Former National Guard Armory
Henryetta, Oklahoma

Remediation Final Report

Prepared by:
Department of Environmental Quality
707 North Robinson
Oklahoma City, Oklahoma 73101

OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
...for a clean, attractive, prosperous Oklahoma

The Oklahoma Department of Environmental Quality (DEQ) is pleased to present the City of Henryetta with the Final Remediation Report for the former Henryetta Armory.

DEED NOTICE

A Notice of Remediation has been filed in the county courthouse and is included in this report. It summarizes remediation performed at the former Henryetta Armory and describes continuing operation and maintenance and land use restrictions. This completes the DEQ cleanup of the property. For more detail on the activities described below, see enclosed reports.

ASBESTOS REMEDIATION

DEQ and its contractors completed the following activities:

- Asbestos inspection, including:
  - Asbestos containing floor tile and mastic.
- Asbestos Abatement, including:
  - Removal of floor tile and mastic
  - Thermal pipe insulation and fittings
  - Transite paneling

TARGETED BROWNFIELD ASSESSMENT

DEQ will provide a Phase I Targeted Brownfield Assessment to the City of Henryetta . A copy of this report will be available at http://www.deq.state.ok.us/lpdnew/scaplndex.htm

LEAD REMEDIATION

DEQ and its contractors completed the following activities:

- Lead-based paint (LBP) inspection
- Lead dust wipe sampling
- LBP abatement, including:
  - Scraping and sealing door frames and fascia containing LBP
  - Removal and replacement of doors containing LBP
  - Encapsulation of drill floor containing LBP
- Lead dust abatement, including:
  - HEPA vacuuming and wet washing of floors in the building
- Proper disposal of associated waste

DEQ
OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY

1. Deeds and Legal Documents
2. Maintenance Plan
3. Inspection Reports
4. Scope of Work
5. Final Abatement Reports
6. Confirmation Sampling

DEEDS AND LEGAL DOCUMENTS

I-2011-006598 Book 2035 Pg: 268
11/03/201111:46 am Pg 0268-0269
Fee: $ 15.00 Doc: $ 0.00
Becky Thomas - Okmulgee County Clerk
State of Oklahoma

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

That the State of Oklahoma, acting by and through the Oklahoma Military Department by its Adjutant General, Major General Myles L. Deering, a body corporate and politic and instrumentality of the State of Oklahoma, Grantor, in consideration of the sum of One and No/100 dollars and other valuable consideration in hand paid, the receipt and sufficiency of which are hereby acknowledged, do hereby quitclaim, grant, bargain, sell and convey unto **City of Henryetta, Oklahoma,** Grantee, the following described real property and premises lying and situated in the Okmulgee County, State of Oklahoma, as follows:

> Tracts Twenty-two (22), Twenty-three (23), and Twenty-four (24) in Key-Whitenton Place, a sub-division of a portion of the Southeast Quarter of the Northwest Quarter (SE ¼ NW ¼) of Section Six (6), Township Eleven (11) North, Range Thirteen (13) East, in Okmulgee County, Oklahoma, as show by the recorded plat thereof;

together with the improvements thereon and appurtenances thereunto belonging.

NOTICE: THE ABOVE DESCRIBED PROPERTY MAY HAVE BEEN CONTAMINATED WITH LEAD, ASBESTOS AND OTHER CONTAMINANTS.

TO HAVE AND TO HOLD unto the Grantee, its successors, and assigns for so long as said real property is used for a public purpose as required for this transfer in accordance with title 44, section 233.3(B) of the Oklahoma Statutes.

Signed and delivered this 20 day of October 2011.

STATE OF OKLAHOMA

By: _____
Major General Myles L. Deering,
Adjutant General of the State of Oklahoma

This Transaction is Exempt from Documentary Tax Stamps. Title 68 O.S. § 3202(11).

I-2011-006598 Book 2035 Pg: 269
11/03/201111:46 am Pg 0268-0269
Fee: $ 15.00 Doc: $ 0.00
Becky Thomas - Okmulgee County Clerk
State of Oklahoma

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
) ss
COUNTY OF OKLAHOMA)

Before me, Jennifer Meyer in and for this state, on this 20 day of October, 2011 personally appeared Major General Myles L. Deering, as Adjutant General of the State of Oklahoma, to me known to be the identical person who executed the within and foregoing Quitclaim Deed, and acknowledged to me that he executed the same as free and voluntary act and deed for the uses and purposes therein set forth.

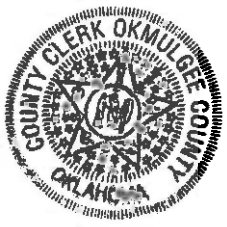
Jennifer Meyer
Notary Public

My Commission Expires:
1/23/12

My Commission Number:
04000685

This Transaction is Exempt from Documentary Tax Stamps. Title 68 O.S. § 3202(11).

I-2014-003662 Book 2099 Pg: 615
06/24/201412:21 pm Pg 0615-0617
Fee: $ 17.00 Doc: $ 0.00
Becky Thomas - Okmulgee County Clerk
State of Oklahoma



NOTICE OF REMEDIATION

FORMER HENRYETTA ARMORY
HENRYETTA, OKLAHOMA

AFFECTED PROPERTY: The Affected Property is the former Henryetta Armory located at 1804 NE 4th St, City of Henryetta, Okmulgee County, Oklahoma, 74437.

The legal description of the Affected Property is as follows:

> Tracts Twenty-two (22), Twenty-three (23), and Twenty-four (24) in Key Whitenton Place, a sub-division of a portion of the Southeast Quarter of the Northwest Quarter (SE ¼ NW 1/4) of Section Six (6), Township Eleven (11) North, Range Thirteen (13) East, in Okmulgee County, Oklahoma, as shown by the recorded plat thereof;

Together with the improvements thereon and appurtenances thereunto belonging.

LEGAL BASIS FOR NOTICE: The Oklahoma Department of Environmental Quality (DEQ) hereby files this Notice of Remediation pursuant to Oklahoma Statutes, 27A O.S. § 2-7-123 (C). This Notice does not grant any right to any person not already allowed by law and shall not be construed to authorize or encourage any person or other legal entity to cause or increase pollution, to avoid compliance with state or federal laws and regulations regarding pollution or to escape responsibility for maintaining environmentally sound operations.

DEQ may take administrative or civil action to recover costs or to compel compliance with or interference with the Continuing Operation, Maintenance, and Monitoring herein described.

The Continuing Operation, Maintenance, and Monitoring shall apply to the Affected Property and to persons who own and/or use the Affected Property until such time as DEQ files a subsequent Notice of Remediation that changes or removes one or more of them.

REASON FOR NOTICE: The Affected Property was contaminated with materials that required remediation pursuant to state and federal environmental laws and regulations. Sampling performed by DEQ contractors, conducted on February 21, 2012, indicated that there was asbestos, lead-based paint, and lead dust in the building.

REMEDY: Remediation activities (Remedy) at the Affected Property included abatement of asbestos, lead-based paint and lead dust. The remedy was completed on December 2, 2013.

I-2014-003662 Book 2099 Pg: 616
06/24/201412:21 pm Pg 0615-0617
Fee: $ 17.00 Doc: $ 0.00
Becky Thomas - Okmulgee County Clerk
State of Oklahoma

For more detailed information please refer to *Former National Guard Armory Henryetta, Oklahoma Remediation Final Report.* To obtain a copy of the report, contact:

Oklahoma Department of Environmental Quality
Central Records

Mailing Address
P.O. Box 1677
Oklahoma City, Oklahoma 73101

Physical Address
707 N Robinson
Oklahoma City, OK 73102

Electronic Address
http://www.deq.state.ok.us/lpdnew/scapIndex.htm

DISCLAIMER:

(A) Lead: DEQ did not test every painted surface inside and outside of the building, therefore there is a potential for lead-based paint at the affected property.

(B) Asbestos: DEQ did not test all building materials inside and outside of the building, therefore there is a potential for asbestos at the affected property.

CONTINUING OPERATION, MAINTENANCE AND MONITORING:

(A) Lead-based paint encapsulant: Lead-based paint encapsulant was applied over lead-based paint on non-friction surfaces. These areas should be periodically inspected and maintained as appropriate.

(B) Sealant: Following cleanup, sealant was applied to room floors where lead-based paint abatement was performed. Sealant should be inspected on a periodic basis and maintained as appropriate.

LAND USE RESTRICTIONS: There are no land use restrictions for the Affected Property because it was cleaned to standards that meet unrestricted residential use.

This Notice of Remediation and the restrictions and requirements contained herein run with the land and no change of ownership of the Affected Property will change the Land Use Restrictions.

Scott A. Thompson, Executive Director
Oklahoma Department of Environmental Quality

5-15-14
Date

I-2014-003662 Book 2099 Pg: 617
06/24/201412:21 pm Pg 0615-0617
Fee: $ 17.00 Doc: $ 0.00
Becky Thomas - Okmulgee County Clerk
State of Oklahoma

ACKNOWLEDGMENT

STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 15th day of May, 2014, personally appeared Scott A. Thompson to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that executed the same as free and voluntary act and deed for the uses and purposed therein set forth. In Testimony Whereof, I have hereunto set my hand and official seal the day and year above written.

My Commission expires:

January 17, 2016.

Teresa M McPherson
Notary Public

NOTARY SEAL PUBLIC
TERESA McPHERSON
Notary Public
State of Oklahoma
Commission # 08000751 Expires 01/17/16

MAINTENANCE PLAN

MAINTENANCE PLAN
FORMER HENRYETTA ARMORY
HENRYETTA, OKLAHOMA

The former Henryetta Armory located at 1804 NE 4th St., Henryetta, Oklahoma was contaminated with materials that required remediation pursuant to State and Federal environmental laws and regulations. Sampling performed by DEQ contractors, conducted on February 21, 2012 indicated that there was asbestos, lead-based paint, and lead dust in the building. Remediation activities at the Affected Property included abatement of asbestos, lead-based paint, and lead dust. The remedy was completed on December 2, 2013. The following maintenance plan is to be completed by the owner of the Affected Property. DEQ recommends inspection of remediated areas every 5 years. During site inspections, the owner should note any signs of disrepair or improper maintenance. Continuing operation, maintenance and monitoring should include:

1. All overhead garage door frames and fascia, the window frame in Room 3, and the door frame separating Room 12 and 13 were scraped and encapsulated with lead-based paint encapsulant. These surfaces need to be re-encapsulated if lead-based paint encapsulant shows signs of deterioration, damage, or flaking.

2. All floors in the former Henryetta Armory and associated buildings were remediated to below 40 µg/square foot (SF) for lead. Room 14 was covered entirely in gray lead-based paint and therefore was sealed with a two-part epoxy concrete sealant to remediate surfaces below 40 µg/SF for lead. The drill floor needs to be resealed if sealant shows signs of deterioration, damage, or flaking. See Attachment 1 for Henryetta Armory Floor Plan Map.

Note – A list of DEQ approved acrylic sealant and elastomeric encapsulants is attached (Attachment 2). DEQ did not test every painted surface and all building materials inside and outside of the building, therefore a potential for lead-based paint and asbestos at the affected property.

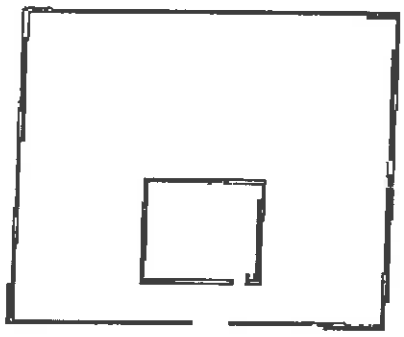
If you have any questions or concerns feel free to contact me at (405) 702-5138.

Sincerely,

Brian Stanila
Environmental Programs Specialist
Site Cleanup Assistance Program
DEQ Land Protection Division

ATTACHMENT 1

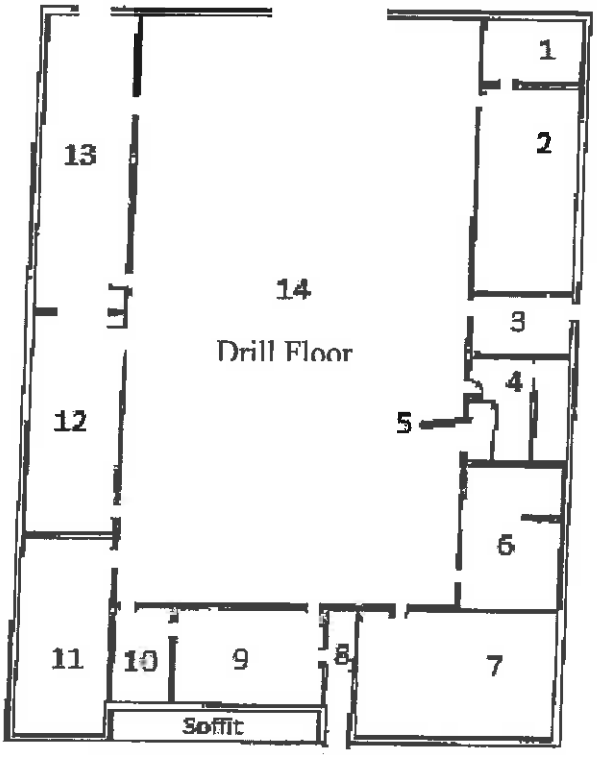
Henryetta Floor Plan Map



Annex 1

Annex 2

North



Main Building

ATTACHMENT 2

DEQ Approved Sealants and Encapsulants List

Acrylic Sealant approved by DEQ

KM-669 Acrylic

Two-Part Epoxy Sealant

Epoxy Coat CK-1400

Lead-Based Paint Encapsulants approved by DEQ

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

INSPECTION REPORTS

QUANTITATIVE FACILITY ASBESTOS SURVEY

NATIONAL GUARD ARMORY
1804 N. E.4th STREET
HENRYETTA, OK

GMR Project Number 2012017
March 12, 2012

Oklahoma Department of Environmental Quality
Land Protection Division
P. O. Box 1677
Oklahoma City, OK 73101-1677
Attention: Mr. Dustin Davidson

GMR & Associates, Inc.
ENGINEERS, PLANNERS, ENVIRONMENTAL SPECIALISTS, HYDROGEOLOGISTS
2520 West I-44 Service Road, Suite 200
P.O. Box 57827
Oklahoma City, OK 73157-7827
Telephone: 405-528-7017
Fax: 405-528-3346

Prepared by:

William Harris
ODOL AHERA Inspector License OK150035

Reviewed by:

James M. Reis
Vice President
Project Manager

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QUANTITATIVE FACILITY ASBESTOS SURVEY
HENRYETTA NATIONAL GUARD ARMORY
1804 N. E. 4TH STREET
HENRYETTA, OKLAHOMA

1.0 EXECUTIVE SUMMARY

In February, 2012 GMR & Associates, Inc. (GMR) performed a survey for asbestos containing materials (ACM) in the National Guard Armory at 1804 N. E. 4th Street in Henryetta, Oklahoma.

The objective of the survey was to assess the presence and quantities of asbestos containing materials (ACM). Bulk samples of suspect (ACM) were collected during the survey and submitted for laboratory analysis for asbestos content. During the survey, a total of 21 samples were collected from 13 different homogeneous areas.

Laboratory results indicate the white floor tile and associated mastic located in Annex 1 (motor pool) and the transite soffit paneling under the south entrance of the main building **contain non-friable asbestos.**

Laboratory results indicate the pipe insulation and fittings for the water supply line **contains friable asbestos**.

2.0 INTRODUCTION

On February 21, 2012, GMR & Associates, Inc. (GMR) performed a survey for asbestos containing materials (ACM) in the National Guard Armory located at 1804 N. E. 4th Street in Henryetta, Oklahoma.

The objective of the survey was to assess the presence and quantities of asbestos containing building materials. Bulk samples of suspect (ACM) were collected during the survey and submitted for laboratory analysis for asbestos content.

3.0 BUILDING DESCRIPTION

Constructed in 1954, the Henryetta Armory building has a total area of 11,216 square feet and is comprised of one floor constructed over a concrete slab. The building consists of a large central garage/staging area, with offices, bathrooms and workrooms located around the garage on the south, east and west.

To the north of the main building is Annex 1 (motor pool) and Annex 2, a small storage building.

4.0 FINDING SUMMARY OF ASBESTOS CONTAINING MATERIALS

Laboratory results indicate the white floor tile and associated mastic located in Annex 1 (motor pool) and the transite soffit paneling under the south entrance of the main building **contain non-friable asbestos.**

Laboratory results indicate the pipe insulation and fittings for the water supply line **contains friable asbestos**.

All other materials sampled did not contain asbestos. The asbestos sampling locations are shown in Appendix C, Figures 1-3.

Table 1
Summary of Asbestos Containing Building Materials

Material Category	Description	Quantities	General Location
Friable	Thermal Pipe Insulation – Water Pipe (HA-01A,B and C)	350 Lineal Feet	Exposed in Rooms 4,5 and 13
Friable	Thermal Pipe Fittings – Water Pipe (HA-02A,B and C)	30 Fittings (Observed)	Exposed in Rooms 4,5 and 13
Category 1 Non-Friable	12 inch x 12 inch White Floor Tile (HAA-01A)	225 Square Feet (SF)	Annex1 (motor pool) office
Category 1 Non-Friable	Mastic on 12 inch x 12 inch White Floor Tile (HAA-02A)	225 Square Feet (SF)	Annex1 (motor pool) office
Category II Non-Friable	Transite Soffits (BA-20A)	250 SF	South Overhang

Table 2
Bulk Samples and Analytical Results

Sample ID	Description	Approx. Amount	Asbestos Type & Percent
HA-01A	Pipe Insulation	350 LF	***55% Chrysotile***
HA-01B	Pipe Insulation	N/A	***8% Chrysotile***
HA-01C	Pipe Insulation	N/A	***8% Chrysotile***
HA-02A	Pipe Fitting Insulation	30 EA	***60% Chrysotile***
HA-02B	Pipe Fitting Insulation	N/A	***60% Chrysotile***
HA-02C	Pipe Fitting Insulation	N/A	***60% Chrysotile***
HA-03A	Roofing Material	N/A	None Detected
HA-04A	Transite Soffit	250 SF	***20% Chrysotile***
HA-05A	Drywall Panels	N/A	None Detected
HA-05B	Drywall Panels	N/A	None Detected
HA-05C	Drywall Panels	N/A	None Detected
HA-06A	12 inch x 12 inch White floor Tile	N/A	None Detected
HA-07A	Mastic on 12 inch x 12 inch White floor Tile	N/A	None Detected
HA-08A	12 inch x 12 inch Green Floor Tile	N/A	None Detected
	White Sheetrock	N/A	None Detected
HA-09A	Mastic on 12 inch x 12 inch Green floor Tile	N/A	None Detected
	White Sheetrock	N/A	None Detected
HA-10A	2 x 4 Ceiling Tile	N/A	None Detected
HA-10B	2 x 4 Ceiling Tile	N/A	None Detected
HA-10C	2 x 4 Ceiling Tile	N/A	None Detected
HAA-01A	12 inch x 12 inch White Floor Tile	225 SF	***3% Chrysotile***
HAA-02A	Mastic on 12 inch x 12 inch White floor Tile	225 SF	***5% Chrysotile***
HAA-03A	2 x 4 Ceiling Tile	N/A	None Detected

SF = Square Feet; LF = Lineal Feet; EA = Each

5.0 SAMPLING PROCEDURES

5.1 SURVEY PROCEDURES

The asbestos survey involved visual Inspection and Sampling, Laboratory Analysis, and Quantity Assessment.

During the physical survey, sample collection data sheets were completed using the unique identification numbers previously described as a reference for the entry of more detailed information regarding the item being sampled. The individual sample numbers were recorded along with the item description, location within the area and condition of the material being sampled. As each sample was collected, it was deposited in a sealable plastic bag or screw-top plastic collection container. The container was then marked with the sample identifier and recorded on the data sheet. Inspectors who had satisfactorily completed an EPA-approved AHERA Inspector course and are licensed as an AHERA Inspector by the State of Oklahoma performed all sampling. The completed survey forms and samples for each area were then taken to Quantem Laboratory, an accredited laboratory in Oklahoma City and the survey data was entered into a computer system for processing.

5.2 ANALYTICAL PROCEDURES

Bulk samples collected by GMR were analyzed by Quantem Laboratory in Oklahoma City, Oklahoma. Bulk samples were analyzed by Polarized Light Microscopy (PLM). All samples that were submitted were analyzed. Quantem laboratory is accredited through the American Industrial Hygiene Association (AIHA) or National Voluntary Laboratory Accreditation Program (NVLAP).

6.0 RECOMMENDATIONS

6.1 RECOMMENDED ACTIONS FOR PLANNED RENOVATIONS

Prepare specifications and Project Design for abatement of friable asbestos material and specifications for abatement of non-friable materials that would be disturbed during renovation activities.

6.2 RECOMMENDED ACTIONS FOR PLANNED DEMOLITION

Prepare specifications and Project Design for abatement of all friable asbestos materials. Non-friable material may be left in place and disposed of as demolition debris.

6.3 RECOMMENDED ACTIONS FOR ASBESTOS LEFT IN-PLACE

Prepare and implement an Operations and Management (O&M) Plan to manage the asbestos in place. The O&M plan shall meet the requirements established in the Oklahoma Control Act, page 26, 380:50-14-1.

7.0 BUDGETARY ABATEMENT COST ESTIMATE

Thermal pipe insulations and fittings:	***$18,500.00***
Transite Soffits:	***$1,500.00***
Gray Floor Tile:	***$650.00***

Appendix A

Laboratory Results and Chain of Custody Field Sheets

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
001	HA-01A	Layered	White Insulation	Asbestos Present Chrysotile 55	Cellulose	20	Binder
001a		Layered	Tan Insulation	Asbestos Present Chrysotile 8	Cellulose	75	Binder
001b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose	45	Tar
002	HA-01B	Layered	Tan Insulation	Asbestos Present Chrysotile 6	Cellulose	80	Binder
002a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose	45	Tar
003	HA-01C	Layered	Tan Insulation	Asbestos Present Chrysotile 8	Cellulose	80	Binder
003a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose	40	Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

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Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
004	HA-02A	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
005	HA-02B	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
006	HA-02C	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
007	HA-03A	Layered	Black Tar	Asbestos Not Present	NA	Tar
007a		Layered	Gray Roofing	Asbestos Not Present	Synthetic 35	Binder
008	HA-04A	Homogeneous	Gray Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Binder
009	HA-05A	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES
2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216
Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
009a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	25	Gypsum
010	HA-05B	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	25	Gypsum
011	HA-05C	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	15	Gypsum
012	HA-06A	Homogeneous	White Floor Tile	Asbestos Not Present	NA		Vinyl CaCO3
013	HA-07A	Homogeneous	Yellow Mastic	Asbestos Not Present	NA		Glue
014	HA-08A	Homogeneous	Green Floor Tile	Asbestos Not Present	NA		Vinyl CaCO3
015	HA-09A	Homogeneous	Yellow Mastic	Asbestos Not Present	NA		Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
016	HA-10A	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite
017	HA-10B	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite
018	HA-10C	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite

Gayle Ooten, Analyst

2/27/2012
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Asbestos Chain-of-Custody

QUANTEM LABORATORIES
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

This Box for Lab Use Only
Lab No. 2041669
Accept Reject

Company Name: GMR & Associates, INC. Acct.#: B Project Name: Navajo Main Bldg

Project Location: Project Number:

	Sample Number	To Be Analyzed	Color / Description	Volume / Area (if applicable)	Comments
1.	HA - 01A		Domestic Water Line		
2.	01B		" " "		
3.	01C		" " "		
4.	02A		Domestic Water Elbow		
5.	02B		" " "		
6.	02C		" " "		
7.	03A		Roofing Material		
8.	04A		Transite soffit return		
9.	05A		Drywall		
10.	05B		"		
11.	05C		"		
12.	HA - 06A		1x1 WH FT		
13.	07A		mastic on 06A		
14.	08A		1x1 Brown FT		
15.	09A		mastic on 08A		
16.	10A		2x4 CT		
17.	10B		2x4 CT		
18.	10C		2x4 CT		

LEGAL DOCUMENT
Please Print Legibly

PLM	
X	Bulk Analysis (EPA 600/R-93/116)
	400 Point Count
	1000 Point Count
	Gravimetric Preparation Fee
	Other

TEM	
	Air - AHERA
	Air - NIOSH 7402
	Bulk - Qualitative [Yes / No] - EPA 600/R-93/116
	Bulk - Quantitative [weight %] - Chatfield
	Dust - Qualitative [Yes / No]
	Dust - Quantitative [Chatfield] - ASTM D5755
	Drinking Water - EPA 100.0
	Waste Water - EPA 600/4-83-043
	Other

PCM	
	NIOSH 7400
	Other

TURNAROUND TIME	
	Rush
	Same Day
	24 Hour
	3-Day
X	5-Day

CONTACT INFORMATION
Name:
Phone:
Report Results VIA (CHOOSE ONE):
FAX:
X QuanTEM WebSite
E-Mail:

Relinquished By	Date/Time	Received By	Date/Time	Date Sampled	Sampled By:
Bill Harris	02-21-12 1615	Fed Ex	2/21/12 4:15		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204670
Account Number: B216
Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Project: Henryetta Armory Annex
Project Location: Henryetta
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	HAA-01A	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
002	HAA-02A	Homogeneous	Black Mastic	Asbestos Present Chrysotile 5	Cellulose <1	Tar
003	HAA-03A	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite

Gayle Ooten, Analyst

2/27/2012
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM LABORATORIES

Asbestos Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 823-1650 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

Page 1 of 1

This Box for Lab Use Only
Lab No. 204670
Accept (circled) Reject

Company Name: GMR + Associates, INC. Acct.#: B
Project Name: Hennyetta Armory Annex
Project Location: Hennyetta
Project Number:

	Sample Number	To Be Analyzed	Color / Description	Volume / Area (if applicable)	Comments
1.	HAA-01A		1x1 wh FT		
2.	02A		mastic on 01A		
3.	03A		2x4 CT		

LEGAL DOCUMENT
Please Print Legibly

PLM
Bulk Analysis (EPA 600/R-93/116) (highlighted)
400 Point Count
1000 Point Count
Gravimetric Preparation Fee
Other

TEM
Air - AHERA
Air - NIOSH 7402
Bulk - Qualitative [Yes / No] - EPA 600/R-93/116
Bulk - Quantitative [weight %] - Chatfield
Dust - Qualitative [Yes / No]
Dust - Quantitative [Str/sq.cm] - ASTM D5755
Drinking Water - EPA 100.0
Waste Water - EPA 600/4-83-043
Other

PCM
NIOSH 7400
Other

TURNAROUND TIME
Rush
Same Day
24 Hour
3-Day
5-Day (highlighted)

CONTACT INFORMATION
Name:
Phone:
Report Results VIA (CHOOSE ONE):
FAX:
QuanTEM WebSite (checked)
E-Mail:

Relinquished By	Date/Time	VIA	Received By	Date/Time	Condition	Sampled By
Bill Harris	02-21-12 1615		Stephanie	2/21/12 4:15		
Relinquished By	Date/Time	VIA	Received By	Date/Time		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517

Appendix B

Certifications

FEE: $25.00

Oklahoma Department of Labor

Bill Harris

has filed in the office of the Commissioner of Labor of the State of Oklahoma
an application for a Limited Asbestos Contractor's license for

AHERA INSPECTOR

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of
the power vested in him by law hereby issues to the
applicant license **No. OK150035.**

Mark Costello

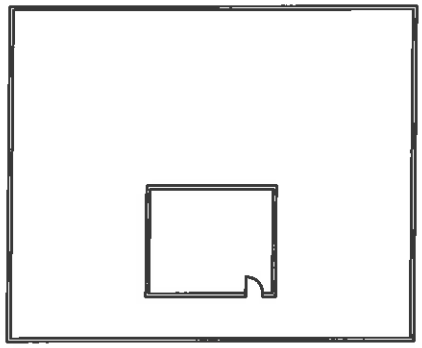
MARK COSTELLO
Commissioner of Labor

May 06, 2011
Date of Issuance

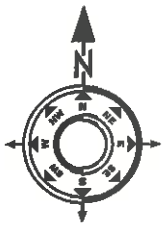
EXPIRES: May 04, 2012

Appendix C

Site Layout with Sample and Asbestos Locations

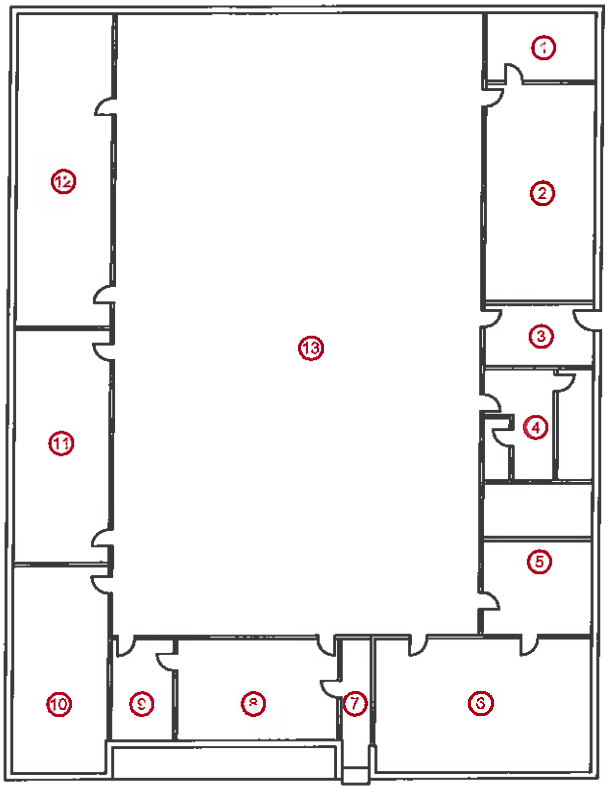


ANNEX 2



NOT TO SCALE

ANNEX 1



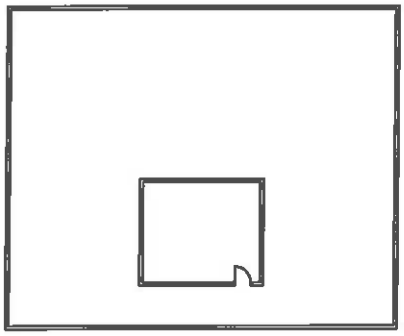
MAIN BUILDING

(#) DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY

NO SURFACE MATERIALS OBSERVED DURING INSPECTION

GMR
& Associates, Inc.
2520 West I-44 Service Road, Ste. 200
P.O Box 57827
Oklahoma City, OK 73157-7827
Phone: 405/528-7017, Fax: 405/528-3346

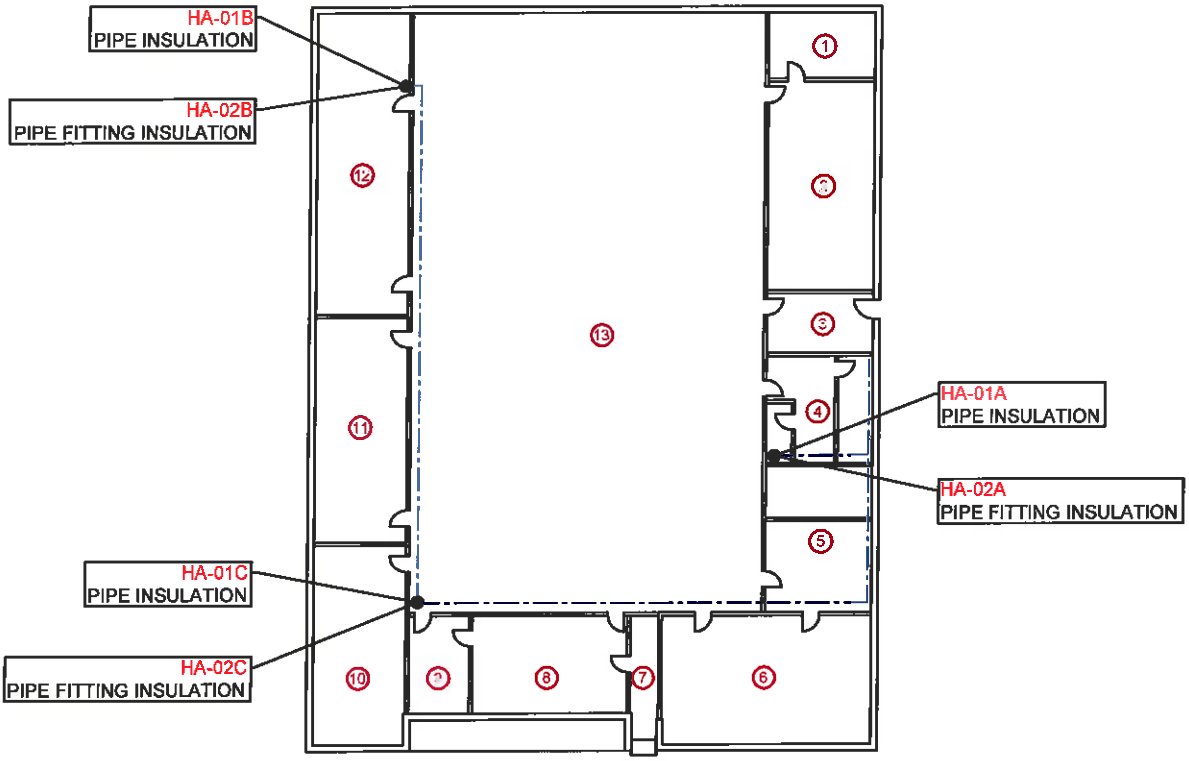
Figure 1
Asbestos Surface Sampling Locations
Henryetta Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437



ANNEX 2

NOT TO SCALE

ANNEX 1

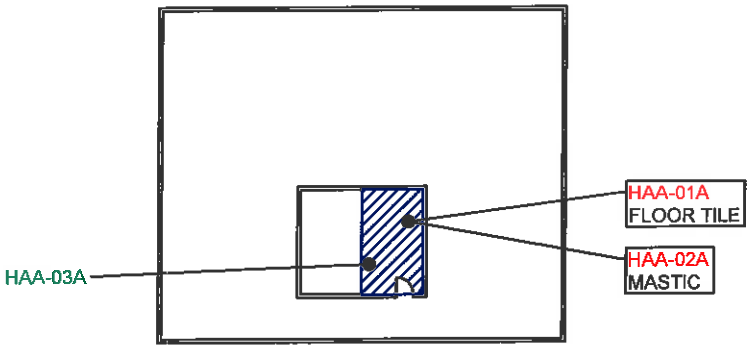


MAIN BUILDING

ASBESTOS CONTAINING PIPING INSULATION
(#) DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY
OK-### SAMPLES CONTAINING ASBESTOS
OK-### SAMPLES NOT CONTAINING ASBESTOS

GMR & Associates, Inc.
2520 West I-44 Service Road, Ste. 200
P.O Box 57827
Oklahoma City, OK 73157-7827
Phone: 405/528-7017, Fax: 405/528-3346

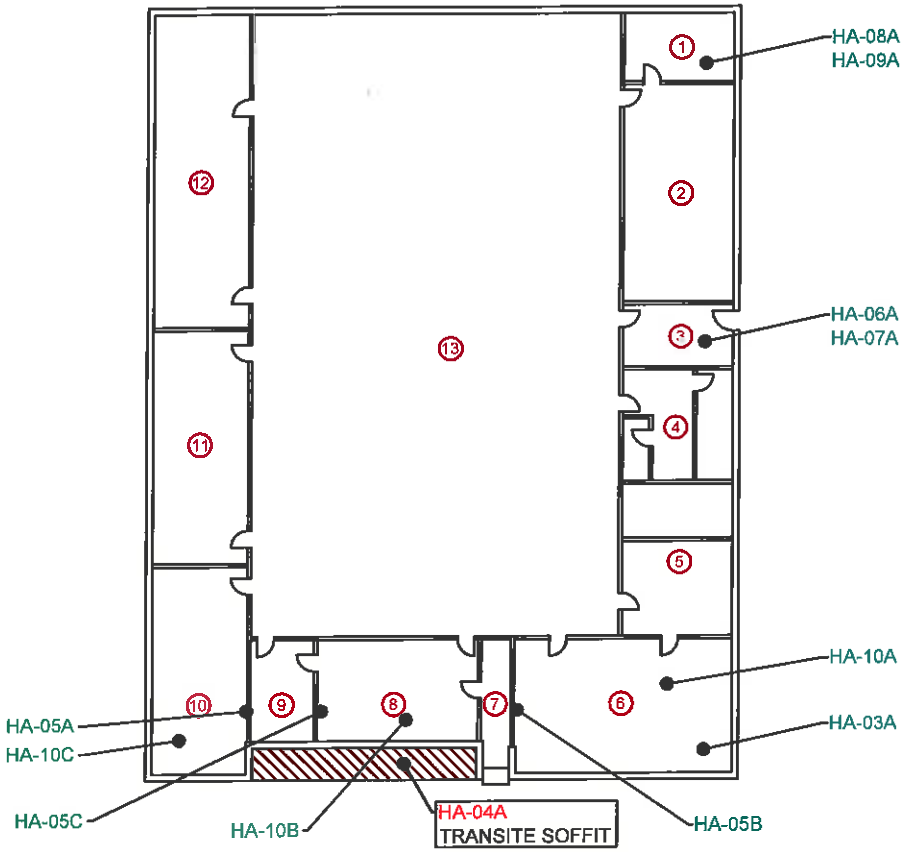
Figure 2
Asbestos Thermal Sampling Locations
Henryetta Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437



ANNEX 2

NOT TO SCALE

ANNEX 1



MAIN BUILDING

ASBESTOS CONTAINING TRANSITE PANELS

ASBESTOS CONTAINING FLOOR TILE AND MASTIC

(#) DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY

OK-### SAMPLES CONTAINING ASBESTOS

OK-### SAMPLES NOT CONTAINING ASBESTOS

GMR & Associates, Inc.
2520 West I-44 Service Road, Ste. 200
P.O Box: 57827
Oklahoma City, OK 73157-7827
Phone: 405/528-7017, Fax: 405/528-3346

Figure 3
Asbestos Miscellaneous Sampling Locations
Henryetta Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437

Appendix D

Photo Record

Friable Asbestos Containing Pipe Insulation

Friable Asbestos Containing Pipe Insulation

GMR & Associates, Inc.

Engineering and Environmental Consultants

PROJECT DESIGN
For
ASBESTOS ABATEMENT

HENRYETTA ARMORY
1804 N.E. 4th STREET
HENRYETTA, OKLAHOMA 72237

JULY 2013

OKLAHOMA DEPARTMENT OF LABOR
Please FAX Approval or Correspondence to:
c/o Mr. Brian D. Stanila
Environmental Programs Specialist II
Oklahoma Department of Environmental Quality
FAX: 405-702-5101
Telephone: 405-702-5138
Brian.Stanila@deq.ok.gov

Corporate Headquarters
2520 West I-44 Service Road, Suite 200
Oklahoma City, OK 73112
Telephone: 405-528-7017
Fax: 405-528-3346

Introduction

This Project Design was prepared for compliance with existing statutes and regulations governing the removal and disposal of asbestos-containing materials in facilities accessible to the public within the State of Oklahoma. It is designed to provide a prudent course of action for handling of asbestos in the best interests of the facility owner, building occupants and the general public.

1. Statement that DOL Abatement of Friable Asbestos Materials Rules Apply

This Project Design intends that the abatement be performed in compliance with the following state and federal regulations:

Asbestos Statutes and Abatement of Friable Asbestos Materials Rules (OAC 380:50) State of Oklahoma Department of Labor, Asbestos Division

Project Name: Henryetta Armory, Henryetta, Oklahoma

Occupancy: The building will be unoccupied during abatement

Project Type: Removal of pipe insulation and fittings

Abatement Contractor: To be Determined

Owner: City of Henryetta, Oklahoma

Owner's Representative: GMR & Associates, Inc.

Regulatory Compliance

This Project Design intends that the abatement be performed in compliance with the following state and federal regulations:

Asbestos Statutes and Abatement of Friable Asbestos Materials Rules (OAC 380:50) State of Oklahoma Department of Labor, Asbestos Division.

CFR 1910, General Industry Standards, latest edition, except for Section 1001(c) and (d)

CFR 1926, Construction Industry Standards, latest edition, except for Section 1100(c)(1) and (2)

CFR part 61, NESHAPS, latest edition

ANSI Z88.2, latest edition

Asbestos Hazard Emergency Response Act and 40 CFR Chapter I, Subchapter R, Part 763, Subpart E

American Conference of Governmental Industrial Hygienists' (ACGIH) Adopted Threshold Limit Value for Heat Stress

2. Work Sequencing and Phasing

The work will be performed in one phase.

*Sequence in each task shall be as follows:

1. Establish decontamination and load-out unit
2. Install critical barriers over openings
3. Establish emergency exits
4. Prep of the work areas
5. DOL prep inspection
6. Removal of ACM material
7. Lock-down
8. DOL visual inspection
9. Clearance monitoring
10. Tear down remaining containment except for critical barriers
11. DOL final inspection (*the load-out trailer will be available at final inspection).*

3. Means of Egress and Fire Protection

Primary emergency exits for work will be through the decontamination unit and the load out unit. The exit paths are shown on the Abatement Plan.

The fire protection plan includes two emergency exits:

1. Through the decontamination unit,
2. Through the load out unit as shown on the drawing.

Fire Extinguishers-The Abatement Contractor will provide Type 10 dry-charged ammonium phosphate fire extinguishers (10 lb) for the work area. The fire extinguishers will have a valid inspection tag and be decontaminated upon removal from the work area. A sufficient number of extinguishers will be provided to insure that all workers are within 75 feet of an extinguisher. An additional extinguisher will be provided exterior to the work area.

Battery powered emergency lighting will be provided at each emergency exit.

4. Quantity, type and location of asbestos materials to be abated

350 linear feet of ACM lines (8 - 55% chrysotile) and 30 fittings (60% chrysotile) in Rooms 4, 5 and 13.

* Asbestos removal procedures per OAC 380:50-13 with glove-bag using wet methods.

*The number of glove-bags is estimated at 100.

5. Numbers of air monitoring pumps.

Eight area pumps will be provided at the following locations:

1. Two inside the work area.
2. One outside the de-con unit.

3. One at the trailer during load-out.
4. Three at the discharge points of AFDs
4. One placed at the discretion of DOL

*Personnel pumps on the following:
1. Minimum of 2 workers and/or 25% of the workers in each work area.

*Clearance Monitoring:
1. In accordance with 40 OAC 380:50-11-2.

6. Numbers and locations of clean test samples and type of analysis

*Five PLM clearance samples will be taken in each glove-bag work area, in accordance with 40 OAC 380:50-11-2.

7. Numbers, capacities, location and discharge points of negative air machines

A negative pressure containment will not be required during glove-bag removal of ACM pipe insulation and fittings. Six (6) air filtration devices, each having a minimum capacity of 2000 cfm, will be required. The machines will have a capacity to provide four (4) changes of air per hour. The exhausts will be to the exterior of the building through either window or overhead door in the drill room (Room 13).

8. Details of project containment (s)

Entry into and exit from the containments shall be through the decontamination unit.

All critical barriers shall be prepped with 6-mil poly and all holes sealed with poly or foam.

Power shall be supplied from a source in the building as designated by the City of Henryetta. A GFCI board or GFCIs shall be supplied to protect power inside the containment.

9. Details of decontamination system (s)

An attached decontamination facility per OAC 380:50-15-12 is planned for this work. The decontamination unit will consist of three chambers, a clean room, a shower and a dirty room. The airlocks for the decontamination unit will consist of triple 6 mil polyethylene overlapping flaps. The shower shall be equipped with a 5-micron waste water filter and 10-micron waste water pre-filter, liquid cleaning agent, non-porous shower grates and a functioning in-line water heater with capacity for 5 gallons per worker. Disposal of wastewater will be into the sanitary sewer. The specific locations will be determined during prep. Negative air flow will be maintained with a flow of makeup air from the clean room through the shower to the dirty room.

10. Soil Sampling

*No soils are involved.

11. Special Materials/Methods Required

*No special materials or methods are required.

12. Variances from the Rules

*No variances from the Rules are required at this time.

CERTIFICATION

This Project Design was prepared in accordance with OAC 380:50 and the Project Design Checklist issued by the Oklahoma Department of Labor.

A. E Murray, Jr.

Arless Murray

Date 07/21/2013 OKPD-140097

FEE: $0.00

Oklahoma Department of Labor

Arless Murray Jr

has filed in the office of the Commissioner of Labor of the State of Oklahoma
an application for a Limited Asbestos Contractor's license for

AHERA PROJECT DESIGNER

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of
the power vested in him by law hereby issues to the
applicant license No. **OK-PD140097.**

Mark Costello

MARK COSTELLO
Commissioner of Labor

June 03, 2013
Date of Issuance

EXPIRES: May 31, 2014

ANALYTICAL RESULTS

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Re: QuanTEM ID 204669

QuanTEM appreciates the opportunity to provide analytical testing services to you. Attached are your reports and other supporting documentation for the above referenced project.

Thank you for making QuanTEM your lab of choice. If you have any question concerning this or other reports please feel free to contact us at 800-822-1650.

We continually work to improve our service. Help us out by providing feed back on your experience at www.QuanTEM.com. Click on Service Survey and fill out the form. We look forward to hearing from you.

Respectfully,
QuanTEM Laboratories, LLC.

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	HA-01A	Layered	White Insulation	Asbestos Present Chrysotile 55	Cellulose 20	Binder
001a		Layered	Tan Insulation	Asbestos Present Chrysotile 8	Cellulose 75	Binder
001b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 45	Tar
002	HA-01B	Layered	Tan Insulation	Asbestos Present Chrysotile 6	Cellulose 80	Binder
002a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 45	Tar
003	HA-01C	Layered	Tan Insulation	Asbestos Present Chrysotile 8	Cellulose 80	Binder
003a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 40	Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
004	HA-02A	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
005	HA-02B	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
006	HA-02C	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	NA	Binder
007	HA-03A	Layered	Black Tar	Asbestos Not Present	NA	Tar
007a		Layered	Gray Roofing	Asbestos Not Present	Synthetic 35	Binder
008	HA-04A	Homogeneous	Gray Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Binder
009	HA-05A	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216
Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
009a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	25	Gypsum
010	HA-05B	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	25	Gypsum
011	HA-05C	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	15	Gypsum
012	HA-06A	Homogeneous	White Floor Tile	Asbestos Not Present	NA		Vinyl CaCO3
013	HA-07A	Homogeneous	Yellow Mastic	Asbestos Not Present	NA		Glue
014	HA-08A	Homogeneous	Green Floor Tile	Asbestos Not Present	NA		Vinyl CaCO3
015	HA-09A	Homogeneous	Yellow Mastic	Asbestos Not Present	NA		Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 204669
Account Number: B216

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Date Received: 02/21/2012
Received By: Sherrie Leftwich
Date Analyzed: 02/27/2012
Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

Project: Henryetta Main Bldg.
Project Location: N/A
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
016	HA-10A	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite
017	HA-10B	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite
018	HA-10C	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Paint Perlite

Gayle Ooten, Analyst

2/27/2012
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Asbestos Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 922-1860 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

Page 1 of 1

This Box for Lab Use Only
Lab No. 204669
Accept / Reject

Company Name: GMR & Associates, INC. Acct.#: B Project Name: Henryetta Main Bldg

Project Location: Project Number:

	Sample Number	To Be Analyzed	Color / Description	Volume / Area (if applicable)	Comments
1.	HA - 01A		Domestic Water Line		
2.	01B		" " "		
3.	01C		" " "		
4.	02A		Domestic Water Elbow		
5.	02B		" " "		
6.	02C		" " "		
7.	03A		Roofing Material		
8.	04A		Transite soffit return		
9.	05A		Drywall		
10.	05B		"		
11.	05C		"		
12.	HA - 06A		1x1 WH FT		
13.	07A		mastic on 06A		
14.	08A		1x1 Stucco FT		
15.	09A		Mastic on 08A		
16.	10A		2x4 CT		
17.	10B		2x4 CT		
18.	10C		2x4 CT		
	~~XX~~				

LEGAL DOCUMENT
Please Print Legibly

PLM	
X	Bulk: Analysis (Chrysotile)
	400 Point Count
	1000 Point Count
	Gravimetric Preparation Fee
	Other

PCM	
	NIOSH 7400
	Other

TURNAROUND TIME	
	Rush
	Same Day
	24 Hour
	3-Day
X	5-Day

TEM	
	Air - AHERA
	Air - NIOSH 7402
	Bulk - Qualitative (Yes / No) - EPA 600/R-93/116
	Bulk - Quantitative (weight %) - Chatfield
	Dust - Qualitative (Yes / No)
	Dust - Quantitative (Grams/sq cm) - ASTM D5755
	Drinking Water - EPA 100.2
	Waste Water - EPA 600/4-83-043
	Other

CONTACT INFORMATION	
Name:	
Phone:	
Report Results VIA (CHOOSE ONE):	
	FAX:
✓	QuanTEM WebSite
	E-Mail:

Relinquished By	Date	Time	Received By	Date	Time	Date Sampled	Sampled By:
Bill Harris	02-21-12	1615	Swift	2/21/12	4:15		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Re: QuanTEM ID 204670

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Thank you for making QuanTEM your lab of choice. If you have any question concerning this or other reports please feel free to contact us at 800-822-1650.

We continually work to improve our service. Help us out by providing feed back on your experience at www.QuanTEM.com. Click on Service Survey and fill out the form. We look forward to hearing from you.

Respectfully,
QuanTEM Laboratories, LLC.

QUANTEM LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

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Project: Henryetta Armory Annex
Project Location: Henryetta
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QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
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002	HAA-02A	Homogeneous	Black Mastic	Asbestos Present Chrysotile 5	Cellulose <1	Tar
003	HAA-03A	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite

Gayle Ooten, Analyst

2/27/2012
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Asbestos Chain-of-Custody

QUANTEM LABORATORIES
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1850 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

Page 1 of 1

This Box for Lab Use Only
Lab No. 204670
Added Rejad

Company Name: GMR & Associates, INC. Acct.#: B Project Name: Hennyitta Armory Demo

Project Location: Hennyitta Project Number:

Sample Number	To Be Analyzed	Color / Description	Volume / Area (if applicable)	Comments
HAA-01A		1x1 wh FT		
02A		mastic on 01A		
03A		2x4 CT		

LEGAL DOCUMENT
Please Print Legibly

PLM
✓ Bulk Analysis (EPA 600/R-93/116)
400 Point Count
1000 Point Count
Gravimetric Preparation Fee
Other

PCM
NIOSH 7400
Other

TEM
Air - AHERA
Air - NIOSH 7402
Bulk - Qualitative [Yes / No] - EPA 600/R-93/116
Bulk - Quantitative [weight %] - Chestnut
Dust - Qualitative [Yes / No]
Dust - Quantitative [#/sm/sq cm] - ASTM D6755
Drinking Water - EPA 100.2
Waste Water - EPA 600/4-83-043
Other

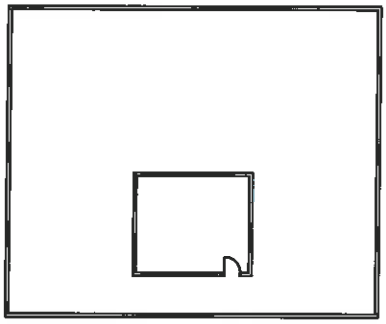
TURNAROUND TIME
Rush
Same Day
24 Hour
3-Day
✓ 5-Day

CONTACT INFORMATION
Name:
Phone:
Report Results VIA (CHOOSE ONE):
FAX:
✓ QuanTEM WebSite
E-Mail:

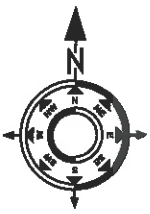
Relinquished By	Date/Time	VIA	Received By	Date/Time	Sample Integrity	Sampled By:
Bill Karn	02-21-12 1615		Stefanie	2/21/12 4:15		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517

PROJECT DESIGN DIAGRAM

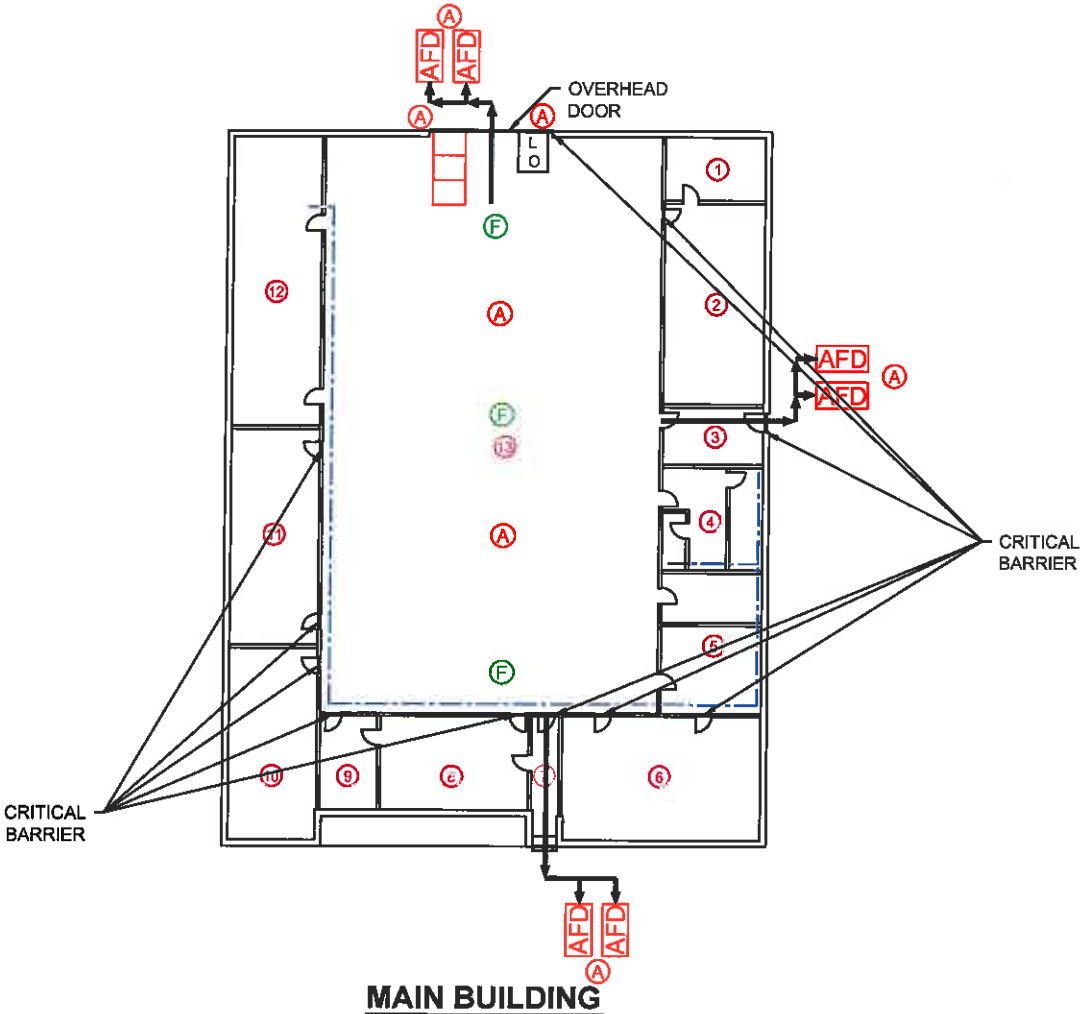


ANNEX 2



NOT TO SCALE

ANNEX 1



MAIN BUILDING

ASBESTOS CONTAINING PIPING INSULATION

(#) DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY

(F) FIRE EXTINGUISHER

AFD AIR FILTRATION DEVICE

(A) AIR MONITORING LOCATION

L O LOADOUT

3-STAGE DECON

GMR & Associates, Inc.
2520 West I-44 Service Road, Ste. 200
Oklahoma City, OK 73112
Phone: 405/528-7017, Fax: 405 528-3346

Figure 1
Asbestos Abatement Project Design
Henryetta Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437

Oklahoma Department of Labor

Mark Costello
COMMISSIONER OF LABOR

Facsimile Transmittal Form

Date:	7/25/13
To:	Marty Reis
From:	Clark Boswell
Fax #:	528-3346
Re:	ODEQ Henryetta Armory
Number of pages, including cover:	2
Message:	Marty- Please find the following Project Design Review Form for the above referenced project.

Project Design Review Form

Oklahoma Department of Labor

Asbestos Division

3017 N. Stiles, Oklahoma City, OK 73105

Phone – (405)521-6464 Fax – (405)521-6025

Project Name: ODEQ-Henryetta Armory

Project No: 13-7630 Date: 7/23/13

Project Designer: Arless Murray

Approved: X

Disapproved: _____

	ITEM	ACCEPTED	REJECTED	COMMENTS
1.	A statement that DOL Abatement of Friable Materials Rules apply.	X		This project to be performed according to DOL Abatement of Friable Asbestos Rules OAC 380:50
2.	Sequencing and phasing of work.	X		One Phase
3.	Identification of means of egress and a fire protection plan and a diagram for emergency escape routes, and fire extinguisher placements.	X		Workers briefed on emergency egress procedures. 10 lb ABC fire extinguishers placed inside work area within 75 ft. of workers and one at the decon.
4.	The quantity, type, percentage with bulk analysis unless presumed and a diagramed location of asbestos materials to be abated.	X		Approximately 380 LF of TSI containing up to 60% chrysotile.
5.	Abatement methods, and techniques, and numbers of containments, glove bags or mini-containments.	X		GLovebag procedures according to DOL OAC 380:50-13.
6.	Details of personal and area air monitoring samples.	X		Work area, outside decon, load out, AFD discharge, 25% of work force with a minimum of 2 samples.
7.	Numbers and locations of Clean Test samples and type of analysis to be employed.	X		5 PCM samples achieving 1200 L each sample.
8.	Numbers, capacities, a diagram to identify locations, and discharge points, if any, of negative air machines.	X		6 externally vented AFD's achieving (4) air changes per hour.
9.	Details of project containment(s), glove bag or mini-containments, including drawings. Details shall include all applicable subchapters, including but not limited to scaffolding and live electric isolation.	X		Power within arm's length or below will be deactivated. Criticals and drop cloths.
10.	Details of decontamination system(s).	X		Attached three stage decon adhering to DOL OAC 380:50-15-7,8 and 12.
11.	The extent to which asbestos-contaminated soils, if any, must be removed and the sampling methods of determining the efficacy of such removal.	N/A		
12.	Special materials or methods required to protect objects in the work area should be detailed, (plywood over carpeting or hardwood floors to prevent damage from scaffolds and/or falling materials.	N/A		
13.	Any variances from the Abatement of Friable Asbestos Materials Rules.	N/A		

The Department of Labor reserves the right to require additional engineering or environmental controls consistent with the Abatement of Friable Asbestos Materials Rules which may be necessary because of discrepancies between this Project Design and field conditions or from unanticipated changes in field conditions.

REVIEWED BY: _____ DATE: 7/23/13 REVIEWED BY: _____ DATE: 7/24/13

Jul. 25. 2013 8:00AM No. 4423 P. 2

SURVEY FOR LEAD IN SETTLED DUST

NATIONAL GUARD ARMORY
1804 N.E. 4TH STREET
HENRYETTA, OK 74437

GMR Project Number 2012017
March 16, 2012

Oklahoma Department of Environmental Quality
Land Protection Division
P. O. Box 1677
Oklahoma City, OK 73101-1677
Attention: Dustin Davidson

GMR & Associates, Inc.
ENGINEERS, PLANNERS, ENVIRONMENTAL SPECIALISTS, HYDROGEOLOGISTS
2520 West I-44 Service Road, Suite 200
P.O. Box 57827
Oklahoma City, OK 73157-7827
Telephone: 405-528-7017
Fax: 405-528-3346

Prepared by:

Arless E. Murray, Jr.
President
LBP Inspector, OKRASR13458

Reviewed by:

James M. Reis
Vice President
Project Manager

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2.0 INTRODUCTION 1

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4.0 METHODOLOGY 2

5.0 FINDING SUMMARY OF LEAD IN SETTLED DUST 2

6.0 RECOMMENDATIONS 2

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Appendices

Appendix A Inspector Certification

Appendix B Site Layout with Sample Locations

Appendix C Laboratory Results and Chain of Custody Field Sheets

SURVEY FOR LEAD IN SETTLED DUST
HENRYETTA NATIONAL GUARD ARMORY
1804 N.E. 4th Street
HENRYETTA, OKLAHOMA

1.0 EXECUTIVE SUMMARY

GMR & Associates, Inc. (GMR) has completed a Survey for Lead in Settled Dust (Survey) at the Henryetta National Guard Armory, 1804 N.E. 4th Street, Henryetta, Oklahoma. The Survey was conducted on February 21, 2012 by Mr. Arless Murray of GMR.

The Survey included the collection of dust wipe samples from the floor in each room and from window sills located along the south, east and west sides of the building. The samples were collected using EPA/HUD wipe sampling protocols.

The laboratory analytical results of the floor and sill samples obtained at the armory were compared to EPA/HUD criteria. The EPA/HUD recommended maximum concentration for lead in settled dust is 40 micrograms per square foot ($\mu g/ft^2$) for floors and 250 $\mu g/ft^2$ for window sills.

The results of the wipe samples collected from the floors and window sills revealed the following:

- Lead concentrations in settled dust in excess of 40 $\mu g/ft^2$ were present on the floor in Room 11; and
- Lead concentrations in settled dust in excess of 40 $\mu g/ft^2$ were present on the floors in both Annex 1 and Annex 2.

2.0 INTRODUCTION

On February 21, 2012, GMR personnel performed a Survey for Lead in Settled Dust (Survey) at the Henryetta National Guard Armory, 1804 N.E. 4th Street, Henryetta, Oklahoma. The purpose of the Survey was to identify the locations of lead contaminated dust in the Armory. The Survey was conducted by Mr. Arless Murray of GMR. The Lead-Based Risk Assessor Certifications is provided in Appendix A. A Site Layout Map of the building showing room numbers and sampling locations is included in Appendix B.

3.0 BUILDING DESCRIPTION

Constructed in 1954, the Henryetta Armory building has a total area of 11,216 square feet and is comprised of one floor constructed over a concrete slab. The building consists of a large central garage/staging area, with offices, bathrooms and workrooms located around the garage on the south, east and west.

To the north of the main building is Annex 1, a motor pool building, and; Annex 2, a small storage building.

4.0 METHODOLOGY

One (1) dust wipe sample was obtained in each room, except for the drill room, where three (3) samples were obtained. A template measuring one square foot was used to provide a known sampling area for collection of floor samples. A measured taped-off area was used for collection of sill samples. Sample HR-13-04 shown in the laboratory report is a field blank and is not a representative dust sample from a floor or sill. A total of 21 samples were collected including one field blank.

The laboratory analytical results of the floor and sill samples obtained at the armory were compared to EPA/HUD criteria. The EPA/HUD recommended maximum concentration for lead in settled dust is 40 micrograms per square foot ($\mu g/ft^2$) for floors and 250 $\mu g/ft^2$ for window sills.

5.0 FINDING SUMMARY OF LEAD IN SETTLED DUST

Laboratory results from the dust wipe samples are presented in Appendix C. Floor samples having lead levels greater than EPA/HUD recommended maximum concentrations are shown in Table 1 below. A layout of the building is presented in Appendix B.

Table 1
Positive Dust Wipe Locations

Sample No.	Lead Content ($\mu g/ft^2$)	Location	Approx. Sq. Footage of Location	EPA/HUD Max. Level ($\mu g/ft^2$)
HR-11-01	175	Room 11 - Floor	492	40
HR-AN1-01	102	Annex 1-Floor	2,945	40
HR-AN2-01	183	Annex 2 -Floor	110	40

6.0 RECOMMENDATIONS

The floor and window sills that had elevated levels of lead in the settled dust should be cleaned using the following procedure:

- HEPA vacuum the entire floor area and the window sills if applicable;
- Wet clean the entire floor area and the window sills if applicable;
- HEPA vacuum the entire floor area and the window sills if applicable; and
- Perform dust wipe sampling to assure that all lead contaminated dust has been reduced to acceptable levels.

Appendix A

Certifications

Department of Environmental Quality

This is to Certify That

GMR & ASSOCIATES INC

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified to use Lead-Based Paint

FIRM

Certification #: OKFIRM13456

This certificate is valid from the date of issuance and expires as prescribed by law.

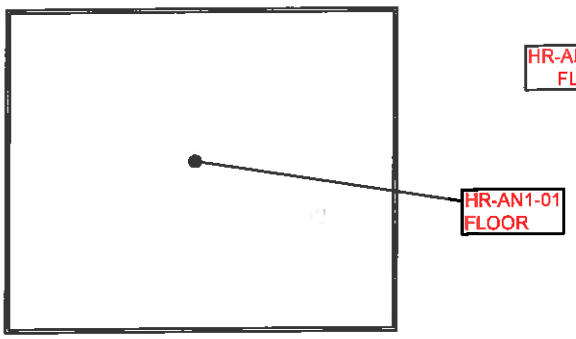
Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

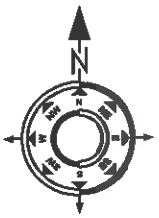
Environmental Programs Manager
Air Quality Division

Appendix B

Site Layout with Sample Locations

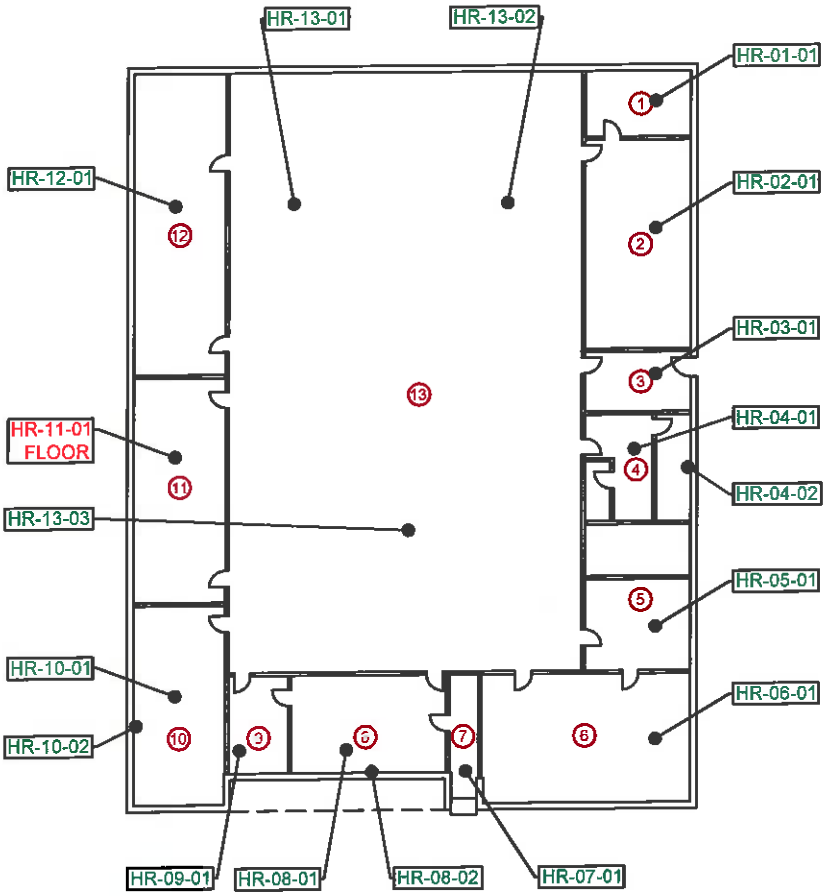


ANNEX 2



NOT TO SCALE

ANNEX 1



MAIN BUILDING

① DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY
OK-### FLOOR SAMPLES WITH GREATER THAN 40 µg/ft²
OK-### FLOOR SAMPLES WITH LESS THAN 40 µg/ft²
OK-### SILL SAMPLES WITH GREATER THAN 250 µg/ft²
OK-### SILL SAMPLES WITH LESS THAN 250 µg/ft²

GMR
& Associates, Inc.
2520 West I-44 Service Road, Ste. 200
P.O Box 57827
Oklahoma City, OK 73157-7827
Phone: 405/528-7017, Fax: 405/528-3346

Figure 1
Dust Sampling Locations
Henryetta Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437

Appendix C

Laboratory Results and Chain of Custody Field Sheets

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

uanTEM Set ID: 204791
Date Received: 02/24/12
eceived By: Barbara Holder
ate Sampled:
Time Sampled:
nalyst: BM
ate of Report: 2/27/2012

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Acct. No.: B216

Project: Henryetta Armory
Location: 1804 N.E. 4th St., Henryetta, OK
Project No.: 2012017-001

IHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	HR-01-01	Wipe	Lead	25.7	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
002	HR-02-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
003	HR-03-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
004	HR-04-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
005	HR-05-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
006	HR-06-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
007	HR-07-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
008	HR-08-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
009	HR-09-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
010	HR-10-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
011	HR-11-01	Wipe	Lead	175	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
012	HR-12-01	Wipe	Lead	35.3	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
013	HR-13-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
014	HR-13-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
015	HR-13-03	Wipe	Lead	24.2	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
016	HR-AN1-01	Wipe	Lead	102	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
017	HR-AN2-01	Wipe	Lead	183	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

QUANTEM® LABORATORIES
2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 204791
Date Received: 02/24/12
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/27/2012

AIHA ID: 101352

Client: GMR & Associates, Inc.
PO Box 57827
Oklahoma City, OK 73157

Acct. No.: B216

Project: Henryetta Armory
Location: 1804 N.E. 4th St., Henryetta, OK
Project No.: 2012017-001

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	HR-04-02	Wipe	Lead	27.5	12	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
019	HR-08-02	Wipe	Lead	<8.00	8	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
020	HR-10-02	Wipe	Lead	<8.00	8	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)
021	HR-13-04	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/27/12 15:45	W EPA 7420 (1)

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 9718
Test: Lead
Date: 2/27/2012
Matrix: Wipe
Lab Number: 204791
Approved By: Benton Miller
Date Approved: 2/27/2012

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	4.8	5.5
ICV	0.9	1	1.1
RLVS	0.256	0.348	0.384

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W3	0.000	5.460	4.918	90.1	5.027	92.1	2.2
MS-W2	0.000	5.481	5.332	97.3	5.471	99.8	2.6
MS-W1	0.000	5.449	5.447	100.0	5.157	94.6	5.5

Authorized Signature: _____

Benton Miller, Analyst

LEAD CHAIN OF CUSTODY

QUANTEM LABORATORIES
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
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www.QuanTEM.com

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	24791
Accept	Reject

Report Results (☑ one box)	
	QuanTEM Website
	Other _____

Contact Information		Project Information	
Company: GMR & Associates	Phone: 405-528-7071	Project Name: Henryetta Armory	
Contact: Arless Murray	Cell Phone: 405-401-2933	Project Location: 1904 N.E. 4th St, Henryetta, OK	
Account #	E-mail: aemurray@gmrinc.net	Project ID: 20120 17-001	

Sampled By: Name: Arless Murray Date: 2-21-12

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
A. Murray	2/24/12 1300		Swift	2/24/12 1100

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg /ft²	µg / m³	mg / cm³
1	HR-01-01	Rm1-Floor-Tile		12"x12"	C	✓				✓		
2	HR-02-01	Rm2-Floor-Tile		12"x12"	C	✓				✓		
3	HR-03-01	Rm3-Floor-Tile		12x12"	C	✓				✓		
4	HR-04-01	Rm4-Floor-Tile		12"x12"	C	✓				✓		
5	HR-05-01	Rm5-Floor-Tile		12"x12"	C	✓				✓		
6	HR-06-01	Rm6-Floor-Carpet		12"x12"	C	✓				✓		
7	HR-07-01	Rm7-Floor-Tile		12"x12"	C	✓				✓		
8	HR-08-01	Rm8-Floor-Carpet		12"x12"	C	✓				✓		
9	HR-09-01	Rm9-Floor-Carpet		12"x12"	C	✓				✓		
10	HR-10-01	Rm10-Floor-Carpet		12"x12"	C	✓				✓		
11	HR-11-01	Rm11-Floor-Conc		12"x12"	C	✓				✓		
12	HR-12-01	Rm12-Floor-Conc		12"x12	C	✓				✓		

Sample Matrix Codes	
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME	
	Same Day
	24 - Hour
	3 - Day
X	5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8577 • Mark Package "Hold for Saturday Pickup"

QUANTEM LABORATORIES
www.QuanTEM.com

LEAD CHAIN OF CUSTODY

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	20479
Accept	Reject

Project Information

Company: | Project Name: Heritage Armory | Project Location:

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg / ft²	µg / m³	mg / cm²
13	HR-13-01	Rm 13 - Floor - Conc		12"x12"	C	✓				✓		
14	HR-13-02	Rm 13 - Floor - Conc		12"x12"	C	✓				✓		
15	HR-13-03	Rm 13 - Floor Conc		12"x12"	C	✓				✓		
16	HR-ANX-01	Annex 1 - Floor - Conc		12"x12"	C	✓				✓		
17	HR-ANX-02	Annex 2 - Floor - Conc		12"x12"	C	✓				✓		
18	HR-04-02	Rm 4 - Sill		6"x32"	C	✓				✓		
19	HR-08-02	* Rm 8 - Sill		12"x24"	C	✓				✓		
20	HR-10-02	Rm 10 - Sill		12"x24"	C	✓				✓		
* 21	HR-13-04	Rm 13 - [illegible]										
22												
23												
24												
25												
26												
27												
28												
29												
30												

Sample Matrix Codes	
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-3517 • Mark Package "Hold for Saturday Pickup"

* Field Blank

LEAD-BASED PAINT INSPECTION REPORT

NATIONAL GUARD ARMORY
1804 N. E.4th STREET
HENRYETTA, OK

GMR Project Number 2012017
March 12, 2012

Oklahoma Department of Environmental Quality
Land Protection Division
P. O. Box 1677
Oklahoma City, OK 73101-1677
Attention: Mr. Dustin Davidson

GMR & Associates, Inc.
ENGINEERS, PLANNERS, ENVIRONMENTAL SPECIALISTS, HYDROGEOLOGISTS
2520 West I-44 Service Road, Suite 200
P.O. Box 57827
Oklahoma City, OK 73157-7827
Telephone: 405-528-7017
Fax: 405-528-3346

Prepared by:

Jason Lee
Basin Environmental and Safety Technologies
LBP Risk Assessor, OKRASR13451

Reviewed by:

Arless Murray, Jr.
President

EXECUTIVE SUMMARY

Basin Environmental and Safety Technologies (Basin) performed a lead-based paint inspection of the interior and exterior painted surfaces at the Former National Guard Armory building on February 21, 2012. The property is located at 1804 N.E. 4th St., Henryetta, OK 74437 and is owned by the City of Henryetta, 115 S. 4th St., Henryetta, OK 74437 (918-652-3348). The inspection identified the presence, quantity, locations, and characteristics of lead on all interior and exterior painted surfaces and building components. Surfaces were tested according to the specifications described in the protocols for lead-based paint testing in the Department of Housing and Urban Development's (HUD) Guidelines, Chapter 7 (1997 revision) and any applicable Federal, State, and Local regulations.

The objective of the inspection was to identify surfaces with lead in concentrations above the Environmental Protection Agency's (EPA) threshold of 1.0 mg/cm^2 by X-Ray Fluorescence (XRF) analysis. A total of seventeen (17) room equivalents, including the building exterior and two annex buildings, were inspected.

Surfaces found to contain lead-based paint by XRF analysis are listed in table below. All testing combinations not specifically tested, but identical to those represented below should be considered positive for lead-based paint unless otherwise noted. A listing of all tests can be found in **Appendix A**.

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)
210	13		Floor		Blue	Fair	Concrete	3.3
211	13	D	Garage Door	Frame	White	Poor	Wood	1.1
218	13	C	Fire Door	Frame	White	Fair	Wood	1.5
242	3	A	Window	Frame	White	Intact	Wood	1.3
248	4	C	Door	Frame	White	Fair	Wood	1.2
251	4	D	Wall	Board	Gray	Intact	Wood	1.1
253	4		Ceiling	Beam	Gray	Intact	Wood	2.4
254	4		Ceiling		Gray	Intact	Wood	1.3
263	5		Ceiling	Beam	Gray	Intact	Wood	2.1
264	5		Ceiling		Gray	Intact	Wood	1.2
265	5	B	Wall	Board	Gray	Intact	Wood	1.2
266	5	B	Wall	Bench	Gray	Poor	Wood	1.2
275	6	D	Door	Frame	White	Fair	Wood	1.7
276	6		Ceiling	Beam	White	Intact	Wood	1.3
277	6		Ceiling		White	Intact	Wood	1
284	7	D	Door	Frame	White	Intact	Wood	1.4
285	7		Ceiling	Beam	Gray	Intact	Wood	1.5
286	7		Ceiling		Gray	Intact	Wood	1.2
287	8		Ceiling		Gray	Intact	Wood	1.3
289	8	D	Door	Frame	White	Fair	Wood	1.2
291	8	D	Door		White	Fair	Wood	1
302	9	D	Door	Frame	White	Fair	Wood	1.1
303	9	D	Door		White	Fair	Wood	1.1

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)
305	9		Ceiling	Beam	White	Intact	Wood	1.7
308	10		Ceiling	Beam	Gray	Intact	Wood	1.2
311	10	A	Door	Frame	White	Intact	Wood	1.7
321	11		Ceiling	Beam	Gray	Fair	Wood	1.3
323	11		Ceiling		Gray	Fair	Wood	1.1
327	11	A	Door	Frame	White	Fair	Wood	1.4
328	11	A	Door		White	Fair	Wood	1.4
342	Exterior	B	Porch	Ceiling	Beige	Poor	Concrete	1.6
343	Exterior	B	Porch	Upper Trim	Beige	Poor	Concrete	2.1
344	Exterior	D	Garage Door	Fascia	Yellow	Poor	Metal	3.8
349	Annex Ext	B	Garage Door	Fascia	Yellow	Poor	Metal	1.8
351	Annex Ext	B	Door	Frame	White	Poor	Metal	1.6
354	Storage Ext	B	Door	Frame	Yellow	Fair	Metal	4.2
355	Storage Ext	B	Door	Frame	Beige	Fair	Metal	1.1

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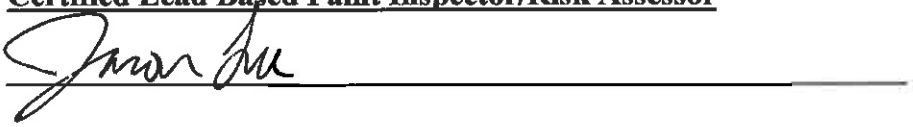
I. CERTIFICATION

I certify that this inspection, conducted at the Former National Guard Armory located at 1804 N.E. 4th St., Henryetta, OK 74437, complies with accepted standards, practices, and regulations promulgated by the U.S. Department of Housing and Urban Development, the Environmental Protection Agency, and the Oklahoma Department of Environmental Quality. The results accurately reflect the condition of the property at the time the inspection was performed.

Certified Lead Based Paint Inspector/Risk Assessor



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1.2	March 13, 2012	Todd Wolfard	

II. INTRODUCTION

Basin Environmental and Safety Technologies (Basin) performed a lead-based paint inspection of the interior and exterior painted surfaces at the Former National Guard Armory building on February 21, 2012. The property is located at 1804 N.E. 4th St., Henryetta, OK 74437 and is owned by the City of Henryetta Oklahoma, 115 S. 4th St., Henryetta, OK 74437 (918-652-3348). The inspection identified the presence, quantity, locations, and characteristics of lead on all interior and exterior painted surfaces and building components. Surfaces were tested according to the specifications described in the protocols for lead-based paint testing in the Department of Housing and Urban Development's (HUD) Guidelines, Chapter 7 (1997 revision) and any applicable Federal, State, and Local regulations.

The objective of the inspection was to identify surfaces with lead in concentrations above the Environmental Protection Agency's (EPA) threshold of 1.0 mg/cm^2 by X-Ray Fluorescence (XRF) analysis. A total of seventeen (17) room equivalents, including the building exterior and two annex buildings, were inspected.

III. INSPECTION FINDINGS

Surfaces found to contain lead-based paint by XRF analysis are listed in **Tables 1 through 3** below. All testing combinations not specifically tested, but identical to those represented below should be considered positive for lead-based paint unless otherwise noted. A listing of all tests can be found in **Appendix A.**

Table 1: Doors and Door Frames with Lead-Based Paint

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)	Door Size (H" x W")
211	13	D	Garage Door	Frame	White	Poor	Wood	1.1	143 x 171
218	13	C	Fire Door	Frame	White	Fair	Wood	1.5	86 x 41
248	4	C	Door	Frame	White	Fair	Wood	1.2	86 x 41
275	6	D	Door	Frame	White	Fair	Wood	1.7	86 x 41
284	7	D	Door	Frame	White	Intact	Wood	1.4	86 x 76
289	8	D	Door	Frame	White	Fair	Wood	1.2	86 x 41
291	8	D	Door		White	Fair	Wood	1	84 x 36
302	9	D	Door	Frame	White	Fair	Wood	1.1	86 x 41
303	9	D	Door		White	Fair	Wood	1.1	84 x 36
311	10	A	Door	Frame	White	Intact	Metal	1.7	86 x 41
327	12	A	Door	Frame	White	Fair	Wood	1.4	86 x 41
328	12	A	Door		White	Fair	Wood	1.4	84 x 36
351	Annex Ext	B	Door	Frame	White	Poor	Metal	1.6	87 x 41

Table 1: Doors and Door Frames with Lead-Based Paint (Continued)

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)	Door Size (H" x W")
354	Storage Ext	B	Door		Yellow	Fair	Metal	4.2	84 x 42
355	Storage Ext	B	Door	Frame	Beige	Fair	Metal	1.1	84 x 51

Table 2: Windows and Window Frames with Lead-Based Paint

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)	Window Size & Quantity (H" x W")
242	3	A	Window	Frame	White	Intact	Wood	1.3	51 x 41 (1)

Table 3: Miscellaneous Surfaces with Lead-Based Paint

Reading Number	Room	Side	Component	Feature	Color	Condition	Substrate	Lead (mg/cm^2)
210	13		Floor		Blue	Fair	Concrete	3.3
251	4	D	Wall	Board	Gray	Intact	Wood	1.1
253	4		Ceiling	Beam	Gray	Intact	Wood	2.4
254	4		Ceiling		Gray	Intact	Wood	1.3
263	5		Ceiling	Beam	Gray	Intact	Wood	2.1
264	5		Ceiling		Gray	Intact	Wood	1.2
265	5	B	Wall	Board	Gray	Intact	Wood	1.2
266	5	B	Wall	Bench	Gray	Poor	Wood	1.2
276	6		Ceiling	Beam	White	Intact	Wood	1.3
277	6		Ceiling		White	Intact	Wood	1
285	7		Ceiling	Beam	Gray	Intact	Wood	1.5
286	7		Ceiling		Gray	Intact	Wood	1.2
287	8		Ceiling		Gray	Intact	Wood	1.3
305	9		Ceiling	Beam	White	Intact	Wood	1.7
308	10		Ceiling	Beam	Gray	Intact	Wood	1.2
321	11		Ceiling	Beam	Gray	Fair	Wood	1.3
323	11		Ceiling		Gray	Fair	Wood	1.1
342	Exterior	B	Porch	Ceiling	Beige	Poor	Concrete	1.6
343	Exterior	B	Porch	Upper Trim	Beige	Poor	Concrete	2.1
344	Exterior	D	Garage Door	Fascia	Yellow	Poor	Metal	3.8
349	Annex Ext	B	Garage Door	Fascia	Yellow	Poor	Metal	1.8

Table 4: Lead-Containing Tile Locations

Reading Number	Room	Side	Component	Color	Condition	Substrate	Lead (mg/cm^2)
244	3	A	Window Sill	Beige	Intact	Tile	2.5
250	4	A	Window Sill	Beige	Intact	Tile	2.2
252	4	A	Wall	Beige	Intact	Tile	2.3
256	5	A	Wall	Beige	Intact	Tile	2.0
262	5	A	Window Sill	Beige	Intact	Tile	2.1

Note: Tile glazing containing lead is not classified as lead-based paint per 40 CFR 745.103

Photographs of lead-based paint locations can be found in **Appendix B**. Diagrams identifying room equivalents and lead-based paint locations can be found in **Appendix C**.

IV. SCOPE OF PROJECT

1. Background

The property, located at 1804 N.E. 4th St., Henryetta, OK 74437, was constructed 1954 The property consists of a brick building with approximately 11,216 square feet of floor space. The building is composed of a single level with two annexes and contains a total of seventeen (17) room equivalents. Exterior walls on the main building (and/or annex building) for the purposes of this report are considered a room equivalent.

2. Training

All inspectors utilized by Basin are EPA/Oklahoma Department of Environmental Quality (ODEQ) licensed Lead-Based Paint Inspector/Risk Assessors. Furthermore, all Inspector/Risk Assessors are aware of the hazards associated with and the safe handling of radioactive materials. See **Appendix D** for copies of appropriate training documentation.

3. Equipment

A Niton Model XLp703AW (Serial #10713) XRF Analyzer was used for the inspection. The instrument contained Cadmium-109 as its radioactive source. The source was installed on April 14, 2011. During the inspection, the XRF was used in K+L testing mode for all surfaces. The Performance Characteristics Sheet for the instrument can be found in **Appendix E**. The manufacturer calibration record for the instrument can be founding **Appendix F**.

4. Methodology

The inspection procedure used at this location complies with the EPA Performance Characteristic Sheet (PCS) for the specific XRF instrument used during the inspection; this includes adhering to the manufacturer's modifications and recommendations. The

specific instrument used was manufactured by NITON Corporation, 900 Middlesex Turnpike, Building 8, Billerica, Massachusetts 01821. The lead-based paint inspection and testing protocols followed are found in the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (June 1995), Chapter 7 (1997 Revision)* and all State and Local regulations were followed. The standard threshold for lead-based paint as per HUD/EPA and the ODEQ of 1.0 mg/cm^2 was utilized for classification of positive (above the threshold) and negative (below the threshold). When evaluating this report, it is assumed that (according to Chapter 7 of the HUD Guidelines) if one testing combination is positive for lead-based paint, then all other similar testing combinations are positive. The same assumption applies to negative readings. Any inconclusive readings are immediately followed by an additional reading of the same testing combination and test location.

Surfaces were classified by a testing combination consisting of the room equivalent, building component type, and substrate. The sides of room equivalents were labeled A, B, C, and D. Side A is the address (street facing) side of the building. Sides B, C, and D are identified clockwise of Side A while facing the address side of the building. Paint conditions were recorded as either "intact", "fair", or "poor." Paint in poor condition was defined as deterioration of more than two square feet on large components such as walls or 10% on smaller components such as baseboards. Paint in "fair" condition was defined as deterioration of less than or equal to two square feet on large components or 10% on smaller components. Paint in "intact" condition was defined as surfaces with no deteriorated paint. Interior painted surfaces that were tested included but were not limited to walls, doors, windows, trim, vents, stairwells, ceilings, cabinets, and bookcases.

Calibration of the XRF instrument was checked using a lead paint standard known to contain 1.0 mg/cm^2 of lead. The instrument was checked three times before the inspection begins and three times when the inspection is completed. Additionally, on days that the inspection lasted more than four hours, the instrument calibration was checked every four hours during the inspection. The instrument maintained a consistent calibration reading within the manufacturer's range of 0.8 – 1.2 mg/cm^2 for this inspection.

V. RECOMMENDATIONS

Options for controlling potential lead-based paint hazards include, but are not limited to:

- Removal and replacement of building components
- Removal of lead-based paint
- Encapsulation of lead-based paint
- Enclosure of lead-based paint

Based on conditions present at this property at the time of the inspection, Basin recommends the following interim control and abatement options:

- Remove and replace the window frame found to have lead-based paint.
- Remove and replace all door components found to have lead-based paint.
- Utilize interim controls (i.e. stabilization and repainting) to maintain all other lead-based paint which is in "intact" or "fair" condition.
- Remove and replace the bench in room 5 and the garage door fascia on the building exterior
- Chemical strip and repaint the porch ceiling and upper trim on the building exterior.

Basin estimates the cost for the above mentioned lead-based paint interim control and abatement options to be between $30,000 and $35,000.

VI. LIMITATIONS

Environmental conditions are subject to change and conditions reported herein apply only to the date and time of the testing. Therefore, changes in environmental conditions including, but not limited to the condition of painted components may change following this inspection are not predicted by this report. Those areas that are not accessible at the time of the inspection should be considered positive for the presence of lead-based paint and lead hazards.

This document is the rendering of a professional service, the essence of which is to render advice, judgment, opinion, or professional skill. No attempt was made to document the condition of each and every structural or nonstructural element. In the event that additional information becomes available that could affect the conclusions reached in this investigation, Basin reserves the right to review and change if required, some or all of the opinions presented herein.

APPENDIX A

Rd. #	Room	Side	Component	Feature	Color	Condition	Substrate	Results	Depth Index	Action Level	Lead (mg/cm2)	Lead Error
196											4.48	0
197			Calibrate					Positive	1.05	1	1	0.1
198			Calibrate					Negative	1.04	1	0.24	0.09
199			Calibrate					Positive	1.08	1	1	0.1
200			Calibrate					Positive	1.08	1	1	0.1
201	13		Ceiling		Gray	Intact	Wood	Negative	1.22	1	< LOD	0.68
202	13		Ceiling	Beam	Gray	Intact	Wood	Negative	1.52	1	< LOD	0.13
203	13		Ceiling	Beam	Gray	Intact	Wood	Negative	1.11	1	< LOD	0.09
204	13	D	Door	Frame	White	Intact	Wood	Negative	1	1	< LOD	0.75
205	13	D	Door	Frame	White	Fair	Metal	Negative	1	1	< LOD	0.03
206	13	D	Door		White	Fair	Metal	Negative	1	1	< LOD	0.03
207	13	A	Wall	Board	White	Intact	Wood	Negative	1.18	1	< LOD	0.81
208	*13*		*Floor*		*Blue*	*Fair*	*Concrete*	*Null*	*2.36*	*1*	*< LOD*	*1.05*
209	*13*		*Floor*		*Blue*	*Fair*	*Concrete*	*Null*	*1.48*	*1*	*< LOD*	*0.9*
210	13		Floor		Blue	Fair	Concrete	Positive	1.62	1	3.3	0.6
211	13	D	Garage Door	Frame	White	Poor	Wood	Positive	3.5	1	1.1	0.1
212	13	C	Garage Door	Frame	White	Fair	Metal	Negative	1.39	1	< LOD	0.72
213	*13*	*C*	*Garage Door*		*White*	*Fair*	*Wood*	*Null*	*1.75*	*1*	*< LOD*	*1.7*
214	13	C	Garage Door		White	Fair	Wood	Negative	1.55	1	< LOD	0.75
215	13	C	Wall		Red	Poor	Brick	Negative	4.21	1	< LOD	1.02
216	13	C	Bulletin Brd		White	Fair	Wood	Negative	1.67	1	< LOD	0.74
217	13	C	Bulletin Brd	Frame	Red	Fair	Wood	Negative	1.03	1	< LOD	0.29
218	13	C	Fire Door	Frame	White	Fair	Wood	Positive	3.61	1	1.5	0.3
219	13	C	Fire Door		White	Fair	Wood	Negative	2.18	1	< LOD	0.68
220	13	B	Wall	Pipe	Black	Intact	Metal	Negative	1	1	< LOD	0.08
221	13	B	Wall	Pipe Support	Black	Intact	Metal	Negative	1.01	1	< LOD	0.06
222	13	B	Bball	Hoop	Orange	Intact	Metal	Negative	1.13	1	< LOD	0.03
223	13	B	Bball	Support	White	Fair	Metal	Negative	1	1	< LOD	0.03
224											4.57	0
225	1		Ceiling		White	Fair	Concrete	Negative	1	1	< LOD	0.03
226	1	A	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
227	1	B	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
228	1	C	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
229	1	D	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
230	1	B	Door		Silver	Poor	Metal	Negative	5.03	1	< LOD	0.2
231	1	B	Door	Frame	Silver	Poor	Metal	Negative	1.59	1	< LOD	0.15

Rd. #	Room	Side	Component	Feature	Color	Condition	Substrate	Results	Depth Index	Action Level	Lead (mg/cm2)	Lead Error
232	2	C	Door	Frame	Gray	Intact	Metal	Negative	1	1	< LOD	0.03
233	2	C	Door		Gray	Intact	Metal	Negative	1.86	1	< LOD	0.08
234	2	A	Wall		White	Intact	Concrete	Negative	1	1	< LOD	0.03
235	2	B	Wall		White	Intact	Concrete	Negative	2.16	1	< LOD	0.66
236	2	C	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
237	2	D	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.05
238	3	A	Wall		White	Intact	Concrete	Negative	1	1	< LOD	0.06
239	3	B	Wall		White	Intact	Concrete	Negative	1.03	1	< LOD	0.05
240	3	C	Wall		White	Intact	Brick	Negative	1	1	< LOD	0.03
241	3	D	Wall		White	Intact	Concrete	Negative	1	1	< LOD	0.03
242	3	A	Window	Frame	White	Intact	Wood	Positive	1.93	1	1.3	0.2
243	3	A	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.03
244	3	A	Window	Sill	Beige	Intact	Tile	Positive	2	1	2.5	0.8
245	3	A	Door	Frame	Beige	Fair	Metal	Negative	1	1	< LOD	0.03
246	3	A	Door		Beige	Fair	Metal	Negative	1	1	< LOD	0.03
247	4	C	Door		White	Fair	Wood	Negative	1.86	1	< LOD	0.15
248	4	C	Door	Frame	White	Fair	Wood	Positive	4.24	1	1.2	0.2
249	4	A	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.03
250	4	A	Window	Sill	Brown	Intact	Tile	Positive	1.67	1	2.2	0.6
251	4	D	Wall	Board	Gray	Intact	Wood	Positive	1.4	1	1.1	0.1
252	4	A	Wall		Beige	Intact	Tile	Positive	2.11	1	2.3	0.7
253	4		Ceiling	Beam	Gray	Intact	Wood	Positive	1.68	1	2.4	0.6
254	4		Ceiling		Gray	Intact	Wood	Positive	1.34	1	1.3	0.2
255	4	B	Shower Frame		White	Intact	Wood	Negative	1	1	< LOD	0.03
256	5	A	Wall		Beige	Intact	Tile	Positive	1.78	1	2	0.7
257	5	C	Door		White	Intact	Wood	Negative	3.09	1	< LOD	0.21
258	5	C	Door	Frame	White	Intact	Wood	Negative	2.52	1	< LOD	0.03
259	5	C	Divider Support		Blue	Intact	Metal	Negative	1.87	1	< LOD	0.13
260	5	D	Wall	Board	White	Intact	Wood	Negative	1	1	< LOD	0.03
261	5	A	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.03
262	5	A	Window	Sill	Beige	Intact	Tile	Positive	1.82	1	2.1	0.6
263	5		Ceiling	Beam	Gray	Intact	Wood	Positive	1.57	1	2.1	0.6
264	5		Ceiling		Gray	Intact	Wood	Positive	1.25	1	1.2	0.1
265	5	B	Wall	Board	Gray	Intact	Wood	Positive	1.46	1	1.2	0.1
266	5	B	Wall	Bench	Gray	Poor	Wood	Positive	1.49	1	1.2	0.2
267	6	A	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03

Rd. #	Room	Side	Component	Feature	Color	Condition	Substrate	Results	Depth Index	Action Level	Lead (mg/cm2)	Lead Error
268	6	B	Wall		White	Intact	Drywall	Negative	10	1	< LOD	0.13
269	6	C	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
270	6	D	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
271	6	D	Closet	Wall	White	Intact	Concrete	Negative	1	1	< LOD	0.05
272	6	D	Door		White	Fair	Wood	Negative	2.9	1	< LOD	0.04
273	6	D	Door	Frame	White	Fair	Wood	Null	3.56	1	1.2	0.2
274	6	D	Door	Frame	White	Fair	Wood	Null	3.58	1	1.1	0.2
275	6	D	Door	Frame	White	Fair	Wood	Positive	4.6	1	1.7	0.4
276	6		Ceiling	Beam	White	Intact	Wood	Positive	1.64	1	1.3	0.2
277	6		Ceiling		White	Intact	Wood	Positive	1.56	1	1	0.1
278	6	B	Door		White	Intact	Metal	Negative	1	1	< LOD	0.03
279	6	B	Door	Frame	White	Intact	Metal	Negative	1	1	< LOD	0.03
280	7	B	Door	Frame	Brown	Intact	Metal	Negative	10	1	< LOD	0.17
281	7	B	Door		Brown	Intact	Metal	Negative	4.94	1	< LOD	0.31
282	7	A	Wall		White	Intact	Drywall	Negative	10	1	< LOD	0.42
283	7	C	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
284	7	D	Door	Frame	White	Intact	Wood	Positive	2.56	1	1.4	0.2
285	7		Ceiling	Beam	Gray	Intact	Wood	Positive	1.46	1	1.5	0.4
286	7		Ceiling		Gray	Intact	Wood	Positive	1.38	1	1.2	0.2
287	8		Ceiling		Gray	Intact	Wood	Positive	2.25	1	1.3	0.2
288	8		Ceiling	Beam	Gray	Intact	Wood	Null	1.95	1	1.4	0.4
289	8	D	Door	Frame	White	Fair	Wood	Positive	6.69	1	1.2	0.2
290	8	D	Door		White	Fair	Wood	Null	3.67	1	1.1	0.2
291	8	D	Door		White	Fair	Wood	Positive	3.25	1	1	0.1
292	8	B	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.02
293	8	A	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
294	8	B	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
295	8	C	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
296	8	D	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
297	9	A	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
298	9	B	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
299	9	C	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
300	9	D	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.03
301	9	B	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.03
302	9	D	Door	Frame	White	Fair	Wood	Positive	5.85	1	1.1	0.1
303	9	D	Door		White	Fair	Wood	Positive	6.74	1	1.1	0.2

Rd. #	Room	Side	Component	Feature	Color	Condition	Substrate	Results	Depth Index	Action Level	Lead (mg/cm2)	Lead Error
											4.3	0
304												
305	9		Ceiling	Beam	White	Intact	Wood	Positive	2.01	1	1.7	0.5
306	9		Ceiling		White	Intact	Wood	Negative	1.61	1	< LOD	0.01
307	10		Ceiling		Gray	Intact	Wood	Negative	1.26	1	< LOD	0.01
308	10		Ceiling	Beam	Gray	Intact	Wood	Positive	1.35	1	1.2	0.2
309	10	A	Door		White	Intact	Metal	Negative	4.21	1	< LOD	0.01
310	10	A	Door	Frame	White	Intact	Wood	Negative	2.81	1	< LOD	0.01
311	10	A	Door	Frame	White	Intact	Wood	Positive	6.54	1	1.7	0.4
312	10	C	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.01
313	10	A	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.01
314	10	B	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.01
315	10	C	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.01
316	10	D	Wall		White	Intact	Drywall	Negative	10	1	< LOD	0.01
317	11	B	Wall		White	Intact	Drywall	Negative	1	1	< LOD	0.01
318	11	C	Window	Frame	Brown	Intact	Metal	Negative	2.49	1	< LOD	0.01
319	11	C	Divider	Frame	Gray	Intact	Wood	Negative	1.13	1	< LOD	0.01
320	11	C	Divider		Gray	Intact	Wood	Negative	1.29	1	< LOD	0.01
321	11		Ceiling	Beam	Gray	Fair	Wood	Positive	1.45	1	1.3	0.2
322	*11*		*Ceiling*		*Gray*	*Fair*	*Wood*	*Null*	*1.3*	*1*	*1.1*	*0.1*
323	11		Ceiling		Gray	Fair	Wood	Positive	1.36	1	1.1	0.1
324	11	B	Door		White	Fair	Metal	Negative	1.16	1	< LOD	0.01
325	11	B	Door	Frame	White	Fair	Wood	Negative	1.68	1	< LOD	0.01
326	11	A	Door	Frame	White	Fair	Wood	Negative	5.61	1	< LOD	0.01
327	12	A	Door	Frame	White	Fair	Wood	Positive	3.74	1	1.4	0.3
328	12	A	Door		White	Fair	Wood	Positive	3.16	1	1.4	0.3
329	12	C	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.01
330	12	A	Wall		White	Fair	Brick	Negative	2.07	1	< LOD	0.01
331	12	C	Wall		White	Fair	Brick	Negative	1	1	< LOD	0.01
332	12	B	Wall		White	Fair	Concrete	Negative	1	1	< LOD	0.01
333	12	C	Wall		White	Fair	Concrete	Negative	1	1	< LOD	0.01
334	12	D	Wall		White	Fair	Concrete	Negative	1	1	< LOD	0.01
335	12	D	Garage Door	Frame	White	Poor	Metal	Negative	2.54	1	< LOD	0.01
336	Exterior	A	Door	Frame	Red	Fair	Metal	Negative	1	1	< LOD	0.01
											4.57	0
337												
338	Exterior	A	Door	Frame	Red	Fair	Wood	Negative	1	1	< LOD	0.01
339	Exterior	A	Window	Frame	Brown	Intact	Metal	Negative	1	1	< LOD	0.01

Rd #	Room	Side	Component	Feature	Color	Condition	Substrate	Results	Depth Index	Action Level	Lead (mg/cm2)	Lead Error
340	Exterior	A		Pipe	Silver	Poor	Metal	Negative	1	1	< LOD	0.01
341	Exterior	A		Pole	Silver	Poor	Metal	Negative	1	1	< LOD	0.01
342	Exterior	B	Porch	Ceiling	Beige	Poor	Concrete	Positive	3.55	1	1.6	0.4
343	Exterior	B	Porch	Upper Trim	Beige	Poor	Concrete	Positive	3.63	1	2.1	0.8
344	Exterior	D	Garage Door	Fascia	Yellow	Poor	Metal	Positive	1.34	1	3.8	0.8
345	Annex		Ceiling	Beam	Gray	Fair	Metal	Negative	5.54	1	< LOD	0.01
346	Annex		Ceiling		Gray	Fair	Metal	Negative	1.39	1	< LOD	0.01
347	Annex	D	Window	Sash	Gray	Poor	Metal	Negative	1.09	1	< LOD	0.01
348	Annex		Floor	Stripe	White	Poor	Concrete	Negative	2.47	1	< LOD	0.01
349	Annex Ext	B	Garage Door	Fascia	Yellow	Poor	Metal	Positive	1.74	1	1.8	0.5
350	Annex Ext	B	Garage Door	Frame	White	Poor	Metal	Negative	5.89	1	< LOD	0.01
351	Annex Ext	B	Door	Frame	White	Poor	Metal	Positive	6.59	1	1.6	0.4
352	Annex Ext	B	Door		White	Fair	Metal	Negative	5.11	1	< LOD	0.01
353	Storage	A	Wall	Shelf	Gray	Fair	Wood	Negative	1	1	< LOD	0.01
354	Storage Ext	B	Door	Frame	Yellow	Fair	Metal	Positive	1.32	1	4.2	0.3
355	Storage Ext	B	Door	Frame	Beige	Fair	Metal	Positive	1.12	1	1.1	0.1
356											4.68	0
357			Calibrate					Negative	1.02	1	< LOD	0.05
358			Calibrate					Negative	1	1	0.9	0.1
359			Calibrate					Negative	1.03	1	< LOD	0.08

APPENDIX B

Former Henryetta Armory

Reading 210, Room 13, Concrete Floor

Reading 211, Room 13, Garage Door Frame

Reading 218, Room 13, Door Frame

Reading 242, Room 3, Wood Window Frame

Reading 248, Room 4, Wood Door Frame

Reading 251, Room 4, Wood Board

Rd. 253 - 254, Room 4, Ceiling Beams & Decking

Rd. 263 - 264, Room 5, Ceiling Beam & Decking

Reading 265, Room 5, Wood Wall Board
Reading 266, Room 5, Wood Bench

Reading 275, Room 6, Wood Door Frame

Rd. 276-277, Room 6, Ceiling Beams & Decking

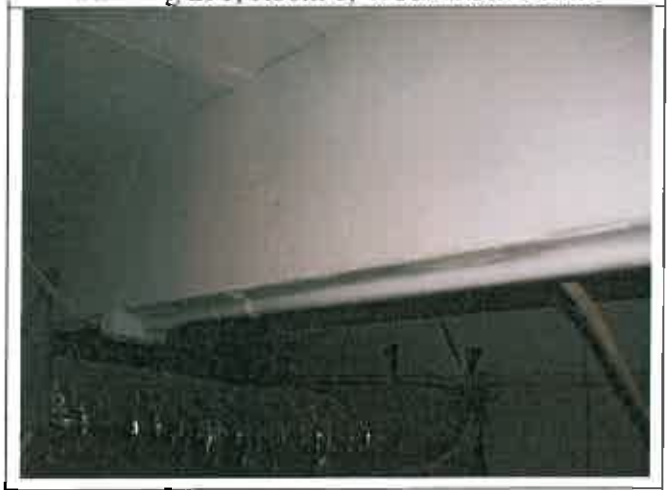
Reading 284, Room 7, Wood Door Frame

Rd. 285-286, Room 7, Ceiling Beams & Decking

Rd. 287, Room 8, Ceiling Decking

Reading 289, Room 8, Wood Door
Reading 291, Room 8, Wood Door Frame

Reading 302, Room 9, Wood Door Frame
Reading 303, Room 9, Wood Door



Rd. 305, Room 9, Ceiling Beam

Reading 311, Room 10, Wood Door Frame

Rd. 321-323, Room 11, Ceiling Beam & Decking

Reading 327, Room 12, Wood Door
Reading 328, Room 12, Wood Door Frame

Reading 342, Exterior, Wood Porch Ceiling
Reading 343, Exterior, Wood Porch Upper Trim

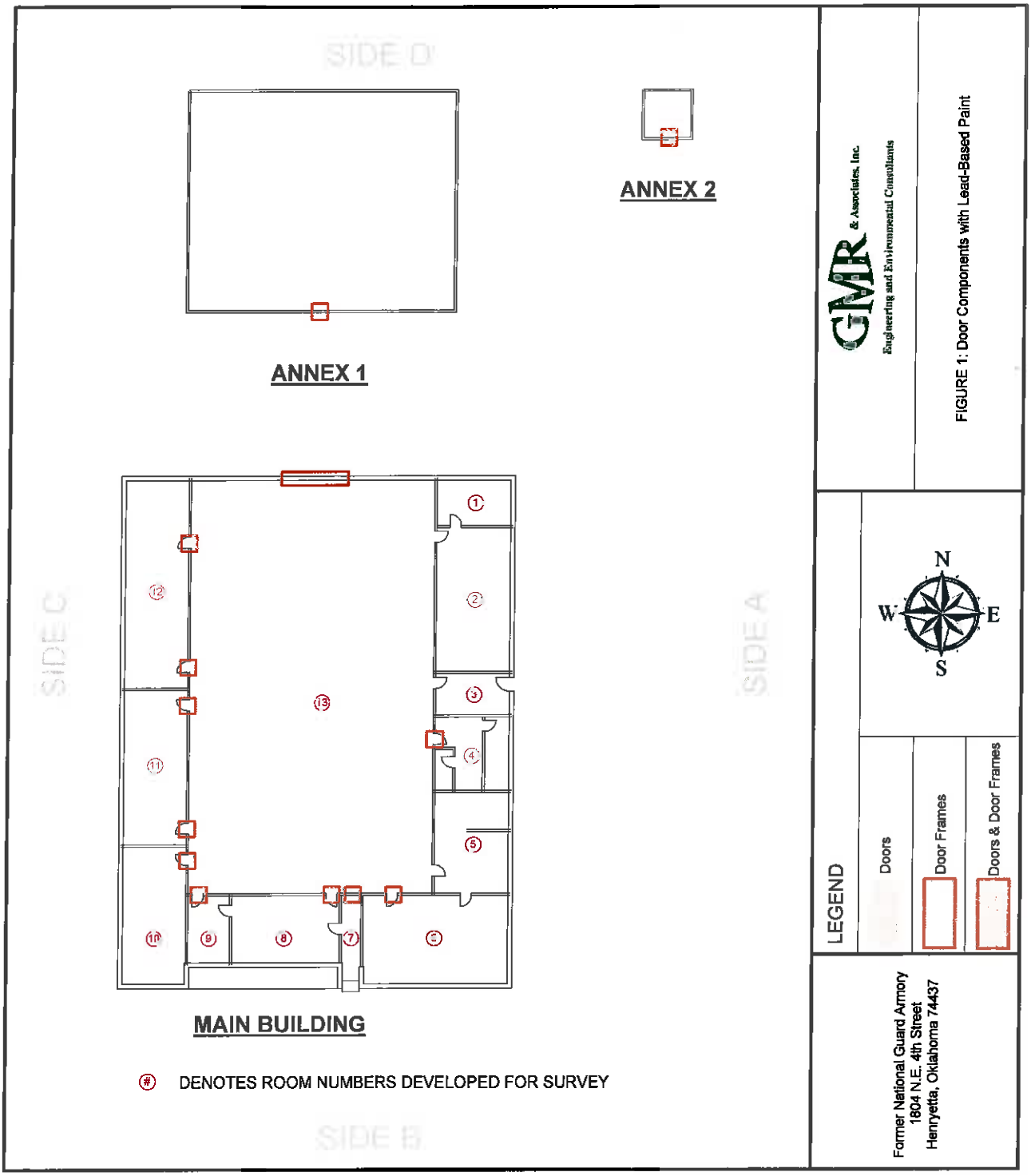
Reading 344, Exterior, Metal Garage Door Fascia

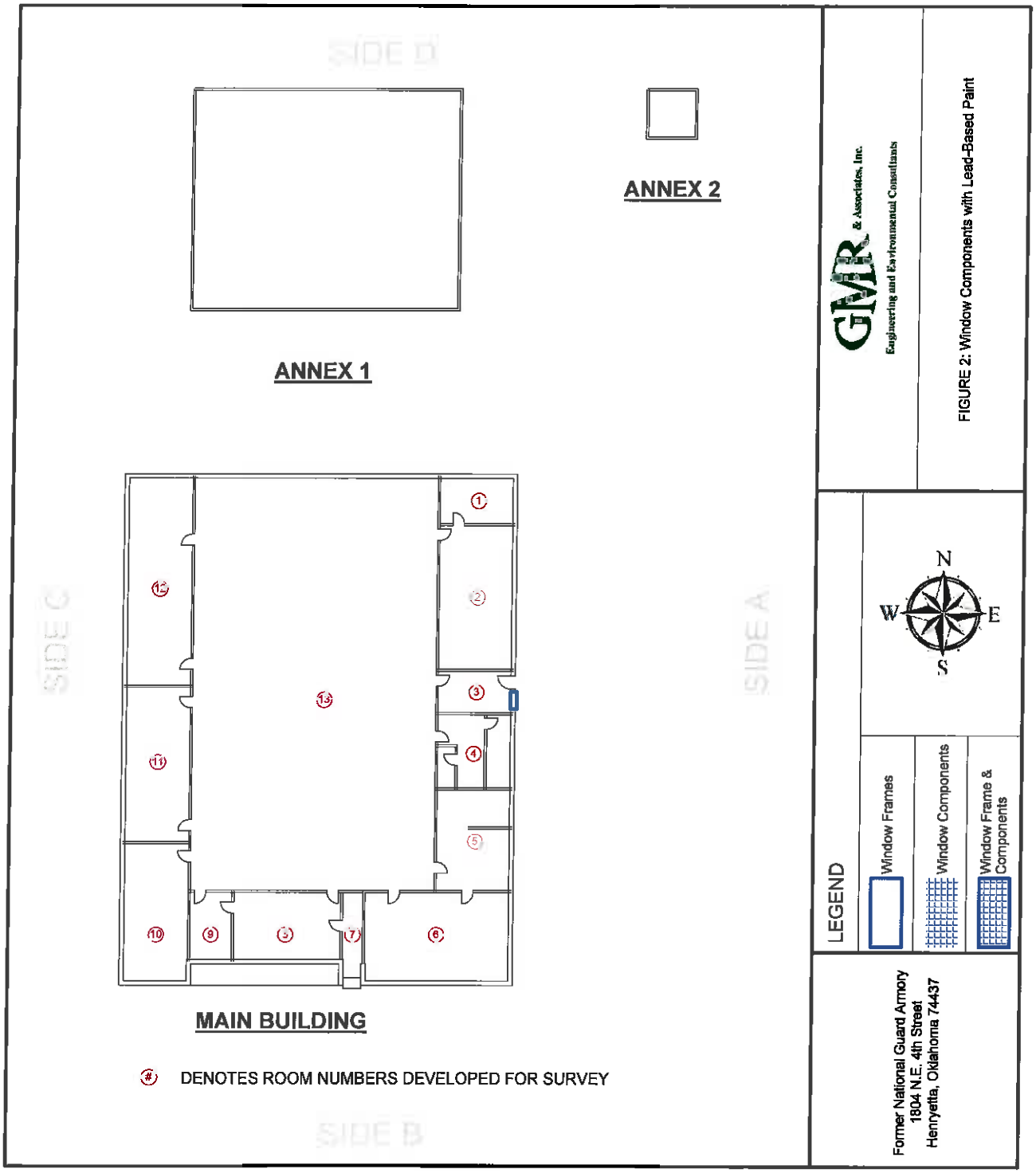
Reading 349, Annex 1, Metal Garage Door Fascia

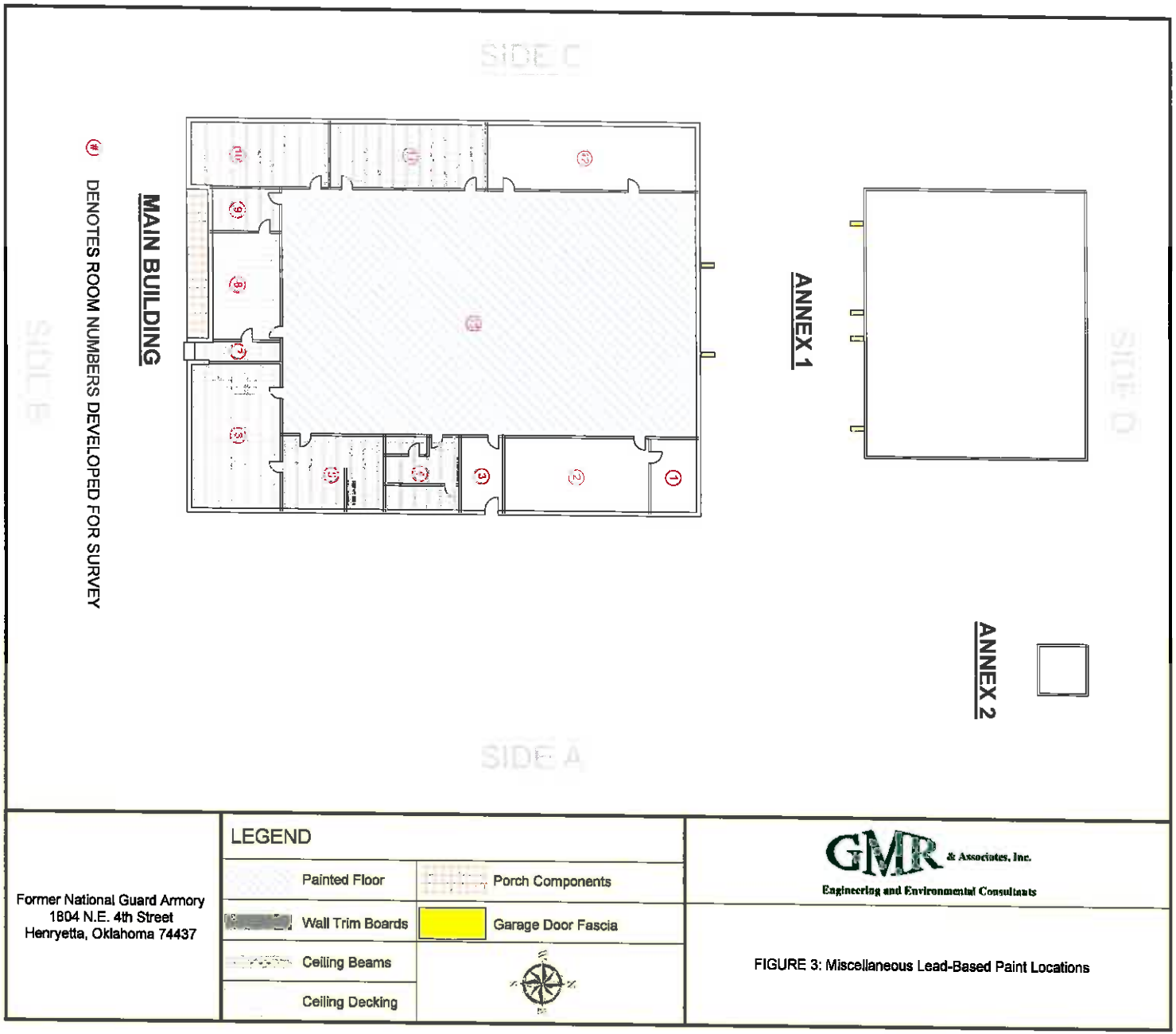
Reading 351, Annex 1, Metal Door Frame

Rd. 354, Annex 2, Metal Door Frame (Yellow)
Rd. 355, Annex 2, Metal Door Frame (Beige)

APPENDIX C


SIDE D
ANNEX 2
ANNEX 1
SIDE C
SIDE A
MAIN BUILDING
# DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY
SIDE B
GMR & Associates, Inc.
Engineering and Environmental Consultants
FIGURE 1: Door Components with Lead-Based Paint
N
W
E
S
LEGEND
Doors
Door Frames
Doors & Door Frames
Former National Guard Armory
1604 N.E. 4th Street
Henryetta, Oklahoma 74437

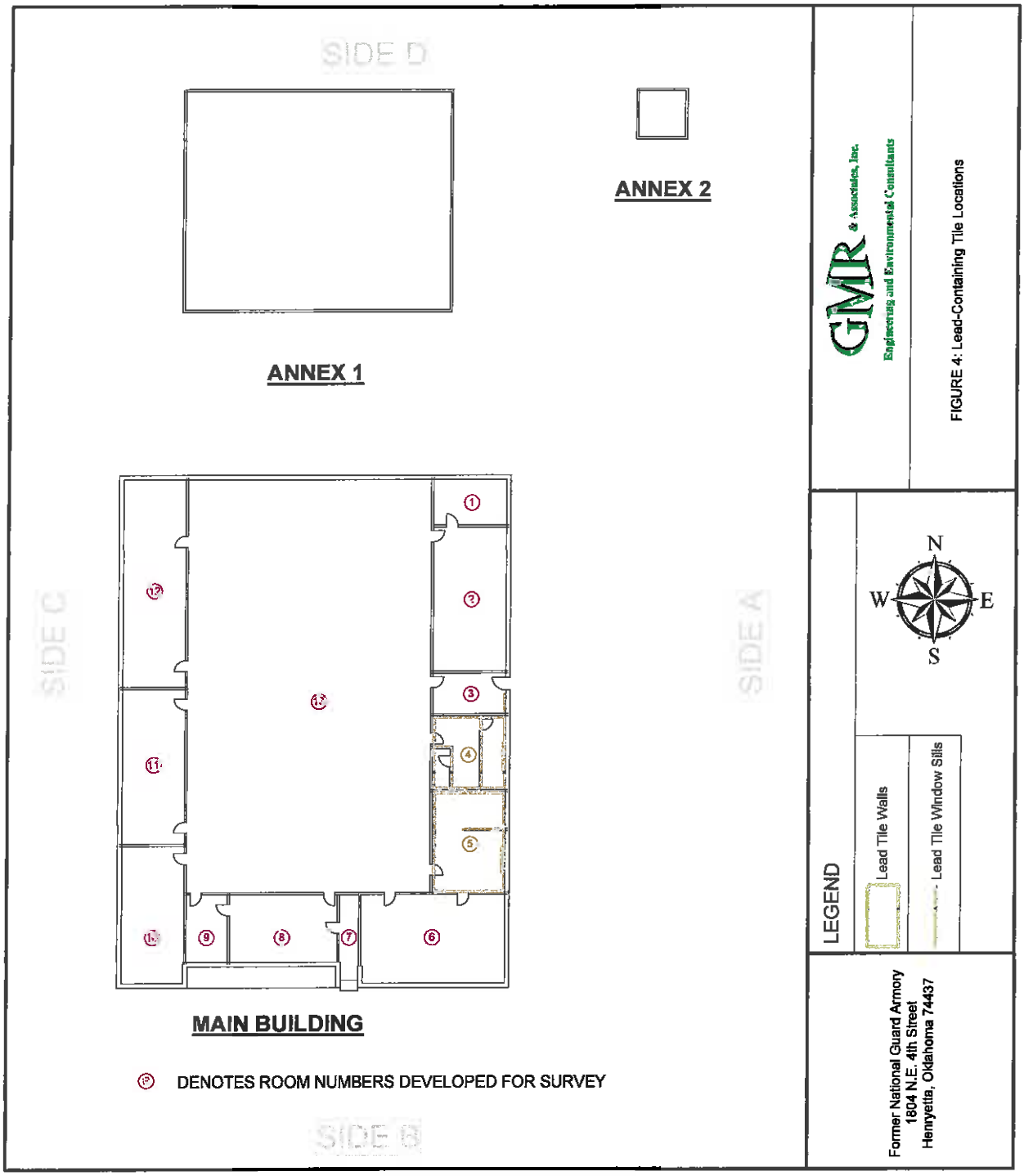

SIDE D
ANNEX 2
ANNEX 1
SIDE C
SIDE A
MAIN BUILDING
# DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY
SIDE B
GMR & Associates, Inc.
Engineering and Environmental Consultants
FIGURE 2: Window Components with Lead-Based Paint
N
W
E
S
LEGEND
Window Frames
Window Components
Window Frame & Components
Former National Guard Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437



Former National Guard Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437

GMR & Associates, Inc.
Engineering and Environmental Consultants

FIGURE 3: Miscellaneous Lead-Based Paint Locations


SIDE D
ANNEX 2
ANNEX 1
SIDE C
SIDE A
MAIN BUILDING
DENOTES ROOM NUMBERS DEVELOPED FOR SURVEY
SIDE B
GMR & Associates, Inc.
Engineering and Environmental Consultants
FIGURE 4: Lead-Containing Tile Locations
N
W
E
S
LEGEND
Lead Tile Walls
Lead Tile Window Sills
Former National Guard Armory
1804 N.E. 4th Street
Henryetta, Oklahoma 74437

APPENDIX D

Department of Environmental Quality

This is to Certify That

JASON LEE

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR/RISK ASSESSOR

Certification # OKRASR13451

This certificate is valid from the date of issuance and expires as prescribed by law

Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

BASIN ENVIRONMENTAL

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

FIRM

Certification #: OKFIRM13434

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: 4/1/2011 **Expires on: 3/31/2012**

Division Director
Air Quality Division

OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Environmental Programs Manager
Air Quality Division

APPENDIX E

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*
Tested Model: *XLp 300*
Source: ^{109}Cd
Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.
XLp 300A, XLp 301A, XLp 302A and XLp 303A.
XLi 700A, XLi 701A, XLi 702A and XLi 703A.
XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

APPENDIX F

ThermoFisher SCIENTIFIC
The world leader in serving science

Certificate of Calibration

Paint QC (Service)
Document #: FRM018
Revision: A
Revision Date: Sept. 19, 2008

Serial Number: 10713 Model: XLp703A Software: 5.2D Date of Q.C.: 4/14/2011

Resolution: 379.84 Escale: 4.07 Source: Cd-109 Inspector: JC

K+L Mode 20 Second readings each

Std	L	Lerr	K	Kerr	DI	L Status	K Status
1.0 Surface Wood-1	1.10	0.10	0.90	0.30	1.0	OK	OK
1.0 Surface Wood-2	1.00	0.10	0.90	0.30	1.1	OK	OK
1.0 Buried Wood-1	1.10	0.10	0.80	0.30	2.4	OK	OK
1.0 Buried Wood-2	1.10	0.10	0.80	0.30	2.3	OK	OK
Blank Wood-1	0.00	0.02	0.13	0.22	2.6	OK	OK
Blank Wood-2	0.01	0.02	0.04	0.22	1.0	OK	OK
3.5 Surface Wood-1	3.70	0.20	3.30	0.40	1.3	OK	OK
3.5 Surface Wood-1	3.60	0.20	3.20	0.40	1.3	OK	OK
0.3 Surface Concrete-1	0.30	0.03	0.10	0.37	1.0	OK	OK
0.3 Surface Concrete-2	0.29	0.03	0.21	0.38	1.0	OK	OK
Steel-1	0.00	0.02	0.07	0.34	1.0	OK	OK
Steel-2	0.00	0.02	0.10	0.35	1.0	OK	OK
Pure Pb-1	10.10	1.30	84.80	1.90	1.7	OK	OK
Pure Pb-2	10.10	1.30	86.30	1.90	1.6	OK	OK
1.0 Surface Drywall-1	1.00	0.10	1.10	0.30	1.1	OK	OK
1.0 Surface Drywall-2	1.00	0.10	0.90	0.30	1.0	OK	OK

STD Mode Readings

Std	Time	Result	
Drywall-1	1.83	0.01	OK
Drywall-2	1.81	0.03	OK
French Plaster-1	1.22	0.01	OK
French Plaster-2	1.81	0.01	OK

This certificate is issued in accordance with Thermo Fisher Scientific factory specifications.
The measurements were found to be within specification limits at the time of service and calibration.

Standards are traceable to National Institute of Standards & Technology (NIST) standards.
** - Not Certified

Signed:

Thermo Fisher Scientific
Niton Analyzers

800 Middlesex Turnpike
Building 8
Billerica, MA 01821

www.thermo.com/niton
1-800-875-1578

ThermoFisher SCIENTIFIC
The world leader in serving science

Certificate of Calibration

Soil QC(Service)
Document#: FRM013
Revision B
Revision Date: Mar. 11, 2009

Unit Serial Number: 10713 Model: XLp 703AW Software: 5.2D Date of Q.C.: 4/14/2011

Resolution: 388.02 Escale: 4.07 Source: Cd-109 Inspector: JC

Run 1 reading per sample for 90 seconds
Elements that are in blue BOLD must be recorded
NA = Not Available

Elements not in blue need not be detected but record if they are

NIST HIGH 2710	Certified	Low	High	Measured	Err	
Mo	19	10	40	13.909	3.237	OK
Zr	NR			166.265	13.2	
Sr	330	280	380	313.754	12.839	OK
Rb	120	89	160	118.77	8.98	OK
Pb	5532	5400	5700	5567.199	101.251	OK
Se	NA	-50	80	5.046	12.273	OK
As	626	519	750	633.68	76.68	OK
Hg	32.6	0	50	25.4	22.7	OK
Zn	6952	6700	7250	7024.19	128.47	OK
Cu	2950	2700	3200	2848.41	100.63	OK
Ni	14.3	-50	150	24.23	85.19	OK
Co	10	-270	270	-99.05	176.316	OK
Fe	33800	31500	35500	33856.727	533.717	OK
Mn	10100	9500	11000	10206.4	418.6	OK
Cr	39	-100	120	56.51	309.327	OK

SiO2 (Blank)	Certified	Low	High	Measured	Err	
Mo	0	-10	10	0.134	1.326	OK
Zr	0	-10	10	1.346	2.125	OK
Sr	<210	-10	210	0.184	1.365	OK
Rb	0	-200	210	-0.697	1.247	OK
Pb	0	-20	20	-6.976	5.559	OK
Se	0	-10	10	-6.635	3.661	OK
As	0	-10	10	-0.459	4.04	OK
Hg	0	-10	10	-2.999	6.81	OK
Zn	0	-20	20	-2.266	13.51	OK
Cu	0	-30	30	1.616	15.285	OK
Ni	0	-50	50	6.444	22.567	OK
Co	0	-50	50	-8.063	16.813	OK
Fe	0	-100	300	0.944	28.597	OK
Mn	0	-70	70	23.163	33.865	OK
Cr	0	-120	120	-37.354	64.563	OK

NIST LOW	Certified	Low	High	Measured	Err	
Mo	2	-10	10	2.466	2.301	OK
Zr	160	115	210	183.048	10.565	OK
Sr	231	180	300	206.751	8.748	OK
Rb	96	60	115	74.47	5.62	OK
Pb	18.9	0	35	5.703	9.122	OK
Se	1.57	-30	30	-4.06	6.11	OK
As	17.7	0	35	18.43	7.39	OK
Hg	1.4	10	10	6.6	9.5	OK
Zn	106	50	160	77.12	21.28	OK
Cu	34.6	0	60	42.85	23.35	OK
Ni	88	25	150	98.41	45.22	OK
Co	13.4	-250	250	130.63	135.709	OK
Fe	35000	25000	35000	26601.057	399.967	OK
Mn	538	0	700	614.1	185.0	OK
Cr	130	50	200	191.195	173.878	OK

RCRA	Certified*	Low	High	Measured	Err	
Mo	NA					OK
Zr	NA					OK
Sr	NA					OK
Rb	NA					OK
Pb	500	350	500	469.947	34.443	OK
Se	500	400	600	515.261	22.439	OK
As	500	300	600	441.657	30.442	OK
Hg	NA					OK
Zn	NA					OK
Cu	NA					OK
Ni	NA					OK
Co	NA					OK
Fe	NA					OK
Mn	NA					OK
Cr	500	275	600	461.544	241.123	OK

This certificate is issued in accordance with Thermo Fisher Scientific factory specifications
The measurements were found to be within specification limits at the time of service and calibration.

Standards are traceable to National Institute of Standards & Technology (NIST) standards.
** - Not Certified**

Signed:

Thermo Fisher Scientific
Niton Analyzers

800 Middlesex Turnpike
Building 8
Billerica, MA 01821

www.thermo.com/niton
+1-800-875-1578

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The world leader in serving science

Certificate of Calibration

Thin Film QC (Service)
Revision: A
Revision Date: Sept. 24, 2008

Unit #: 10713 **Model:** XLp 703A **Date:** 4/15/2011 **Software:** 5.2D-Dual

Res: 383.7 **Escale:** 4.07 **Source:** Cd-109 **Inspector:** JC

Thin Film QC Sheet (1 reading at 30 seconds each sample)

Element:	Cert:	Read:	Error	OK?
Pb	51.7	54.47	2.74	OK
As	24.6	24.7	0.92	OK
Ni	40.4	42.72	2.21	OK
Cr	42.6	44.49	3.69	OK

37mm QC Readings (3 readings at 30 seconds each)

Element:	Cert:	Read:	Error	OK?
Pb	42	39.79	9.05	OK

Dust Wipe QC Readings (Pb only) (4 readings at 30 seconds each)

Wipe Type:	Cert:	Read:	Error	OK?
Blank:	N/A	0.91	1.61	OK
Dust Low:	34-51	43.12	10.1	OK
DustHigh:	356-534	480.8	38.5	OK

This certificate is issued in accordance with Thermo Fisher Scientific factory specifications.
The measurements were found to be within specification limits at the time of manufacture and calibration.

**** - Not Certified**

Signed:

Thermo Fisher Scientific
Niton Analyzers

800 Middlesex Turnpike
Building 8
Billerica, MA 01821

www.thermo.com/niton
1-800-875-1578

SCOPES OF WORK

STATEMENT OF WORK

For

Remediation of Lead-Based Paint, Lead Dust Contamination and Asbestos Contamination at the Henryetta Armory

The Oklahoma Department of Environmental Quality (DEQ) is requesting a proposal for remediation services at a former National Guard Armory located in Henryetta, Oklahoma. This statement of work (SOW) describes the cleanup of lead contaminated dust, lead-based paint (LBP), and removal of asbestos containing material (ACM). This work must be performed to provide for safe re-use of the facility. A mandatory site walk through will be held to give a better understanding of the site. A floor plan map of the Henryetta Armory is attached for review **(Attachment 1)**.

The building is located at **1804 NE 4th St., Henryetta, Oklahoma 74337**. The building **does** have available water and electricity to use during remediation.

SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within 180 days after date of the written "Notice to Proceed".
   a. A pre-construction meeting shall be held at the site after the "Notice to Proceed" date to review SOW and answer any questions the contractor may have.

   b. All on-site work shall be completed by the Contractor five (5) days prior to the scheduled contract completion date, with the remaining five (5) days utilized for final inspection and correction of all deficiencies.

2. Conditions of Work: The following conditions of work will apply in accomplishment of this contract:
   a. All work shall be performed in accordance with all applicable State and Federal regulations.

   b. The contractor shall perform this work in such a manner as to cause a minimum of interruption to normal work being performed in the contract area.

   c. Coordination of work areas shall be scheduled with DEQ.

   d. Disposal of Removed Materials: All materials removed by the Contractor under this contract shall be disposed of in accordance with State and Federal regulations.

CONTRACTOR SHALL:

- Attend mandatory pre-construction meeting and site walk through;

- Possess a current lead-based paint firm license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;

- Possess a current Oklahoma Department of Labor (ODOL) Asbestos Abatement Contractor License in order to perform asbestos abatement;

- Follow all appropriate OSHA requirements;

- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead-based paint abatement, indoor firing range remediation, and lead dust remediation;

Submit With Proposal:

- Copy of lead-based paint firm license;
- Copy of lead-based paint supervisor license;
- Copy of ODOL Asbestos Abatement Contractor License;
- A Work Plan with planned activities and schedule.

ASBESTOS ABATEMENT INSTRUCTIONS

The Henryetta Armory contains friable ACM including pipe insulation and fittings. The Henryetta Armory also contains non-friable ACM including floor tile, mastic, and transite soffit paneling. Abatement of all friable ACM shall be performed in accordance with Oklahoma Department of Labor (DOL) regulations and shall follow DOL approved project design. Non-friable ACM is not regulated by DOL, however, OSHA requirements in 29 CFR 1926.1101 must be followed. The Quantitative Facility Asbestos Survey with maps denoting the location of friable and non-friable asbestos is attached (**Attachment 2**). The DOL approved Project Design is attached (**Attachment 3**).

Friable Asbestos Abatement

- 350 Linear Feet of Thermal Pipe Insulation exposed in rooms 4, 6, and 13.
- 30 thermal pipe fittings exposed in rooms 4, 6, and 13.

Non-Friable Asbestos Abatement

- 225 square feet (SF) of 12 x 12 white floor tile in Annex 1
- 225 SF of mastic underneath white floor tile in Annex 1
- 250 SF of transite soffit paneling on porch off Room 8, 9, and 10.

LEAD-BASED PAINT ABATEMENT INSTRUCTIONS

The Lead-Based Inspection Report with floor plan maps detailing the locations of the lead-based paint is attached for review (**Attachment 4**)

Non-Friction and Non-Impact Surfaces

All items listed below shall be wet scraped, painted with a neutral colored primer, and encapsulated with DEQ approved elastomeric encapsulant. A list of DEQ approved elastomeric encapsulants is attached (**Attachment 6**). Encapsulant shall be a minimum of 20 mils thick.

- All overhead garage door frames and fascia
- Wood frame beside window in Room 3
- Door frame separating Rooms 12 and 13

All items listed below are to be removed, wrapped in 6 mil poly sheeting, and disposed of properly;

- Wall boards in Room 4 and Room 6
- Benches in Room 6
- Sliding doors and tracks separating Rooms 12 and 13

Friction and Impact Surfaces

A. Floors

- The floor in Room 13 shall be cleaned utilizing a HEPA vacuum and shall be wet washed. Once cleaned, floor shall be covered with an Interior High-Gloss Light Gray Epoxy Coat **(specifications attached to Attachment 6)** or DEQ approved equivalent.

B. Doors and Frames

- A Door-Scope of Work with map, door measurements, and specific details on abatement requirements for each door is attached **(Attachment 7)**;
- Doors will be replaced with UL listed 90 minute standard metal doors;
- Doors will be replaced with Steelcraft L18 and L16 – Series Honeycomb Doors (Specifications Attached) or equivalent;
- Contractor must submit product data for approval if different from DEQ approved doors or door frames;
- Door frames will be replaced with Steelcraft F16 and F14 – Series Flush Frames (Specifications Attached) or equivalent;
- Replacement doors and frames must meet all compliance and fire rating requirements in the attached specifications;

a. Exterior Doors

- Exterior doors will be replaced with galvannealed, 16 gage, honeycomb core insulated doors;
- Threshold: As manufactured by National Guard Products or approved equal – 426E (Specifications Attached);
- Weather Strip: As manufactured by National Guard Products or approved equal – 160VA (Specifications Attached);
- Lever: As manufactured by Schlage or approved equal – D Series "Rhodes", 626 finish, function ND60PD (Specification Attached);
- Keying: All doors to be keyed alike;
- Provide sealant (caulking) per 07920 specification attached.

b. Interior Doors

- Interior doors will be replaced with non-galvannealed, 18 gage, honeycomb core insulated doors;
- Knob: As manufactured by Schlage or approved equal – A Series "Orbit", 626 finish, function A10S (Specification Attached);
- Provide sealant (caulking) per 07920 specification attached.

LEAD DUST REMEDIATION INSTRUCTIONS

Sequence of Events

A copy of the Settled Lead Dust Report can be found in **Attachment 4**. The initial cleaning of the building shall be as follows:

1. First –
   a. Any remaining debris inside the building determined by DEQ to be trash shall be properly disposed.
2. Second –
   a. All floors of the entire building shall be cleaned.

Lead Dust Remediation

- Properly clean up any large oil or grease spills on the floors and properly dispose before lead remediation begins;

- Surfaces above the floors such as walls, shelves, etc. may have accumulated dust that has settled. This accumulation shall be removed prior to the cleaning of the floors. This shall be done to prevent recontamination of the floors after they are cleaned.

- All floors in the Main Building, Annex 1, and Annex 2 shall be cleaned.

  - Remove dust from all equipment, shelving, trash, etc, and remove these items from room before remediation begins;

  - Remove dust from all carpet, remove carpet from rooms, and dispose of all carpet as non-hazardous waste before lead dust remediation of floor begins;

  - Dispose any materials, determined by the DEQ to be trash, as non-hazardous waste;

  - HEPA vacuum and wet wash floors of entire building;
    - Lead levels on the floors are high in areas of the main building, annex 1 and annex 2. Lead contaminated dust may be ground into the pores and cracks of the concrete. It may be necessary to clean floors several times or use alternate cleaning methods after HEPA vacuuming and wet washing to remove the lead dust from the concrete and get the lead levels down to 40 micrograms per square foot (ug/SF).

DISPOSAL OF MATERIALS INSTRUCTIONS

Asbestos Disposal

All disposal of friable and non-friable ACM shall be performed in accordance with Oklahoma Department of Labor (DOL) regulations and OSHA requirements in 29 CFR 1926.1101 must be followed.

Lead-Based Paint Disposal

DEQ assumes that all lead-based paint chips removed from surfaces are considered hazardous waste. Lead-based paint removed from surfaces shall be disposed as hazardous waste.

- If Contractor uses a paint stripper that exhibits a characteristic of hazardous waste, or contains hazardous waste constituents, it is the Contractor's responsibility to characterize this waste under 40 CFR 262.11 and if they are determined to be hazardous waste, disposing of them as such. The Final Report shall contain all relevant information regarding the waste determination.

- A completed and signed waste manifest, Land Disposal Notification Form, and Certificate of Disposal demonstrating that the paint chips were properly disposed at a hazardous waste facility must be included in the Final Report.

Lead Dust Disposal

All wash water from lead dust remediation shall be disposed of appropriately.

- All wash water from the building shall be filtered through a 1 micron filter and stored on site in containers;

- The wash water will be sampled for total lead and total phosphorus; Total lead shall be run by ICP and total phosphorus shall be run by EPA Method 365.3;

- Sample results shall be submitted to DEQ to determine if wash water can be disposed at the local Waste Water Treatment Facility;

- Wash water filters shall be disposed as hazardous waste;

Lead dust and appropriate cleaning materials shall be disposed as appropriate.

- Mop heads, towels, brushes, wipes, and other cleaning supplies shall be disposed as hazardous waste.

- Poly Sheeting shall be disposed as appropriate. If contractor plans to dispose as non-hazardous waste, best management practices such as vacuuming, washing, wiping down, or cleaning poly sheeting prior to disposal shall be implemented.

- Personal protective equipment (gloves, tyvec, face masks, etc.) shall be disposed as appropriate.

CONFORMATION AND CLEARANCE SAMPLING INSTRUCTIONS

Clearance Inspection

Once lead-based paint abatement is complete and after room floors are cleaned, contact DEQ to perform post abatement clearance sampling in these areas.

- If samples do not meet EPA and HUD standards for lead dust (40 µg/SF for floors), areas shall be re-cleaned and re-sampled.
- Contractor may use his own lab to check progress of remediation, however all decisions shall be based on analytical data collected by DEQ. The third-party sampling shall not be included in the contractors proposal.
- DEQ will be responsible for taking all post remediation samples.
- DEQ shall be notified five (5) days prior to each sampling event.
- Contact Information:

Brian Stanila
707 North Robinson
Oklahoma City, Oklahoma 73101
Phone: (405) 702 – 5138
Email: Brian.Stanila@deq.ok.gov

FINAL REPORT INSTRUCTIONS

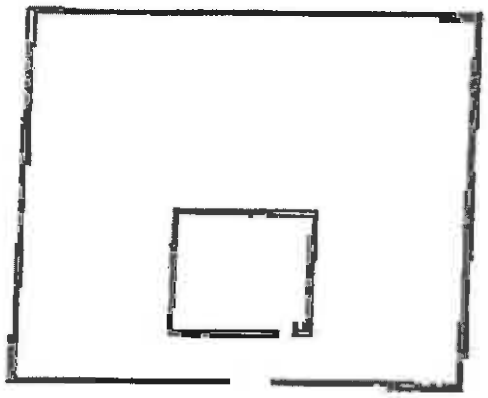
- Write final report and submit to DEQ;
  - Final report shall include asbestos, lead dust and lead-based paint abatement;
- Final report shall include:
  - A detailed summary of work including any warranties and data;
  - Sample results;
  - Waste manifests; and
  - Photo documentation of work;
    - Photo documentation of work will have color digital photos with captions describing photo;
    - Photos will show before and after photos of work completed.
- Final report will be submitted in hard copy and electronically on disc.

OWNER REPRESTATIVE

Owner's Representative: Brian Stanila
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73101
(405) 702-5138 (Office)
(405) 702-5101 (Fax)
E-Mail: Brian.Stanila@deq.ok.gov

ATTACHMENT 1

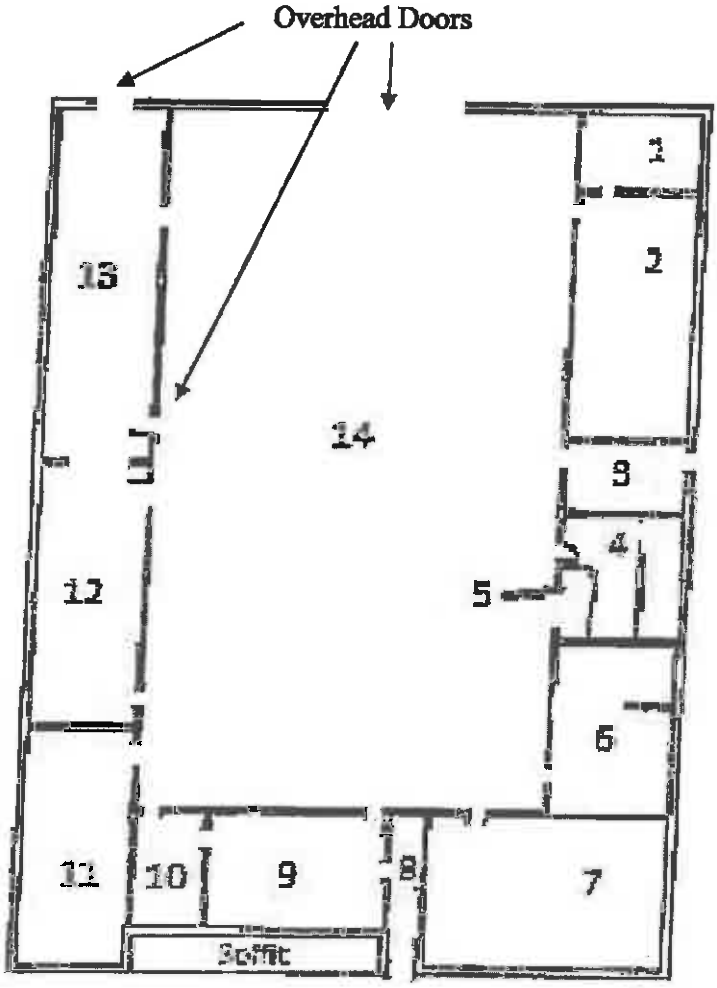
Floor Plan Map



Annex 1

Annex 2

North



Main Building

ATTACHMENT 6

DEQ Approved Lead-Based Paint Encapsulants, Sealants, and Grout

Lead-Based Paint Encapsulants

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

Central Oklahoma City, OK

You're shopping a store in: **Oklahoma City, OK**
3801 North May Road

We use your store location to provide current pricing and inventory. It'll also be the location for in-store pickups.

Epoxy-Coat 3-Gallon Interior High-Gloss Light Gray Garage Floor Coating Kit

Item#: 373248 | Model #: CK-1400

$249.97

Qty.:

Available for Pickup on 07/09/2013
at Lowe's of Central Oklahoma City, OK

Delivery Available

Tweet 0

Description

3-Gallon Interior High-Gloss Light Gray Garage Floor Coating Kit

Commercial/industrial grade

100% solids

Over 30 years experience with automotive, industrial, commercial and government customers

After-hours, live technical support

Over 3 times stronger than concrete

10 3 times more durable than water-based epoxies

4.8 times thicker than water-based epoxies

Self-leveling

Specifications

Warranty	Limited	Combustible	No
Sheen/Finish	High-gloss	Waterproof	Yes
Paint Color	Light Gray	Number of Coats Recommended	1.0
Unit of Measure	Gallon(s)	Soap and water clean-up	No
Unit of Measure Quantity	3.0	Low-odor formula	Yes
Coverage (Sq. Feet)	500.0	Mildew-resistant finish	Yes
Base Material	Epoxy	Scrubbable and washable finish	Yes
Color Family	Gray/Silver	Stain-Resistant	Yes
Where to Use	Interior	Fade-Resistant	Yes
		UV-resistant	Yes

Tintable	No	Type	Other
Primer Recommended	No	Paint and Primer in One	Yes
Dry To Touch	13 hours		
Flammable	No		

ATTACHMENT 7

Door Scope of Work Including Measurements and Specifications

Henryetta Armory Door Measurements
And
Scope of Work

- **Door measurements are listed as approximate Width X Height; Contractor to field verify.**
- **All removed doors and frames will be properly disposed.**
- **All removed lead-based paint will be properly disposed.**
- **Attached is the Henryetta Armory Floor Plan with designated door numbers that correspond with the numbers on this Scope of Work.**
- **Specifications for replacement doors and frames are attached.**

1. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3'6" X 7'

2. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'2"

3. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

4. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

5. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

6. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

7. Remove double doors and frame. Install replacement double doors and frame. Exterior Double Door Measurements – 6' X 7'

8. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

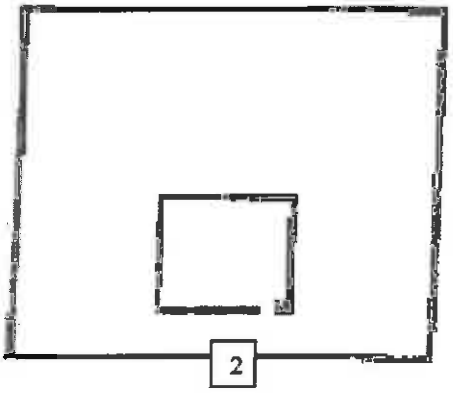
9. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

10. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

11. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

12. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'

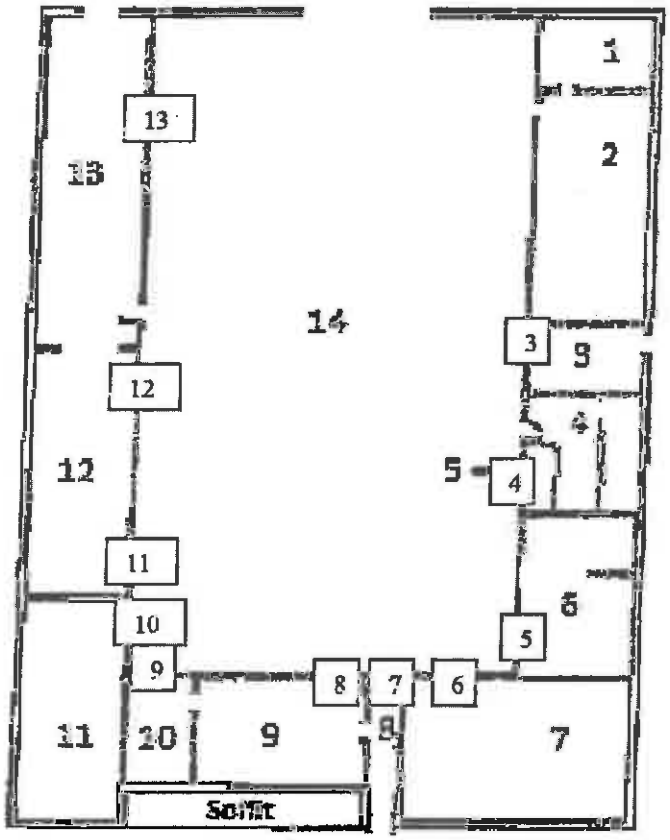
13. Remove door and frame. Install replacement door and frame. Exterior Door Measurements – 3' X 7'



Annex 1

Annex 2

North



Main Building

SECTION 07920 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data.

B. Warranty: Warranty materials and workmanship of sealing against leaks, adhesion, and cohesive failure for a period of two years from the date of substantial completion.

C. References:

1. American Society for Testing and Materials
   a) ASTM C790 – Recommended practices for use of latex sealing compounds.
   b) ASTM C920 – Elastomer Joint Sealants.
2. Federal Specifications
   a) FS TT-S-00230C (2), Sealing Compound, Elastomeric Type, Single Component (for caulking, sealing and glazing in buildings and other structures).
   b) FS TT-S-00227E (3), Sealing Compound, Elastomeric Type, Multi-component (for caulking, sealing and glazing in buildings and other structures).

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that have been tested and found compatible with one another and with joint substrates under service and application conditions.

B. Interior Sealant: Provide ASTM C 834. If no color is specified, use Gray. Location(s) of sealant for the following:
1. Small voids between walls or partitions and adjacent door frames, and similar items.
2. Perimeter of frames at doors, windows, and access panels which adjoin exposed interior concrete and masonry surfaces.

C. Exterior Sealant: Provide ASTM C 920, polyurethane or polysulfide, Type M, Grade NS, Class 25, Shore A hardness of 20-40. If no color is specified, use Gray. Location(s) of sealant for the following:
1. Joints and recesses formed where frames and vents adjoin masonry, concrete, or metal frames. Use sealant at both exterior and interior surfaces of exterior wall penetrations. Color to match adjacent surface.

2.2 ACCESSORIES

A. Primers: Provide a nonstaining, quick-drying type and consistency recommended by the sealant manufacturer for the particular application.

B. Bond Breakers: Provide the type and consistency recommended by the sealant manufacturer to prevent adhesion of the sealant to backing or to bottom of the joint.

C. Cleaning Solvents: Provide type(s) recommended by the sealant manufacturer, except for aluminum and bronze surfaces that will be in contact with sealant.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean surfaces from dirt frost, moisture, grease, oil, wax, lacquer, paint, or other foreign matter that would tend to destroy or impair adhesion. Remove oil and grease with solvent. Surfaces must be wiped dry with clean cloths. When resealing an existing joint, remove existing calk or sealant prior to applying new sealant. For surface types not listed below, contact sealant manufacturer for specific recommendations.
1. Steel Surfaces: Remove loose mill scale by sandblasting or, if sandblasting is impractical or would damage finish work, scraping and wire brushing. Remove protective coatings by sandblasting or using a residue-free solvent.
2. Aluminum or Bronze Surfaces: Remove temporary protective coatings from surfaces that will be in contact with sealant. When masking tape is used as a protective coating, remove tape and any residual adhesive just prior to sealant application. For removing protective coatings and final cleaning, use nonstaining solvents recommended by the manufacturer of the item(s) containing aluminum or bronze surfaces.
3. Concrete and Masonry Surfaces: Where surfaces have been treated with curing compounds, oil, or other such materials, remove materials by sandblasting or wire brushing. Laitance, remove efflorescence and loose mortar from the joint cavity.

4. Wood Surfaces: Keep wood surfaces to be in contact with sealants free of splinters and sawdust or other loose particles.

B. Do not add liquids, solvents, or powders to the sealant. Mix multi-component elastomeric sealants in accordance with manufacturer's instructions.

3.2 INSTALLATION

A. Joint Width-to-Depth Ratios: Install per manufacturer's recommendation or as described below, whichever is more stringent.

1. Acceptable Ratios:

	Minimum	Maximum
a) For metal, glass, or other nonporous surfaces:		
(1) 1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2) Over 1/4 inch (6 mm)	1/2 of width	Equal to width
b) For wood, concrete, masonry, or stone:		
(1) 1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2) Over 1/4 inch(6 mm) to 1/2 inch (13 mm)	1/4 inch (6 mm)	Equal to width
(3) Over 1/2 inch (13 mm) to 2 inch (50 mm)	1/2 inch (50 mm)	5/8 inch (16 mm)
(4) Over 2 inch (50 mm)	(As recommended by sealant mfr.)	

2. Unacceptable Ratios: Where joints of acceptable width-to-depth ratios have not been provided, clean out joints to acceptable depths and grind or cut to acceptable widths without damage to the adjoining work. Grinding is not required on metal surfaces.

B. Masking Tape: Place masking tape on the finish surface on one or both sides of a joint cavity to protect adjacent finish surfaces from primer or sealant smears. Remove masking tape within 10 minutes after joint has been filled and tooled.

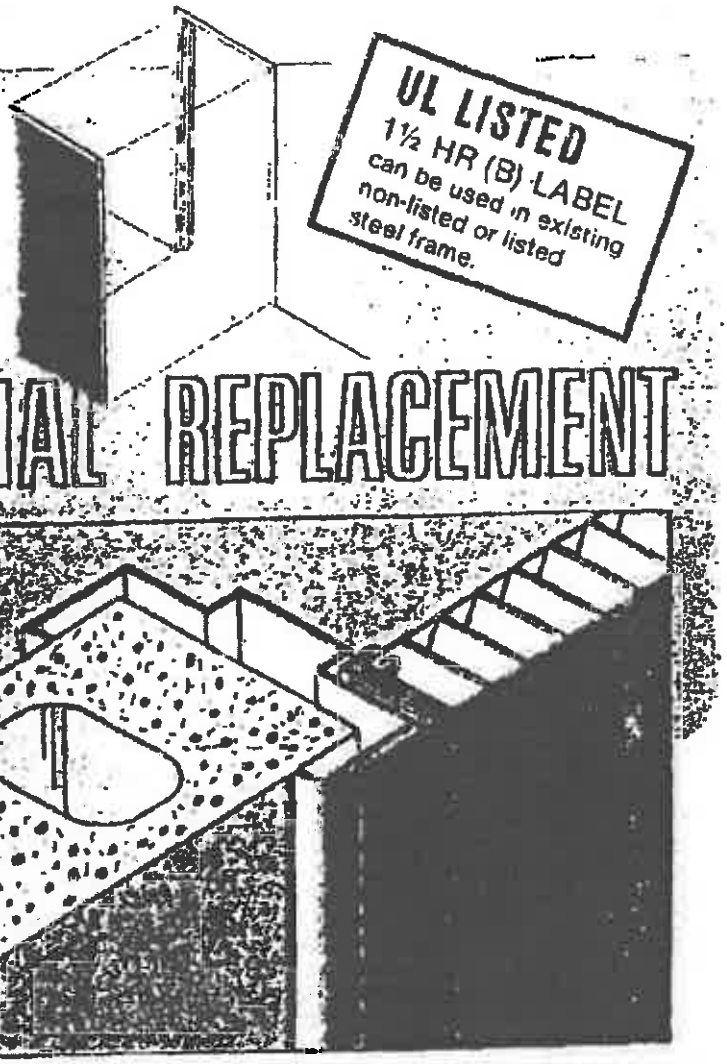
C. Immediately prime prior to application of the sealant, clean out loose particles from joints. Where recommended by sealant manufacturer, apply primer to joints in concrete masonry units, wood, and other porous surfaces in accordance with sealant manufacturer's instructions. Do not apply primer to exposed finish surfaces.

D. Provide bond breakers to the back or bottom of joint cavities, as recommended by the sealant manufacturer for each type of joint and sealant used, to prevent sealant from adhering to these surfaces. Carefully apply the bond breaker to avoid contamination of adjoining surfaces or breaking bond with surfaces other than those covered by the bond breaker.

E. Provide a sealant compatible with the material(s) to which it is applied. Do not use a sealant that has exceeded shelf life or has jelled and can not be discharged in a continuous flow from the gun. Apply the sealant in accordance with the manufacturer's printed instructions with a gun having a nozzle that fits the joint width. Force sealant into joints to fill the joints solidly without air pockets. Tool sealant after application to ensure adhesion. Make sealant uniformly smooth and free of wrinkles. Upon completion of sealant application, roughen partially filled or unfilled joints, apply sealant, and tool smooth as specified. Apply sealer over the sealant when and as specified by the sealant manufacturer.

F. Thresholds: Place double band of sealant under and along all sides of all exterior thresholds.

END OF SECTION 07920



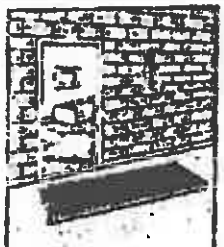
UL LISTED
1½ HR (B) LABEL
can be used in existing non-listed or listed steel frame.

Install a pre-hung
Steelcraft
COMMERCIAL REPLACEMENT DOOR UNIT

New beauty and security for worn out doors.

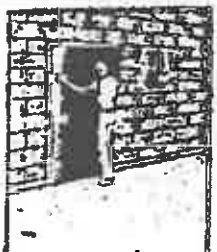
The Steelcraft Commercial Replacement Unit is the only product of its kind specifically designed for the rehab market. Fits these nominal sizes: 2868, 3068, 3668, 3868, 4068, 2870, 3070, 3670, 3870, 4070 single, and 5468, 6068, 5470 and 6070 double doors.

- Does not require removal of existing frame.
- Fits an "out-of-square" opening.
- Works with grouted or non-grouted frames.
- Installs quickly and easily.
- Includes rugged steel adapter frame.
- Permits door swing to be changed without major rework.
- Fills opening without re-mortising and filling hardware cutouts.
- Can be installed in existing steel or wood frame.
- Provides additional security.



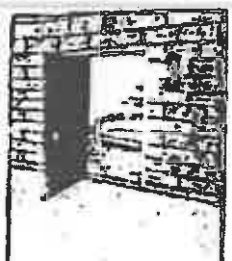
QUICK

1. Remove old door, hardware, sill and any other item(s) projecting into opening.



'N EASY

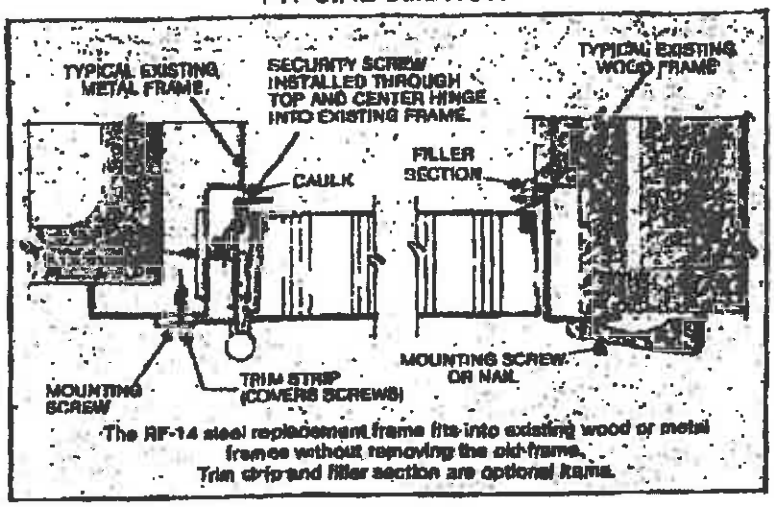
2. Set pre-hung unit into frame opening. Install mounting screws through face, cut banding and install security screws.



INSTALLATION

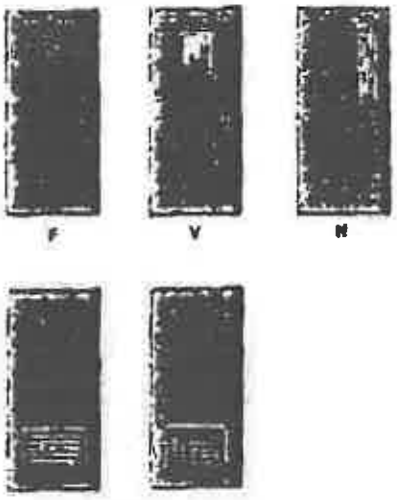
3. Mount hardware as required. Paint.

TYPCIAL SECTION



The RF-14 steel replacement frame fits into existing wood or metal frames without removing the old frame. Trim strip and filler section are optional items.

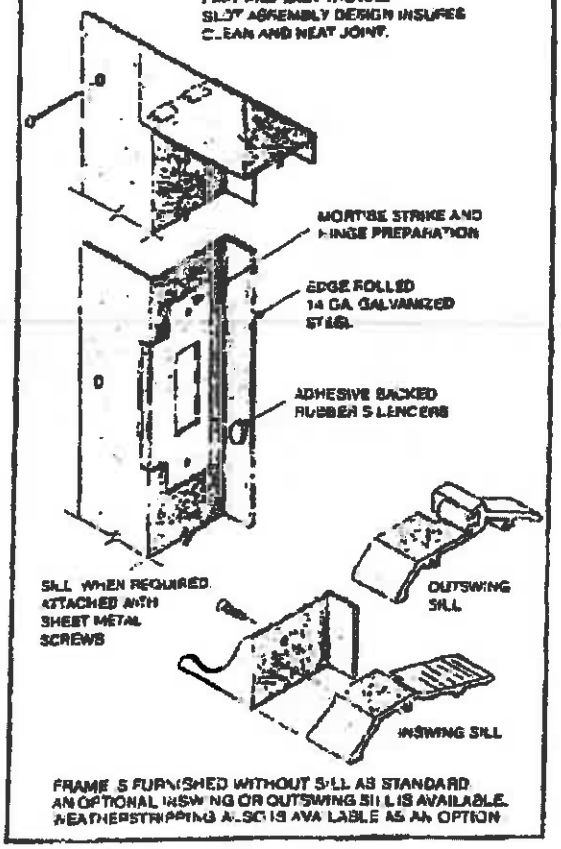
DESIGNS AND FINISHES AVA



LOUVERS

FRAME DETAIL

KNOCKED DOWN CORNER CONSTRUCTION. PART AND EASY TAB AND SLOT ASSEMBLY DESIGN INSURES CLEAN AND NEAT JOINT.



FRAME IS FURNISHED WITHOUT SILL AS STANDARD. AN OPTIONAL INSWING OR OUTSWING SILL IS AVAILABLE. WEATHERSTRIPPING ALSO IS AVAILABLE AS AN OPTION

SPECIFICATIONS

Commercial Replacement Unit shall be supplied as a complete unit, consisting of 18 ga. door (RL-18) and 14 ga. frame (RF-14).

Single openings shall be pre-hung, ready for quick and easy installation. Double openings shall be supplied as separate units (frame and two door leaves) not pre-hung.

Doors shall conform to the following:

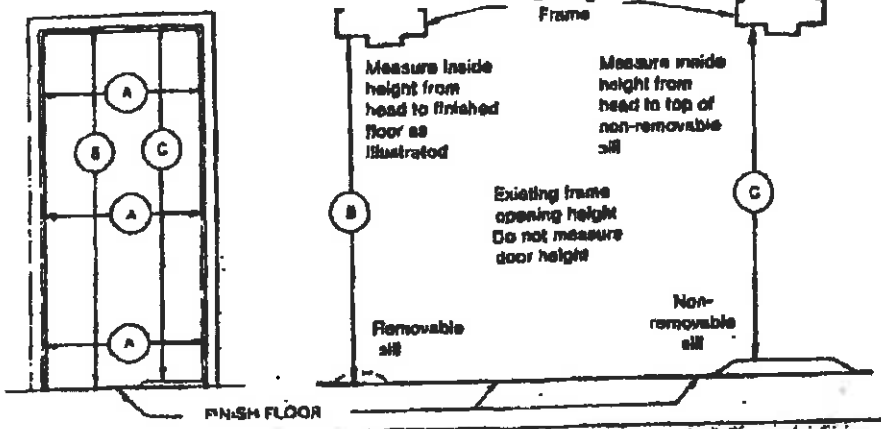
- Doors shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RL-18 (1¾" 18 ga. steel).
- Doors shall be fabricated from cold rolled steel.
- Doors shall have ⅛" bevel on 2 sides on hinge and lock edges.
- Doors shall have vertical reinforcing channels interlocking seams on hinge and lock edges with visible edge seam.
- Doors shall be provided with top and bottom inverted steel channels spotwelded within the door.
- Doors shall be reinforced, stiffened and sound deadened with impregnated kraft honeycomb core completely filling the inside of the door and laminated to the inside faces of panels.
- Doors shall be mortised and adequately reinforced for all hardware.
- Doors shall be phosphatized and receive one coat of baked-on prime paint.

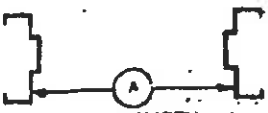
Frames shall conform to the following:

- Frames shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RF-14 (14 ga.).
- Frames shall be accurately formed from galvanized steel.
- Frames shall be furnished knocked down (KD). Corners shall have tabs for secure and easy interlocking of jambs to head at each corner.
- Frames shall be adequately reinforced for all hardware.
- Frames shall be supplied with adhesive backed rubber bumpers (three per strike jamb, two per double door frame head).
- Frames shall be phosphatized and receive one coat of baked-on prime paint.

*Single openings are designed to be pre-hung and installed. Units are supplied KD for pre-hanging at job site or by distributor.

HOW TO DETERMINE SIZE OF EXISTING FRAME





FRAME WIDTH

Measure in 3 places, use narrowest dimension for ordering

SIZE (Nominal)	FITS THESE EXISTING OPENINGS			
	A WIDTHS		B & C HEIGHTS	
	MIN.	MAX.	MIN.	MAX.
2'8" x 6'8"	31⅛"	32⅜"	79⅜"	80⅛"
3'0" x 6'8"	35⅛"	36⅜"	79⅜"	80⅛"
3'0" x 6'10"	41⅛"	42⅜"	79⅜"	80⅛"
3'6" x 6'8"	40⅛"	44⅜"	79⅜"	80⅛"
4'0" x 6'8"	47⅛"	48⅜"	79⅜"	80⅛"
2'8" x 7'0"	31⅛"	32⅜"	83⅛"	84⅛"
3'0" x 7'0"	35⅛"	36⅜"	83⅛"	84⅛"
3'6" x 7'0"	41⅛"	42⅜"	83⅛"	84⅛"
3'6" x 7'0"	43⅛"	44⅜"	83⅛"	84⅛"
4'0" x 7'0"	47⅛"	48⅜"	83⅛"	84⅛"
2'4" x 6'8"	83⅛"	84⅜"	79⅜"	80⅛"
6'0" x 6'8"	71⅛"	72⅜"	79⅜"	80⅛"
5'4" x 7'0"	63⅛"	64⅜"	83⅛"	84⅛"
6'0" x 7'0"	71⅛"	72⅜"	83⅛"	84⅛"

*MAX. OPENING HEIGHT MAY BE EXCEEDED BY BLOCKING DOWN EXISTING OPENING.

NOTE: ORDER UNITS BY NOMINAL SIZES. DO NOT ORDER BY ACTUAL DIMENSIONS.

TO HAND A DOOR — FACE IT FROM THE OUTSIDE OR KEYSIDE

LEFT HAND Hinges on Left Opens Inward	RIGHT HAND Hinges on Right Opens Inward	LEFT HAND REVERSE Hinges on Left Opens Outward	RIGHT HAND REVERSE Hinges on Right Opens Outward
LEFT HAND Hinges on Left Opens Inward	RIGHT HAND Hinges on Right Opens Inward	LEFT HAND REVERSE Hinges on Left Opens Outward	RIGHT HAND REVERSE Hinges on Right Opens Outward

Steelcraft®

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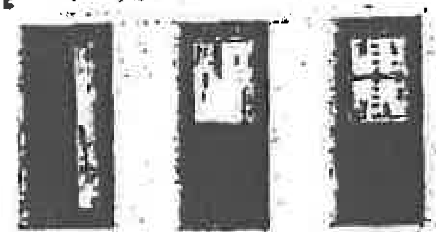
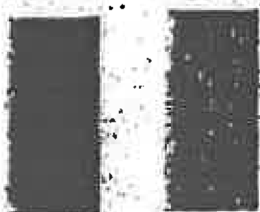




FINISH PAINTED AND WOOD GRAIN FINISHES

HARDWARE

Replacement Units shall be prepared for the following hardware.

Hinges:
1-1/2 pair of 4-1/2 x 4-1/2 x .134 template hinges

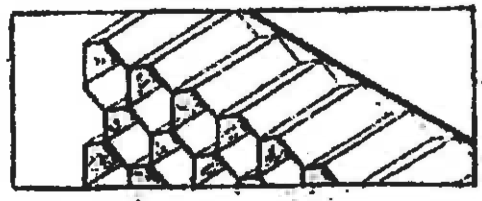
Lock and Strike:
Government 161 (ANSI-A115.2) cylindrical or Government 86 (ANSI-A115.1) mortise lock with an ANSI-A115.1 or .2 strike.

Consult distributor for other hardware preparations

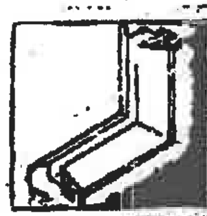
	NOMINAL SIZE	FRAME SIZE (FINISHED OPENING)		NET DOOR SIZE*	
		WIDTH	HEIGHT	WIDTH	HEIGHT
SINGLE	2868	31"	79¾"	30-13/16"	78¾"
	3068	35"		34-13/16"	
	3668	41"		40-13/16"	
	3868	43"		42-13/16"	
	4068	47"		46-13/16"	
	2870	31"	83¾"	30-13/16"	82¾"
	3070	35"		34-13/16"	
	3670	41"		40-13/16"	
	3870	43"		42-13/16"	
	4070	47"		46-13/16"	
PAIR	5468	63"	79¼"	30-13/16" & 31-13/16"	78¾"
	6068	71"		34-13/16" & 35-13/16"	
	5470	63"	83¼"	30-13/16" & 31-13/16"	82¾"
	6070	71"		34-13/16" & 35-13/16"	

*FOR PAIRS OF DOORS INACTIVE LEAF IS 1" WIDER THAN ACTIVE LEAF
CONSULT DISTRIBUTOR FOR OTHER SIZES.

DOOR DETAILS

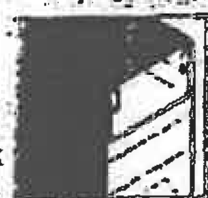


Full honeycomb core of phenolic resin-impregnated kraft paper reinforces the door every 1 inch, providing superlative resistance to impact and assuring a flat surface.

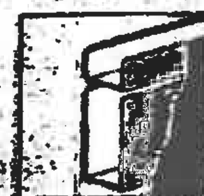


Aluminum glass trim (snap-in.)

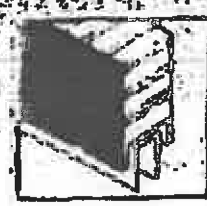
8-gage thick hinge reinforcement.



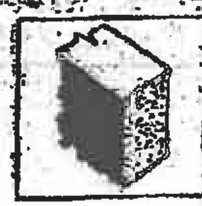
Snap-in metal top caps (for exterior openings).



Sealed top and bottom reinforcing channels. 14 gage closer reinforcement when required.

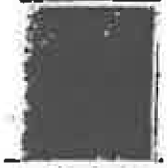


Door bottom with double sweep when required.



Insulated doors. one pound polystyrene core. 1½ pound polyurethane core when required.

PAIRS OF DOORS



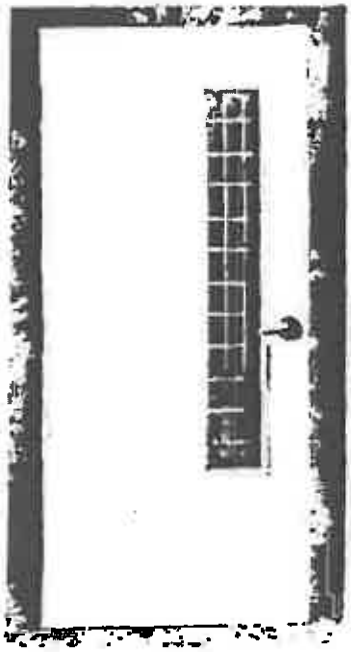
Designs shown may be combined for pairs of doors

Pairs of doors consist of two leaves and a 14 ga. steel "Z" astragal field mounted to inactive leaf of pair. Inactive leaf may be secured with flush bolts or surface bolts.

Note: For pairs of doors right hand will be active unless specifically ordered.

STEELCRAFT

L18 AND L16-SERIES HONEYCOMB DOORS



FEATURES AND BENEFITS:

Steelcraft's L-Series Doors offer the following standard unique features, which enhance long term performance and durability.

1. **Honeycomb core system** enhances the structural integrity of the door, while significantly reducing the weight.
2. **Full height, epoxy filled mechanical interlock edges** provide structural support and stability the full height of the door edges.
3. **Patented universal hinge preparations** allow for easy field conversion from standard weight (.134) hinges to heavy weight (.180) hinges.
4. **14 gage top and bottom channels** provide stability and protection for the top and bottom edges from abuse.
5. **Beveled hinge and lock edges** allow for tighter installation tolerances, ensure easier operation, and eliminate binding and sticking.
6. **Recessed Dezigner™ glass trim** provide a clean, neat, and flush finish with the door surface.
7. **Factory applied baked on rust inhibiting primer** in accordance with ANSI A250.10.

ABOUT THE PRODUCT:

The L18 and L16-Series Flush Doors are designed to meet the architectural requirements for full flush doors. This premium door construction combines the strength and dimensional stability of steel with the structural integrity of the honeycomb core. The continuous bonding of core to metal provides an attractive flat door, free of face welding marks. Tests have proven that the L-Series door has integral high resistance to impact damage, low thermal conductivity, and high STC ratings.

To meet application, specification and performance requirements, the L-Series doors offer a wide range of specifiable options including sizes, glass lite designs, hardware (mechanical, pneumatic, electrical) preparations and edge constructions.

SPECIFICATION COMPLIANCE:

1. Door construction for the Steelcraft L18 and L16-Series Full Flush Doors meet the requirements of ANSI A250.8-1998 (commonly referred to as SDI-100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-1997. Locations are in accordance with ANSI/DHI A115.

FIRE RATINGS:

The L-Series doors meet the broadest fire rating requirements. They are listed for installations requiring compliance to both negative pressure testing (ASTM E152 and UL-10B) and positive pressure standards (UBC 7-2 and UL-10C).

Steel Thickness	Opening	Usage Frequency[1]	Frame Applications
16 gage (1.3mm)	Interior & Exterior	Extra-heavy duty	• 16 & 14 gage steel frames
18 gage (1mm)	Interior & Exterior	Heavy duty	• 16 gage steel frames
Steel Type	**Opening**	**Building Applications**	
Non Galvannealed[3]	Mainly Interior	• Typical building conditions	
Galvannealed[2]	Mainly Exterior	• Used in locations with high humidity and/or weather exposure	

MATERIAL:

Depending on environmental conditions, exterior doors are generally galvannealed and interior doors non galvanneal. All doors are supplied with a factory applied baked on primer for field applied finish paints.

[1] Usage frequency is based on ANSI A250.8-1998
[2] Reinforcements for galvannealed doors are also galvannealed
[3] Commercial quality carbon steel

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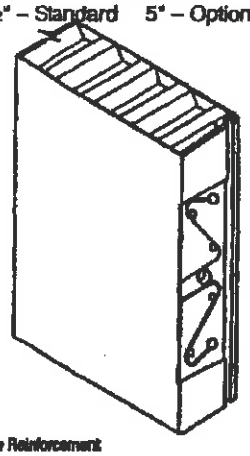
IR Security & Safety

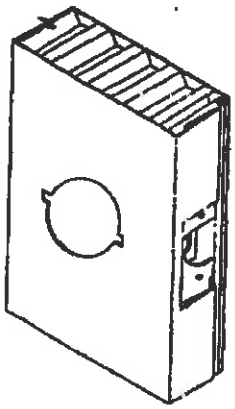
Details are subject to change without prior notice.

Universal Mortise Hinge Prep
4½" – Standard 5" – Optional



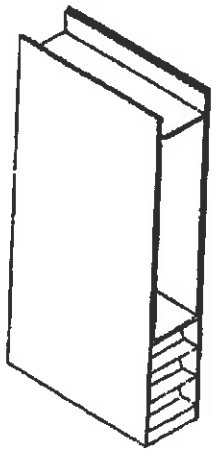
7 Gage Hinge Reinforcement

Lock Prep

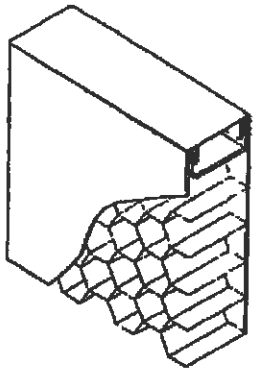


161 Cylindrical Lock shown

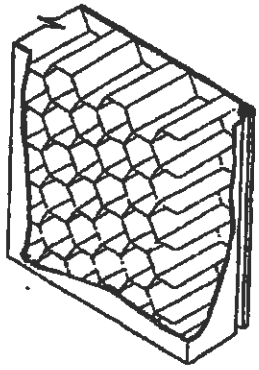
Optional 14 Gage Closer Reinforcement



Optional Snap-In Top Cap

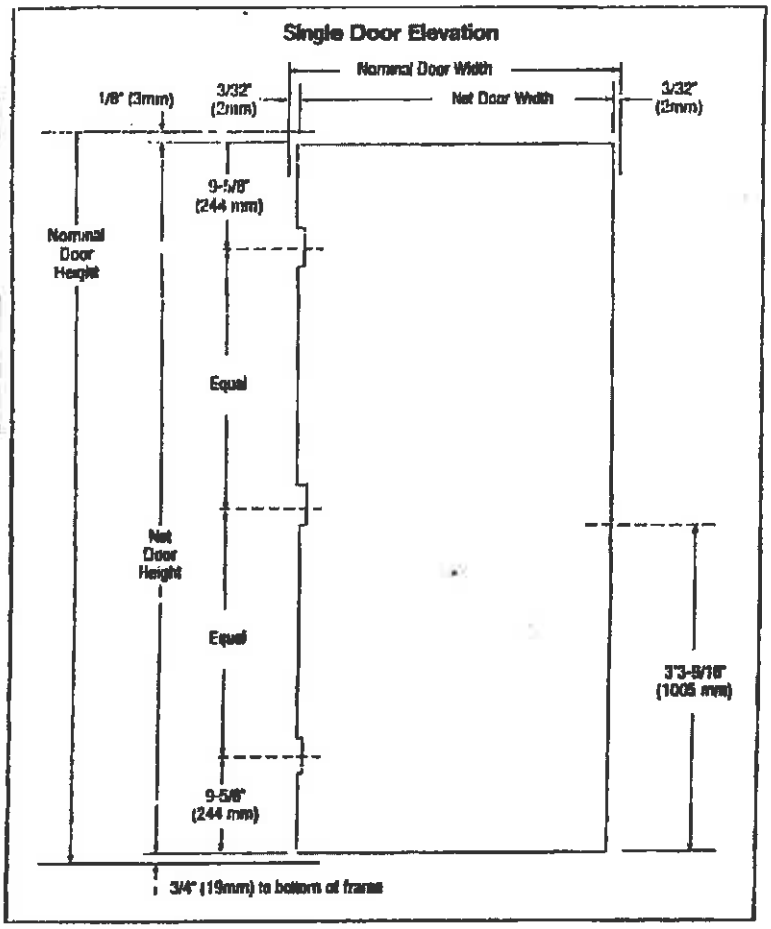


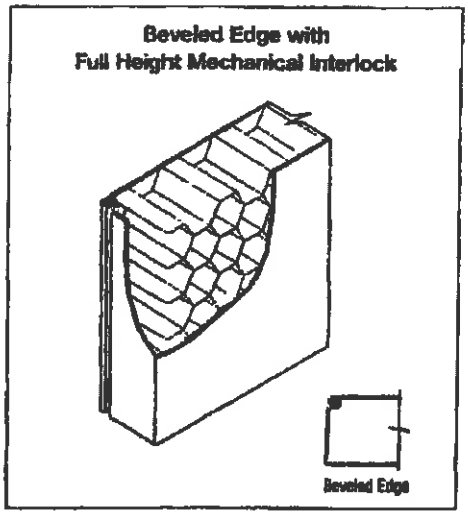
Rigid Honeycomb Core

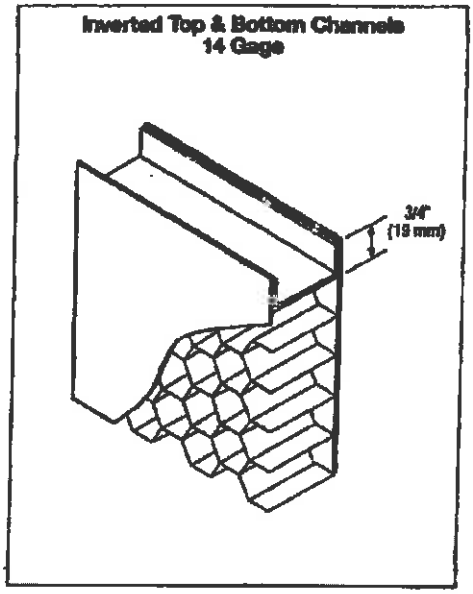


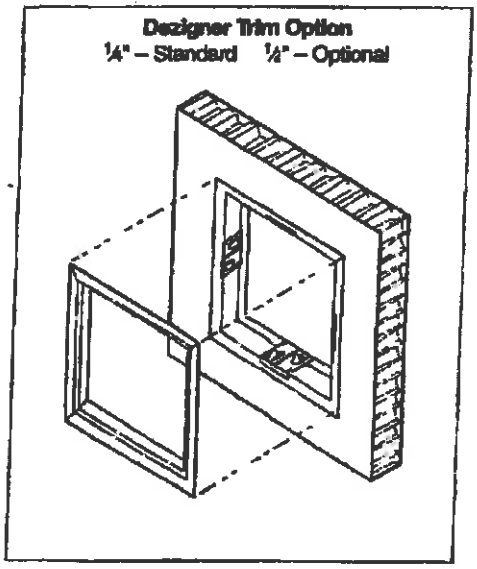
GENERAL NOTES:

1. **Edge construction:**
   - Vertical edges (both hinge and lock) are beveled with a visible seam.
   - Top and bottom edges are closed with inverted 14 gage welded channels. Exterior applications require the addition of snap-in top caps to protect against the weather.
2. **Optional edge seams** available in the L-Series door construction are as follows:
   - **LF** – The mechanical edge seam is filled and finished prior to applying the factory primer.
   - **LW** – The mechanical edge seam is welded and finished prior to applying the factory primer.
3. **Optional cores** available in the L-Series door construction:
   - **Polystyrene** for exterior applications in extreme weather conditions.
   - **Polyurethane** for exterior applications in arctic weather conditions. Not Fire Rated.
4. **Standard hardware preparations:** standard mortised and reinforced for:
   - **Universal hinge preps** – 4½"(114mm) patented preparation which allows easy and quick field conversion from standard to heavy weight hinges.
   - **Locks** – A multitude of standard lock preps are available. The most commonly used with a 4⅞" (124mm) strike are *161, 61L and 86.*









CONSTRUCTION NOTES:

1. **Doors are** 1¾" (45mm) thick.
2. **Door opening size maximum:**
   Single door opening size 40" x 100" (1219mm x 3048mm)
   Double door opening size 80" x 100" (2438mm x 3048mm)
3. **Standard operating clearances** *(installed in frame)*:
   Head = ⅛" (3mm) to bottom of head or transom panel
   Hinge and lock side = 3/32" (2mm) to rabbet on jamb
4. **Standard core system:**
   1" (25mm) cell Kraft honeycomb core is laminated to both face sheets with contact adhesive. The honeycomb is phenolic resin impregnated and sanded to insure ultimate lamination and performance. To further enhance the structural stability of the door the honeycomb core material is subjected to several unique operations prior to assembly. If any of these operations are eliminated, the strength and durability of the door is compromised.
5. **Hardware preparations:** to meet specifications, doors can be prepared for all commercial mortised hardware, and can be factory reinforced for surface applied hardware applications.
   - **Lock preps** – details and dimensions shown are for cylindrical (ANSI 115.2) type locks. For mortise (ANSI A115.1) locks, the centerline of the lock is located ⅜" (9mm) lower.
6. **Glass lites with Dezigner® trim and louvers:** doors with glazed cutouts and doors with louvers are available (see *Lites and Louvers* section of *Spec Manual*).

INSTALLATION:

1. Installation shall conform to the published Steelcraft installation instructions, SDI 105 *Recommended Installation Instructions for Steel Frames*, and ANSI/DHI A115-IG *Installation Guide for Doors and Hardware*.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The *Authority Having Jurisdiction* is the final authority in issues related to the installation and use of installed Fire Rated Doors.

DOOR EDGE APPLICATIONS:

The L-Series Doors are used in virtually all buildings and construction applications. The application and functionality dictate the door edge construction specified.

Edge	Usage	Application
L	Heavy & Extra-heavy duty	High traffic in all commercial applications
LF	Heavy & Extra-heavy duty	High traffic, in sanitation conditions
LW	Heavy & Extra-heavy duty	High traffic, in sanitation and high abuse conditions

CONVERSION CHART

ANSI A250.8 (SDI 100) *Recommended Specification for Standard Steel Doors and Frames.*

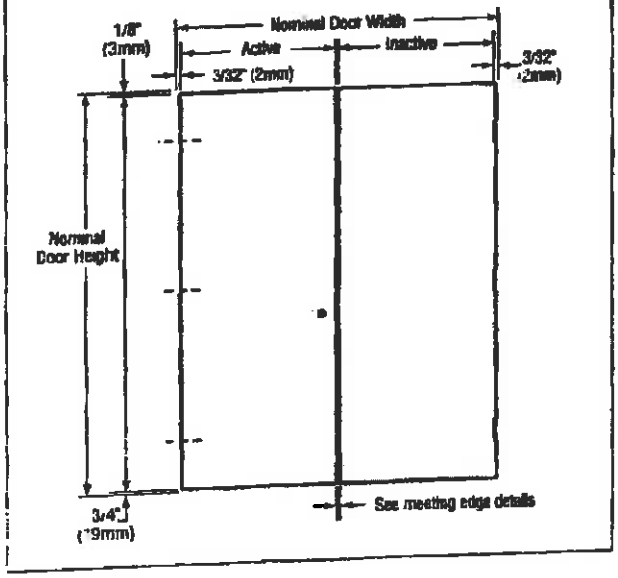
Series	Level	Model	Description	Edge Construction
L18	2	1	Full Flush	Full height, visible mechanical interlocked edge
LF18	2	2	Seamless	L-Series with epoxy filled edge seams
LW18	2	2	Seamless	L-Series with welded edge seams
L16	3	1	Full Flush	Full height, visible mechanical interlocked edge
LF16	3	2	Seamless	L-Series with epoxy filled edge seams
LW16	3	2	Seamless	L-Series with welded edge seams

DOUBLE DOOR APPLICATIONS:

L-Series doors are available in double door elevations, with active and inactive leaves and an overlapping astragal.

- **Standard operating clearances** *(installed in frame)*:
  - Head = ⅛" (3mm) to bottom of head or transom panel
  - Hinge side = 3/32" (2mm) to rabbet on jamb
  - Meeting edges = 3/32" (2mm) with or without astragal. For openings without an astragal, a wide inactive leaf is used.
  - Bottom = ¾" (19mm) to bottom of frame

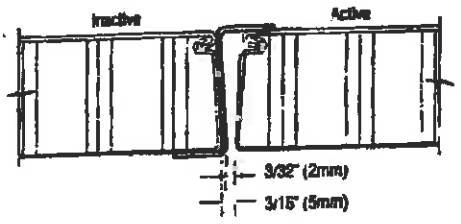
Double Door Elevation



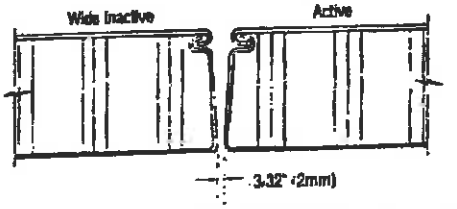
- **Meeting edges:**
  - 14 Gage astragal is furnished loose for installation in the field by others.
  - Overlapping astragal kits are available to convert an active leaf to an inactive leaf.
  - When an astragal is not used, the width of the inactive leaf is increased 3/32" (2mm).
- **Hardware preparations:** the inactive leaf can be prepared for hardware as specified.

MEETING EDGE DETAILS:

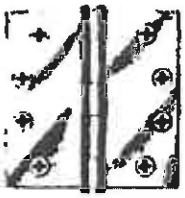
Typical Astragal 14 Gage



Pairs without Astragal



Five Knuckle



Plain Bearing - Standard Weight

For use on medium weight doors or doors requiring low frequency service

1191 Brass with Stainless Steel pin - ANSI A2133
Stainless Steel with Stainless Steel pin - ANSI A5133

1279 Steel with Steel pin - ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
2 x 2	51 x 51	0.083	4	-	3/4 x 8
2½ x 2½	64 x 64	0.089	6	-	3/4 x 8
3 x 3	76 x 76	0.097	6	-	1 x 9
3½ x 3½	89 x 89	0.119	6	½ x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	½ x 12-24	1¼ x 12
4½ x 4	114 x 102	0.134	8	½ x 12-24	1¼ x 12
4½ x 4½	114 x 114	0.134	8	½ x 12-24	1¼ x 12
5 x 4	127 x 102	0.145	8	½ x 12-24	1¼ x 12
5 x 4½	127 x 114	0.145	8	½ x 12-24	1¼ x 12
5 x 5	127 x 127	0.145	8	½ x 12-24	1¼ x 12
6 x 4½	152 x 114	0.160	10	½ x ¼-20	1½ x 14
6 x 5	152 x 127	0.160	10	½ x ¼-20	1½ x 14
6 x 6	152 x 152	0.160	10	½ x ¼-20	1½ x 14

Five Knuckle

Plain Bearing - Standard Weight - Wide Throw

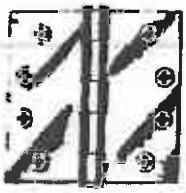
For use on medium weight doors or doors requiring low frequency service

1191 Wide Throw
Brass with Stainless Steel pin - ANSI A2133
Stainless Steel with Stainless Steel pin - ANSI A5133

1279 Wide Throw
Steel with Steel pin - ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3½ x 5	89 x 127	0.119	6	¼ x 10-24	1 x 9
3½ x 6	89 x 152	0.119	6	¼ x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	½ x 12-24	1¼ x 12
4 x 6	102 x 152	0.129	8	½ x 12-24	1¼ x 12
4 x 7	102 x 178	0.129	8	½ x 12-24	1¼ x 12
4½ x 5	114 x 127	0.134	8	½ x 12-24	1¼ x 12
4½ x 6	114 x 152	0.134	8	½ x 12-24	1¼ x 12
4½ x 7	114 x 178	0.134	8	½ x 12-24	1¼ x 12
4½ x 8	114 x 203	0.134	8	½ x 12-24	1¼ x 12
5 x 6	127 x 152	0.145	8	½ x 12-24	1¼ x 12
5 x 7	127 x 178	0.145	8	½ x 12-24	1¼ x 12
5 x 8	127 x 203	0.145	8	½ x 12-24	1¼ x 12



Concealed Bearing - Standard Weight

For use on medium weight doors or doors requiring medium frequency service

CB1191 Stainless Steel with Stainless Steel pin - ANSI A5112

- Non-rising removable pin with button tip and plug
- Only available with SecureCoat® Lifetime finish (US3SC)
- Specify machine screws

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3½ x 3½	89 x 89	0.119	6	-	1 x 9
4 x 4	102 x 102	0.129	8	-	1¼ x 12
4½ x 4	114 x 102	0.134	8	-	1¼ x 12
4½ x 4½	114 x 114	0.134	8	-	1¼ x 12
5 x 4	127 x 102	0.145	8	-	1¼ x 12
5 x 4½	127 x 114	0.145	8	-	1¼ x 12
5 x 5	127 x 127	0.145	8	-	1¼ x 12
6 x 4½	152 x 114	0.160	10	-	1½ x 14
6 x 5	152 x 127	0.160	10	-	1½ x 14
6 x 6	152 x 152	0.160	10	-	1½ x 14

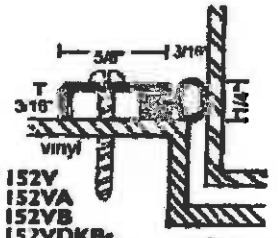
Vinyl Seals

Properties:
- Synthetic polymer: Polyvinyl Chloride
- Economical
- Flame resistant
- Moisture resistant
- Temperature range 0F to 140F
- Plasticizers evaporate with age and exposure to UV, Cold, Heat causing hardening, loss of memory, loss of resilience, cracking and crazing

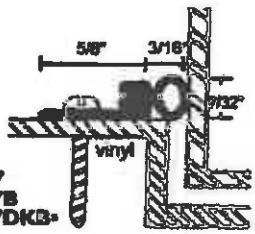
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished
Screw holes slotted for adjustment

All vinyl seals this section

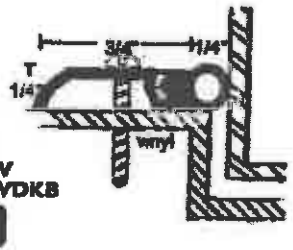
A - clear
B - gold
DKB - dark bronze
no suffix - mill
Vinyl is gray
(exception: vinyl is black)



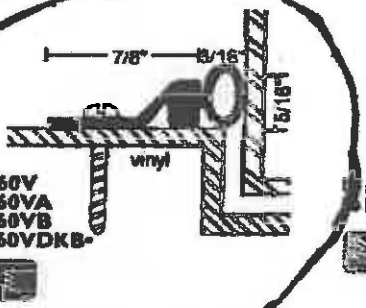
152V
152VA
152VB
152VDKB*



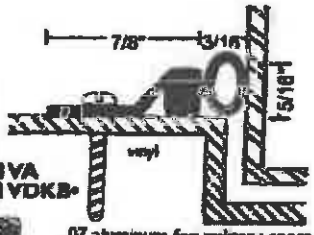
155V
155VB
155VDKB*



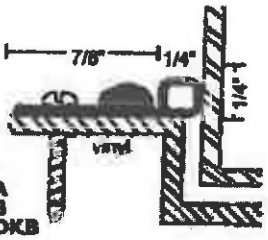
156V
156VDKB



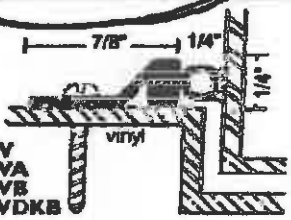
160V
160VA
160VB
160VDKB*



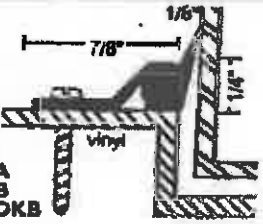
VA
VDKB*
07 aluminum for military specs



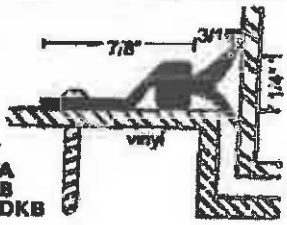
162V
162VA
162VB
162VDKB



164V
164VA
164VB
164VDKB

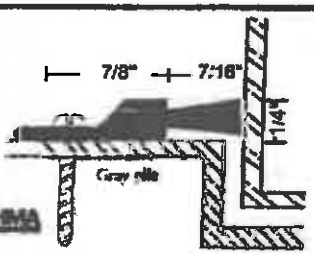


188V
188VA
188VB
188VDKB

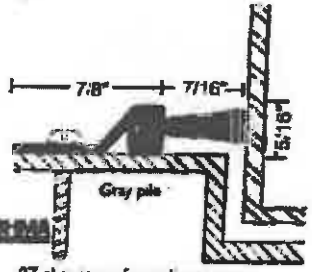


190V
190VA
190VB
190VDKB

Pile Seals



185P
185PA
185PB
185PDKB



161PA
161PDKB
07 aluminum for military specs

Saddle Thresholds

All thresholds this page

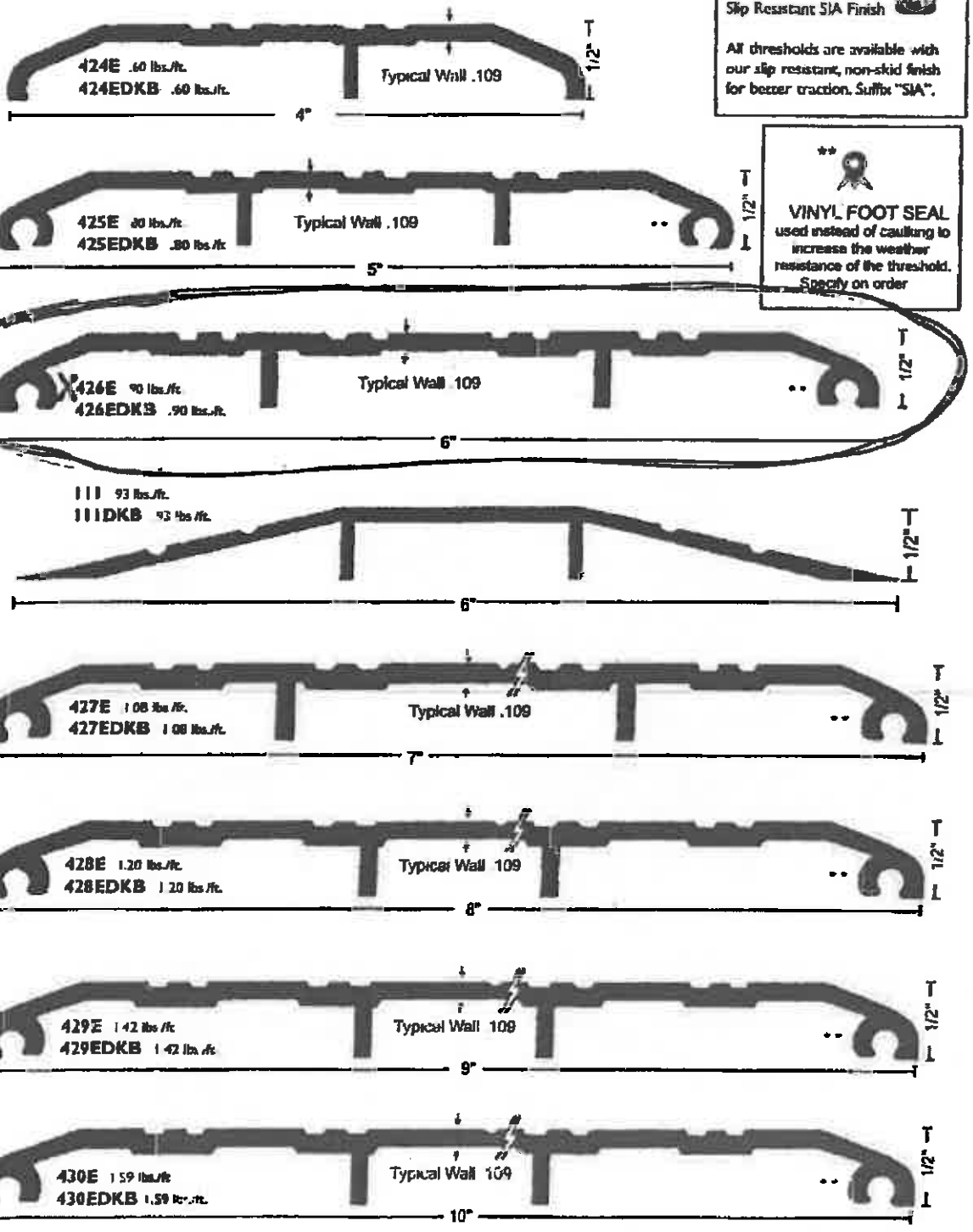
MATERIALS & FINISHES

- Aluminum mill finish
- DKB - Aluminum dark bronze finish

Slip Resistant SIA Finish

All thresholds are available with our slip resistant, non-skid finish for better traction. Suffix "SIA".

VINYL FOOT SEAL
used instead of caulking to increase the weather resistance of the threshold. Specify on order



Specifications

Handing:
All D-Series lever locksets are non-handed.

Door Thickness:
1⅜" to 2⅛" (41mm–54mm) standard including Vandlgard® functions.
See accessories (Page 12) for spacers required for 1⅜" doors.

Backsets:
2¾" (70mm) standard. 2⅜", 3¾" and 5" (60mm, 95mm, 127mm) optional.

Faceplates:
Brass, bronze or stainless steel. 1⅛" x 2¼" (29 mm x 57mm) square corner, beveled.

Lock Chassis:
Zinc plated for corrosion resistance.

Latch Bolts:
Steel, ½" (12mm) throw, deadlocking on keyed and exterior functions. ¾" (19 mm) throw anti-friction latch available for pairs of fire doors.

Exposed Trim:
Levers: Pressure cast zinc, plated to match finish symbols.
Roses: Solid brass.

Strike:
ANSI curved lip strike 1¼" x 4⅞" x 1³⁄₁₆" lip to center standard. Optional strikes, lip lengths and ANSI strike box available. See page 11.

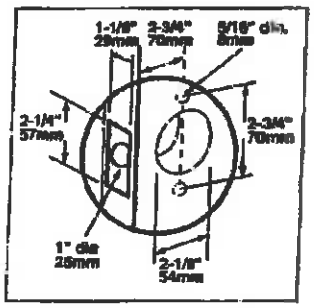
Cylinder & Keys:
6-pin Everest C123 keyway standard with two patented nickel silver keys per lock.

Keying Options:
Interchangeable core and Primus® high security cylinders. Master keying, grand master keying and construction keying.

Warranty:
Seven-year limited for all functions including Vandlgard®.

Door Preparation

Lever Designs



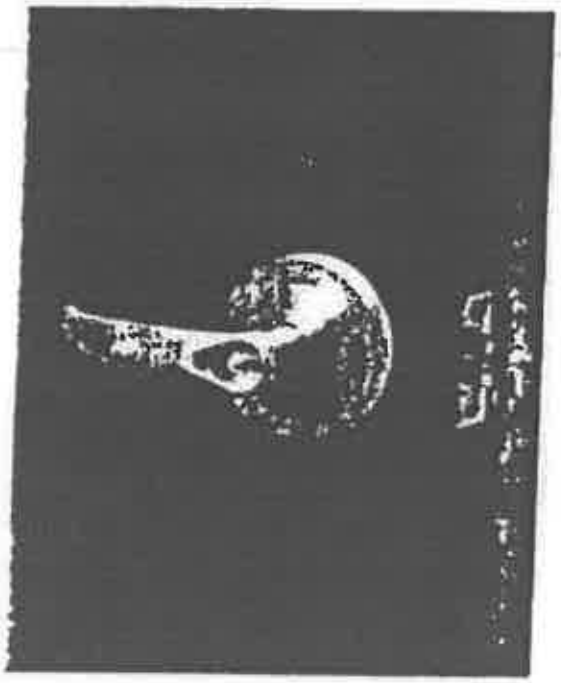
Certifications

ANSI
Meets or exceeds A156.2 Series 4000, Grade 1 strength and operational requirements. Meets A117.1 Accessibility Code.

Federal
Meets FF-H-106C Series 161.

California State Reference Code
(Formerly Title 19, California State Fire Marshal Standard)
All levers with returns comply; levers return to within ½" of door face.

UL / cUL:
All locks listed for A label single doors, 4' x 8'.
Letter F and UL symbol on latch front indicate listing.
Electrified functions are UL19X Listed for single point locking applications.
UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.

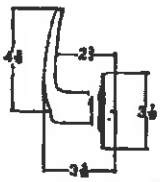


D SERIES LEVERS

Lever Designs & Finishes

ATHENS

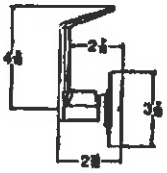
Symbol: ATH
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



608

RHODES

Symbol: RHO (06)
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626

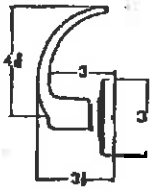


612

Lever Designs & Finishes

SPARTA

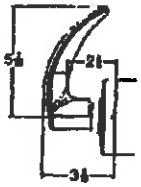
Symbol: SPA (17)
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



628

OMEGA

Symbol: OME
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



619

605
Bright Brass

606
Satin Brass

612
Satin Bronze

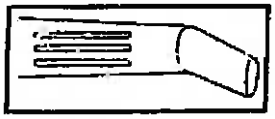
613
Oil Rubbed Bronze

619
Satin Nickel

625
Bright Chromium Plated

626
Satin Chromium Plated

8 Keyed functions available with interchangeable core options. Levers are available for full size and small format interchangeable cores.



TACTILE WARNING (KNURLING)

Change symbol designation as follows:
8AT for Athens
8RO for Rhodes
8SP for Sparta

Only outside lever is knurled unless otherwise specified.

Not available with Omega trim

Finishes
605 Bright Brass
606 Satin Brass
612 Satin Bronze
613 Oil Rubbed Bronze
619 Satin Nickel
625 Bright Chromium Plated
626 Satin Chromium Plated

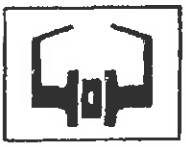
D SERIES LEVERS

Functions

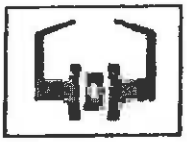
Non-Keyed Locks

SCHLAGE ANSI

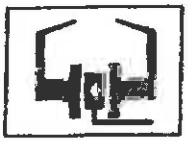
ND10S F75 — **Passage Latch**
Both levers always unlocked.



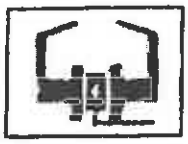
ND12D F89 — **Exit Lock**
Outside lever always fixed. Inside lever always unlocked.



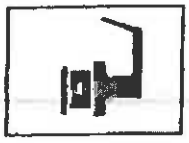
ND12DEL — **Electrically Locked (Fail Safe)**
Outside lever continuously locked electrically. Unlocked by switch or power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.



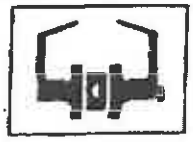
ND12DEU — **Electrically Unlocked (Fail Secure)**
Outside lever continuously locked until unlocked by electric current. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.



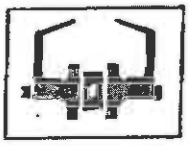
ND25D — **Exit Lock**
Blank plate outside. Inside lever always unlocked.



ND40S F76 — **Bath/Bedroom Privacy Lock**
Push-button locking. Can be opened from outside with small screwdriver. Turning inside lever or closing door releases button.



ND44S — **Hospital Privacy Lock**
Push-button locking. Unlocked from outside by turning emergency turn-button. Turning inside lever or closing door releases button.

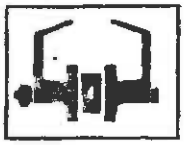


ND170 — **Single Dummy Trim**
Dummy trim for one side of door. Used for door pull or as matching inactive trim.

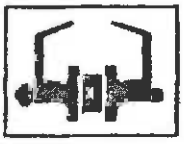
Keyed Locks

SCHLAGE ANSI

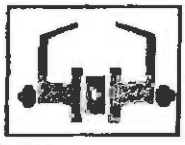
ND50PD F82 — **Entrance/Office Lock***
Push-button locking. Push-button locks outside lever until unlocked with key or by turning inside lever.



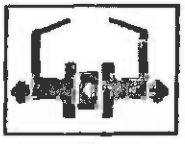
ND53PD F109 — **Entrance Lock***
Turn/push-button locking: pushing and turning button locks outside lever, requiring use of key until button is manually unlocked. Push-button locking: pushing button locks outside lever until unlocked by key or by turning inside lever.



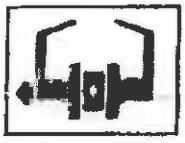
ND60PD F88 — **Vestibule/Classroom Security Lock***
Latch retracted by key from outside when outside lever is locked by key in inside lever. Inside lever is always unlocked.



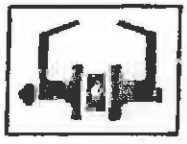
ND66PD F91 — **Store Lock*†**
Key in either lever locks or unlocks both levers.



ND70PD F84 — **Classroom Lock***
Outside lever locked and unlocked by key. Inside lever always unlocked.



ND73PD F90 — **Corridor Lock***
Outside lever locked by key outside or push-button inside. Push-button released by rotating inside lever or closing door. When outside lever is locked by key, key must be used to unlock it. Inside lever is always unlocked.



* *Available functions for small format interchangeable core.*

† *Caution: Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.*

Specifications

Handing:
Keyed functions are reversible. Non-keyed functions are not handed.

Door Thickness:
1⅜" to 1⅞" (35 mm to 48 mm) standard.
2" (51 mm) to 2½" (64 mm) optional extended inside.

Backset:
2⅜" (60 mm) standard. 2¾" (70 mm), 3¾" (95 mm) and 5" (127 mm) optional.

Front:
Steel. 1⅛" x 2¼" square corner, beveled, for 2¾" backset standard. Optional 1" square corner, 1" radius corner, and non-UL drive-in / round face. For availability with specific backsets, see page 6.

Lock Chassis:
Steel, zinc dichromate plated for corrosion resistance.

Latch Bolt:
Brass, chrome plated, ½" throw, deadlocking on keyed and exterior functions.

Exposed Trim:
Wrought brass, bronze or stainless steel. Levers are pressure cast zinc, plated to match finish symbols.

Strike:
T-strike 1⅛" x 2¾" (29 mm x 70 mm) x 1⅛" (29 mm) lip to center with box standard. Optional strikes, lip lengths and ANSI strike box available. See page 7.

Cylinder & Keys:
Commercial: 6-pin patented Everest C123 keyway standard with two nickel silver keys per lock.
Residential: 6-pin C keyway, keyed 5-pin.

Keying Options:
Interchangeable core and Primus® high security cylinders. Master keying, grand master keying, and construction keying.

Warranty:
Commercial: three-year limited.
Residential: Full mechanical lifetime.

Certifications

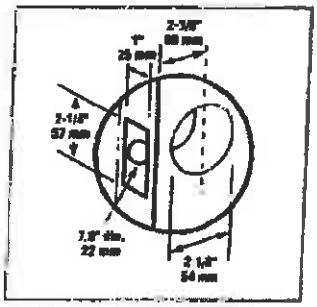
ANSI
Meets or exceeds A156.2 Series 4000, Grade 2 strength and operational requirements.

Federal
Meets FF-H-106C.

California State Reference Code
(Formerly Title 19, California State Fire Marshal Standard)
All levers with returns comply; levers return to within ½" of door face.

UL / ULC:
All locks listed for A label single doors, 4' x 8'.
Letter F and UL symbol on latch front indicate listing.
UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.

Door Preparation



Designs & Finishes

GEORGIAN

Symbol: GEO
Material: Wrought brass
Finishes: 605, 606, 609, 610, 625, 626

609

LEVON

Symbol: LEV
Material: Pressure cast zinc lever; wrought brass or bronze rose
Finishes: 605, 612, 613, 626

605

ORBIT

Symbol: ORB
Material: Wrought brass or bronze
Finishes: 605, 606, 609, 610, 611, 612, 613, 616, 625, 626

613

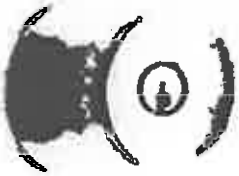
PLYMOUTH

Symbol: PLY
Material: Wrought brass, bronze, or stainless steel
Finishes: 605, 606, 609, 610, 611, 612, 613, 616, 625, 626, 629, 630

605

TULIP

Symbol: TUL
Material: Wrought brass
Finishes: 605, 606, 609, 610, 625, 626



626

Note: Leven available as inside trim only on deadlatch functions. Specify complete trim application and door handing when ordering with deadlatch functions.

Finishes

605	Bright Brass
606	Satin Brass
609	Antique Brass
610	Bright Brass, Blackened
611	Bright Bronze
612	Satin Bronze
613	Oil Rubbed Bronze
616	Antique Bronze
625	Bright Chromium Plated
626	Satin Chromium Plated
629	Bright Stainless Steel
630	Satin Stainless Steel

8 Keyed functions available with full size interchangeable core option for Orbit design.

Functions

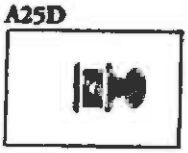
ANSI A156.2 Series 4000 Grade 2

Non-Keyed Functions

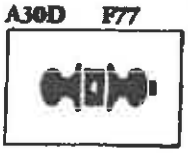
SCHLAGE ANSI

A10S F75 — **Passage Latch**
Both knobs always unlocked.

A25D — **Exit Lock**
Blank plate outside. Inside knob always unlocked. Specify door thickness, 1⅜" or 1¾".



A30D F77 — **Patio Lock**
Push-button locking. Turning inside knob or closing door releases button, preventing lock-out.



A40S F76 — **Bath/Bedroom Privacy Lock**
Push-button locking. Can be opened from outside with small screwdriver. Turning inside knob or closing door releases button.

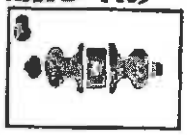
A43D F79 — **Communicating Lock**
Turn-button in outer knob locks and unlocks knob and inside thumbturn.

A47O — **Single Dummy Trim**
Dummy trim for one side of door. Used for door pull or as matching inactive trim.

Keyed Functions

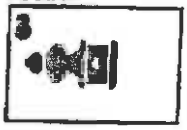
SCHLAGE ANSI

A53PD F109 — **Entrance Lock**
Turn/push-button locking: pushing and turning button locks outside knob requiring use of key until button is manually unlocked. Push-button locking: pushing button locks outside knob until unlocked by key or by turning inside knob.



A70PD F84 — **Classroom Lock**
Outside knob locked and unlocked by key. Inside knob always unlocked.

A79PD — **Communicating Lock**
Locked or unlocked by key from outside. Blank plate inside.



A80PD F86 — **Storeroom Lock**
Outside knob fixed. Entrance by key only. Inside knob always unlocked.

A85PD F93 — **Hotel/Motel Lock**
Outside knob fixed. Entrance by key only. Push-button in inside knob activates visual occupancy indicator, allowing only emergency masterkey to operate. Rotation of inside spanner-button provides lock-out feature by keeping indicator thrown.

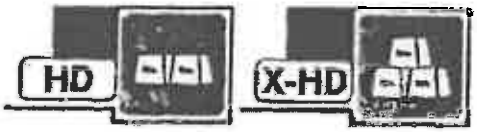
Keyed functions available with full size interchangeable core option for Orbit design.

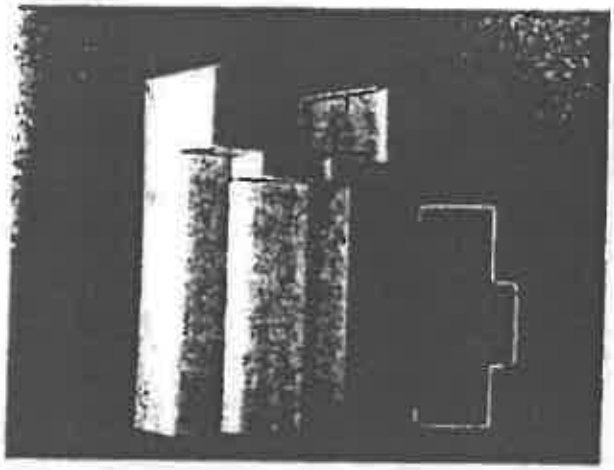
LPDIS Issues
June 6, 2013

Program and Contact	Priority	Problem
Disposal Plans Christiana Coffel Al Coulter	High	Incorrect data migrated including waste codes, address fields, billing is behind, client can't access plan via webapp, no link to edoctus (?) Waste Streams need to be able to mark as one time with expiration date
VCP Paul Davis	Normal	Role assignment – need to create new roles and ensure listed in the correct fields. Each Program to be assigned one user as "Project Manager", other users in other roles. A Roles table might be indicated. Currently "Project Manager " is a role assigned to the user, and if two users are assigned to a project and there is no way to identify one as being in a support role. This will enable more than one person to be assigned to a project without both being "Project Manager", which currently causes problems with reporting. Reporting – once roles are assigned program-by-program rather than user-by-user, existing "Voluntary Cleanup Status Report- Basic" report needs to be updated (in-house) to include Project Manager as assigned above. Contacts table: In the Contacts list, the salutations offered are Dr., Mr., Mrs., Miss, Msgr., Prof., and Rev. – What would it take to add Ms..? Home Page: LPDIS pulls up inactive programs as well as active ones. There are fields for Active/Inactive for both Program and Site. Which one is used to flag the programs to list on the Home Page?
SWCS Melissa Adler McKibben	Normal	Old inspection and violation information unavailable or not stored, but is needed Errors in inspection fields were reported but never corrected

STEELCRAFT.

F16 AND F14-SERIES FLUSH FRAMES





ABOUT THE PRODUCT:

The F16 and F14-Series 3-Sided Flush Frames are designed for heavy and extra-heavy duty applications in both commercial and institutional buildings. They can be installed in both interior and exterior locations, and in virtually all types of buildings and wall constructions. These frames are to be installed as part of the wall framing sequence. They can be specified and/or supplied as either KD (knock-down) for field assembly prior to installation, or SUA (set-up and welded) for installation as a pre-welded unit.

APPLICATIONS:

The F-Series Frames are typically used in the following types of wall constructions:

Wall Construction	Application	Typical Wall Anchors
Masonry	wrap or butted	Wire masonry
Existing masonry	butted	Bolted through soffit
Wood stud	wrap	Lock-in wood stud anchor
Steel stud	wrap	Lock-in steel stud anchor

FEATURES AND BENEFITS:

Steelcraft F-Series Flush Frames offer the following unique features, which enhance long term functionality and durability:

1. **Die-mitered corner connections** (head/jamb) Standard corners insure attractive, tight and closed miters.
2. **Patented universal hinge preparations** allow for easy field conversion from standard weight (.134) hinges to heavy weight (.180) hinges.
3. **Adjustable base anchors** allow for installation adjustment when the floor is not level.
4. **Rubber silencers** are factory installed.
5. **Factory applied baked on rust inhibiting primer** in accordance with ANSI A250.10.

SPECIFICATION COMPLIANCE:

1. Overall frame construction for the Steelcraft F16 and F14-Series Flush Frames meet the requirements of ANSI A250.8-1998 (commonly referred to as SDI-100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-1997. Locations are in accordance with ANSI/DHI A115.

FIRE RATINGS:

The F-Series Frames meet the broadest fire rating requirements. They are listed for installations requiring compliance to both negative pressure testing (ASTM E152 and UL-10B) and positive pressure standards (UBC 7-2 and UL-10C). Refer to the "Fire Rated" section of the Steelcraft Spec Manual for particular listings.

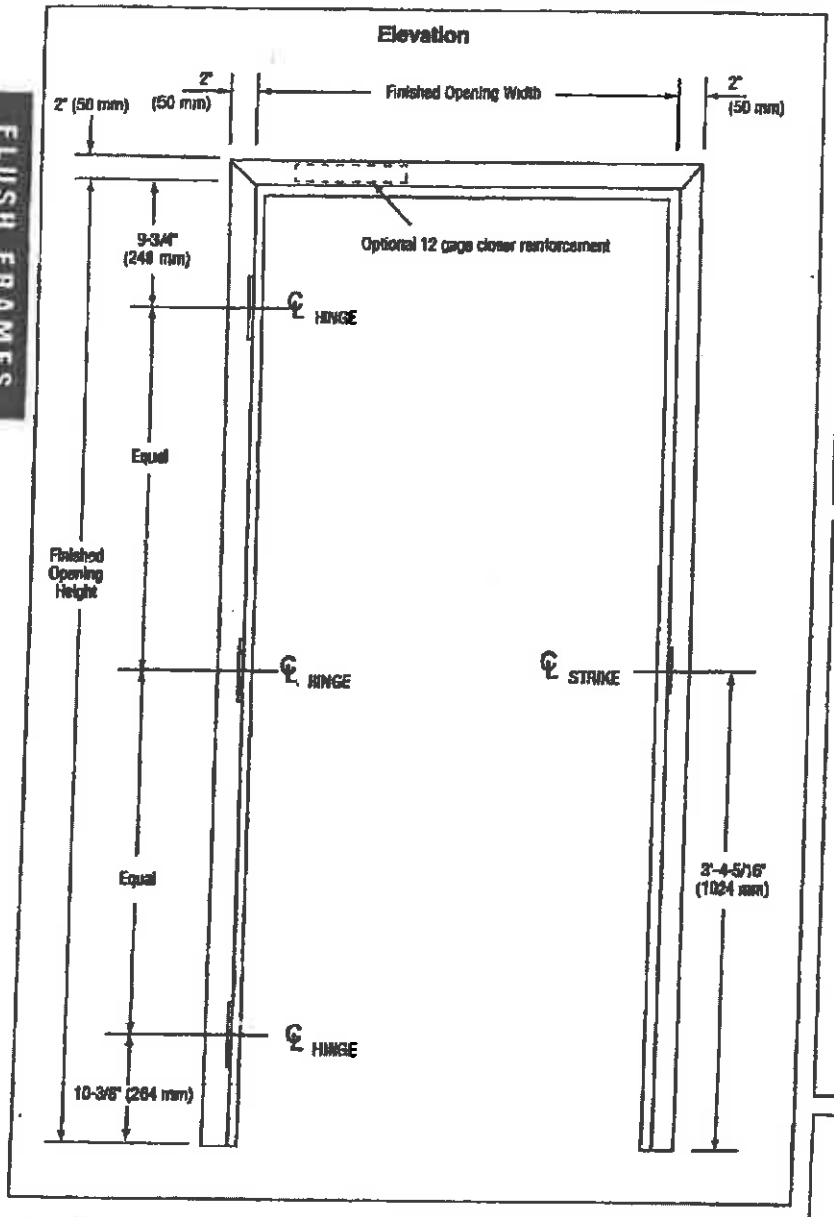
Steel Thickness	Opening	Usage Frequency[1]	Applications
14 gage (1.7mm)	Interior & Exterior	Extra-heavy to Maximum duty	• 18 & 14 gage steel doors
16 gage (1.3mm)	Interior & Exterior	Heavy to Extra-heavy duty	• 20, 18 & 16 gage steel doors • Commercial grade wood doors
Steel Type	**Opening**	**Applications**	
CRS	Mainly Interior	• Typical building conditions	
Galvannealed[2]	Mainly Exterior	• Used in locations with high humidity and/or weather exposure	

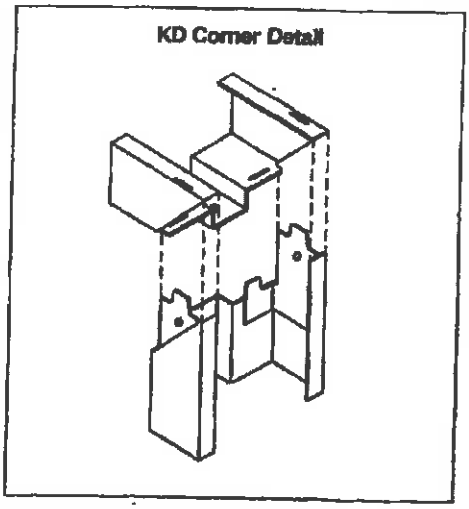
MATERIAL:

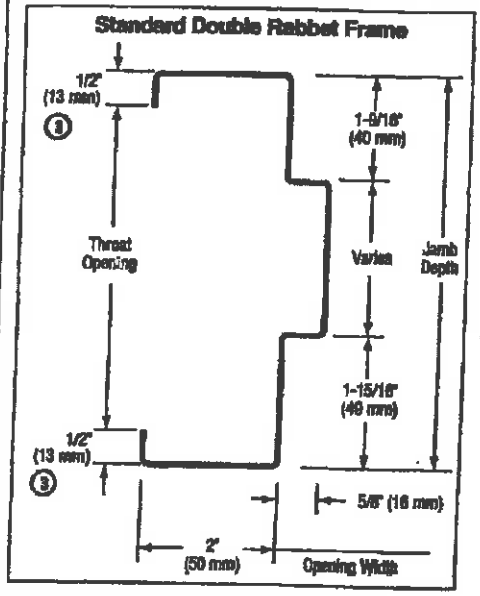
F-Series Frames are supplied from either 14 gage (1.7mm) or 16 gage (1.3mm) steel. Depending on environmental and usage conditions, the steel can be either cold rolled steel (CRS) or galvannealed. All frames are supplied with a factory applied baked on primer for ultimate field paint adhesion.

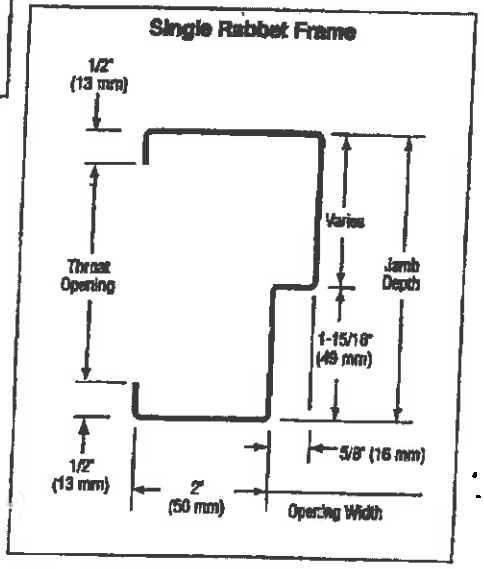
[1] Usage frequency is based on ANSI A250.8-1998
[2] Reinforcements for galvannealed frames are also galvannealed

IR Security & Safety





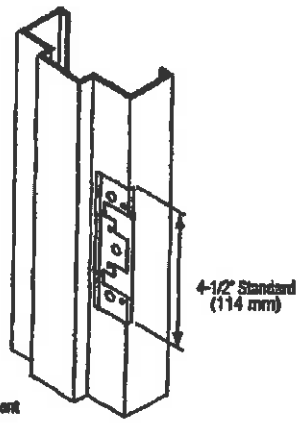




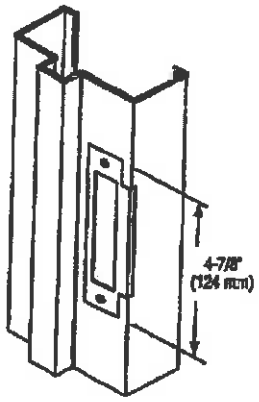
CONSTRUCTION NOTES:

1. **Door opening size maximum:**
   Single door opening size 5'0" x 11'0" (1524mm x 3353mm)
   Double door opening size 10'0" x 11'0" (3048mm x 3353mm)
2. **Jamb depths (profile) availability:**
   Single rabbet:
   minimum = 3" (76mm)
   maximum = 12¾" (324mm)
   Double rabbet:
   minimum = 4¾" (121mm)
   maximum = 14¾" (375mm)
3. **Standard profile dimensions (variations available):**
   Face = 2" (50mm)
   Stop = ⅝" (16mm)
   Returns = ½" (13mm) all frames except 5¾" (146mm) which is 7/16" (11mm)
4. **Standard dia-mitered corners:**
   Four (4) concealed tabs interlocking head and jambs

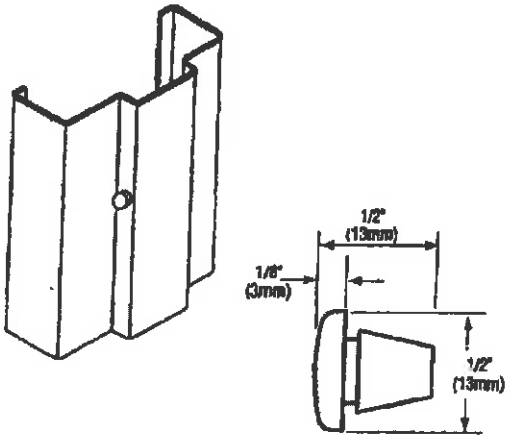
Universal Mortise Hinge Prep



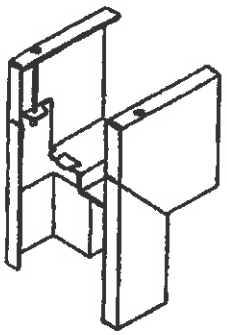
4⅞" Strike Prep



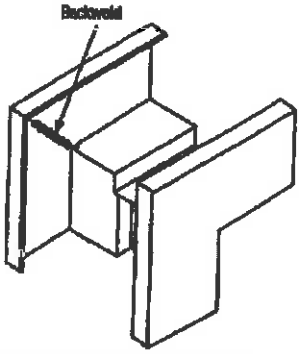
Rubber Silencer



Optional 4" (102mm) Head Detail



Welded Corner

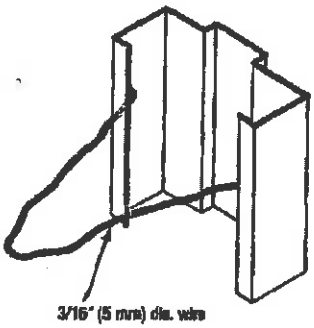


GENERAL NOTES:

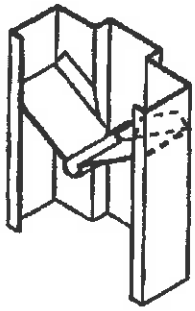
1. **Frame profile** – variations in jamb depths available in ⅛" (3mm) increments:
   Single rabbet – typically for walls less than 3¾" (95mm) thick (2" min.[50mm])
   Double rabbet – typically for walls 3¾" (95mm) thick and over
2. **Corner connections:**
   - **KD (knock-down)** – Factory die-mitered
     Double rabbet frames – 4 tabs per miter
     Single rabbet frames – 3 tabs per miter
   - **Corner Connections – SUA (set-up and welded)** Available when specified, and in accordance with ANSI A250.8-1998.
3. **4" (102mm) heads** – die mitered for use with 2" (50mm) face double rabbet jambs. Available when specified for KD or SUA applications.
4. **Standard hardware preparations:**
   Standard mortised and reinforced with mortar guards for:
   - **Universal hinge preps** – 4½" (114mm) patented preparation which allows easy and quick conversion from standard to heavy weight hinges.
   - **Strikes** – 4⅞" (124mm) conforming to ANSI A115.1 and ANSI A115.2.
5. **Rubber silencers:** All frames are supplied with factory installed silencers to cushion the closing of the door and to eliminate the field problems related to installing the silencers after the frames are installed and grouted. Three (3) silencers per strike jamb and two (2) per double door head.

FLUSH FRAMES

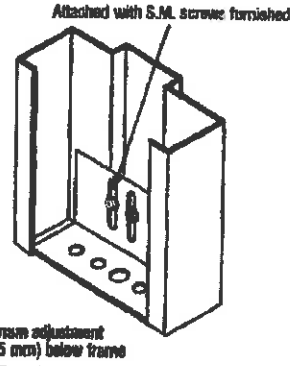
Wire Masonry Anchor



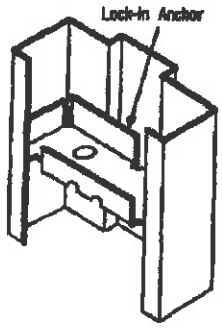
Existing Wall Anchor



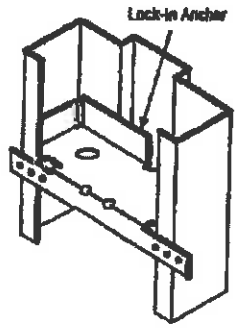
Adjustable Base Anchor



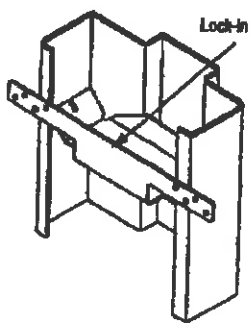
Anchor for Stud Partitions



Anchor for Wood Stud Partition



Universal Stud Anchor



ANCHORING AND INSTALLATION NOTES:

1. **F16 and F14-Series Commercial and Institutional Frames** are supplied standard with masonry wire or lock-in jamb anchors and adjustable base anchors. Anchors are designed for maximum wall/frame engagement and installation flexibility.
2. **Anchoring applications:**
   - **Masonry wall** – Masonry wire anchors (3/16" [5mm] dia.) provide maximum engagements in mortar joints, and allow for full internal grouting during installation. Adjustable base anchors are attached directly to the floor and adjusted. The wall is built around the anchored frame. (Refer to installation sheet #INS-2004.)
   - **Existing masonry walls (EMA)** – Specifically designed (18 Ga. steel) jamb anchors are used to add support for bolting the frame into the rough opening of an existing wall. An existing wall anchor is used as the base anchor in this application. (Refer to installation sheet #INS-2014.)
   - **Wood stud walls** – Lock-in (18 Ga. steel) jamb anchors are designed to be attached to the wood stud rough opening. After the frame is anchored, the wallboard is installed and finished. (Refer to installation sheet #INS-2005.)
   - **Steel stud walls** – Lock-in (18 Ga. steel) jamb anchors are designed to be attached to the webbing of the closed steel studs which are built around the frame. Adjustable base anchors are attached directly to the floor and adjusted. After frame is anchored, the wallboard is installed and finished. (Refer to installation sheets #INS-2006 and 2007.)
3. **Special frame anchorage:** Frame anchorage details shown on this sheet are applicable to double rabbet frames with 2" (50mm) faces. Anchorage details and availability of lock-in anchors will vary with the following frame profile changes:
   - **Single rabbet** – all details will vary.
   - **Double rabbet** – over 8¾" (222mm) jamb depth
4. **Installation caution notice:** When temperature conditions necessitate an additive to be used in the plaster or mortar to prevent freezing, the contractor installing the frames shall coat the inside of the frames in the field with a non-corrosive bituminous material.
5. Installation shall conform to the published Steelcraft installations instructions, SDI 105 *Recommended Installation Instructions for Steel Frames*, and ANSI/DHI A115-IG *Installation Guide for Doors and Hardware*.
6. All fire rated frames must be installed in accordance with NFPA Pamphlet 80 and the *Authority Having Jurisdiction*.

FINAL ABATEMENT REPORTS

Tec-An, Inc.
Technical Environmental Consulting & Analysis

DEQ
707 N. Robinson
Oklahoma City, OK 73101

Dec. 2, 2013

Re: Documentation Close
Attn: Brian Stanila

PO # 2929017802 for the Henryetta Armory Asbestos. LBP and Lead Dust Remediation has been completed. This letter certifies that all asbestos and lead cleaning/removal/disposal and new installation work has been completed according to the work scope specifications. All applicable documentation is included with this letter.

Asbestos

Remove /dispose by glovebag method 380 linear feet of pipe insulation and associated fittings in Main structure.
Remove/dispose by OSHA Class II procedures 225 square feet of floor tile and associated mastic in Annex I structure.
Remove/dispose by OSHA Class II procedures 250 square feet of Transite porch soffit in Main structure.

All Asbestos waste was disposed of properly.

LBP

Unit removal/disposal of wall boards in Room 4 & 6 Main structure
Unit removal/disposal of benches in Room 6 Main structure
Unit removal/disposal of sliding doors and track in Room 12 &13 Main structure
Unit removal/disposal of all interior/exterior wood doors as identified on the specification drawing in the Main, Annex I and Annex II structures.
A TCLP test was performed on the bulk waste and it was determined to be acceptable to be disposed of as Construction debris waste.

All overhead garage door frames and facia, wood window frame in Room 3 Main structure and sliding door frame between rooms 13 & 13 Main structure were wet scraped and sealed with Fiberlock LBC Lead barrier.

All floors in the Main, Annex I and Annex II structures were cleaned by HEPA vacuum and steam or wet mopped. The large floor in the Main building was power washed twice. All wash water collected was analyzed and disposed of properly. The large floor in the Main building was sealed with epoxy floor coating as specified.

All LBP vacuum waste, debris chips, wash water filters, mop heads, towels and other cleaning items were disposed of as Hazardous Waste.

New doors and frames were installed in the Main, Annex I and Annex II as specified.

Thank you for the opportunity to conduct the stated project. Please contact us when our services are needed again.

Respectfully,

Donald J. Nist - TEC-AN, Inc.

Oklahoma Department of Labor
Mark Costello, Commissioner
Asbestos Division

3017 North Stiles, Suite 100
Oklahoma City, OK 73105
(405-521-6464) FAX (405-521-6025)

440 South Houston, Suite 300
Tulsa, OK 74127
(918-581-2400) FAX (918-581-2431)

Visual/Final Inspection Form

DOL Project #: 13-1630
Facility: Henryetta Armory
Contractor #: 40157
Address/Location: 1804 NE 4th
Owner/Occupant: Dept of Central Services
Contact Name:
Facility Phone #:

10 / 17 / 13 / 930
Month / Day / Year / Time

County #: 56 FY #: 2013
Address City: Henryetta
Contractor: TecAs
Contractor's Rep.: Chad Nixcum
Contractor's Phone #: (405) 584-1157

1. Description of Area: Vacant armory requiring the glovebagging of TSI from abandoned steam line. (Approx 350 LF)

2. Areas requiring further cleaning: None

3. Air Counts (PCM/TEM) On-Site?: Yes. All clearances acceptable.

4. DOL Recommendations: Remove all poly and tape and dispose of as ACM.

5. Will a FINAL Inspection be required?: This is the final.

6. Notes: Visual and Final Accepted
Job Complete

7. Note any violations cited: 380:50-

8. Contractor's Comments:

Inspector's Signature

Contractor's Signature

Revised 1/2011

White Copy: DOL Yellow Copy: Consultant Pink Copy: Contractor/Owner

Oklahoma Department of Labor
Mark Costello, Commissioner
www.labor.ok.gov

1309-18

Oklahoma City
3017 North Stiles, Suite 100
Oklahoma City, OK 73105
[illegible]
[illegible]
Fax 405-521-[illegible]

Abatement Preparation Inspection Form

Abatement Project: [illegible]
Project No.:
Project Address/Location: [illegible]
Contractor: [illegible]
Project Phone No.:
Project Owner: [illegible]

Date: 10 - 15 - 13 Time: 10 : 35
Phase: [illegible]
City: [illegible] Zip:
Contact Person: [illegible]
Contractor's Home/Office Phone No.: [illegible]
Owner's Rep.:

A = Acceptable
D = Deficient, must be corrected and re-inspected before asbestos removal begins
N/A = Not applicable to this project

X = Deficiencies which must be corrected before asbestos removal begins. If "X" type, other corrections, asbestos abatement may begin.
* Beginning asbestos removal before the deficiencies are corrected shall constitute a serious violation.

A D N/A X

(1) Work site barriers and warning signs
(2) Toilet facilities provided
(3) Worker licenses
(4) Emergency telephone #'s
(5) OSHA forms, poster (min. wage, workers comp, equal opportunity)
(6) Air mon., results from prior phases, if applicable
(7) Respirator program and project design on-site
(8) Respirator, air system and equipment manuals
(9) Compressor does not discharge oil
(10) CO monitor, high temp and low pressure alarm tested on-site
(11) Cascade system secure and certificate of air quality
(12) Automatic back-up air of proper quantity in [illegible] containers
(13) Bull hoses and respirators free of oil residue
(14) In-line pressure gauge at manifold
(15) NIOSH approved respirators, clean, parts in working order
(16) Electrical panel outside work area
(17) Temporary wiring installed by licensed electrician
LIC #:
(18) Temporary panel boards properly grounded
(19) Ground fault interruption provided from outside work area
(20) Live electrical requirement met
(21) Extension cords in acceptable condition
(22) Equipment properly grounded
(23) Tension relief on electric cords
(24) Decon firmly constructed, opaque, with triple flaps
(25) Decon trailers properly grounded
(26) Storage lockers for workers and ODOL inspectors' street clothes
(27) Shower with hot water supply, suitable nonskid surface, lights
(28) Shower drains, filter, proper water disposal
(29) Soap from dispenser, and towels provided
(30) Hearing protection provided if required
(31) Hard hats provided, if required
(32) Appropriate footwear/safety shoes provided, if required
(33) Electrical system in abatement area locked out / tagged out
(34) Ventilation serving or passing through the abatement area deactivated
(35) Critical barriers in place
(36) Neg. air quantity and pressure drop confirmed on-site with recording manometer
(37) Neg. air machine(s) have properly installed filters, clean pre-filters
(38) Prep. work secure with negative air on
(39) Make-up air sources provide adequate circulation and air cleaning
(40) Access controlled
(41) Scaffolding over 10' high has 42" guardrails and 4" toeboards
(42) Scaffolding from 4' to 10' high, but less than 42" wide, has side rails
(43) Scaffolding with people working under has mesh or solid barrier on platform
(44) Scaffolding floorboards in good condition and secured
(45) Aerial lifts have full-body harness with shock lanyards
(46) Ladders are non-conducting and stable
(47) Heat stress monitors in place
(48) HEPA vacuum is clean with filters properly installed
(49) Temporary lighting is adequate and properly wired and grounded
(50) 10 # ABC fire extinguishers inspected
(51) Adequate escape routes are properly marked and illuminated with emergency lighting and battery back-up
(52) Acceptable amended water sprayers and chemicals provided
(53) Load-out sealed unless needed for make-up air
(54) Disposal bags and/or barrels provided and properly labeled
(55) Disposal vehicle properly lined
(56) Disposal vehicle properly tagged and marked
(57) Area monitoring locations identified

☐ # OF GLOVEBAGS ☐ # OF FULL CONTAINMENTS ☐ # OF MINI CONTAINMENTS

Recommendation & Remarks: [illegible]

Orders:

[signature]
Inspector's Signature

Contractor's or Representative's Signature

Revised 04-2013

White Copy: ODOL Yellow Copy: Consultant Pink Copy: Contractor/Owner

MARSHALL ENVIRONMENTAL MANAGEMENT, INC.
1601 SW 89th St., Ste. 109-A
Oklahoma City, OK 73159
Phone: 405.616.0401 Fax: 405.681.6753
marshenv@swbell.net

CERTIFICATE OF ANALYSIS

PROJECT INFORMATION	
Project Id. #	0225-AB-101513
Project Name	Henryetta Armory AB Third Party Air Monitoring
Project Address	1304 NE 4th Street Henryetta, Ok 74437
Site Contact	Chad Raccum
Phone #	
Cell #	405-584-1157
email	

REPORT TO	
Client	Tec-An, Inc
Attention	Don Nist Vice President
Address	2517 South Purdue Avenue Oklahoma City, OK 73128
Phone #	405-681-7076
Fax #	405-681-7256
Cell #	405-740-7167
email	donnist@coxinet.net

INVOICE TO	
Client	Tec-An, Inc
Attention	Don Nist Vice President
Address	2517 South Purdue Avenue Oklahoma City, OK 73128
Phone #	405-681-7076
Fax #	405-681-7256
Cell #	405-740-7167
email	donnist@coxinet.net

Laboratory Identification	Date Sampled	Field Identification	Sampling Location	Pump Number	Start Time	End Time	Total Time	Start Flow Rate	End Flow Rate	Average Flow Rate	Total Volume	Fiber Count	Fields	Fiber	Fiber	LCL	UCL	Reference Limit
0157	10/15/13	PCM-01	W. Niccum 279242	1	11:00	16:50	350.00	2.0	2.0	2.0	700.0	8	100	10.1011	B.D.L.	0.0017	0.0101	0.0070
0157	10/15/13	PCM-02	E. Ruiz 400748	2	11:00	16:50	350.00	2.0	2.0	2.0	700.0	0.5	100	0.6566	B.D.L.	0.0000	0.0066	0.0070
0157	10/15/13	PCM-03	Inside Area	3	11:00	16:50	350.00	2.0	2.0	2.0	700.0	10	100	12.7486	0.0050	0.0014	0.0127	0.0070
0157	10/15/13	PCM-04	Outside Area	4	11:00	16:50	350.00	2.0	2.0	2.0	700.0	3	100	3.8217	B.D.L.	0.0004	0.0038	0.0070
0157	10/15/13	PCM-05	Outside Clean Room	5	11:00	16:51	350.00	2.0	2.0	2.0	700.0	1.5	100	1.9108	B.D.L.	0.0002	0.0018	0.0070
0157	10/15/13	PCM-06	Load Out	6	11:01	16:51	350.00	2.0	2.0	2.0	700.0	2	100	2.5478	B.D.L.	0.0003	0.0025	0.0070
0157	10/15/13	PCM-07	Load Out Trailer	7	11:02	16:52	350.00	2.0	2.0	2.0	700.0	5	100	6.2694	B.D.L.	0.0007	0.0063	0.0070
0157	10/15/13	PCM-08	Neg Air 1	8	11:03	16:53	350.00	2.0	2.0	2.0	700.0	1.5	100	1.9108	B.D.L.	0.0002	0.0019	0.0070
0157	10/15/13	PCM-09	Ex. J. Vaughn 400366	9	13:20	13:50	30.00	2.0	2.0	2.0	60.0	1	100	1.2739	B.D.L.	0.0018	0.0128	0.0817
0157	10/15/13	PCM-10	Field Blank									0	100					

Hunter Henrie
Analyst Name (Print)

Analyst Signature

October 15, 2013
Date Analyzed

Hunter Henrie
Samples Collected By (Print)

Analytical Method	NIOSH 7400
Lab Accreditation	AIHA PAT ID# 101304
Microscope	Olympus BH-2
Filter Area	385
Field Area	0.85

B.D.L.	Below Detection Limit
L.C.L.	Lower Confidence Limit
U.C.L.	Upper Confidence Limit
f/cc	Fibers per Cubic Centimeter
f/mm²	Fibers per Millimeter Squared

Present Activity
Full Removal

Personal Protective Equipment
Full Face Respirator
Tyvek

MARSHALL ENVIRONMENTAL MANAGEMENT, INC.
1601 SW 89th St., Ste. 100-A
Oklahoma City, OK 73159
Phone: 405.616.0401 Fax: 405.681.6753
marshenv@swbell.net

CERTIFICATE OF ANALYSIS

PROJECT INFORMATION		REPORT TO		INVOICE TO	
Project Id. #	0275-AB-101513	Client	Tec-An, Inc	Client	Tec-An, Inc.
Project Name	Henryetta Armory AB Third Party Air Monitoring	Attention	Don Nist Vice President	Attention	Don Nist Vice President
Project Address	1801 NE 4th Street Henryetta, Ok 72237	Address	2517 South Purdue Avenue Oklahoma City, OK 73128	Address	2517 South Purdue Avenue Oklahoma City, OK 73128
Site Contact	Chad Nicum	Phone #	405-681-7076	Phone #	405-681-7076
Phone #		Fax #	405-681-7256	Fax #	405-681-7256
Cell #	405-584-1157	Cell #	405-740-7167	Cell #	405-740-7167
email		email	donnist@coxinet.net	email	donnist@coxinet.net

Laboratory Identification	Date Sampled	Field Identification	Sampling Location	Pump Number	Start Time	End Time	Total Time	Start Flow Rate	End Flow Rate	Average Flow Rate	Total Volume	Fiber Count	Fields	F/mm²	F/cc	L.C.L.	U.C.L.	Detection Limit
0157	10/15/13	PCM-11	Lab Blank									0	100					

Hunter Henrie
Analyst Name (Print)

[signature]
Analyst Signature

October 15, 2013
Date Analyzed

Hunter Henrie
Samples Collected By (Print)

Analytical Method	NIOSH 7400
Lab Accreditation	AIHA PAT IIIS 101384
Microscope	Olympus BH-2
Filter Area	385
Field Area	0.01

BDL	Below Detection Limit
LCL	Lower Confidence Limit
UCL	Upper Confidence Limit
F/cc	Fibers per Cubic Centimeter
F/mm²	Fibers per Millimeter Squared

Positive Analysis
TEM Required

Personal Protective Equipment
Full Day Exposure
[illegible]

MARSHALL ENVIRONMENTAL MANAGEMENT, INC.
1601 SW 89th St., Ste. 100-A
Oklahoma City, OK 73159
Phone: 405.616.0401 Fax: 405.681.6753
marshenv@swbell.net

CERTIFICATE OF ANALYSIS

PROJECT INFORMATION	
Project Id. #	0275-AB-101513
Project Name	Henryetta Armory AB Third Party Air Monitoring
Project Address	1804 NE 4th Street Henryetta, Ok 72237
Site Contact	Chad Niccum
Phone #	
Cell #	405-584-1157
email	

REPORT TO	
Client	Tec-Air, Inc
Attention	Don Nist Vice President
Address	2517 South Purdue Avenue Oklahoma City, OK 73128
Phone #	405-681-7076
Fax #	405-681-7256
Cell #	405-740-7167
email	donnist@cox.net

INVOICE TO	
Client	Tec-Air, Inc
Attention	Don Nist Vice President
Address	2517 South Purdue Avenue Oklahoma City, OK 73128
Phone #	405-681-7076
Fax #	405-681-7256
Cell #	405-740-7167
email	donnist@cox.net

Laboratory Identification	Date Sampled	Field Identification	Sampling Location	Pump Number	Start Time	End Time	Total Time	Start Flow Rate	End Flow Rate	Average Flow Rate	Total Volume	Fiber Count	Fields	Fiber/	Fiber	L.C.L.	U.C.L.	Detection Limit
0157	10/16/13	PCM-12	Clearance 1	1	8:20	10:25	125.00	10.0	10.0	10.0	1250.0	1	100	1.2239	B.D.L.	0.0001	0.0057	0.0052
0157	10/16/13	PCM-13	Clearance 2	2	8:20	10:25	125.00	10.0	10.0	10.0	1250.0	0	100	0.0000	B.D.L.	0.0000	0.0029	0.0026
0157	10/16/13	PCM-14	Clearance 3	3	8:20	10:25	125.00	10.0	10.0	10.0	1250.0	2	100	2.3478	B.D.L.	0.0003	0.0084	0.0080
0157	10/16/13	PCM-15	Clearance 4	4	8:20	10:25	125.00	10.0	10.0	10.0	1250.0	0.5	100	0.6250	B.D.L.	0.0000	0.0034	0.0030
0157	10/16/13	PCM-16	Clearance 5	5	8:20	10:25	125.00	10.0	10.0	10.0	1250.0	1.5	100	1.9368	B.D.L.	0.0001	0.0041	0.0036
0157	10/16/13	PCM-17	Lab Blank									0	100					
0157	10/16/13	PCM-18	Field Blank									0	100					

Hunter Henrie
Analyst Name (Print)

Analyst Signature

October 16, 2013
Date Analyzed

Hunter Henrie
Samples Collected By (Print)

Analytical Method	NIOSH 7400
Lab Accreditation	AIHA PAT ID# 100338
Microscope	Olympus BH-2
Filter Area	385
Grid Area	0.01

B.D.L.	Below Detection Limit
L.C.L.	Lower Confidence Limit
U.C.L.	Upper Confidence Limit
f/cc	Fibers per Cubic Centimeter
f/mm2	Fibers per Millimeter Squared

Project Activity
Clearance

Personal Protective Equipment
Full Face Respirator
Tyvek

1309-18

WASTE CONNECTIONS INC

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is NOT asbestos waste, complete only Sections I, II and III

No. 0059423

Section I

GENERATOR (Generator completes all of Section I)

a. Generator Name: DEPARTMENT OF CENTRAL SVC
b. Generating Location: HENRYETTA NATIONAL GUARD ARMORY
c. Address: 2401 N. LINCOLN BLVD OK CITY, OKLAHOMA CITY, OK
d. Address: 1804 NE 4th, HENRYETTA OK 74437
e. Phone No.: 405 522-7017
f. Phone No.: 405-522-7017
If owner of the generating facility differs from the generator, provide:
g. Owner's Name: DCS
h. Purchase Order No.
i. WC WASTE CODE: 13-921
j. Description of Waste: RSZ ACM
k. Quantity: 05 | Units: Y3 | Containers No.: 01 | TYPE: BA

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 6 MIL PLASTIC BAG or WRAP
T - TRUCK
O - OTHER

UNITS
P - POUNDS
Y - YARDS
M³ - CUBIC METERS
Y³ - CUBIC YARDS
O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; **AND, if the waste is a treatment residue of a previously restricted hazardous waste** subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name: KENNETH L NUBINE
Signature: [signature]
Shipment Date: 10/21/13

Section II

TRANSPORTER (Generator complete a-d; Transporter I complete e-g; Transporter II complete h-n)

TRANSPORTER I
a. Name: TEC-AN INC
b. Address: 2512 S. PURDUE, OKLAHOMA CITY, OK 73128
c. Driver Name/Title: KENNETH NUBINE SUP
d. Phone No.: 405 681-2026
e. Truck No.: TA500
f. Vehicle License No./State: OK
Acknowledgement of Receipt of Materials:
g. [signature] — Driver Signature — Shipment Date: 10/21/13

TRANSPORTER II
h. Name:
i. Address: SAME
j. Driver Name/Title:
k. Phone No.:
l. Truck No.:
m. Vehicle License No./State:
Acknowledgement of Receipt of Materials:
n. Driver Signature — Shipment Date

Section III

DESTINATION (Generator completes a-d; destination site completes e-f)

a. Site Name: **WASTE CONNECTIONS**
b. Physical Address: **Oklahoma City Landfill, 7600 S.W. 15th - Oklahoma City, OK 73128**
c. Phone No.: **(405) 745-3091**
d. Fax No.: **(405) 745-3611**
e. Discrepancy Indication Space:
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.
f. [signature] — Name of Authorized Agent — Signature [signature] — Receipt Date: 10/21/13 02/

Section IV

ASBESTOS (Generator completes a-d, f, g. Shipper* completes e.)

a. Shipper's* Name: TEC-AN INC
b. Shipper's* Phone No.: 405 681-2026
c. Shipper's* Address: 2517 S PURDUE
d. Shipper's* Special Handling Instructions and additional information: 1/2 FACE & COVERALLS

CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

e. Shipper's* Name & Title: KENNETH L NUBINE SUP
Shipper's* Phone No.: 405 681-2026
Date: 10/21/13
f. Name and Address of Responsible Agency: HENRYETTA NATIONAL GUARD ARMORY 1804 NE 4th HENRYETTA OK 74437
g. ☑ Friable ☐ Non-friable ☐ Both ____ % friable ____ % nonfriable

*Shipper refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation, or both.

WC1000 (Rev. 6/12)

White - Destination Retain   Green - Return to Generator   Canary - Return to Operator   Pink - Transporter Retain   Goldenrod - Generator Retain

Oklahoma Department of Labor

Initial Notification

Emergency Notification

X Revised Notification

O&M Notification

Lloyd L. Fields
Commissioner

ASBESTOS PROJECT CHECKLIST

	NAME	ADDRESS	CITY	PHONE
Job Site	Henryetta National Guard Armory / 1804 NE 4th Henryetta, OK / NA			
Contractor:	Tec-An, Inc.	2517 S. Purdue	Okc. OK	405-606-3022
Site Owner	Department of Central Cervices / 2401 N Lincoln Blvd. Okc, Ok / 405-521-2112			
Gen. Contractor:				
Project Designer:	GMR & Associates / 2520 W. I-44 Service Rd. Okc, OK/ 405-5287017			
Air Monitoring Firm:	Marshall Environmental, 1601 SW 89th, Oklahoma City, OK 405-616-0401			
Air Monitoring Firm:				
Landfill:	WasteConnections	1600 SW 15th St.	Okc. Ok	405-745-3091
Hauler:	TEC-AN, Inc.	2517 S. Purdue	Okc. OK	405-681-7076

MOBILIZATION DATE 10/9/2013 SCHEDULED DATE OF ASBESTOS REMOVAL: 10/14/2013

PROJECT COMPLETION DATE: 11/1/2013 RENOVATION: X DEMOLTION: EMER:

Type and percentage asbestos (attach lab reports):

pipe insulation 60% chrysotile

AMOUNT OF ASBESTOS TO BE ABATED:

350 linear feet of pipe insulation

ABATEMENT TECHNIQUES:

Glovebag Removal

SUBMITTALS NECESSARY BEFORE ABATEMENT MAY BEGIN. CHECK OFF **ONLY** THOSE ATTACHED TO THIS CHECKLIST OR WHICH ARE ON FILE AT THE OKLAHOMA STATE DEPARTMENTS OF LABOR

NESHAPS
Project specifications
Bonds and/or Insurance Certificates
X Plans for Decontamination Facilities
X Respirator Program
Employee Physicals
Permission from owner for all rented vehicles/trailers used to haul asbestos-containing material.

Variances
See Project Design

# of Mini-containments
100 Glovebags
1 # of Containments
1 # of Phases

Comments:

FEES

** $600.00 Per Containment*
** $200.00 Per project not part of a definite containment.*
** $200.00 Per project with multiple glovebags or mini-containments, plus $5.00 per each glovebag or mini-containment*

Contractor/Responsible Party Signature Date 10/11/2013

EPA NOTIFICATION OF DEMOLITION OR RENOVATION

OFFICE USE ONLY: DATE RECEIVED: _____ *JOB / PERMIT / ID NUMBER* _____

****

I. FACILITY INFORMATION:

OWNER: Department of Central Services PHONE NUMBER: (405) 521-2112

STREET ADDRESS: 2401 North Lincoln Blvd CITY: Oklahoma City STATE: OK ZIP: 73105

FACILITY REPRESENTATIVE: Brian Stanila PHONE: (4051 702-5138

ASBESTOS ABATEMENT CONTRACTOR: TEC-AN, Inc.

STREET ADDRESS: 2517 S. Purdue CITY: Oklahoma City STATE: Oklahoma ZIP: 73128

REPRESENTATIVE: Donald J. Nist PHONE: (405) 681-7076

PAGER: ( ) NA MOBILE PHONE: (405) 740-7167

AIR MONITORING FIRM OR OTHER OPERATOR: Marshall Environmental

STREET ADDRESS: 1601 SW 15th Ste.A100 City: Oklahoma City STATE: OK ZIP: 73159

REPRESENTATIVE: Jamie Marshall PHONE: (405) 616-0401

II. TYPE OF NOTIFICATION: (O = ORIGINAL) OR (R = REVISED) R

III. TYPE OF OPERATION: (D = DEMOLITION) (R = RENOVATION) (ER = EMERGENCY RENOVATION) R

IV. IS ASBESTOS CONTAINING MATERIAL (ACM) PRESENT ? YES X NO ____ DON'T KNOW: ____

V. FACILITY / BUILDING DESCRIPTION (BE SPECIFIC AND DETAILED AS TO NAME, # FLOORS, EXACT ACM LOCATION, ROOM NUMBERS, ETC.)

FACILITY: Henryetta National Guard Armory ADDRESS: 1904 NE 4th

CITY: Henryetta STATE: OK ZIP CODE: 74437 COUNTY: Okmulgee

WHERE IS ACM LOCATED? In the pipe insulation, in the transite soffit and some of the floor tile and mastic

BUILDING SIZE: SQ. FT.: 12,000 AGE: 65 YRS. # FLOORS: 1

PRESENT USE: Vacant PREVIOUS USE: National Guard Armory

VI. PROCEDURES USED TO DETERMINE PRESENCE OF ACM INCLUDING ANALYTICAL METHODS :

Bulk sampling utilizing OSHA protocol and PLM analysis

NAME OF EPA ACCREDITED INSPECTOR WHO PERFORMED INSPECTION AND SAMPLING INCLUDING AFFILIATION AND OKLAHOMA DOL LICENSE NUMBER:

Bill Harris STLC #150035

EPA NOTIFICATION OF DEMOLITION OR RENOVATION CONTINUED

VII. AMOUNTS OF REGULATED ASBESTOS CONTAINING MATERIAL (RACM) TO BE REMOVED; ALSO AMOUNTS OF CATEGORY I OR II MATERIALS WHICH WILL / WILL NOT BE REMOVED (circle one):

TSI Material -- 350 linear feet

Surfacing Material: Square Feet: _____

CATEGORY- I 450 - SQ. FT. ; CATEGORY II – 250 square feet.

VIII. SCHEDULED DATES OF ASBESTOS REMOVAL: START: October 14, 2013 FINISH: November 1, 2013

IX. SCHEDULED DATES OF DEMO / RENO: START: November 2, 2013 FINISH: February 2014

X. DESCRIPTION OF THE PLANNED ASBESTOS REMOVAL TECHNIQUES TO BE EMPLOYED (e.g. gross removal , glove bagging, manual scrape, etc.)

The pipe insulation will be removed using glove bag techniques, and the floor tile and transite will be removed under OSHA Class II removal techniques.

XI. DESCRIPTION OF THE CONTROLS AND WORK PRACTICES TO BE USED TO PREVENT ASBESTOS FIBER EMISSIONS (e.g. full containment with negative pressure, adequate venting)

Decontamination unit, poly drop cloth, critical barriers, HEPA Filtration, glovebag removal.

XII. LICENSED ASBESTOS WASTE TRANSPORTER: TEC-AN, Inc.

ADDRESS: 2517 S. Purdue Ave CITY: Okla City STATE: OK ZIP: 73128

REPRESENTATIVE: Donald J. Nial PHONE: (405) 681-7076

XIII. STATE PERMITTED ASBESTOS WASTE DISPOSAL SITE: Waste Connections

ADDRESS: 7600 SW 15th Street CITY: Oklahoma City STATE: OK ZIP: 73128

REPRESENTATIVE: Bryan PHONE: (405) 745-3092

XIV. IS DEMOLITION IS ORDERED BY A GOVERNMENT AGENCY? YES: _____ NO: X

NAME OF AGENCY: _____ REPRESENTATIVE: _____

DATE OF ORDER: _____ DATE DEMOLITION IS TO START: _____

XV. IS THIS RENOVATION REQUIRED DUE TO AN EMERGENCY? YES: _____ NO: X

DATE OF EMERGENCY: _____ HOUR OF DAY EMERGENCY OCCURRED: _____

DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT CAUSING THE EMERGENCY: NA

EXPLANATION OF HOW THIS CAUSED 1) UNSAFE CONDITIONS; 2) SERIOUS DISRUPTION OF NORMAL BUILDING OPERATIONS; AND/OR 3) IMPOSES AN UNREASONABLE FINANCIAL BURDEN" (be specific and detailed):

NA

EPA NOTIFICATION OF DEMOLITION OR RENOVATION CONTINUED

XVI. **DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS BECOMES FRIABLE** (crumbled, pulverized, abraided, or reduced to powder, etc.):

Stop work, sample/analyze material using PLM, revise notification, and utilize approved removal techniques.

****

XVII. **I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR, PART 61, SUBPART M - NESHAP) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE OF HIS/HER TRAINING AND CERTIFICATION / LICENSING WILL BE AVAILABLE (OR BE POSTED) FOR INSPECTION DURING BUSINESS HOURS.**

SIGNATURE OF OWNER / OPERATOR: _____ **DATE:** October 11, 2013

PRINTED NAME: Donald J. Nist

****

XVIII. **I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE:**

SIGNATURE OF OWNER / OPERATOR: _____ **DATE:** October 11, 2013

PRINTED NAME: Donald J. Nist

****

DEFINITION: OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation, or both.

****

ADDITIONAL COMMENTS:

EPA NESHAP AUTHORITY: **OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY**
Air Quality Div., 707 N. Robinson, P.O. Box 1677
OKC, OK 73101-1677 ***or***
Tulsa Regional Office, 5051 S. 129th E. Ave., Tulsa, OK 74134-2842

NOTE: Please submit your Notification to the DEQ office closer to your job site.

Laboratory Analytical Report

ENVIRONMENTAL TESTING, INC.
4612 N. Santa Fe
Oklahoma City, OK 73118
405.488.2400 Phone
405.488.2404 Fax
www.etilab.com

30 October 2013

Mr. Don Nist

Tec-An Inc.
2517 S. Purdue Ave.
Oklahoma City, OK 73128

WO: E3J0458
RE: Henryetta Armory

Enclosed are the results of analyses for samples received by the laboratory on 10/23/13 12:52. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Russell Britten
President

ENVIRONMENTAL TESTING, INC.

4619 N. Santa Fe
Oklahoma City, OK 73118
405.488.2400 Phone
405.488.2404 Fax
www.enlab.com

Tec-Art Inc.
2517 S. Pierce Ave
Oklahoma City OK, 73129

Project: Honeywell Armory
Project Number: 1309-12
Project Manager: Mr. Don Nott

Reported:
10/25/13 12:30

01- Doors, Frames, & P.P.E. Shelves

EJJ0458-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Environmental Testing Inc.									
TCLP Extraction by EPA 1311									
TCLP Extraction	Completed		N/A		EBJ0548	JDZ	10/25/13 17:00	EPA 1311	
TCLP Metals by 6000/7000 Series Methods									
Lead									
Metals Digestion	1.1*	0.100	mg/L	1	EBJ0549	JDZ	10/24/13 12:43	EPA 6010C	
	Completed		N/A		EBJ0549	JDZ	10/24/13 10:00	EPA 3010A	

Environmental Testing Inc.

Russell Britton, President

ENVIRONMENTAL TESTING, INC.

3619 N. Santa Fe
Oklahoma City, OK 73118
405.488.2400 Phone
405.488.2404 Fax
www.etilab.com

Too-An Inc.
2917 S. Purdue Ave
Oklahoma City OK, 73128

Project: Hennessey Armory
Project Number: 1309-12
Project Manager: Mr. Don Nist

Reported:
10/30/13 12:50

02- Waste Water

EJ0458-02 (Aqueous)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Environmental Testing Inc.									
Conventional Chemistry Parameters by Standard Methods									
Phosphorus (Total)	1.12	0.150	mg/L	1	EB30647	LSB	10/29/13 12:46	SM 4500-P B 5	P-01, T-01
Metals by EPA 200 Series Methods									
Lead	0.0617	0.0150	mg/L	1	EBJ3601	BSE	10/28/13 16:02	EPA 200.7	P-01
Metals Digestion	Completed		N/A		EB30601	JDL	10/29/13 11:42	EPA 200.7	

Environmental Testing Inc.

Russell Britten, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL TESTING, INC.

4619 NORTH SANTA FE AVE
OKLAHOMA CITY, OK 73118
(405) 488-2400
FAX: (405) 488-2404

Oilab

PAGE 1 OF 1

SAMPLE SERIES #: [illegible]

SHADED AREAS FOR LABORATORY USE ONLY

COMPANY: Tec-An, Inc.
ADDRESS: 2517 S. Purdue Ave
Oklahoma City, OK 73128
PHONE #: 405-681-7026
EMAIL: Dinnist@Coxinet.Net
P.O. #:
CLIENT CONTACT: Don Nist
PROJECT #: 1309-18 /MANAGER:
SITE LOCATION: Henryetta Armory

SAMPLE TYPE: 1. WATER 2. SOIL 3. SLUDGE 4. OIL 5. OTHER

CONTAINER TYPE: P-PLASTIC G-GLASS V-VOA O-OTHER T-TEFLON

ETI SAMPLE #	CLIENT SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVES	TCLP Pb	Total Pb By ICP	Total P By EPA 365.3	LAB COMMENTS
1	01 - Doors, Frames & PPE, Shelves	5	[illegible]	P	1	10/22	4pm	NA	X			[illegible]
2	02 - Waste Water	1	500	P	1	10/22	4pm	NA		X	X	

RECEIVED ON ICE: ☐ Y ☒ N @ 20.2°C
EQUIPMENT #: ET0084

SAMPLER: Don Nist

FIELD PH:
TIME:
CALIB: ☐ 4 ☐ 7 ☐ 10
TEMP:
COND:

REQUESTED TURNAROUND TIME: ☒ REGULAR (5 DAYS)

RUSH REQUIRED: (ADDITIONAL FEES MAY APPLY) ☐ 3 DAYS ☐ 2 DAYS ☐ 1 DAY

RELINQUISHED BY:	DATE / TIME	RECEIVED BY:	DATE / TIME
D.V. Nist (signature)	DATE: 10/23/13 TIME: 11:30a	(signature)	DATE: TIME:
(signature)	DATE: 10/23/13 TIME: 1252	(signature)	DATE: 10/23/13 TIME: 1252
	DATE: TIME:		DATE: TIME:

COMMENTS:

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 228507
Date Received: 10/25/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 10/28/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: 8486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
002	2	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
003	3	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
004	4	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
005	5	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
006	6	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
007	7	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
008	8	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
009	9	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
010	10	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
011	11	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
012	12	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
013	13	Wipe	Lead	97.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
014	14	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
015	15	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
016	16	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
017	17	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/2-93/200 Preparation Modified, EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified, EPA 7082 Analysis Modified

2030 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 228507
Date Received: 10/25/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 10/28/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	18	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
019	19	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
020	20	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
021	21	Wipe	Lead	25.9	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
022	22	Wipe	Lead	22.0	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
023	23	Wipe	Lead	36.4	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
024	24	Wipe	Lead	14.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
025	25	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
026	26	Wipe	Lead	10.2	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
027	27	Wipe	Lead	16.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
028	28	Wipe	Lead	12.9	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified, EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified, EPA 7082 Analysis Modified

QUANTEM LABORATORIES

www.QuanTEM.com

LEAD CHAIN OF CUSTODY

2733 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax (405) 755-2058

LEGAL DOCUMENT – PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	228507
Accept	Reject

Report Results (☑ one box): ☐ QuanTEM Website ☐ Other

Contact Information

Company: ODEQ
Contact: Brian Stanila
Phone: (405) 702-5138
Cell Phone: (405) 659-8375
Email: brian.stanila@deq.ok.gov

Project Information

Project Name: Henryetta Armory
Project Location: Henryetta, OK
Project ID:

Sampled By: Name: Brian Stanila Date:

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	10/25/2013 13:55			10/25/13 1:53

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix codes box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg / ft²	µg / m³	mg / cm²
1	1-28	lead wipe		1ft²		✓				X		
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Matrix Codes

A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

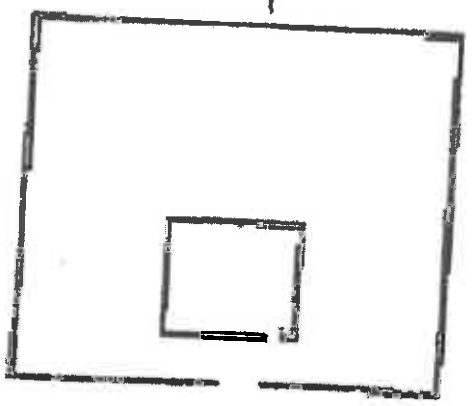
TURNAROUND TIME

☐ Same Day
☑ 24 - Hour
☐ 3 - Day
☐ 5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"

Hemmeter

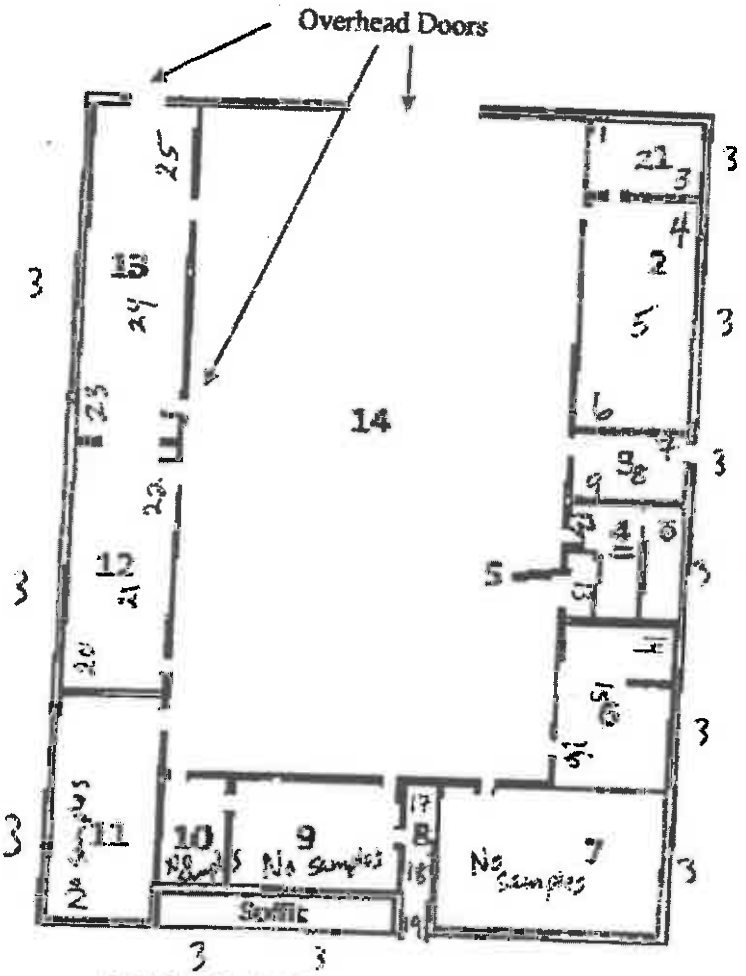
OH228507



Annex 1

Annex 2

North



Main Building

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 223964
Date Received: 11/08/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: CC
Date of Report: 11/13/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B496

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	13.6	9	ug/Sq. Ft.	11/11/13 15:00	W NIOSH 9100

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. QuanTEM is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified, EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified, EPA 7082 Analysis Modified

QUANTEM LABORATORIES

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7035 Heritage Park Drive, Oklahoma City, OK 73126-7502
(800) 822-1650 • (405) 755-7272 • Fax (405) 755-2058

LEGAL DOCUMENT – PLEASE PRINT LEGIBLY

For Lab Use Only
Lab No. 238964
Accept / Reject

Report Results (☑ one box)
- QuanTEM Website
- Other

Contact Information

Company: DEQ
Phone: (405) 702-5135
Contact: Brian Stemla
Cell Phone:
Address:
Email: brian.stemla@deq.ok.gov

Project Information

Project Name: Henryetta Armory
Project Location: Henryetta, OK
Project ID:

Sampled By: Print: Brian Stemla Date: 11/8/2013

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	11/8/2013 13:20	drop off		11/8/13 13:2

REQUESTED SERVICES (Please fill the Appropriate Boxes)

No	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix codes below)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg / ft²	µg / m³	mg / cm²
1	1	lead wipe		1ft²		X				X		
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Matrix Codes

A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME

	Same Day
X	24 - Hour
	3 - Day
	5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73103-8517 • Mark Package "Hold for Saturday Pickup"

OKLAHOMA CITY LANDFILL,WCI
7500 SW 15TH STREET
OKLAHOMA CITY, OK 73128

007583 TEC-AN INC
2517 S. PURDUE
OKLAHOMA CITY OK 73128

SITE	TICKET	ORIG	WEIGHMASTER
02	01111602		Inger

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	SEAL OFF
10/30/13	10/30/13	09:19	09:19	TECH-ANN1	

REFERENCE	ORIGIN

Scale 1 Gross Wt	19660	LB	Inbound - Charge ticket
Stored Tare Wt	6200	LB	
Net Weight	13660	LB	

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
7.00	CU YD	WASTE/CU YD				

1309-18
Henry
Ariz

Is this load from the OKC limits? __ Yes __ No. I certify this load contains no unauthorized hazardous waste & understand falsification of a waste manifest is a criminal offense & hereby affirm this information is correct. Phone:405-745-3091

NET AMOUNT
TENDERED
CHANGE
CHECK NO

SIGNATURE

General Waste
As A Result of
TCLP.

COPY

18623

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number [illegible]

2. Page 1 of 1

3. Emergency Response Phone [illegible]

4. Manifest Tracking Number **006824290 FLE**

5. Generator's Name and Mailing Address [illegible]

Generator's Site Address (if different than mailing address) [illegible]

Generator's Phone: [illegible]

6. Transporter 1 Company Name [illegible]

U.S. EPA ID Number [illegible]

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address [illegible]

U.S. EPA ID Number [illegible]

Facility's Phone: [illegible]

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. [illegible]		DM	1175	[illegible]	[illegible]
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

[illegible]

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.

I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | TRANSPORTER | INT'L | FACILITY

Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

CONFIRMATION SAMPLING

Lead Confirmation Sampling Report

Henryetta Armory

Background

The Oklahoma Department of Environmental Quality (DEQ) Site Cleanup Assistance Program (SCAP) undertook the responsibility of ensuring that abatement and remediation of asbestos containing materials, lead-based-paint, and settled lead dust at the former Henryetta Armory was accomplished in accordance with all applicable State and Federal regulations. The former Henryetta Armory is located at 1804 NE 4th St., Henryetta, OK 74337 and has two associated annex buildings. The Henryetta Armory did not have an indoor firing range.

This report documents the confirmation sampling conducted at the Henryetta Armory. The remedial goal for lead concentration in dust is the US Department of Housing and Urban Development (HUD) clearance standard of 40 µg/ft^2. Three sampling events resulted in the collection 32 lead wipe samples. Data from the three sampling events indicated that the floors in the Henryetta Armory were remediated to 40 µg/ft^2 or below. Analytical data from these sampling events reflects the concentration of lead in dust at the time of sampling.

Confirmation Sampling Summary

Sampling Event #1

The first sampling event of the Henryetta Armory was conducted on October 8, 2013. Three (3) samples were collected from Annex 1. Sample data is shown below. Copies of analytical data and map of sample locations is provided in Appendix A.

Lab ID	Sample ID	Analytical Result	Clearance Level
001	Annex1	17.0 µg/ft^2	40.0 µg/ft^2
002	Annex2	12.5 µg/ft^2	40.0 µg/ft^2
003	Annex3	40.0 µg/ft^2	40.0 µg/ft^2

Sampling Event #2

The second sampling event of the Henryetta Armory was conducted on October 25, 2013. Twenty-eight (28) samples were collected from the main building and Annex 2. The drill floor was entirely covered in lead-based paint and therefore was encapsulated with a two-part epoxy concrete. No samples were collected from the drill floor after encapsulation. Sample data is

shown in table below. Copies of analytical data and map of sample locations is provided in Appendix A.

Lab ID	Sample ID	Analytical Result	Clearance Level
001	1	<9.00	40.0 µg/ft^2
002	2	<9.00	40.0 µg/ft^2
003	3	<9.00	40.0 µg/ft^2
004	4	<9.00	40.0 µg/ft^2
005	5	<9.00	40.0 µg/ft^2
006	6	<9.00	40.0 µg/ft^2
007	7	<9.00	40.0 µg/ft^2
008	8	<9.00	40.0 µg/ft^2
009	9	<9.00	40.0 µg/ft^2
010	10	<9.00	40.0 µg/ft^2
011	11	<9.00	40.0 µg/ft^2
012	12	<9.00	40.0 µg/ft^2
013	13	97.5	40.0 µg/ft^2
014	14	<9.00	40.0 µg/ft^2
015	15	<9.00	40.0 µg/ft^2
016	16	<9.00	40.0 µg/ft^2
017	17	<9.00	40.0 µg/ft^2
018	18	<9.00	40.0 µg/ft^2
019	19	<9.00	40.0 µg/ft^2
020	20	<9.00	40.0 µg/ft^2
021	21	26.9	40.0 µg/ft^2
022	22	22.0	40.0 µg/ft^2
023	23	36.4	40.0 µg/ft^2
024	24	14.5	40.0 µg/ft^2
025	25	<9.00	40.0 µg/ft^2
026	26	10.2	40.0 µg/ft^2
027	27	16.5	40.0 µg/ft^2
028	28	12.9	40.0 µg/ft^2

Sampling Event #3

The third sampling event of the Henryetta Armory was conducted on November 8, 2013. One (1) sample was collected from the main building. The sample was collected due to clearance failure during sampling event #2. Sample data is shown in table below. Copies of analytical data and map of sample locations is provided in Appendix A.

Lab ID	Sample ID	Analytical Result	Clearance Level
001	1	<13.6	40.0 µg/ft^2

Conclusions

Data from the three sampling events indicated that the floors in the Henryetta Armory were remediated to 40 $\mu g/ft^2$ or below and thus the building was determined to have unrestricted residential use.

Appendix A

Chain of Custody Forms

Analytical Data

Floor Plan Maps

Henryetta

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 227790
Date Received: 10/08/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: CC
Date of Report: 10/9/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	Annex1	Wipe	Lead	17.0	9	ug/sq. Ft.	10/09/13 14:30	W NIOSH 9100
002	Annex2	Wipe	Lead	12.5	9	ug/sq. Ft.	10/09/13 14:30	W NIOSH 9100
003	Annex3	Wipe	Lead	40.0	9	ug/sq. Ft.	10/09/13 14:30	W NIOSH 9100

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 11439 **Date:** 10/9/2013 **Lab Number:** 227790
Test: Lead **Matrix:** Wipe **Approved By:** Benton Miller
Date Approved: 10/9/2013

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5	5.5
FCV	4.5	4.7	5.5
ICV	0.9	1	1.1
RLVS	0.144	0.183	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.010	5.277	105.3	5.270	105.2	0.1

Authorized Signature: _____

Benton Miller, Analyst

LEAD CHAIN OF CUSTODY

LABORATORIES
www.QuanTEM.com
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only
Lab No. 227790
Accept Reject

Report Results (☑ one box)
☐ QuanTEM Website
☐ Other _____

Contact Information		Project Information	
Company: DEQ	Phone: 702-5138	Project Name: Henryetta Armory	
Contact: Brian Stanila	Cell Phone: 659-8375	Project Location: Henryetta, OK	
Account #:	E-mail: brian.stanila@deq.ok.gov	Project ID:	

Sampled By: Name: Brian Stanila Date:

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	10/8/2013 11:15			10/8/13 2:16

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

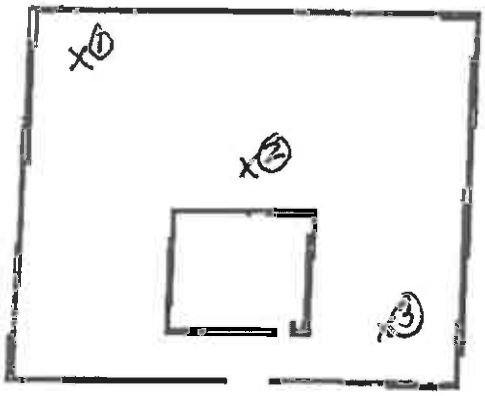
No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg / ft²	µg / m³	mg / cm²
1	Annex 1			1ft x 1ft		X				X		
2	Annex 2			"		X				X		
3	Annex 3			"		X				X		
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Matrix Codes	
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME	
	Same Day
X	24 - Hour
	3 - Day
	5 - Day

Q#227790

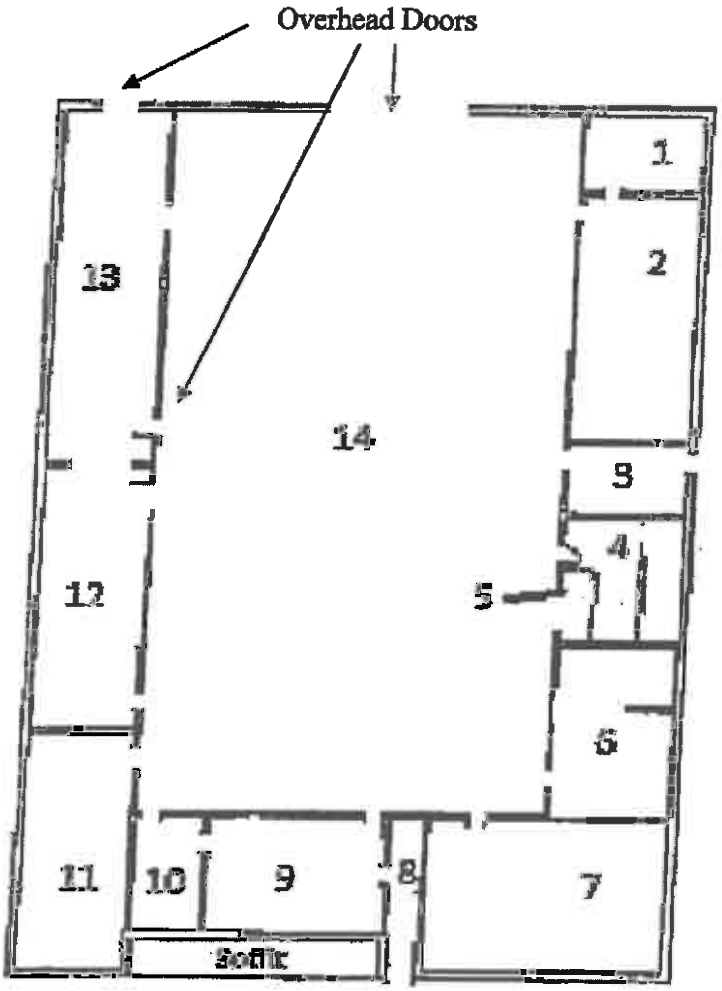
Harryetta



Annex 1

Annex 2

North



Main Building

Henryetta

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 228507
Date Received: 10/25/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 10/28/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
002	2	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
003	3	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
004	4	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
005	5	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
006	6	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
007	7	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
008	8	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
009	9	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
010	10	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
011	11	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
012	12	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
013	13	Wipe	Lead	97.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
014	14	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
015	15	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
016	16	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
017	17	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 228507
Date Received: 10/25/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 10/28/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	18	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
019	19	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
020	20	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
021	21	Wipe	Lead	26.9	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
022	22	Wipe	Lead	22.0	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
023	23	Wipe	Lead	36.4	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
024	24	Wipe	Lead	14.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
025	25	Wipe	Lead	<9.00	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
026	26	Wipe	Lead	10.2	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
027	27	Wipe	Lead	16.5	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100
028	28	Wipe	Lead	12.9	9	ug/sq. Ft.	10/28/13 13:15	W NIOSH 9100

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 11481
Test: Lead
Date: 10/28/2013
Matrix: Wipe
Lab Number: 228507
Approved By: Benton Miller
Date Approved: 10/28/2013

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5.2	5.5
FCV	4.5	4.8	5.5
ICV	0.9	1	1.1
RLVS	0.144	0.158	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W2	0.000	5.040	5.378	106.7	5.422	107.6	0.8
MS-W1	0.000	5.000	5.229	104.6	4.898	98.0	6.5

Authorized Signature: _____

Benton Miller, Analyst

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For Lab Use Only	
Lab No.	228507
	Accept / Reject

Report Results (☑ one box): ☐ QuanTEM Website ☐ Other

Contact Information		Project Information	
Company: ODEQ	Phone: (405) 702-5138	Project Name:	Henryetta Armory
Contact: Brian Stanila	Cell Phone: (405) 659-8375	Project Location:	Henryetta, ok
Account #:	E-mail: brian.stanila@deq.ok.gov	Project ID:	
Sampled By	Name: Brian Stanila	Date:	

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
Brian Stanila	10/25/2013 13:35			10/28/13 1:53

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg /ft²	µg / m³	mg / cm²
1	1-28	lead wipe		1ft²		✓				X		
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Matrix Codes	
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME	
	Same Day
	24 - Hour
	3 - Day
	5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 228964
Date Received: 11/08/13
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: CC
Date of Report: 11/11/2013

AIHA ID: 101352

Client: State of Oklahoma
DEQ Land Protection
Attn: Dustin Davidson
707 N. Robinson
Oklahoma City, OK 73102
Acct. No.: B486

Project: Henryetta Armory
Location: Henryetta, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	13.6	9	ug/sq. Ft.	11/11/13 15:00	W NIOSH 9100

Authorized Signature: _____
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. QuanTEM is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 11519 **Date:** 11/11/2013 **Lab Number:** 228964
Test: Lead **Matrix:** Wipe **Approved By:** Benton Miller
Date Approved: 11/11/2013

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5.2	5.5
FCV	4.5	5	5.5
ICV	0.9	1.03	1.1
RLVS	0.144	0.168	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.020	4.782	95.3	5.113	101.9	6.7

Authorized Signature: _____

Benton Miller, Analyst

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LEGAL DOCUMENT – PLEASE PRINT LEGIBLY

For Lab Use Only
Lab No. 228964
Accept Reject

Report Results (☑ one box)
☐ QuanTEM Website
☐ Other

Contact Information		Project Information	
Company: DEQ	Phone: (405) 702-5136	Project Name: Henryetta Armory	
Contact: Brian Stanila	Cell Phone:	Project Location: Henryetta, OK	
Account #:	E-mail: brian.stanila@deq.ok.gov	Project ID:	

Sampled By Name: Brian Stanila Date: 11/8/2013

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	11/8/2013 13:20	drop off		11/8/13 1:12

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg / ft²	µg / m³	mg / cm²
1	1	lead wipe		1ft²		X				X		
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Matrix Codes	
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME	
	Same Day
X	24 - Hour
	3 - Day
	5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"

Annex 1

Annex 2

North