq. ft.)
4618H-R10-1A	ROOM 10	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4618H-R9-1B	ROOM 9	TEXTURE 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good	TEXTURED	WALLS OF ROOMS 1.2.4.5.6.7.8.9.8.10	Classification RACM RACM RACM RACM RACM RACM RACM RACM	2214
4618H-R8-1C	ROOM 8	TEXTURE 3% CHRYSOTILE	PLM	Good	DRYWALL	CEILING OF ROOM 2	RACM	2214
4618H-R5-1D	ROOM 5	TEXTURE 2 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good			RACM	
4618H-R6-1E 4618H-R1-1F 4618H-R2-1G	ROOM 6 ROOM 1 ROOM 2		Homogeneo	us to Samples	4618H-R10-1A, 4618H	-R9-1B, 4618H-R8-10	8. 4618H-R5-1D	
4618H-R9-4A	ROOM 9	TEXTURE 2% CHRYSOTILE	PLM	Good	HAND TEXTURED DRYWALL		RACM RACM	
4618H-R10-4B	ROOM 10	TEXTURE 2% CHRYSOTILE	PLM	Good		100		
4618H-R6-4C	ROOM 6	TEXTURE 2% CHRYSOTILE	PLM	Good				
4618H-R6-4Q	ROOM 6	TEXTURE 2% CHRYSOTILE JOINT COMPOUND 2% CHRYSOTILE	PLM	Good		CEILINGS OF 1.4.5,6.7,8.9 & 10		915
4618H-R5-4D	ROOM 5	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4618H-R1-4E	ROOM 1	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4618H-R6-8A	ROOM 6	VENT WRAP 35%CHRYSOTILE	PLM	Good			RACM	
464811.04.00	ROOM 1	VENT WRAP 75%CHRYSOTILE	PLM	Good	VENT WRAP	SUPPLY DUCT REGISTERS	RACM	9
4618H-R1-8B	_	VENT WRAP	PLM	Good		-2450 81350	RACM	

Regulatory asbestos abatement notification and permit from the Colorado Department of Public Health and Environment (CDPHE) will be required for this project.

#### 1.2 Schedule

The following schedule has been proposed for the project. Phasing and dates are included in Section 1.3, Sequence of Work.

Project Start Date: November 26, 2018 Project Completion Date: December 7, 2018

#### 1.3 Sequence of Work

The following phasing plan has been developed for the abatement. This plan was submitted with the permit application which corresponds to the drawing attached in Appendix A.

• **Phase 1** Start: November 26, 2018 Finish: December 7, 2018

Abatement of textured drywall and vent wrap in all designated areas will be completed in one full containment.

#### 1.4 Discussion of Removal Methods

All friable and non-friable asbestos-containing materials that will become friable, as well as asbestos contaminated materials that are located in the work area shall be removed from their installed locations inside a full containment and by utilizing wet removal methods and a combination of handheld tools.

Waste generated during removal will be gathered placed into 2 6ml thick properly labeled disposal bags while wet. Work will be accomplished using CDPHE certified supervisors and workers.

Work completion includes preparation of the work area, pre-clean activities, removal and disposal of all specified ACM from the premises, final cleaning of the work area, final visual inspection, lockdown, and final clearance monitoring. The project will be considered complete when all containments and work areas have passed clearance criteria.

The following types of containments will be used during the project followed by procedures for setup and dismantling:

#### **Full Containments**

The GAC shall conduct abatement activities in accordance with CDPHE Regulation No. 8 in the following mandatory sequence for full containment:

- 1) Install critical barriers (pursuant to subsection III.I, Critical Barrier Installation)
- 2) Establish negative pressure (pursuant to Regulation No. 8 subsection III.J, Air Cleaning and Negative Pressure Requirements)

*Note:* The removal of non-ACM building materials and components may only take place after negative air pressure is established in the containment work area(s).

- 3) Construct the decontamination area (pursuant to subsection III.K, Decontamination Area)
- 4) Pre-clean surfaces (pursuant to subsection III.L, Pre-cleaning of Surfaces)
- 5) Cover fixed objects (pursuant to subsection III.M, Covering Fixed Objects)

- 6) Construct the containment (pursuant to subsection III.N, Containment Components)
- 7) Conduct abatement (pursuant to subsection III.O, Abatement Methods)
- 8) Conduct final visual inspection (pursuant to paragraph III.P.1., Final Visual Inspection)
- 9) Conduct final clearance air monitoring (pursuant to paragraph III.P.3., Final Clearance Air Monitoring)
- 10) Conduct the tear-down (pursuant to subsection III.Q., Tear-down)

All waste from the project will be packaged in approved containers and transferred to an approved landfill for disposal. After successful air clearance of each containment the containment can be removed and all non-reusable containment materials will be packaged for disposal. Only visual clearance will be required to verify complete removal of window glazing compound.

#### 2.0 Special Conditions

#### 2.1 Regulatory Notification and Variances

The General Abatement Contractor, (GAC) will make any required notifications to Federal and State entities regulating their work as required by applicable rules, regulations, and standards. This includes, but is not limited, to the National Emission Standards for Hazardous Air Pollutants (NESHAP) notification [notice provided to the Colorado Department of Public Health and Environment (CDPHE) with permit application]. *The abatement contractor is responsible for quantifying amounts of ACM necessary to properly complete the project.* 

#### 2.2 Project Manager Requirement

Colorado Regulation No. 8 requires a Project Manager on all asbestos abatement projects in which the amount of friable ACM to be abated exceeds 1,000 linear feet on pipes, or 3,000 square feet on other surfaces. A Project Manager may be required for this project, unless a waiver is requested and granted by CDPHE.

#### 2.3 Facility Occupancy Status

During abatement activities the building will not be occupied by the former tenants but may be visited by owner personnel as well as other tradesmen.

#### 2.4 Site Security

Entry to the regulated asbestos work area is by permission only to authorized personnel. The perimeter of the work area may be monitored during abatement by a certified Air Monitoring Specialist (AMS). Only asbestos certified/licensed personnel employed by the GAC or federal or state regulatory agency personnel and the AMS will be allowed access to the work area. A logbook will be maintained at the entrance to the work area. Everyone who enters the work area must record name, affiliation, time in and time out for each entry.

#### 2.5 Field Changes

Minor modifications to the project design are allowed. Minor changes include but are not limited to, relocation of negative air machines, decontamination facility and waste load-out.

Any modifications to the project design must be approved by the Project Designer before the changes are made.

#### 3.0 Project Design

#### 3.1 Standards and Primacy of Rules

The following standards will be adopted as they pertain to asbestos abatement. In any instance where adopted standards are in conflict with each other, the most stringent shall apply.

- 1) Colorado Department of Public Health and Environment Regulation #8
- 2) 5CCR 1000-10 Part B asbestos handling, transportation, and storage
- 3) 29 CFR 1926.1101, the OSHA Construction Industry Asbestos Standard
- 4) 40 CFR 61 Subpart M, EPA's NESHAP Asbestos Standard
- 5) NIOSH/OSHA/EPA –"Occupational; Safety & Health Guidance Manual for Hazardous Waste Site Activities", Section 8-20; Heat Stress and Other Physiological Factors.
- 6) All other applicable laws, rules, and regulations, including but not limited to those relating to:
- 7 Workers' Compensation Insurance;
- 8 Liability Insurance
- 9 All contract specifications and documentation

#### 3.2 Site Access

The GAC has access to the facility for the purpose of abatement from 6:30 AM to 5:00 PM until project completion which is projected to be 12/7/18.

#### 3.3 Utilities Service

Access to electrical power, water and sanitary sewer is not available inside the facility. The contractor will provide utility services during the duration of the project. Any temporary utility lines running to the regulated asbestos work area shall be adequately protected from damage and abrasion from vehicle and foot traffic. All waste water shall be filtered to five (5) microns prior to discharge into a sanitary sewer.

GAC will have to provide temporary restrooms located close to the project site at approved locations for the duration of the project (to be placed in a protected area if possible).

#### 3.4 Decontamination Facilities & Load-Out Facilities

Personnel decontamination facilities shall consist of an Equipment (Dirty) Room, Shower, and a clean room constructed in accordance with Regulation #8 III.K Decontamination Unit. If waste load out is by direct load out, it shall consist of a direct waste loadout configuration that is currently approved by CDPHE (Configuration diagram approved by CDPHE shall be attached to this Project Design if used).

All load-out and disposal procedures shall be in accordance with applicable federal, state, and local regulations and project specifications.

#### 3.5 Critical Barriers

All critical barriers will consist of a minimum 1 layer of 6mil poly critical barrier on all, openings, and vents.

#### 3.6 Negative Pressure Ventilation

The GAC shall maintain a negative pressure differential of -0.02 inches of water in the work areas in accordance with Regulation #8 III.J Air cleaning and Negative Pressure Requirements, until final visual and clearance air monitoring complete. The calculations in the next section take into account at least 1 backup Negative Air Machine (NAM) with HEPA filtration. The contractor will also be using generators for maintaining electrical supply. In the case of generator failure, all workers will leave the work area and seal the containment. A replacement generator will be available onsite or within an hour's time of the project for use in case of failure. Work will resume when negative pressure is restored. If negative pressure is not restored within an hour's time alternate means of electrical supply will be sought. If no supply is available, contractor will contact CDPHE and follow directions for spill response.

#### 3.7 Air Exchange Calculations

AIR CHANGE CALCULATIONS for a 2000 cfm negative air machine (NAM)

AIR CHANGESAWhere: 
$$A = Work$$
 area volume in cubic feet  $(l \times w \times h)$  $B \times C$  $B = 15$  minutes $B \times C$  $C = Estimated$  rated capacity of NAM  $(1,500 \text{ cfm})$ 

#### Phase 1 – Textured Drywall and Vent Wrap (Full Containment)

#### 3.8 Containment Construction

Containments for the asbestos removal shall be constructed in accordance with CDPHE Regulation 8 and this project design. Danger signs will be posted at ingress locations, and approaches to locations, where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the PEL. Signs will be posted at a distance sufficiently far from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace containment barriers.

Danger signs will include the following wording:

# DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

#### 3.9 Set up of work areas

#### **Full Containment Components**

2"x 4"s wood studding can be used as temporary framing and 4'x 8'x1/2" plywood sheets to support any exterior containment systems; this may include tie wires also where needed. 1 layer of 10 mil re-enforced poly sheeting will be utilized for any exterior critical barriers, negative air machines will be installed once the poly sheeting is installed. A full 3 stage decontamination unit equipped with hot and cold water, shampoo, disposable towels, and a 2 stage water filtration unit filter all water to 5 micron, prior to being discharged into the sanitary sewer system. Two layers of 4 mil poly sheeting will be installed within the 10 mill critical poly sheeting barriers as exterior walls and ceiling if needed. 2 layers of 6 mill poly sheeting will be placed on floors. View ports will be installed where appropriate with a minimum of 12" x 12" Plexi<sup>TM</sup> glass and or exterior windows.

Air flow testing utilizing smoke tubes will be performed to validate air flow direction and air exchanges.

#### **Pre-Cleaning Activities**

Pre-cleaning activities will be performed in accordance with CDPHE Regulation 8. All workers performing pre-cleaning must utilize HEPA equipped vacuums and wet methods. Any prepping activities that will contact non-friable ACM, or be within arms' reach of friable ACM must be accomplished by workers utilizing PPE.

#### 3.10 Asbestos Removal

Removal of materials containing asbestos and contaminated with asbestos shall be performed in accordance with the Colorado Department of Public Health and Environment Regulation 8 III, Abatement, Renovation and Demolition Projects and this project design.

#### 3.11 Asbestos Spill Response

In the event of a spill or a breach of the regulated work area containment, follow procedures in Section III.T. of Regulation No. 8, which includes cleaning the area outside the regulated work area. Visible debris shall be cleaned utilizing <u>HEPA vacuuming</u> and wet wiping plus an additional 10 horizontal feet beyond the visible debris. All filters, mop heads, and cloths utilized during clean-up activities shall disposed of as asbestos contaminated waste in leak tight containers.

The GAC shall have available, equipment and supplies (HEPA filtered vacuum, airless sprayer with amended water, mops, rags, polyethylene sheeting, duct tape, caution tape...) for spill response in the event of accidental spill of materials containing asbestos.

In the event of an asbestos spill outside the work area containment the GAC shall:

- Make appropriate notices based on size of spill.
- Immediately wet the spilled material and surrounding area with the airless sprayer.
- Restrict access to the spill area and post warning signs to prevent entry to the area by persons other than those necessary to respond to the incident.
- Seal all openings between the contaminated and uncontaminated areas as directed by the asbestos consultant. This is to be accomplished by using polyethylene sheeting and tape.
- HEPA vacuum and wet clean all surfaces in the contaminated area.

Following completion of the above, the on sight Air Monitoring Specialist shall conduct a visual assessment of the spill area to confirm adequate cleaning has been accomplished by the GAC.

#### 3.12 Asbestos Waste Transportation, Storage, and Disposal

All ACM waste must be wrapped in two layers of 6 mil polyethylene sheeting or double-bagged in 6 mil polyethylene bags labeled with the appropriate OSHA label for asbestos and must also bear the generator label as required by EPA's 40 CFR 61 Subpart M NESHAP Standard. Containerizing and transport of asbestos wastes shall be in accordance with applicable federal and state regulations.

The existing installed building finishes, hardscaping and landscaping shall be protected from damage by the GAC, until completion of all works.

Safety scaffolding, rubbish skips, access ladders etc. shall be approved by the client and in accordance with the current Health and Safety regulations.

GAC workers will not drag or drop packaged waste. All waste equipment and materials will be hand carried, or transported in wheeled carts to waste transport vehicles.

All packaged asbestos waste shall be directly loaded from the work area onto a 6mil polyethylene lined enclosed truck or dumpster container for disposal. No waste material may be temporally stored in the building or the work area containment.

#### Waste Disposal:

All waste containers shall be transported from the permitted work areas to an approved disposal land fill by the GAC (Denver Aurora Disposal Site).

#### **Waste Transporter:**

By 5280 Waste Solutions.

#### 3.13 Final Clean/Final Visual Inspection Criteria

All interior surfaces of the work area will be free of visible dust and debris. The work area must pass a final visual inspection by a CDPHE Certified Air Monitoring Specialist (AMS) leaving only critical barriers in place.

#### 3.14 Final Air Clearance Monitoring

Clearance criteria for this containment shall be in accordance with CDPHE Regulation #8, Section III.P

For each work area within the project	State-Permitted Project in Non-School Building		
where the amount of ACM is:	Minimum # of samples to clear each of the following:		
	Work Area	Project	
Less than 3 square feet/3 linear feet	1	5	
From 3 square feet/3 linear feet up to 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum	2	5	
Greater than 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum up to 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5	
Greater than 160 square feet/260 linear feet/volume equivalent of a 55- gallon drum	5	5	

Upon notification that clearance monitoring levels are acceptable, the GAC may remove critical barriers and demobilize from the work area. If any samples collected for the final air test exceeds (0.01 fibers per cubic centimeter, 0.01 f/cm³ for PCM using the NIOSH Method 7400 or 70 structures per square millimeter (70 s/mm²) as analyzed by the TEM method in 40 C.F.R. Part 763 Appendix A to Subpart E (EPA 1995) the entire work area shall be re-cleaned immediately upon receipt of air test results.

Any failed abatement work area shall be re-tested and the costs associated for additional Final Clearance Air Monitoring shall be borne by the GAC at no additional cost to the Owner.

#### 3.15 Personal Exposure Air Monitoring

The GAC shall be responsible for conducting personal exposure air-monitoring as applicable in accordance with OSHA 29 CFR 1926.1101 Asbestos Construction Standard. Contractor to supply results to personnel and will post results onsite.

#### 3.16 Electrical Hazards Control

All electrical power utilized during the project will be on ground fault circuit interrupters (GFCI) whose power source is located outside the work area.

#### 3.17 Emergency Egress and Fire Protection

The abatement contractor shall abide by the emergency egress rules for the facility. All contractor personnel shall receive emergency procedure orientation specific to the facility prior to initiation of abatement activities.

#### 3.18 Fire Protection Plan

- 1. No items capable of initiating or sustaining combustion (lighters, matches, torches, etc.) will be allowed in containment.
- 2. The use of flammable liquids is not permitted.
- 3. Any electricity utilized must be on Ground Fault Circuit Interrupters (GFCI).
- 4. A minimum of one, 2A: 20B: C rated fire extinguishers will be maintained on-site. There must be available at least one 2A: 20B: C rated fire extinguisher within a maximum travel distance of 10 feet from any point in the work area.

- 5. Workers will be trained in the use of fire extinguishers, emergency egress plans, basic fire safety, and emergency reporting procedures prior to work beginning.
- 6. All emergency exits will be labeled as such with tools available for breaching poly and keys in door locks where necessary.
- 7. The Contractor must implement an emergency action and fire prevention plan in accordance with 29 CFR 1910.38 Employee emergency plans and fire prevention plans.

#### 3.19 Fall Protection

The GAC shall provide proper fall protection and training for their employees when working above 6 feet of height in accordance with Occupational Safety and Health Administration 29 CFR Part 1926 Subpart M Fall Protection.

#### 3.20 Respiratory Protection / PPE

The GAC shall provide proper respiratory protection for their employees with NIOSH approved HEPA filters during all pre-clean, abatement removal, waste load out procedures and during waste lift operations for effected employees. The GAC shall provide proof of medical fitness to wear respiratory protection and current fit testing documentation for all employees.

#### 3.21 Work Area Protection

The GAC shall repair or replace, to the Owner's satisfaction, any damage caused by the GAC or GAC subcontractors, to existing finishes, landscaping, or other building components.

#### 3.22 Additional PPE

- Hooded Tyvek suits
- Safety Glasses with side shields (exception not required when wearing a full face respirator).
- Leather Gloves
- Safety toe boots
- Fall Protection as required.
- PPE per MSDS / SDS requirements.

#### 3.23 Pre-Abatement Document Submittal

The GAC shall provide the following submittals to the Owner's Asbestos Competent Person / Safety Department for approval prior to site mobilization.

- ✓ Copies of all worker AHERA / STATE certifications.
- ✓ Copies of all worker asbestos medical evaluations.
- ✓ Copies of all worker respirator fit tests.
- Copies of MSDS for all chemicals (spray-glue, encapsulant, surfactant etc.) that will be used
- ✓ Asbestos waste receipt / total.

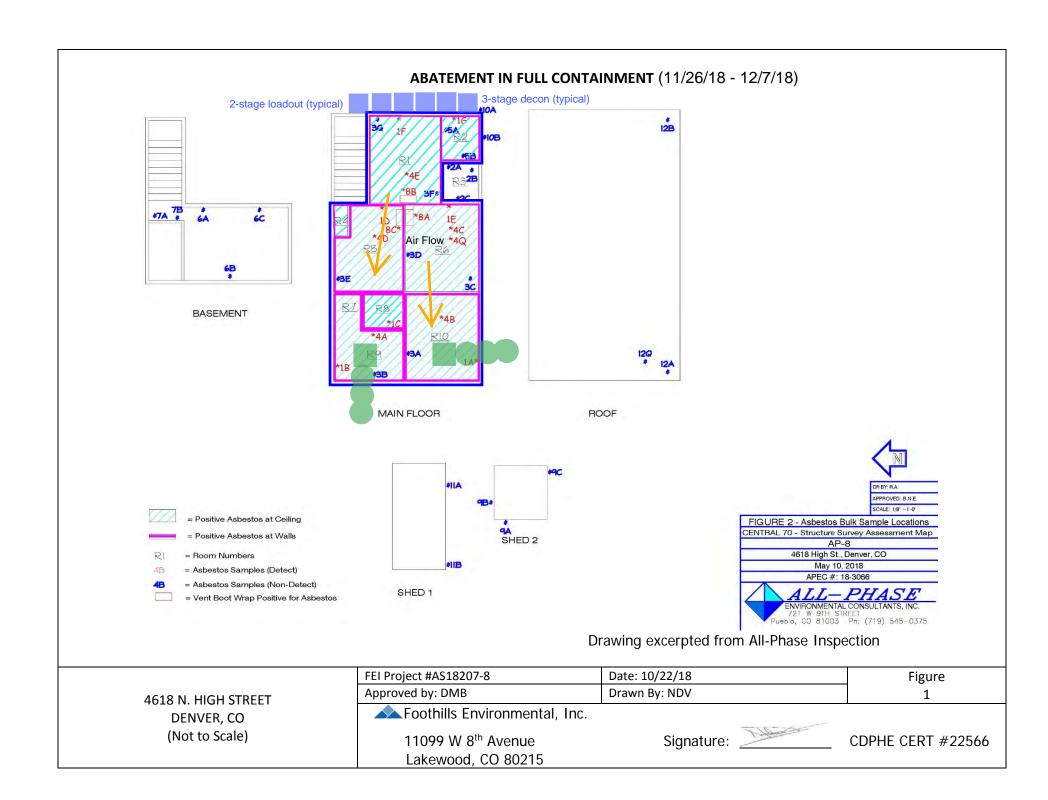
#### Completed by:

Nicolas D. Vasquez CDPHE Asbestos Project Designer Certificate # 22566

Foothills Environmental Asbestos Consulting Firm CDPHE Registration # 14925

# Appendix A

Drawings



Appendix B

Certificates





Colorado Department of Public Health and Environment

# ASBESTOS CERTIFICATION\*

This certifies that

### Nicolas Vasquez

**Certification No.: 22566** 

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:

## **Project Designer\***

Issued:

February 08, 2018

**Expires:** 

February 08, 2019

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

Authorized APCD Representative



# CHC Training Nationwide Training & Certification Experts

www.trainingchc.com 303.412.6360 (855) 60.CERTIFY 1775 West 55th Avenue Denver, CO 80221, United States of America

# CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:

# NICOLAS VASQUEZ

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training course under section 206 of the Toxic Substance Control Act (TSCA) and Colorado Regulation No. 8 entitled

### PROJECT DESIGNER

**COURSE DATE:** 

**EXPIRATION DATE:** 

Course Hours:

DECEMBER 21, 2017
DECEMBER 21, 2018

8.0

Verify Credential



Danaya N. Benedetto

Co-Founder & CEO Training Program Manager

Credential License ID: 11084750



Frank Hulce

Instructor

CHC Training Certificate No. R17-2200-APD-CO

Visit our Website





6c. Pre-Demolition Engineering Survey



# Pre-Demolition Survey And General Demolition Plan For 4618 High Street Denver, CO 80216



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

July 6, 2018 Project No: 180113



July 6, 2018

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

Re:

4618 High Street, Denver, CO 80216

Pre-Demolition Engineering Survey per OSHA 1926.850(a)

And General Demolition Plan

Date of Observation:

07/03/18

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, July 3, 2018.

For the purpose of this report, there are four buildings on the property. The front elevation of the residence faces west and is parallel to High Street. There are three additional structures on the property. 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.
    - <u>Project Specific Applicability:</u> 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. <u>OSHA 1926.85(b):</u> 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.
    - <u>Project Specific Applicability:</u> 4618 High 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. <u>OSHA 1926.850(c):</u> 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.

<u>Project Specific Applicability:</u> 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. <u>OSHA 1926.850(d):</u> If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.

<u>Project Specific Applicability:</u> The demolition of 4618 High Street, Denver, CO 80216 does not require any power, water or other utilities.

e. <u>OSHA 1926.850(e)</u>: 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.

<u>Project Specific Applicability:</u> 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.

<u>Project Specific Applicability:</u> All hazards from fragmentation of glass shall be removed in the normal course of demolition.

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

<u>Project Specific Applicability:</u> 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.

<u>Project Specific Applicability:</u> 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.

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

OSHA 1926.850(i): 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.

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



j. <u>1926.850(k)</u>: 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.

<u>Project Specific Applicability:</u> 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 partial basement with an assumed rubble or masonry foundation walls and an assumed concrete slab on grade floor. The residence is approximately 42'x24' with the long direction oriented east to west. The roof and floor framing is assumed to be composed of dimension lumber framing. The exterior walls are multi-wythe masonry. Near the northwest corner of the property is a 37'x25' metal arch-style building with the long direction oriented east to west. It has a concrete foundation and slab on grade floor. On the east side of the metal building along the north property line is a 11'x25' wood framed shed. Further east on the property is an approximately 11'x11' structure. It appears to have wood framed rafters and floor joist. The exterior walls are constructed of hay bales coated in mud. The foundation appears to be concrete piers with masonry around the perimeter of the building.

#### **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. Two utility poles were observed along the south property line. A marker indicating a gas line was observed near the southwest portion of the property.



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 east or west sides of the building and proceeding thru the length of the building in the east/west direction. Do not drive equipment onto the footprint of the building until the structure has been collapsed. The additional structures may be demolished starting from the east or west sides of the structures and proceeding through the structures in the east/west direction. 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.

Reviewed By:

33278

Glen L. Wilson, E.I. Design Engineer

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

Principal



7. Asbestos Clearance Report



November 2, 2018

#### Air Monitoring Clearance (Asbestos-)

Re: AP-8, 4618 High Street Denver, Colorado

To Whom It May Concern:

On, November 2, 2018, Richard L. Ralston, Colorado Certified Asbestos Building Inspector and Colorado Air Monitoring Specialist with All-Phase Environmental Consultants, Inc. (APEC), conducted Air Monitoring clearances at the above referenced Subject Property. A visual inspection and air samples were collected inside the abatement containment to ensure that the asbestos fiber counts are below the regulated standard to guarantee this area is safe to re-occupy.

The Containment Air clearance consisted of five (5) 0.08um sampling cassettes, five (5) 1-16 liter per minute pumps, along with Two (2) 20 inch box fans and a one horse power leave blower all used to perform an aggressive clearance of the containment.

Microscopic inspection of the above mentioned five samples were conducted in the All Phase Environmental PCM laboratory. This inspection verified that ALL the samples taken were at or below 0.01 fiber per cubic centimeter as required by the Colorado Department of Public Health and Environmental standard.

All-Phase Environmental is an approved and certified Colorado Department of Public Health and Environment asbestos laboratory.

<u>Based on the visual inspection and the analytical results, the area(s) that was tested is considered safe</u> to re-occupy.

APEC will not be held responsible for the mishandling of the information contained herein, and/or any items found after November 2, 2018.

Please feel free to call with any questions and or concerns.

Sincerely,

Richard L. Ralston

Colorado Certified Asbestos Inspector - 4261

Colorado Certified AMS - 4261

Kutaul Kalstor



APEC Project No.:

Customer ID:

721 W. 9th Street Pueblo, CO 81003

http://www.allphaseenvironmental.com

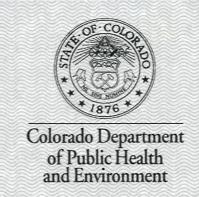
AIHA 214132/CDPHE AL-15979

, ,, -	<u> </u>						
Attn:			Phone:				
			Email:				
			Received:				
			Analysis Date:				
Customer Project	Ref.:		Sample Date:				
Sample ID	Location	Volume (Liters)	Fibers	Fields	Fibers/mm <sup>2</sup>	Fibers/cc	Type of Sample
The results reported h	nave been blank corrected	as applicable.					
	Contrast by Phase Contrac		NIOSH 7400 Method,	Revision 3, Iss	ue 2, 8/15/94		
۸ م ار رماد (م)			Kuthan	e Ka	lator		
Analyst(s)		_	Richard Ralston			1	
			Michard Maiston	Laboratory	DIECTOI		

or other approved signatory

Samples were anlayzed in accordance with NIOSH 7400 or OSHA ID-160 Methods by analysts successfully participating in the AIHA PAT program. APEC maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by APEC. APEC bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The Client assumes full and complete responsibility for all uses and/or application sof this report. APEC makes no guarantee as to the nature or accuracy of sample collection. APEC is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Samples analyzed by APEC, Pueblo, CO.



#### ASBESTOS LABORATORY

This certifies that

#### All Phase Environmental Consultants, Inc.

Registration No.: AL - 24462

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos laboratory testing activities, as required by Regulation No 8, Part B, in the state of Colorado.

Issued: April 20, 2018 Expires: April 20, 2019

Authorized APCD Representative

SEAL



### 8. Materials Summary



December 26, 2018

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

RE: AP-8 4618 High Street - Summary of Removed Materials

Dear Jenn,

Below is a summary of the materials removed from 4618 High St. Denver, CO 80216. For more details regarding the location of the Asbestos Containing Materials (ACM) and the asbestos content please refer to the Table 2 of the All-Phase Environmental SSAR (16).

Material Removed	Quantity
Asbestos Containing Textured Drywall	3,129 SF
Asbestos Containing Paper Duct Wrap	9 SF
Regulated Building Materials	7 light bulbs, 2 gallons of latex paint
Clean Demolition Debris	579,600 lbs
Recycled Concrete	145,800 lbs
Recycled Metals (Steel and Copper, unsegregated)	3,200 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



#### 9. Waste Manifests



#### 9a. Asbestos Waste Manifests

#### ASBESTOS NESHAP WASTE SHIPMENT RECORD AP-8

A	1. Generator ID Number	2. Page 1 of 3. Eme	rgency Response Phone 800-424-9300	4. Waste Track	2220021
Ш	5. Generator's Name and Mailing Address	Genera	ator's Project Address (if different	ent than mailing add	
	Colorado Department of Transportition 747 Shendan Bivd # 9A iakewood CO 50214 Generalors Phone: 303-512-5900 (720)	402-4410	4618 High St Denver CO St	5216	
Ш	6. Transporter 1: Complete Company Name and Address				Transporter Phone
	7. Transporter 2: Complete Company Name and Address	VD Ave 1	Jenver (O 80	221	730 884/0500 Transporter Phone
П	Designated Disposal Facility Name and Site Address			Facility's Phone	
	8. Designated Disposal Facility Name and Site Address	876-2620		, admity a 1 mone	
	9. Waste Shipping Name, Description, & Profile Number		10. Containers No. Type		2. Unit Vt./Vol.
GENERATOR -	1. RQ, NA 2212, Asbestos, 9,PG III	126 <b>47</b> 500	9	30 jd	NONE
- GENE	2.				
	13. Regulatory Agency: Colorado Department of Public Health and 4300 Cherry Creek Drive South Denver, CO 80222-1530	Environment	CH	mergency No EMTREC (80 -hour Toll Fr	0) 424-9300
	14. Bill to & Account Number:				
	Customer Acct #: D 14925 Customer Name	e: JKS Indust	les		
	<ul> <li>15. Contractor/Generator Certification:</li> <li>I hereby declare that the contents of this consignment are fully and a packaged, marked and labeled/ placarded, and are in all respects in pand state governmental regulations.</li> <li>I hereby certify that the above described waste is not a hazardous was quantities of PCB's or radioactive materials.</li> </ul>	proper condition for	or transportation and dis	sposal accordin	g to applicable national
	Generator's/Offeror's Printed/Typed Name	Signature			Month Day Year
A	Jenn Bradtmueller	98	t		
		on	behalf of	CDOT	10/24/18
TER	16. Transporter Acknowledgement of Receipt of Materials				
TRANSPORTER	Transporter 1 Printed/Typed Name	Signature	31		Month Day Year
INSF	Transporter 2 Printed/Typed Name	Signature	/		Month Day Year
TRA		Oignature			Day teal
A	17. Special Handling Instructions				
Î	Soil originating from the above site shall not be used as daily co	ver or sold as c	ean fill.		
DESIGNATED FACILITY	18. Discrepancy Indication Space:				19. Ticket # 3 3 3 9 0 7
ATE	Initials of Person noting discrepancy Signature				5.0
ESIGN	Initials of Person noting discrepancy Signature  20. Management Method/Location				Date
0	Landfill Monofill Locati				
	21. Designated Disposal Facility Owner or Operator: Certification of receipt of materials covered	-	t as noted in Item 18		Manth Day Von
Y	Mark Cake	Signature			IIII 6 18



## 9b. Regulated Building Materials (RBMs) Waste Manifests

WASTE	BILL OF	LADING 8	CERTIFICATE OF RECY	CLING				P/U Fees: \$25_\$30_\$40_\$45_\$55_	BOL#:	2720
	Universal		4' Jumbo4' Box8' Jum					\$65\$75\$85\$95\$105	DOLII.	2,20
	TSCA Was		HID Box Battery Box					\$115\$125\$135\$145\$155_		
	Special W	aste	14-G PD 30-G PD 55-0	S PD CY Bx				Labor Charges: \$	Shipment	Date:
Generato Name:	r Of Waste:	1	95-G PD 55-G SD 85-G	SD GL Box		Bill To:	KSIRS	Off Spec. Charge: \$	111	1/10
						Name:	KS Inc	dustries	1.1	4/10
Address:					/	Address:	47 Sherdi	an Bld.		
City, State	e, Zip:					City, State	Zip: Lakeuna	od (0. 802141	Emergen	icy Contact
Contact:					-	Contact:	CEF KNI	. 1		
Phone:			Fax:		F	Phone:		Fex:		31-2149 sion 4
PO#			Job#		F	PO#	1-407-4410	Job#		
WACTED	ROKERAG	E FACILITY						000#		
	R8E, LLO					EPA IU#	: COR000231449	y For Universal Waste		
		wport Stre	et				The state of the s	ndler of Universal Waste		
	Commerce		Colorado 80033-2244				A STATE OF THE PARTY OF THE PAR	Transporter/Transfer Facility		
			f) 303-424-9193					ter/Transfer Facility		
		ike@R8Ei			ı	US DOT #	050108 550 051Q			
	www.R8Er	viro.com					1781660 CO	TSCA - EPA Approved PCB Handler		
Conta		Was	ste Common Name				DOT Description	-	Total	Unit / Wt.
Odunt	Туре		R FLUORESCENT LAMP/S RE	CYCLING	,	Non-DOT	DOT Description Regulated (per 49 Cl	ER 173 164(e))	Quantity	Volume
2	CI	The second of the	FLUORESCENT LAMP/S REC				Regulated (per 49 Cl		10	20
			JORESCENT LAMP/S RECYCLING				Regulated (per 49 Cl		100	VII.
		A TOTAL OF STREET	FLUORESCENT LAMP/S RECYCL				Regulated (per 49 Cl			
	CF	COMPACT	FLUORESCENT LAMP/S RECYCL	NG	1	Non-DOT	Regulated (per 49 CF	FR 173.164(e))	49	ON
		HID MERCU	JRY/HALIDE/SODIUM LAMP/S REC	CYCLING		-	Regulated (per 49 CF		24	00
			ATED/GROOVED LAMP/S RECYC	LING	1	Non-DOT	Regulated (per 49 CF	FR 173.164(e))	100	-000
	-		CENT LAMP/S RECYCLING			Control of the Control	Regulated (per 49 CF		36	00
			NITRON LAMP/S RECYCLING			Non-DOT Regulated (per 49 CFR 173.164(e))				- Cu
	-	The state of the s	AMP/S RECYCLING				Regulated (per 49 CF			
		The state of the state of	FLUORESCENT LAMP/S RECYCLI				Regulated (per 49 CF			
			E RECYCLE/INCINERATION/MICE BALLAST RECYCLE/MICROENCAP			RQ, UN3432, Polychlorinated biphenyls, Solid, 9, PGIII, ERG#171  Non-RCRA / Non-DOT Regulated Waste				-
		ESCRAP R		SOLATION				ed waste	110	P
			DEVICE RECYCLING			Non-DOT Regulated UN3506, Mercury Contained in Manufactured Articles, 8 (6.1), PGIII, ERG#172				
			BATTERY RECYCLING					v/ Acid, 8, PGIII, ERG#154		
		ALKALINE I	BATTERY RECYCLING				Dry, sealed, n.o.s. S			
		NICKEL (Ni-	-Cad) BATTERY RECYCLING		E	Batteries,	Dry, sealed, n.o.s. S	pecail Provision 130		
		LITHIUM MI	ETAL BATTERY RECYCLING - DO	Γ 173.185(d)	l	JN3090, I	Lithium Batteries, 9, P	PGII, ERG#138		
			BATTERY RECYCLING - DOT 17	3.185(d)			Lithium Batteries, 9, P	PGII, ERG#138		
			RECYCLING				aste Liquid			GAL
			YCOL RECYCLING				aste Liquid	1 FD0    100		
71	CELIAN	WASTE AE					erosols,Flammable,2	.1,EHG#126	1	0.0
-1.1	THE LUCK		ATION CONTAINING SMOKE DETE	CTORS			aste Liquid aste Solid, Nuclear B	egulatory Law 10 CFR 32.37	11	OR
		The second second second	IGUISHER(S)				aste Solid	ogulatory barrior of 11 02.07		
		METALS RE					aste Solid			
		MISCELLAN	NEOUS RECYCLING	COWAVES						
			NEOUS RECYCLING 6	arg Fris	dees	5			10	000
Generate	or Certifica	ition:	This is to certify that the above name							-
	4	_	labeled and are in proper condition for							
2		)	Unpaid invoices will be assigned to	licensed Collection A	Agency and	d subject to	Collection Agency Fee's, At	troney's Fee's, Court Costs and Interest.	11-1-	198
Signatur	e:				7	Title:	101	Print Name:	Date:	10
		-	1		T			Time Hamo.	Date.	
Transport	ter 1 Name	Jesu	S (asado				Transporter 2 Name:			
Phone No	ımber: 7	70-	245-1685				Phono Number			
I Hone N	miliber/_		13 1003				Phone Number:			
-//				11	1-60					
Signature					ate		Signature		Date	
Receivin	g, subject	to the clas	ssification and regulations in	effect on the d	late of is	ssue of t	he Bill of Lading, the	e property described above is in		
apparent	good ord	er.	Please retain a copy of this	s document as t	he "Ce	rtificatio	on of Recycling" fo	r the items and quantities listed above.		
	1	-	-/-				11	10/25		
Signature	0		-			-	Date	-		



### 10. Weight Tickets



# 10a. Daily Load Trackers and Associated Truck Tickets



#### **Daily Load Tracker**

Date:

11-13-18

Project: AP-8

Prepared By: Jesus Casado

							Material			V	Dump Site Ticket
	Arrival Time		Departure Time		Load #	Truck #	Code	<u>Description</u>	Tons/Yards	Dump Site	Number
11-13		am) pm	8:35	am)/ pm	7	CH333	trash	DIMO clibris	18428	Dods	
	8:35	am / pm	9:00	Q <sub>pm</sub>	2	CH 575	Trash	DIMO clibirs	18 yds	Dras	
	2:40	am / fm	3:00	am / 🕝	3	c#333	trash	Demo debris	18 4/5	Dates	
	3:00	am / (m)	3:75	am (pm)	4	CH575	trasn	Demo clebris	18 yds	Dods	
	5:00	am /pm	5:25	am / pm	5	CH 333	trash	Demo debris	18 yds	Usag.	
	5:25	am pm	5:50	am / mm	6	CH 575	trash	Demo debris	18403	Dads.	
1124	9:10	am) pm	9:50	an/pm	7	OH 279	trash	Demo clebis	18 413	Drds	
	12:16	(am) pm)	12:50	30	8	CH333	trash	Dears debus	18425	Dods	
	12:50	am (pm	1::20	am pm	9	c# 575	trash	Deno clebris	28193	Dads	
	1:20	am /pm	1:35	am (pg)	10	CH279	tresh	Dear debris	18 y 8	Dods	
	2:15	am (pm)	2:45	am / 6m	)11	ct333	trash	Demo dobris	18403	Dods	
	245.	am /pm	3:10	am / fpm	) 12	CH 575	trush	Deno debus	1842	Dadg	
	315	am pm	3:35	am /pm	13	c#279	trash	Demodebris	(fyds	Dads	
	4:45	am /pm	5:10	am / m	14	CH 333	trash	Demo debris	18405	120ge	
	5:10	am /pm-	5:40	am / pm		CH 575	trash	Demodebis	18498	Dads	
	5:40	am / 6m		am / 6m		Cit 279	trash	Demo clibris	18443	Mads.	
113	7:00	am)/ pm	7:15	am)/ pm	17	CH 575	trash	Demo dibris	18109	12009	
	7:15	am) pm	7:30	am/ pm	18	C#333	trash	Demo debis	18/18	Dads	
	8:10	(am)/ pm	830	am/ pm	19	ct 27e	trash	Den o vlebrs	184018	Dads	
	9:10	(am) pm	9:30	(am) pm	20	CH 575	trash	Demo debris	18425	Dads	
	9:30	am/ pm	9:55	(am) pm	21	CH 333	Concret	Corcrete		Henderson	
	10:00	(am) pm	10:20	am)/ pm	22	CH279	Concret	Concrete		Hen dor for	
	1045	(am) pm	11:10	am Dom	23	OH 333	trash	Demo debris	18492	Dads	
	11:10	am / pm	11.25	am) pm	24	01 575	trash	Denodebns	18423	Dods	
	11:25	(am) pm	11:35	am) pm	25	cH279	Steet	ROCKY M.	1		

Legend:

Materials: R = Recycle T = Trash

Concrete, Asphalt, Asbestos, Lumber, Construction Debris, Trash, Metals,



Date:

11-15-18

Project: AP-8

Daily Load Tracker

Prepared By: Je Sus Casado

					Material				<b>Dump Site Ticket</b>
Arrival Time	Departure Time		Load #	Truck #	Code	<u>Description</u>	Tons/Yards	Dump Site	Number
12:30	am / 6m) 12:50	am / 6m	26	CH279	Concret	Congete		Henclerson	
1:05	am //pm 1:20	am / pm	27	CH 575.	trash	Demo clebris	18 yds	Dads	
1:35	am /6m 1:55	am /pm	28	CH279	Stell	Rocty M	1		
2:45	am /Gm) 3:00	am (pm)	29	CH239	trash	Deno debas	18429	10298	
3:00	am / am ) 3:20	am / m	30	CHSHS	trugh	Deno clebra	18429	5280	
5:05	am (pm) 5.30	am I(pm)	31	CH279	trash	Dimo debris	18 428	Dads	
5:30	am /6m) 6:00	am (pm)	32	CH 575	trash	Deu o debris	184ds	12398	
	am / pm	am / pm	WE -				The state of the s		
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm	and the same of						
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							
7/4	am / pm	am / pm	100						
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm	200		88				
	am / pm	am / pm							
	am / pm	am / pm							
	am / pm	am / pm							

Legend: Materials:

Concrete, Asphalt, Asbestos, Lumber, R = Recycle Construction Debris, Trash, Metals, T = Trash



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

BILL TO: JKS	Const			
DISPATCHED BY:	nacous	Const		
DATE: 11. 13:18	JOB DESCRI	PTION:		
TRUCK# 4 333				
TANDEM TRAILER				
MATERIAL D. +				
	LOAD	S	UNLOADS	
JOB#	10 and	-+		
LOAD AT	7.45	dots	Ap. 1	
Hu 70	2:40	doids	10.8	
111				
bring then blud				
UNLOAD AT				
Dods pit				
RATE\$				
HOURLY TONMILE				
START TIME				
STOP TIME 7:00%	1			
TOTAL HOURS				
Ilhis	OWNER OF	TRUCK:		
DRIVER'S NA	ME	AUTH	ORIZED SIGNATU	RE
JUSTO (4	11/0	1 aug	gais,	
Net due 30 days from date of this	statement. Past due	accounts bear inte	erest at 1.5% per month. In t	he event

collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.



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

BILL TO:							
DISPATCHED BY:							
DATE: /1/13/15	JOB DESCRIPTION:						
TRUCK #	Demo						
TANDEM TRAILER	C CENT						
MATERIAL Tomo.							
	LOAD	S	UNLOADS				
JOB#	-		2005				
LOAD AT	1		Dife				
HUNDO.	1		5189				
Brigthon Blud			7 (/				
Bulltuci							
UNLOAD AT							
DATIS							
NE V							
,							
RATE \$							
HOURLY TONMILE							
START TIME 8:00	1						
STOP TIME 7:00 PM	1						
TOTAL HOURS		-					
11/15	OWNER OF	TRUCK:					
DRIVER'S NA	ME	AUTH	ORIZED SIGNATURE				
700	Se	Jain	Russ				
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.							



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

BILL TO: UKS	Indus	Tries II	1C			
DISPATCHED BY:						
DATE: //-/4-18	JOB DESCRI	PTION:				
TRUCK# 279	r -	T a/ -	70 Project			
TANDEM TRAILER	Cen	wat	10 11030			
MATERIAL Demo						
	LOAD	S	UNLOADS			
JOB#			Ticket 11 198			
LOAD AT						
1-70/			TICKET A AP 8			
Brighton Blv						
			TICKET # AYS			
UNLOAD AT						
DADS			TickeT +/APS			
1000						
RATE\$						
HOURLY TONMILE						
START TIME 8:00						
STOP TIME 7.20						
TOTAL HOURS						
1/1/-1						
111/2 his	OWNER OF TRUCK: Chacon Const in					
DRIVER'S NA			ORIZED SIGNATURE			
Rawon Baro		day	objus			
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.



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

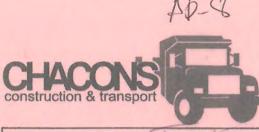
BILL TO: JKS CODS!						
DISPATCHED BY: Character Cans						
DATE: //- /4-18	JOB DESCRIPTION:					
TRUCK# 01 333						
TANDEM TRAILER						
MATERIAL D.						
	LOADS	UNLOADS				
JOB#	1000/5#					
LOAD AT	120	Body rice 1/21				
Hw/ 10	10:00 dats	AP. 8				
7	3:00 dads	Ap-8				
bi belon blad	5:00 dads	10.8				
UNLOAD AT						
Dalos Pil						
RATE\$						
HOURLY TONMILE						
START TIME 7 00						
STOP TIME 7:00	1					
TOTAL HOURS		-				
12 hrs	OWNER OF TRUCK:					
DRIVER'S NA	ME AUTH	ORIZED SIGNATURE				
JUSTIN CAS	tillo 1 pi	1 tjust				
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.						



50341

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

BILL TO:							
DISPATCHED BY:							
DATE / / / / / / / / / / / / / / / / / / /	RUCK #						
TANDEM TRAILER	zemo						
MATERIAL							
	LOA	DS	UNLOADS				
JOB#	,		DADS				
LOAD AT	,		SADE				
Huy 10	1		RADS				
BrighonBlut	1		SADS				
UNLOAD AT							
DA-DS							
RATE\$							
HOURLY TONMILE	,						
START TIME 7:00							
STOP TIME							
TOTAL HOURS							
1205	OWNER OF TRUCK:						
DRIVER'S NAM	E	AUTHO	DRIZED SIGNATURE				
TOSP	2	An	mekus				
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.							



Nº 50342

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

	The state of the s	
BILL TO:	). F7.S	
DISPATCHED BY:	Charon	
DATE ////5//8	JOB DESCRIPTION:	
TRUCK# 6595	Demo	
TANDEM TRAILER	Y	
MATERIAL TOMO		
	LOADS	UNLOADS
JOB#	/	DADS
LOAD AT	1	DADS.
HWY 212		DADS
Hwy Ton B18	1	DADS
(19)	1	D.A.D.S
UNLOAD AT	1	BADS
TA.725		
		,
RATE\$		
HOURLY TONMILE	*	
START TIME 7.00		
STOP TIME 7:30		
TOTAL HOURS		
121/2		
	OWNER OF TRUCK:	
DRIVER'S NAM	IE AUTHO	ORIZED SIGNATURE
708	e I will	1gas
Net due 30 days from date of this st	atement. Past due accounts bear inte	erest at 1.5% per month. In the event

collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.



NT MCCO.

No. 7632

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

BILL TO:	S unde	stries	IIIC
DISPATCHED BY:		3, 4	
DATE: //-/5-/8	JOB DESCRI	PTION:	
TRUCK# 279	000	-1 -	O Project
TANDEM TRAILER	Cenn	rac /	O MODICE!
MATERIAL Demo			
	LOAD	S	UNLOADS
JOB#	Ticke	T#	Place
LOAD AT	AP	68	DADS
70 Fuy			H
Brighton Blv	49		Henderson
UNLOAD AT	1010	5005	Rocky Mountain
DADS			1.0-1/1
DIL	492	802	Henderson
		3	
RATE\$	5/23	000	Park Maintay
HOURLY TONMILE		1	hory rum.
START TIME 8:00	AP	08	DADS
STOP TIME 7:00	1	1	1.13
TOTAL HOURS	AR-	08	DADS
			7. 57
Ilhis	OWNER OF	TRUCK:	Tracon const
DRIVER'S NA	ME	AUTH	ORIZED SIGNATURE
MAC		Anus	hay?
Net due 30 days from date of this	statement. Past due	accounts bear inte	erest at 1.5% per month. In the event

collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.





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

BILL TO: TKS	Const		+-
DISPATCHED BY:	achs	Const	
DATE: 11-15-18	JOB DESC	RIPTION:	
TRUCK# CH 333			¥
TANDEM TRAILER			,
MATERIAL DAT			
	LO	ADS	UNLOADS
JOB#	100	18 #	
LOADAT	7:20	dads	44.8
Hwy 10	9120	Handason	492698
+	M:690	dals	41.8
hrihathan blud		(4	1
UNLOAD AT			
Dads Pit 1			
Menderson p.t			
Pleno			
RATE\$			A**
HOURLY TONMILE			
START TIME TO			
STOP TIME (200			
TOTAL HOURS	14		
CINA V	HT		
640	OWNER	OF TRUCK:	
DRIVER'S NA	AME	AUTI	HORIZED SIGNATURE
JUSTIN Cas	tolles		
Net due 30 days from date of this	s statement. Past mes necessary, c	due accounts bear in lient agrees to pay al	nterest at 1.5% per month. In the ev I costs and reasonable attorney fee



10b. Recycling Weight Tickets

Ap-8

Rocky Mountain Recycling, Inc.

6510 Brighton Blvd. Phone 303 288-6868 Fax 303 288-0250

Colorado Certified Scale #2

57144

JKS INDUSTRIES 414 14TH STREET DENVER, CO 80202

Ticket# 5123000 Total \$ \$0.00

Total Lbs 3,200

November 15, 2018

Weighmaster: JMADERA
Driver:

Tag No:

Driver: Truck#: Description: RBS SIDE DUMP

Container In:

Container Out:

\* 5 1 2 3 0 0 0 \*

Notes: @70 & BRIGHTON

Commercial Ticket - Number: 5123000

Commodity	Gross	Tare	Tare2 Deduct	Net UM	Price	Total
Iron #2 Lite Unprepared	39,200	36,000		3,200 N	0.0000	.00
	39,200	36,000		3,200		.00
					ATM Fee	.00
				Tick	et Total	.00

ACCEPTED BY

I DECLARE THAT I AM THE SOLE AND RIGHTFUL OWNER OF THIS MATERIAL, AND/OR HAVE THE AUTHORITY TO SELL IT.

Ap-8

		Weig	ht Informat	ion	1		
END SIDE CLEAN CONCRETE	1.000 EA						
Material	Quantity	Price	Material \$	Delivery \$	Misc \$	Tax \$	Line Total
Signature:				rtified igher:			
Remarks: RAMON VW							
279 - SCALEOP - Scale Operator							
747 Sheridan BLVD Lakewood CO, 80214		-		Loads: 9			
Customer: JKSINDUSTR4297 JKS Industries, LLC					umber: BRIGHT		
Henderson CO, 80640				WV	ww.hendersonpit		
10925 East 120th Ave.				Ticket #: Date: Phone:	492802 11/15/2018 (303) 731-754	1:10 PM 2	
120 85, LLC				Tiplest #	402002		

AP-8 Concret 120 85, LLC Ticket #: 492698 10925 East 120th Ave. Date: 11/15/2018 10:01 AM Phone: (303) 731-7542 Henderson CO, 80640 www.hendersonpit.com Customer: JKSINDUSTR4297 Order Number: BRIGHTON JKS Industries, LLC **BRIGHTON BLVD AND 170** 747 Sheridan BLVD Loads: 7 Lakewood CO, 80214 CH333 -SCALEOP - Scale Operator Remarks: JUSTIN VW Certified Weigher: Signature:

Weight Information

Material \$

Delivery \$

Misc \$

Tax \$

Line Total \$

Price

Quantity

1.000 EA

Material

END SIDE CLEAN CONCRETE

Material Gross Tare Net

Ap. 8 Concret

120 85, LLC				Ticket #:	492720		
10925 East 120th Ave.				Date:	11/15/2018	10:38 AM	
				Phone:	(303) 731-754	2	
Henderson CO, 80640				W	ww.hendersonpit	com	
Customer: JKSINDUSTR4297							
JKS Industries, LLC					lumber: BRIGHT		
747 Sheridan BLVD				Loads:	TON BLVD AND I	70	
Lakewood CO, 80214				Loads.	0		
279 -							
SCALEOP - Scale Operator							
Remarks: RAMON							
Signature:				rtified igher:			
Material	Quantity	Price	Material \$	Delivery \$	Misc \$	Tax \$	Line Total \$
END SIDE CLEAN CONCRETE	1.000 EA						
		Weig	ht Informat	ion			
Materia	ĵ.		Gross	Tare	Net		



10c. Waste Weight Tickets



Denver Arapahoe Disposal 3500 S Gun Club , PO Box 460397 Aurora, CO, 80018 Ph: (720) 876-2620 Original Ticket# 3268289

Customer Name JKSINDUSTRIESLLC JKS Industri Carrier JKS INDUSTRIES JKS INDUSTRIES
Ticket Date 11/13/2018 Vehicle# 1 Volume

Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest

Destination

PB

Profile ()

Generator

Time Scale Operator Inbound Gross
In 11/13/2018 07:30:45 MANUAL WT SLA Tare

Inbound Gross 2 lb\*
Tare 1 lb\*
Net 1 lb

Comments 6 loads on drop tickets central 70 project 108cyds total 11/13/18 REPLACEMENT

Container

Gen EPA ID

Billing # 0014925

Driver Check#

Grid

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Prod	uct	LD%	Qty	MON	Rate	Fee	Amount	Origin
-				man or complete become making allowed beginning by	the season was the contract the best time and the		era com accio eras sego com como cris sego tila calci dati sego bose com	seriet begin. Halfs Sparri State Here spare about state uple-
1	CDY-CONST DEBRIS	- 100	108.00	Yards				

Total Fees Total Ticket

ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT
CDY 18 YDS	25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD
Signature: DRIVER:	aurora co 80018  Cex 18 Cyds = 108  Cyds
	TOTAL All loads
Date: 11-13-18	Ticket#: AP-8
ACCT#:306-14925	JKS INDUSTRIES
	CENTRAL 70 PROJECT
CDY 18 YDS_	CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD
CDY 18 YDS	CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018
	CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018

Date: 11-13-18 Ticket#: AP-8

Date: 11-13-18	Ticket#: AP. 8
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:	Jan Constant of State
Date: 11-13-18	Ticket#: AP-8
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: 11-13-18	Ticket#: Ap-8
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:	100
Date: 11-13-18	Ticket#: Ap-8
Date: 11-13-18  ACCT#:306-14925	Ticket#: Ap-8  JKS INDUSTRIES CENTRAL 70 PROJECT
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT
	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018



Denver Arapahoe Disposal 3500 S Gun Club , PO Box 460397 Aurora, CO, 80018 Ph: (720) 876-2620 Original Ticket# 3268290

Customer Name JKSINDUSTRIESLLC JKS Industri Carrier JKS INDUSTRIES JKS INDUSTRIES
Ticket Date 11/14/2018 Vehicle# 1 Volume

Ticket Date 11/14/2018
Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code

Manifest Destination

Profile ()

Generator

Time Scale Operator Inbound Gross 2 lb\*
In 11/14/2018 09:07:46 MANUAL WT SLA Tare 1 lb\*
Out 11/14/2018 09:07:46 SLA Net 1 lb

Container

Gen EPA ID

Billing # 0014925

Check#

Grid

\* Manual Weight Tons

1

Comments 18 loads on drop box tickets 11/14/18 REPLACEMENT TICKET FOR TICKET # 3260190

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Prod	luct	LD%	Qty	MOU	Rate	Fee	Amount	Origin
					a part was a mile and with with the sent took to		and was read to the same street and the same street and the	and the state of t
.1	CDY-CONST DEBRIS	- 100	198.00	Yards				

Total Fees Total Ticket

Date: 11-14-18	Ticket#: Ap-8
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
DR Signature:	IVER
Date: 11-14-18	Ticket#: 19-8
Date: 11-14-18  ACCT#:306-14925	Ticket#: 10-8  JKS INDUSTRIES
	JKS INDUSTRIES
	JKS INDUSTRIES
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD
ACCT#:306-14925  CDY 18 YDS	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD

Date: 11-14-18	_ Ticket#: Ap-8	_
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	
		179
Date: 11-14-18	Ticket#: Ap-8	179
Date: 11-14-18  ACCT#:306-14925	Ticket#: AP-8  JKS INDUSTRIES CENTRAL 70 PROJECT	179
	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD	179
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018	179

Date: 11-14-18	Ticket#: AP-8
ACCT#:306-14925	JKS INDUSTRIES
	CENTRAL 70 PROJECT
CDY 18 YDS	25 VAC LICUCTATE
CD7 16 705	25 YDS HIGHSIDES DISPOSAL SITE: DADS
	3500 S GUN CLUB RD
	AURORA GO 80018
DRIVER:	
Signature:	100
Date: 11-14-18	Ticket#: Ap 8
4.6.6T# 004 4400F	
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
	RIVER
Signature: Dism	28/0/1

Date: 11-14-18	Ticket#: AP-8
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: Ramo	RIVER
Date: 11-14-18	Ticket#: AP-8
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
C: DE	RIVER

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	:1 / 1//	
Signature:	M. Cestolle	
		Della Mary exchi
		175
		175
Date: 11-14-18	Ticket#: AP-8	175
Date: 11-14-18	Ticket#: AP-8	175
Date: 11-14-18  ACCT#:306-14925	Ticket#: AP-8  JKS INDUSTRIES	175
		175
	JKS INDUSTRIES	175
	JKS INDUSTRIES	175
	JKS INDUSTRIES	175
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT	
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES	175
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS	175
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018	175
ACCT#:306-14925  CDY 18 YDS	JKS INDUSTRIES CENTRAL 70 PROJECT  25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018	175

Date: 11-14-18 Ticket#: AP 8



Denver Arapahoe Disposal 3500 S Gun Club , PG Box 460397 Aurora, CO, 80018 Ph: (720) 876-2620 Original Ticket# 3268292

Customer Name JKSINDUSTRIESLLC JKS Industri Carrier JKS INDUSTRIES JKS INDUSTRIES
Ticket Date 11/15/2018 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

Profile () Generator

Time Scale Operator Inbound Gross 2 1b\*
In 11/15/2018 06:56:19 MANUAL WT SLA Tare 1 1b\*
Out 11/15/2018 06:56:19 SLA Net 1 1b
\* Manual Weight Tons

Comments 12 loads blue and green drop tickets 11/15/18 =216 cyuds total REPLACEMENT TICK

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Prod	uct	LD%	Qty	UOM	Rate	Fee	Amount	Origin
-	I care many value curve cares cares parks which before these water cares cares (see a care course)	and seed their seasons being home and desire to				and should describ from these street error, and the team team	Committee and with some term office force with other committee and the source of the committee of the commit	
1	CDY-CONST DEBRIS	- 100	216.00	Yards				

Total Fees Total Ticket

ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT
CDY 18 YDS	25 YDS HIGHSIDES DISPOSAL SITE: DADS 3500 S GUN CLUB RD
DRIVER:	Castolla 12/100ds x180y
	ZILE CO TOTAL For All Loads
Date: 11-15-18	Ticket#: AP-8
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
DR Signature:	RIVER

Date: 11-15-18 Ticket#: #P-8

Date: 1/-15-18	Ticket#: AP-8
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:	MCC BOOTS
Date: 11-15-18	Ticket#:
ACCT#:306-16232	GREAT HALL BUILDERS DIA-GREAT HALL 8500 PENA
CDT 10 yals	Time: 1230 AM DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018
GROSS: 3,400 TAR DRIVER	E: 15/120
5:000 A -080	tt-750

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	
		183
Date: 11-15-18	Ticket#: AP-\(\frac{A}{2}\)	_
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: 11-15-18 Ticket#: AP-8

Date: 11-15-18	Ticket#: AP-8
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:	1AC
Signature:	
Date: 11-15-18	- · · · · · · · · · · · · · · · · · · ·
Date: 11-13 18	Ticket#: Ap-8
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: 11, 15-18	Ticket#: AP 8
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:	
Date: 11-15-18	Ticket#: AP 8
ACCT#:306-14925	JKS INDUSTRIES CENTRAL 70 PROJECT
CDY 18 YDS	25 YDS HIGHSIDES
CD7 18 703	DISPOSAL SITE: DADS 3500 S GUN CLUB RD AURORA CO 80018
Discontinuity of the state of t	RIVER
Orginarian Or	

Date: 11-15-18	Ticket#: AP8
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:	RIVER X
Date: 1-1518	Ticket#: AP-8
Date: 161518  ACCT#:306-14925	Ticket#: AP- 8  JKS INDUSTRIES CENTRAL 70 PROJECT
	JKS INDUSTRIES



### 11. Dump Diversion Summary

#### JKS Industries AP-8: 4618 High St.

	Descriptions		Dump Diversion / Recycle %							
Phase	Activity	<u>Unit of</u>	# of Yards	<u># of</u>	<u>Total</u>	<u>Pounds</u>	<u>Total</u>	Recycled	<u>Pounds</u>	<u>% of</u>
		<u>Measure</u>	<u>per</u>	<u>Containers</u>	Number of	<u>Per</u>	<u>Lbs</u>	Yes/No	of Recycle or Dump	Recycle or Dump
			<u>Container</u>		<u>Yards</u>	Yard **			<u>Diversion</u>	<u>Diversion</u>
Abatement	Trash Rolloff	Cubic Yard	-	-	-	450.00	-	·		·
Abatement	Asbestos Containers	Cubic Yard	-	-	-	500.00	-			
Demolition	Demolition Construction Debris	Cubic Yard	18	23	414.00	1,400.00	579,600			
Demolition	Concrete Debris	Cubic Yard	12	3	36.00	4,050.00	145,800	Х	145,800	20.01%
Demolition	Trees	Cubic Yard	-	-	-	500.00	-	х	-	0.00%
Demolition	Steel	Lbs	-	-	-	-	3,200	Х	3,200	0.44%
Demolition	Copper	Lbs					-	Х	-	0.00%
				26	450.00		728,600		149,000	20.45%

#### 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.



### 12. Containment Entry/Exit Log

Wednesday

#### CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: Job #:

10-24-18

Date:

SIGN-OUT SIGN-IN SIGN-OUT SIGN-IN **NAME** 1. Andre Williams 2:00 2:00 2:00 3.20 2:00 3:20 2:00 3:20 2:00 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

Thurs day

### CONTAINMENT SIGN-IN & SIGN-OUT SHEET Job Name:

Job #:

Date:

10-25-18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Andre Williams	10400			10:45
2. Paul Williams	7530	11:00	12:00	9:15
3. David Schlote	7:30	11:00	12:00	4:20
4. WULL GOSPAY	7:30	11:00	12:00	1.25
5. Deisy Arellonos 6. Vilgas Cerma	7:30	11:00	12:00	1925
	7:30	11:00	12:00	4:15
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Friday

### CONTAINMENT SIGN-IN & SIGN-OUT SHEET Job Name:

Job Nam Job #:

Date: 10-26-18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Aubelllam				
2. Victor Cerma	7:45	1/:00	12:06	2:20
3. David Schlote	7:45	11:00	12:00	Z:20 2:20
4. Wun Gaspar	7:45	11:00	12:00	
5. Deisy Arellanos	7:43	11:00	12:00	2:20
6. lau Lwilliams	7:45			950
7.				
8.		6		
9.				
10.		1		
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Monday

#### CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name:

Job#:

Date:

10-29-18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Sudvehlellians	8:00	11:00		
2. Paul Willow	7:30	11:00	12:00	3:15
3. Deisy Arellamos	7:30	11:00	12:00	3:15
4. Viet-creemin	7:90	11:00	12:00	3.75
5. David Schlote	7:30	11:00	12:00	3-15
6.		1000		
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Tuesday

#### CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: Job #:

Date:

10-30-18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. AndreWilliams	10:00	11:00	15 30	2:30
2. David Schlote	7:30	11:30	12:36	2:30
3. Victor Lerma	7:30	11:30	12:30	230
4. Deisy Arellanos	7:30	11:30	12:30	2:30
5.				
6.				
7.			1	
8.		•		
9.		/ 1		
10.				
11.				
12.				
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14.				
15.				
16.				
17.				
18.				
19.				
20.				



### 13. Daily Logs

an Norce

# JKS Industries ON-SITE DAILY SIGN- IN SHEET

Tuesday

Project Name: Kiewit AP-98
Project NO: 18-309
Supervisor: Andre Williams

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Androl Mary	au	145	7:00	11:00	12:00	\$:30	9
ILUA GUSDUY	th	The	7:00	11:00	12:00	3:30	8
auchillians	PW	JKS	7:00	11:00	12:00	3:30	8
Victor Levina	VL	Ske	7:00	11:00	12:00	3:30	8
David Schlote	198	JKS	7:00	11:00	12:00	3:30	8
Seisy Arellanos Marthallalla	AR	765	7:00	11:00	12:00	3:30	8
May the Nalha			7:00	11:20	12:00	3:30	8
1000							
					:		
			*				
*							
	-						
				1			
P						1	
					1		
	1						
							-
						TOTAL	

JKS IDUSTRIES LLC DAILY PROJECT LOG Job Name: Krewif AP-08 Job# 18-309 Report # Day Tuesday Month Oct Date 10-23 Year 20/8 Andre Williams Project Manager Superintendent Work Performed Today Pre Clean vemove Trash Weather: 7:00 Safety Meeting Temp. Hi Safety Meeting 7:30 Trash, furniture, cabinets Topic: toilets etc. from all rooms Work Force Number Project Manager **Project Supervisor** Operators Hook up neg air machines, 2 in door way 10:50 Laborers on the west side of Welding and one out the Tradesmen boundow of R5 Other: Other: 11500 Lunch Other: Materials Used Quantity Continue setting up criticals, Loadout and 12:00 at R3 and Decan located in basement stanwell Material Purchased/Delivered End of day

) i	Clear up 100% vet 10adout 50% econ 50%			
roblems - Delays, Safety Issues				
None				
ubcontractor Progress				
ibcollitactor Flogress				
	18			
anastiana				
spections Sup				
nspections Sup				
	Rented From	Insp Chklist Complete?	Equipment	Hours
Sup	Rented From	Insp Chklist Complete?	Equipment	Hours
Sup	Rented From	Insp Chklist Complete?	Equipment	Hours
Equipment Rented Today	Rented From  Time In/Time Out	Insp Chklist Complete?  Activity Onsite	Equipment	Hours
Sup			Equipment	Hours

Wed

JKS Industries
ON-SITE DAILY SIGN- IN SHEET

Project Name: Niewit - AP-09
Project NO: 19-309
Supervisor: Andre Williams

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
AndreWilliams	an	115	7:00	17:00	1:00	4:06	8.5
David Schlote	B	3/63	7:00	12:00	1:00	3:30	8
VictorLevan	, .		7:00	12:00	1:00	3:30	6
ucia Easpar	Sh	Rice/	7:00	12:00	1:00	3:30	8
Deisy, Dreflonos	AD	745	7:00	12:00	1:00	3:30	8
lortha Nahlo	UN	TKS	7:00	12:00	1:00	3:30	8
Paul Williams		0	8:00	12:00	1:00	3:30	7
					5		
·							
							4
				-			
						TOTAL	

Job # 18-309	Job Name: Kewit A	DAILY PROJECT LO	Report #	
Date 10-24 Day	Wednesday	Month	Oct Year	2018
Project Manager	Steve		perintendent Andret	
ork Performed Today Cou	uplete Containmen	ı f	Weather:	
200 Satu	hy meeting & Tool	Box viceting	Temp. HiLow	
2 6	1 11- 11- 2		Safety Meeting	
30 Cottine	Le Building Decor	n and loadout	Topic: Work Force	lumber
while	getting up conta	in ment		
	0/1		Project Manager Project Supervisor	1
1/	1 1 1 1 1 1 1 1 1 1	(.1.1 et	Operators	-
70 Neg	air pressure esta	an1,54 at	Laborers	
60.31			Tradesmen	1
330 Decon	firshed and		Other:	Ь
Vecon	e building du	eart load out	Other:	
Contan	completing cout	519419H	Other:	
and c	outlering con	arayen/	Materials Used	Quantity
2566 lunch			Waterials 03cd	Quartity
2366 Junch				
Canta	ument is comp	al-1- vald.		
:00 Conta	gover 13 com	ilere veacy		
10 hear	adout is being	camplet.		
all cold !	Danout 13 Delag	completed		
1:30 End of	day Task co	1111	Material Purchased/E	)elivered
3:30 End of	day lask co	in plented:	Waterial Farenasca/E	Clivorou
	Decon 100;	1000/		
	Removal: 102	10		
	REMANDET TO A	5		
Problems - Delays, Safety Issu	ies			
None				
10000				
Subcontractor Progress				
nspections				
Sul				
- Marie - Mari				
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
		14 11 11 10 11		
Visitors (Incl. Subs, Clients, et	c). Time In/Time Out	Activity Onsite		

Thursday

JKS Industries

ON-SITE DAILY SIGN- IN SHEET

Date: 10 - 25 - 18

Project Name: Vicuit AP-08

Project NO: 18-309

Supervisor: Andre Williams

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Andrehallians		JKS	7:00			5:00	10
Dund Schole		JKS	7:00	11:00	12:00	4:30	9
Paul Williams		JUS	7:00	11:00	12:00	4:30	9
Mua Easpar		1 KS	7:00	11:00	12:00	4:30	9
LISU Drelling	DA	365	7:00	11:00	12:00	4:30	9
Jusy Prellances	VL	5kg	7:00	1/:00	12:00	4:30	9.
(())							
					7		
			1				
+							
			4				
						TOTAL	C5

Completed task: toadout 100% Material Purchased/Delivered 17 100% Rg 100% Rb 100% Rb 100%  Problems - Delays, Safety Issues  Subcontractor Progress  Sup	Job # 18-309 Date 10-25  Day  Mont		2016
Temp. Hi 60 Low 79 Safety & Tool Box Meeting Safety Meeting Topic: R7 R8 & R 9 of walls and Ceiling Work Force Number Project Manager Project Manager Project Supervisor Operators Laborers Tradesmen Other: Tradesmen Other: Othe	Project Manager Steve S	superintendent Ander	elvill
Safety Meeting Topic:  RTRBBRQ of walls and Ceiling Work Force Number Project Manager Project Manager Project Manager Project Supervisor I Operators Laborers Tradesmen 5  Other:	ork Performed Today Gross Remova & Complete loadout	Weather: Sau	JK.
Safety Meeting Topic:  R7 R8 & R 9 of walls and Ceifing Work Force Number  R7 R8 & R 9 of walls and Ceifing Project Manager  Project Manager Project Manager Project Manager Project Supervisor I Operators Laborers Tradesmen 5  Other:	a Safety & Tool Box Meeting		-9
R7 R8 & R 9 of walls and Ceiling Work Force Number Project Manager Project Manager Project Supervisor I Operators Laborers Tradesmen Souther: Unich Other:  Coo Tundy Other: Othe			
Project Manager Project Supervisor I  Operators Laborers Laborers  Tradesmen 5  Other:	30 Continue Gross removal in 16 1810		
Direct load complete ready to load Project Supervisor I Operators Laborers Tradesmen 5  Other: Other	R7 R8 & R9 of walls and Ceiling		umber
after lunch  after lunch  Deperators Laborers  Tradesmen  Other:  Materials Used  Quantity  Condout land shower out  Confleted task: toadout 100%  RS 10			
Operators Laborers Tradesmen 5  Other: Other	\$30 Direct load complete ready to load		1
Tradesmen 5 Other:  Ot	after lunch		
Other: Ot			
Other:  Materials Used Quantity  Other:  Other	1500 Zunch		5
There Ybuting 3 soluting with Other:  Gross removal  Other:  Materials Used Quantity  Do Clean up work avec and area of pred pool of the property out  Completed task: foodout 100% Material Purchased/Delivered 17 100% Rg 10			
There Postinge 3 solutions with Other.  Gross removal  Other:  Materials Used Quantity  Materials Used Quantity  Other:  Materials Used Quantity  Materials Used Quantity  Problems - Delays, Safety Issues  Material Purchased/Delivered  17 100%  R1	2500 Two awas load dumpter white		
All and shower out  Completed task: load Out 100% Material Purchased/Delivered  17 100%  Ry 100%  Ry 100%  Ro 100%  Ro 100%  Subcontractor Progress  Sup		Other:	
Completed task: foodout 100% Material Purchased/Delivered R7 100% R9 100% R9 100% R9 100% R0 1		Materials Used	Quantity
Tondout   and shower out  Completed task: toadOut 100%   Material Purchased/Delivered   17 100%   10	0/0/7 / 0.1.0000		
Toda out   and shower out  Completed task: toad out 100%   Material Purchased/Delivered   17 100%   188 100%   100			
Toda out land shower out  Completed task: toad out 100%  R8 100%  R9 100%  R0 100%  Problems - Delays, Safety Issues  Subcontractor Progress  Sup	V		
Toda out land shower out  Completed task: toad out 100%  R8 100%  R9 100%  R0 100%  Problems - Delays, Safety Issues  Subcontractor Progress  Sup	TOO Classe is i made aloca can't Amost		
Completed task: toadOut 100% Material Purchased/Delivered 17 100% 18 10% 18 10% 18 10% 19 10% Problems - Delays, Safety Issues  Subcontractor Progress  Sup	special and the second second		
Problems - Delays, Safety Issues  Von e  Subcontractor Progress	Touched I and 3 hours and		
Problems - Delays, Safety Issues  Von e  Subcontractor Progress	Q 11/1 Lade 1-10/1008	Material Purchased/D	elivered
Problems - Delays, Safety Issues  Won e  Subcontractor Progress		Waterial i dichased/E	CIIVCICA
Problems - Delays, Safety Issues  Non e  Subcontractor Progress			
Problems - Delays, Safety Issues  Non e  Subcontractor Progress			
Problems - Delays, Safety Issues  Won @  Subcontractor Progress		+	
Supcontractor Progress	. RIO 100%	-	
Subcontractor Progress			
Supcontractor Progress			
Subcontractor Progress	roblems - Delays, Safety Issues		
Subcontractor Progress	1/10-0		
Sup	None		
Sup			
Sup			
	Subcontractor Progress		
	Sup		
	nspections		

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
No. 11 Code Cliente etc.	Time In/Time Out	Activity Onsite		
Visitors (Incl. Subs, Clients, etc)	Time in/Time Out	Activity Offsite		

## JKS Industries on-site daily sign- in sheet

Friday

Date: 10-26-18Project Name: 40-8 F# 18-309Project NO: 418-309Supervisor: 418-309

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Andrew Hicana	all	JKS	7:00	#:15	_	3:30	8-5
Andrew Micang	VL	JKS	7:80	1/:00	12:00	2:30	7
Davi & Schlote	B	TKS	7.00	10:58	12:00	2:30	7
Lucia Easper	86	Try	7:00	11:00	12:00	2:30	7
ocisy Arellanos	DA	JKS	7:00	11:00	12:00	2:30	7
Paul William	PAY	JK\$	7:00	10:00	_		3
	,						
		-					
					1		
_							
	-						
						TO T	
						TOTAL	39,

Feul \*

Job# <u>(8-309</u> Jo Date <u>10-76</u> Day	KS IDUSTRIES LLC	DAILY PROJECT LOG	G Report#	
Date 10-26 Day_	triday			2018
Project Manager	Steve	Sup	perintendent Auchre	WATE
ork Performed Today Defail Ri	1,8,9,10, Gross versous	e R5,6,1	Weather: Sunc	W
es Tool Bond C	Ide Madia		Temp. Hi 61 Low_	48
Tool Box 1 S	ately Medin	9	Safety Meeting	-//
130 Vefail R7.8.9.1	D Banisham.		Topic:	
Total King In	and walls	emovering Ny		umber
6) 1 (211,19	and wang		Project Manager	
<u></u>			Project Supervisor	1
	1//		Operators	-
10	V		Laborers	
ide bunch			Tradesmen	5
2168 ( 1.42 )	1 000 1004 1014	: RS / 1	Other:	
2:60 Continue a	dumpster	1912,61	Other:	
while road	aump 5700		Other:	
			Materials Used	Quantity
			Materials Used	Quantity
	V			
clean 4	of avorkave	a prepare		
to show	to out			
			Material Purchased/D	elivered
1:30 End of 1	Jair Task Co	inpleted:		
,	Detail in R	7/89.10 100%		
	. Gross remou	ra/in R5, 6, 1 90%		
	Detailing RS	6,120%		
	7	1		
Problems - Delays, Safety Issues				
10210IIIO 2014yo, carry				
Mong				
7/0				
Subcontractor Progress				
Subcontractor r rogress				
C A			•	
Sup				
Inchestions				
Inspections				
	Dented From	T. 0111110 110	Traviana ant	Llour
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hour
				-
Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite		

# JKS Industries ON-SITE DAILY SIGN- IN SHEET

Monday

Project Name: New + AP-08
Project NO: 18-309
Supervisor: Supervisor:

Audielistians also Paul Williams PW Deisy Diellands Die Victor Leme VL Diwid Schlote 18	JKS JKS JKS JKS	7:00 7:00 7:00 7:00	11:06 11:00	12:00 12:00 12:00	4:00 3:30 3:30	8
Persy Arellanos DA Victor Lemen R	145 5Kg	7:00	11:00		3:30	
Victorianos pur	TKS	7:00	_	12:00	3:30	8
Victorian VC	TKS	7:00	11:00	17:00	100000000000000000000000000000000000000	
David Schlote 128	318-	2:00		16	3:30	8
	0,0	1.00	11:00	12:60	3:30	8
		14				
						21
			*			
		-				

#### JKS IDUSTRIES LLC DAILY PROJECT LOG Job # 18-309 Date 10-29 Day Monday Month Month Oct Report # Year 1018 Superintendent Androlliams Project Manager Work Performed Today Gioss Removal Detail & Final Detailing Weather: Bunny Temp. Hi 79 Low 43 7:00 Safety Meeting Topic: up gross vemoval 7-30 Work Force Number Project Manager **Project Supervisor** Operators Gross removal Completed in all areas Laborers 9:30 Tradesmen Other: lunch Other: 11:00 Other: Continue with detailing and Paropping Materials Used Quantity 12:00 Material Purchased/Delivered out tools Extra, ladders & Equipment Large Completed Tagle? all Archasgross Removal 100% 2:30 all areas Detailing 100% Problems - Delays, Safety Issues Vous Subcontractor Progress Inspections SUD **Equipment Rented Today** Rented From Hours Insp Chklist Complete? | Equipment Visitors (Incl. Subs, Clients, etc) Time In/Time Out Activity Onsite

## JKS Industries

ON-SITE DAILY SIGN- IN SHEET

Date : \_\_ Project Name: \_\_ Project NO: \_\_ Supervisor: \_\_

Tuesday

, NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Andre Williams	26	JK5	7:00			4:00	9
David Shlote	0		7:00	11:30	12:30	7:30	8
David Shipte Victorlema	VL	-TKS	7:00	11-30	12:30	3:30	8
Deisy Drellonos	DA	JHS	7:00	11:30	12:30	3:30	8
Deisy Arellanos Paul Williams	.01-	JKS	7:00			11:00	-4
and or that is		- V					
				-			
			10				
+							
							+
				1-			
						TOTAL	37

Job # 18-309 Jo	KS IDUSTRIES LLC	DAILY PROJECT LO	G Report #	
Date 10-30 Day_	Tuesday	Month	Oct Year	2018
Project Manager	Steve	Sup	perintendent Advet	Allians
Vork Performed Today Final	Detailing Prep be	Cleavances	Weather: Cold (	Cloudy
			Temp. Hi H Low 3	4
7:00 Dentety & To	ol Box Meetin	9	Temp. Hi H Low 3	1
	11 7 1 11		Safety Meeting	
7:30 Continue w			Topic: Work Force N	umber
for visited 10	spection		Project Manager	umber
	/		Project Wanager	T
nina ninaida	- in alana	cealed	Operators	
0:00 Dujunster o	avea rlean	NOVIK aveas	Laborers	
had to list	d down and		Tradesmen	4
down	a court we	being bijbed	Other:	
318000			Other:	
1:30 Junch			Other:	
7,0 /10 101/			Materials Used	Quantity
2:30 Continue P	repping Contain	ment for		
Visual & Alv	Eleabarces			
2747				
2:00 Visual Luga	ection			
, 1				
3:00 Passed Visua	/ fuspection	ready for	Material Purchased/D	elivered
air dearand	05/	7		
	,			
	•			
Dulling Delays Safaty leaves				
Problems - Delays, Safety Issues				
None				
10096				
Subcontractor Progress	71			
ouponitiuotor i rogitoro				
	1		*	
Inspections				
Sup & Hygianist				
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1				
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite		

ON-SITE DAILY SIGN- IN SHEET

Date: 11-12-18

Project Name: 18-309

Project NO: 18-309

Supervisor: 3406

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
ESUS Casado	de	JK2	9:00am	5:00 PM			
esus Casado pomolo Ramire	2 JR	JKZ	9:00 am	5:00 m			
			1				
-P							
			<u> </u>				
						TOTAL	

#### JKS IDUSTRIES LLC DAILY PROJECT LOG Job Name: 18-309

Job #<u>AP-8</u> Date 11-17-18

Job Name: 18-309

Day Woodood

Month Nov

Report # Year ZO\8

Project	Manager
---------	---------

Steve

Superintendent

	Today			Weather: Sw	Suc		
Demoed all build		linas on T	manel. I	Temp. HiLow_7		77	
	TO CAN IV	7	acheta	Safety Meeting	_Ovv		
				Topic:			
				Work Force		lumbe	
						umbe	
				Project Ma	anager		
				Project Supe	ervisor	1	
				Upe	erators	1	
					borers	-	
					esmen		
				Other:			
				Other:			
				Other:			
				Materials Used		Quar	
					_		
				Material Purcha	and/D	alivor	
*				Material Fulcila	ased/D	eliver	
						_	
					_		
	e Safety Issue	e					
Problems - Delay	3, ourcey issue	3					
Problems - Delay							
Problems - Delay							
Problems - Delay							
Problems - Delay							
Problems - Delay Subcontractor Problems	rogress						
	rogress						
	rogress						
Subcontractor P	rogress						
	rogress						
Subcontractor P	rogress						
Subcontractor P	rogress						
Subcontractor Pi							
Subcontractor Programme Inspections  Equipment Re		Rented From	Insp Chklist Complete?	Equipment		Но	
Subcontractor Pi			Insp Chklist Complete?	Equipment		Но	
Subcontractor Programme Inspections  Equipment Re		Rented From	Insp Chklist Complete?	Equipment		Но	
Subcontractor Programme Inspections  Equipment Re			Insp Chklist Complete?	Equipment		Но	
Subcontractor Programme Inspections  Equipment Re			Insp Chklist Complete?	Equipment		Но	
Subcontractor Programme Inspections  Equipment Recorder T30 Ex	ented Today		Insp Chklist Complete?	Equipment		Но	
Subcontractor Programme Inspections  Equipment Re	ented Today			Equipment		Но	
Subcontractor Programme Inspections  Equipment Recorder T30 Ex	ented Today	united	Insp Chklist Complete?  Activity Onsite	Equipment		Но	
Subcontractor Programme Inspections  Equipment Recorder T30 Ex	ented Today	united		Equipment		Но	
Subcontractor Programme Inspections  Equipment Recorder T30 Ex	ented Today	united		Equipment		Но	

#### JKS IDUSTRIES LLC DAILY PROJECT LOG

Job # AP-8 Date (1-13-18

Job Name: 10	3301
Day Tuesday	4

Month NOV

Report #
Year 7018

Project Manager

Superintendent

Work Performed Today			Weather:	
load trucks			Temp. Hi Low 7	8
			Safety Meeting	
			Topic:	
				lumber
			Project Manager	
			Project Supervisor	1
			Operators	1
			Laborers	(
			Tradesmen	
			Other:	
			Other:	
			Other:	
			Materials Used	Quantity
			Material Purchased/D	alissana d
			Material Purchased/D	elivered
Problems Delays Safety leave				
Problems - Delays, Safety Issue	es had to a			
Down time for 1	Delaing Th	umb 9:31	Dam-12:00	PN
Subcontractor Progress				
Inspections				
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment   T	Harras
, , , , , , , , , , , , , , , , , , , ,		map official complete?	Equipment	Hours
320 EX	united			
	0.1111201			
Visitors (Incl. Subs. Clients -t-)	Time a la /Time O :	A # # 0 **		
Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite		

ON-SITE DAILY SIGN- IN SHEET

Date: 11-14-18

Project Name: 18-309
Project NO: APR
Supervisor: Sleve

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Jesus cosado	K	JKS		6:30P			
Jamrob Ramirez	DR	JKS	6:30am	6:30 PM			
Jamrob Ramirez Justin Comb	JC	Chaon	4:00				
Sose Sandez	55	Chacon	7:00				
Ramon Boro S	RSS	chacon	8:00 AM				
		į.					-
			4				
						TOTAL	

### Job # AF

JKS IDUSTRIES LLC DAILY PROJECT LOG
Job Name: 18 - 3091

Day Wendsday Month

Month NO

Report # Year ZOL

Project Manager

Superintendent

Work Performed Today			Weather:	
Ima di aci dia la	1-0			
Wading truc	5		Temp. HiLow_	
- U			Safety Meeting	
			Topic:	
				Number
			Project Manage	
			Project Supervisor	
			Operators	
			Laborers	
			Tradesmer	
			Other:	
			Other:	
			Other:	
			Materials Used	Quantity
			Material Purchased/E	Odivored
			Waterial Furchased/L	relivered
Problems Deleve Octob I				
Problems - Delays, Safety Issue	S			
1101-16 1-11011	1. 11			
Water trailer	2004 WOYK	Find muc	h oust	
TO REED MOVE	na down	fine q!	30 -	
Waiting for h	elle water	trailer		
Subcontractor Progress				
Inspections				
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
310 84	United		_quipition	riours
Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite		
richoro (irioi: capa, cherita, etc)	Time nivinine out	Activity Offsite		

## JKS Industries ON-SITE DAILY SIGN- IN SHEET

Date: 11-15-18

Project Name: 18-209

Project NO: 18-209

Supervisor: \$\frac{1}{2} \frac{1}{2} \frac{1

NAME	Initial	EMPLOYER	TIME IN	TIME OUT	TIME IN	TIME OUT	TOTAL
Jesus Casado	10	JKS	6:30 am	6:30 PM			
James Ramirez	JR	JKS		6:30 PM			
Jose Sanchez	55.	Chacon'	7:00				
Jush GRHID	DC	chaons	7:00				
		*					
		T T					
				9			
						TOTAL	