

**Former National Guard Armory  
Perry, Oklahoma**

**Remediation Final Report**



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



# The Oklahoma Department of Environmental Quality (DEQ) is pleased to present the City of Perry with the Final Remediation Report for the former Perry 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 Perry 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 mastic and sheetrock bedding mud
- Asbestos abatement, including:
  - Removal of floor tile mastic and sheetrock bedding mud

## TARGETED BROWNFIELD ASSESSMENT

In March 2010, DEQ provided a Phase I Targeted Brownfield Assessment to the City of Perry. A copy of this report is available at <http://www.deq.state.ok.us/lpdnew/scapIndex.htm>.

## LEAD REMEDIATION

DEQ and its contractors completed the following activities:

- Lead-based paint (LBP) inspection
- Lead dust wipe sampling
- Soil sampling outside of firing range vent fan
- LBP abatement, including:
  - Scraping and sealing downspouts, window lintels, window sills, overhead door frames, walls containing LBP, and handrails
  - Removal and replacement of doors containing LBP
- Indoor firing range cleanup, including:
  - Lead dust cleanup: high efficiency particulate air (HEPA) vacuuming, wet washing, and sealing with appropriate sealant floors, walls, and ceiling
- HEPA vacuuming and wet washing of floors in the building
- Proper disposal of associated waste



Additional copies of this report can be found at <http://www.deq.state.ok.us/lpdnew/scapIndex.htm> and DEQ Central Records at 707 N Robinson Oklahoma City, Oklahoma 73101.



This publication is issued by the Oklahoma Department of Environmental Quality authorized by Steven A. Thompson, Executive Director. Copies have been prepared at a cost of \$0.053 each. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. [cmullins\LPD\Armories\\_SCAPA\ArmoryReports\PerryArmory\\_4\2012](http://cmullins\LPD\Armories_SCAPA\ArmoryReports\PerryArmory_4\2012).

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

## DEEDS AND LEGAL DOCUMENTS



**NOTICE OF REMEDIATION AND EASEMENT  
FORMER PERRY ARMORY  
PERRY, OKLAHOMA**

**LEGAL BASIS FOR NOTICE:** The Oklahoma Department of Environmental Quality (DEQ) hereby files this Notice of Remediation pursuant to Oklahoma Statutes, 27A § 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.

The DEQ may take administrative or civil action to recover costs or to compel compliance with the Land Use Restrictions and to prevent damage to or interference with the Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls herein described.

The Land Use Restrictions, Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls shall apply to the Affected Property and to persons who own and/or use the Affected Property until such time as the DEQ files a subsequent Notice of Remediation that changes or removes one or more of them. Activities that cause or could cause damage to the Remedy or the Engineering Controls or recontamination of soil or groundwater are prohibited.

The owner of the Affected Property has the legal authority to create, and does hereby voluntarily create, an easement granted to the DEQ and its employees and agents, for ingress and egress through, across and onto the parking and other outside areas of the Affected Property as they exist from time to time to assure the ongoing protection of the Remedy, Engineering Controls and Land Use Restrictions. This easement touches and concerns the land and runs with the land, is legally binding on all current and future owners and tenants of the Affected Property, and shall only be removed or modified if and when the DEQ modifies or removes the Land Use Restrictions, Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls.

**REASON FOR NOTICE:** The below described 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 December 2, 2009, indicated that there was asbestos, lead-based paint, and lead dust in the building.

**AFFECTED PROPERTY:** The Affected Property is the former Perry Armory located at 309 North 14<sup>th</sup> Street in Perry, Noble County, Oklahoma.

The legal description is as follows:

In Noble County, Oklahoma, lots One (1), Two (2) and Three (3) in Block Seventy-four (74) and Lots One (1), Two (2) and Three (3) in Block Eighty-five (85), also the intervening part of Delaware Street lying between said above described lots, in the Townsite of North and West Perry, Oklahoma, according to the government plat and survey of record.

CERTIFICATE OF TRUE COPY  
State of Oklahoma, County of Noble  
Original filed for record 1/31/12  
Volume 710 Page 325  
Certified this 1/31/12  
ANGELA SHAW, COUNTY CLERK  
By Kelley Larkin Deputy

**REMEDY:** Remediation activities (Remedy) at the Affected Property included abatement of asbestos, lead-based paint and dust. The remedy was completed on September 9, 2011.

For more detailed information please refer to *Former National Guard Armory Perry, 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 the Indoor Firing Range (IFR) and room floors where lead-based paint abatement was performed. Sealant should be inspected on a periodic basis and maintained as appropriate.

**LAND USE RESTRICTIONS:** The land use restrictions at the above-described Affected Property are:

- a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.
- b. The IFR should not be used as a child occupied facility. Child-occupied facilities include, but are not limited to, day-care centers, preschools, and kindergarten classrooms where a child 6 or under spends at least 6 hours per week.

These land use restrictions apply to the entirety of the Affected Property described herein above.

CERTIFICATE OF TRUE COPY  
 State of Oklahoma, County of Noble  
 Original filed for record 1/31/12  
 Volume 710 Page 326  
 Certified this 1/31/12  
 ANGELA SHAW, COUNTY CLERK  
 By Kelley Larkin Deputy



**CHANGING LAND USE RESTRICTIONS:** Changes to land use restrictions must be approved by the DEQ or its successor agency. The person requesting the change in land use must demonstrate to the DEQ's satisfaction that contamination at the site has reached levels appropriate for the proposed new land uses and that further remediation is not necessary or that additional institutional or engineering controls are adequate to achieve levels protective of human health and the environment for the proposed uses.

The DEQ may require oversight costs, work plans, sampling, reports, and public participation as part of its review of the new information to support the requested change in land use restrictions. The person requesting the change will be required to follow agency procedures effective at the time of the request.

The DEQ at its discretion may determine, based on the new information submitted, that contaminants are present at the Site at levels that will not pose a risk to human health or the environment if the new land use restrictions being requested are allowed. Upon making this determination, the DEQ will file a recordable notice of remediation pursuant to state law in the land records in the in the office of the county clerk where the Site is located designating the new land use restrictions.

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.

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

1-30-12  
Date

ACKNOWLEDGMENT

STATE OF OKLAHOMA  
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 30 day of January, 2012, personally appeared Steven 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:

02/17/13, 2013

Linda Yarker  
Notary Public



CERTIFICATE OF TRUE COPY  
State of Oklahoma, County of Noble  
Original filed for record 1/31/12  
Volume 710 Page 327  
Certified this 1/31/12  
By ANGELA SHAW, COUNTY CLERK  
Kelley Larkin Deputy



**PERRY ARMORY EASEMENT**

I hereby certify that I have the legal right to, and do hereby, create an easement and encumber the real property as described in the foregoing Notice of Remediation. I hereby voluntarily grant an easement to the DEQ and its employees and agents, for ingress and egress through, across and onto the Affected Property to assure the ongoing placement, operation and protection of the remedy, engineering controls and land use restrictions described herein above.

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

1-30-12  
Date

ACKNOWLEDGMENT

STATE OF OKLAHOMA  
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 30 day of January, 2012, personally appeared Steven 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.

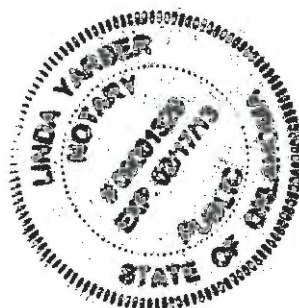
In Testimony Whereof, I have hereunto set my hand and official seal the day and year above written.

My Commission expires:

02/17, 2013.

Linda Yarder  
Notary Public

CERTIFICATE OF TRUE COPY  
State of Oklahoma, County of Noble  
Original filed for record 1/31/12  
Volume 710 Page 328  
Certified this 1/31/12  
By ANGELA SHAW, COUNTY CLERK  
Kelley Larkin Deputy







VO: 0665 PAGE 862

Book 0665 Page(s) 0862-0862  
I-2009-002178 08/05/2009 10:54 am  
Fee: \$ 13.00 Doc: \$ 0.00  
Angela Shaw - Noble County Clerk  
State of Oklahoma

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

THAT THE STATE OF OKLAHOMA, ACTING THROUGH THE OKLAHOMA MILITARY DEPARTMENT, by its Adjutant General, Major General Myles L. Deering, hereinafter referred to as the "Grantor," and in consideration of the sum of Ten and No/100 Dollars (\$10.00) and other valuable consideration in hand paid, the receipt of which is hereby acknowledged, does hereby Quitclaim, Grant, Bargain, Sell and Convey unto the OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, hereinafter referred to as the "Grantee," the following described Real Property, together with any and all improvements thereon and appurtenances thereunto belonging.

Lots One (1), Two (2) and Three (3) in Block Seventy-four (74) and Lots One (1), Two (2) and Three (3) in Block Eighty-five (85), also the intervening part of Delaware Street lying between said above described lots, in the Townsite of North and West Perry, Oklahoma, according to the government plat and survey of record.

Grantee to hold said land for the purposes of environmental characterization and remediation thereof as determined to be necessary by the Oklahoma Department of Environmental Quality, and upon the filing of a recordable Notice of Remediation in the land records of Noble County, the described real property shall transfer to the City of Perry, together with any and all improvements thereon and appurtenances thereunto belonging, for so long as said real property, improvements thereon and appurtenances thereunto belonging are used for a public purpose as required for this transfer by 44 Okla. Stat. Section 233.3(B).

TO HAVE AND TO HOLD the Real Property unto the Grantee, free, clear and discharged of and from all former grants, charges and other encumbrances of whatsoever nature except for the interest specifically granted to the City of Perry herein and any easements of record.

EXECUTED AND DELIVERED this 9 day of June 2009.

Return to: Heather Mallory  
DEQ  
Land Protection  
Division  
P.O. BOX 1677  
Oklahoma City, OK 73101

STATE OF OKLAHOMA

By:

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

This Transaction Is Exempt from Document Stamps, 68 O.S. § 3202(11).

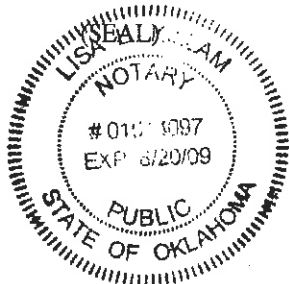
Exempt Documentary Stamp Tax OS  
Title 68, Article 32 Section 3201 or  
3202. Paragraph 11

STATE OF OKLAHOMA )  
  ) SS:  
COUNTY OF OKLAHOMA )

This instrument was acknowledged before me this 9th day of June, 2009, by Major General Myles L. Deering, as Adjutant General of the State of Oklahoma, on behalf of the State of Oklahoma.

Notary Public

Commission No. 01014097  
My Commission Expires: 8/20/09



## **MAINTENANCE PLAN**

**MAINTENANCE PLAN  
FORMER PERRY ARMORY  
PERRY, OKLAHOMA**

The Armory located at 309 North 14<sup>th</sup> Street, Perry, was contaminated with materials that required remediation pursuant to State and Federal environmental laws and regulations. Please refer to Attachment 1 for land use restrictions. Sampling performed by DEQ contractors, conducted on December 2, 2009, 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 September 9, 2011. 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. Firing Range – Walls, floor and ceiling of indoor firing range were cleaned and sealed with acrylic sealant to remediate surfaces below 40µg/SF for lead. These surfaces need to be resealed if acrylic sealant shows signs of deterioration, damage, or flaking.
2. All window lintels, window sills, wood overhead doors, down spouts, overhead door frames, and overhead door guards were scrapped 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.
3. The concrete doorway overhang above both exterior side doors, the concrete ledge below mural in Drill Floor, and walls of Room #4, Room #12, Room #13, Room #15, Room #27, Room #30, Room #31, Room #33, and Room #34 were scrapped 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. See Attachment 2 for Perry Armory Floor Plan Map.
4. The floors of Room #4 and Room #5 were cleaned and sealed with concrete epoxy paint to remediate surfaces below 40µg/SF for lead. These surfaces need to be resealed if paint shows signs of deterioration, damage, or flaking. See Attachment 2 for Perry Armory Floor Plan Map.

*Note – A list of DEQ approved acrylic sealant and elastomeric encapsulants is attached (Attachment 3). DEQ did not test every painted surface and all building materials inside and outside of the building, therefore there is 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) 702-5115.

Sincerely,



Dustin Davidson  
Environmental Programs Specialist  
DEQ Land Protection Division  
Site Cleanup Assistance Program

# ATTACHMENT 1

## Land use Restrictions

**LAND USE RESTRICTIONS:** The land use restrictions at the above-described Affected Property are:

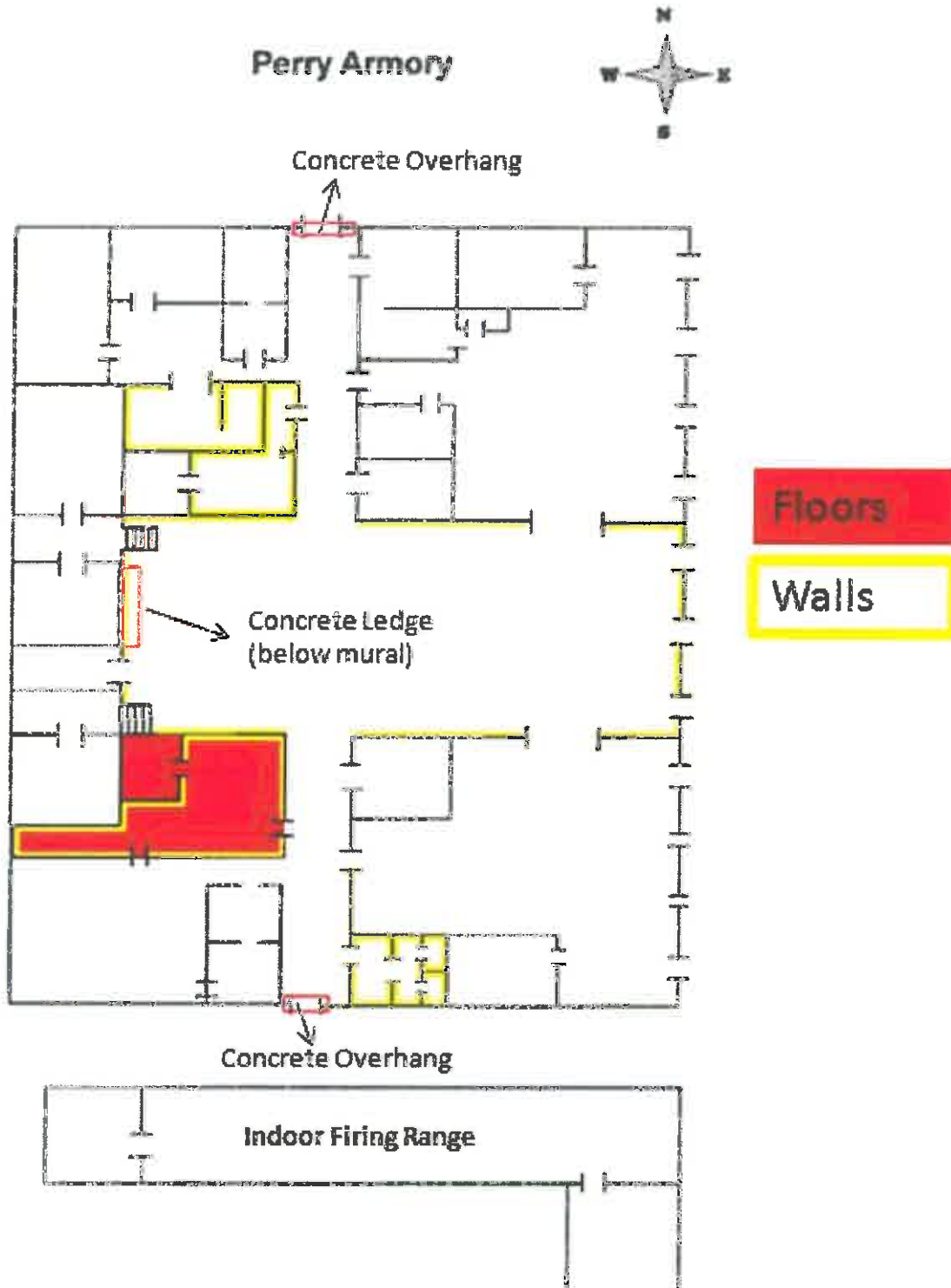
- a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.
- b. The indoor firing range should not be used as a child occupied facility. Child occupied facilities include, but are not limited to, day-care centers, preschools, and kindergarten classrooms where a child under 6 spends at least 6 hours per week.

These land use restrictions apply to the entirety of the Affected Property described herein above.

# ATTACHMENT 2

## Floor Plan Map

Labeled areas represent walls and floors with encapsulant and/or sealant.



## ATTACHMENT 3

### DEQ Approved Sealants and Encapsulants List

#### *Acrylic Sealant approved by DEQ*

KM-669 Acrylic

#### *Lead-Based Paint Encapsulants approved by DEQ*

<b>Encapsulant Manufacturer Product(s)</b>	<b>Encapsulant</b>
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

# **Asbestos Inspection**

**Perry Armory**  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma 73077-6207

December 2, 2009

**DCS Contract No.: ID009139-4**

***PREPARED FOR:***

Oklahoma Department of Environmental Quality  
Land Protection Division  
707 North Robinson  
Oklahoma City, OK 73102

***PREPARED BY:***

Marshall Environmental Management, Inc.  
1601 Southwest 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, Oklahoma 73159

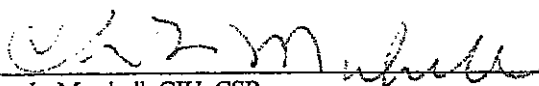


# Table of Contents

CERTIFICATION .....	3
Laboratory Analysis Performed by .....	3
EXECUTIVE SUMMARY .....	4
SAMPLING STRATEGY .....	4
FINDINGS .....	5
Table I: Analytical Results.....	5
Table II: Homogenous Asbestos Containing Materials .....	6
Historical Overview of Asbestos Activities.....	6
RECOMMENDATIONS AND RESPONSE ACTIONS.....	7
LIMITATIONS OF SURVEY.....	7
REGULATORY REVIEW .....	8
APPENDIX.....	10
Chain of Custody .....	10
Analytical Results .....	10
Homogenous-Labeled Floor Plan .....	10
Digital Photographs .....	10
Licenses.....	10

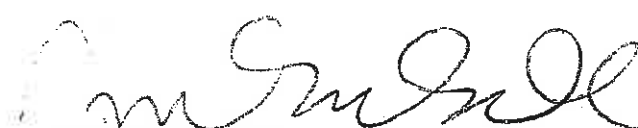
**CERTIFICATION**

This is to certify, that Marshall Environmental Management, Inc. was contracted by the State of Oklahoma, Department of Central Services to conduct an Asbestos Inspection of the Perry Armory, for the State of Oklahoma, Department of Environmental Quality, Land Protection Division. The Perry Armory Asbestos Inspection was performed by an Oklahoma Department of Labor Licensed, Asbestos Hazard Emergency Response Act Inspector, Jamie Marshall, of Marshall Environmental Management, Inc, under the direction of Oklahoma Department Of Labor Licensed, Asbestos Hazard Emergency Response Act Management Planner, Dr. Charles L. Marshall, Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The findings and recommendations included in this report are believed to accurately, depict the conditions observed on the date this Asbestos Inspection was performed.

  
Dr. Charles L. Marshall, CIH, CSP Date 2/19/10

- Certified Industrial Hygienist - Comprehensive Practice Certification #4489
- Certified Safety Professional - Comprehensive Practice Certification #9941
- Registered Professional Environmental Specialist - State Department of Health #710
- Certified Hazardous Materials Manager, Master Level Certification #1909
- Certified Healthcare Safety Professional, Master Level Certification #521

- EPA AHERA Certifications
  - #400517 Inspector
  - #500396 Management Planner
  - #2415 Project Designer
- ODOL License
  - #OKMP-0028 Project Designer
  - #OKMP-0246 Management Planner
  - #OK-150343 Inspector

  
Jamie Marshall, B.S., Industrial Hygiene Associate Date 2-12-10

Oklahoma Department of Labor License #OK-158090 Inspector

**Laboratory Analysis Performed by**

Marshall Environmental Management, Inc. (AIHA/NIOSH PAT Lab ID #102334)  
1601 SW 89<sup>th</sup> Street, A-100  
Oklahoma City, OK 73159

## **EXECUTIVE SUMMARY**

On December 2, 2009, Marshall Environmental Management, Inc. (MEM) accomplished an Asbestos Inspection of the Perry Armory, so that strategy may be prepared for the abatement of Asbestos Containing Materials (ACM), which may be present, as required by Environmental Protection Agency (EPA) regulations for pre-1980 construction. The analytical results correlating with the samples that were collected as part of this Asbestos Inspection identified the presence of asbestos containing floor tile in rooms-19 and 34, asbestos containing floor mastic in rooms-17 and 19, and asbestos containing bedding-mud in rooms-35 and 24. Chrysotile asbestos was identified in the aforementioned samples in concentrations greater than 1-percent (>1%); this classifies the friable bedding-mud as a "Regulated" ACM. The floor tile and mastic are non-friable materials, therefore these materials are considered non-regulated.

Recommendations will include that all ACM be abated. The abatement and disposal of regulated ACM are required to be treated as regulated response actions covered by EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations. Due to the quantities of friable bedding-mud, a NESHAP notification and Project Design are required prior to the commencement of abatement activities. If the asbestos containing bedding-mud is not abated and remains undisturbed and in good condition a Management Plan should be developed.

Although non-friable asbestos containing floor tile and mastic are considered non-regulated, recommendations will include that the abatement of this material be accomplished by an Oklahoma Department Of Labor (ODOL) Licensed, Asbestos Abatement Contractor, to ensure that Occupational Safety and Health Administration (OSHA) and EPA compliant methods are utilized. Because the floor tile and mastic are non-regulated, EPA regulations do not require that a NESHAP notification be submitted prior to abatement, and due to the floor tile and mastic being classified as "Category I Non-Regulated" the ODOL does not require that a Project Design be submitted prior to the abatement of these materials.

The remainder of this Report includes the Sampling Strategy, the Findings, Conclusions and Recommendations, Limitations of the Survey, the Regulatory Review and the Appendix to this Report.

## **SAMPLING STRATEGY**

Each accessible area throughout the Armory was systematically inspected in order to collect samples of building materials suspected of containing asbestos. The sample collection process includes, identifying the type of material suspected of containing asbestos, identifying the location of the material, the condition of the material, the potential for disturbance and the quantity. Suspect ACM that are uniform in color and texture and believed to be applied during the same period are described as "Homogenous". An adequate number of samples are collected from homogenous materials and if laboratory analysis determines that the material contains asbestos, the entire homogenous material is considered an ACM. These procedures are thoroughly documented for assisting, if necessary, with the development of appropriate response actions.

The following are examples of the types of building materials that were visually inspected and sampled during this Asbestos Inspection.

**Surfacing Materials**

- Examples include blown on or troweled on material, typically observed on ceilings, structural steel, concrete ceilings or metal pan decks.

**Thermal System Insulation**

- Examples include piping, hot and cold water lines, Heating Ventilation and Air Conditioning (HVAC) equipment and components, boilers, steam lines or heated thermal processes.

**Miscellaneous Materials**

- Examples include floor tiles, mastics, ceiling tiles, vinyl sheet flooring, sheetrock, sheetrock-tape, sheetrock-mud or joint compounds.

Each sample collected was submitted for analysis in accordance with the EPA authorized Method: 600 49 Code of Federal Regulations (CFR) Part 61 Subpart M, Asbestos NESHAP Rules. "Asbestos Containing Materials" are any materials, which consist of >1% asbestos, as defined by the EPA Approved Analytical Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix C, referred to as: "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

**FINDINGS**

The Perry Armory is located at 309 North 14<sup>th</sup> Street in Perry, Oklahoma. The Armory was constructed in approximately 1936. The Armory is a single-story structure with a lower level area that was utilized as an Indoor Firing Range (IFR). The Armory was constructed on a concrete slab with a brick exterior and a flat roof.

The analytical results associated with the samples that were collected during this Inspection discovered asbestos containing floor tile in rooms-19 and 34, asbestos containing floor mastic in rooms-17 and 19, and asbestos containing bedding-mud in rooms-35 and 24. Chrysotile asbestos was the type of asbestos detected in these samples. The asbestos concentrations identified within these samples were >1%, which classifies the tile, mastic and bedding-mud as ACM. However, the floor tile and mastic are non-friable, therefore these materials are considered non-regulated; and because the bedding-mud is friable, this material is classified as regulated.

Table I summarizes the type of material sampled, the sampling location and the analytical result, and Table II lists the homogenous areas that were established and their estimated quantities.

**Table I: Analytical Results**

Sample Identification	Sample Description	Sample Location	Percent Asbestos	Type of Asbestos	Type of Material
PLM-28	Black Mastic	Room-17	03%	Chrysotile	Miscellaneous
PLM-29	Gray 9"x9" Floor Tile	Room-19	03%	Chrysotile	Miscellaneous

Sample Identification	Sample Description	Sample Location	Percent Asbestos	Type of Asbestos	Type of Material
PLM-30	Black Mastic	Room-19	02%	Chrysotile	Miscellaneous
PLM-31	Bedding-Mud	Room-24	02%	Chrysotile	Miscellaneous
PLM-34	Bedding-Mud	Room-25	02%	Chrysotile	Miscellaneous
PLM-39	Tan/Beige 9"x9" Floor Tile	Room-34	02%	Chrysotile	Miscellaneous
PLM-44	Bedding-Mud	Room-35	02%	Chrysotile	Miscellaneous

**Table II: Homogenous Asbestos Containing Materials**

Location	Material	Quantities	Total Quantities
Room-16	Floor Mastic	~310-ft <sup>2</sup>	~1050-ft <sup>2</sup>
Room-17	Floor Mastic	~330-ft <sup>2</sup>	
Room-18	Floor Mastic	~160-ft <sup>2</sup>	
Room-19	Floor Mastic	~100-ft <sup>2</sup>	
Room-34	Floor Mastic	~150-ft <sup>2</sup>	
Room-19	Gray 9"x9" Floor Tile	~100-ft <sup>2</sup>	~250-ft <sup>2</sup>
Room-34	Tan/Beige 9"x9" Floor Tile	~150-ft <sup>2</sup>	
Room-9	Bedding-Mud	~130-ft <sup>2</sup>	~1890-ft <sup>2</sup>
Room-10	Bedding-Mud	~160-ft <sup>2</sup>	
Room-12	Bedding-Mud	~230-ft <sup>2</sup>	
Room-24	Bedding-Mud	~450-ft <sup>2</sup>	
Room-25	Bedding-Mud	~570-ft <sup>2</sup>	
Room-35	Bedding-Mud	~350-ft <sup>2</sup>	

The Conclusions and Recommendations are provided in the subsequent portion of this Report, and the chain of custody forms, specific sampling locations and associated analytical results are provided in the Appendix of this Report.

**Historical Overview of Asbestos Activities**

Historical records were not provided for review nor was there evidence or information that would suggest that a prior asbestos inspection occurred.

## RECOMMENDATIONS AND RESPONSE ACTIONS

1. All regulated ACM are recommended to be abated.
2. The removal and disposal of the regulated asbestos containing bedding-mud is required to be treated as a regulated response action covered by EPA NESHAP regulations.
3. A NESHAP notification and Project Design are required for the abatement of the bedding-mud due to the quantities meeting and exceeding 160-square feet, 260-linear feet or 35-cubic feet.
4. The NESHAP notification is required to be submitted to the ODEQ 10-business days prior to the commencement any demolition activities.
5. If the asbestos containing bedding-mud is not abated and remains undisturbed and in good condition a Management Plan should be developed.
6. The removal and disposal of the non-regulated floor tile and floor mastic should be performed by an ODOL Licensed, Asbestos Abatement Contractor to ensure that OSHA and EPA compliant methods are utilized. Because the floor tile and mastic are non-regulated, EPA regulations do not require that a NESHAP notification be submitted prior to abatement, and due to the floor tile and mastic being classified as "Category I Non-Regulated" the ODOL does not require that a Project Design be submitted prior to the abatement of these materials.
7. Any activities that would disturb the ACM should only be performed by an ODOL Licensed, Asbestos Abatement Contractor.

## LIMITATIONS OF SURVEY

This Asbestos Inspection was limited to certain aspects of the building construction; these limitations may have restricted or prevented the complete inspection of hidden or inaccessible building materials; therefore, inaccessible building materials were not inspected. Furthermore, locations presenting a hazard to bystanders or the Inspector were not assessed.

The findings within this Report are valid as of the date this Asbestos Inspection was performed; however, changes in the conditions of a property may certainly occur with the passage of time, whether due to natural processes or the works of man. Additionally, changes in applicable or appropriate standards may also occur, possibly resulting from legislation or the expansion of knowledge.

Our Investigation was performed using the degree of care and skill ordinarily exercised by professional consultants under similar circumstances practicing in this or similar localities. Professional services have been performed; results associated with this Asbestos Inspection were obtained and reported in accordance with generally accepted principles and practices. No other representations either expressed or implied are made; thus, Marshall Environmental Management, Inc. is not responsible for independent conclusions, opinions, or recommendations

made by others. It should also be noted that as-built plans were not available for review or use in the planning of this asbestos inspection.

## **REGULATORY REVIEW**

Prior to 1980 asbestos was commonly utilized during construction, in addition to being found in various building materials. In 1994, OSHA required employers to identify ACM in pre-1980 construction as part of its Standard for Occupational Exposure to Asbestos in Construction (29 CFR 1926.1101). This OSHA standard covers maintenance, repair and removal functions involving ACM or Presumed ACM (PACM). Without Asbestos Inspections, owners and/or operators must treat suspected ACM as asbestos. The ODOL defines an ACM as any material that contains 1% or greater of asbestos, whereas the EPA definition is any material that contains >1% asbestos.

The ODOL regulates the Hazard Communication requirements for public employees as part of the ODOL Public Employees Occupational Safety and Health (PEOSH) Program. The State of Oklahoma Hazard Communication Standard (HAZCOM), revised as of August 2006, is provided in the Oklahoma Asbestos Control Act (OAC) 380 Chapter 45.

[http://www.ok.gov/odol/documents/Asbestos\\_law\\_rules.pdf](http://www.ok.gov/odol/documents/Asbestos_law_rules.pdf)

Specific provisions of the Standard (OAC: 45-15-1) address asbestos notifications and labeling requirements. The labeling requirements specify that pipe insulation and various equipment insulation containing asbestos as well as rooms where asbestos is present be provided with an Asbestos Warning Label. These labels are to be readily visible and include the following warning:

**DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID BREATHING DUST  
CANCER AND LUNG DISEASE HAZARD**

Section 380:45-15-2 requires a notice to employees when ACM are used in acoustical materials on ceilings and walls; this type of ACM is referred to as Surfacing Material.

The EPA requires asbestos inspections in school buildings in grades K through 12, as part of the Asbestos Hazard Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. These AHERA requirements would only be applicable to the Perry Armory in an instance where the future intentions for the structure would include school activities grades K through 12. The structure would then necessitate an Asbestos Management Plan, required by the Local Educational Authority (LEA). The AHERA inspection protocol requires a thorough sampling of all forms of friable and non-friable asbestos.

The types of ACM to be assessed as part of an AHERA Inspection include:

**Surfacing Materials**

- Examples include blown on or troweled on material, typically observed on ceilings, structural steel, concrete ceilings or metal pan decks.

**Thermal System Insulation**

- Examples include piping, hot and cold water lines, Heating Ventilation and Air Conditioning (HVAC) equipment and components, boilers, steam lines or heated thermal processes.

**Miscellaneous Materials**

- Examples include floor tiles, mastics, ceiling tiles, vinyl sheet flooring, sheetrock, sheetrock-tape, sheetrock-mud or joint compounds.

The AHERA sampling protocol addresses the systematic sampling of each type of ACM and the identification of friable ACM, that which can be rendered to a powder by hand pressure, Category I non-friable ACM, such as floor tiles and mastic, and Category II non-friable ACM, such as cement asbestos tiles. The AHERA Inspection must also evaluate the condition and potential for the disturbance of the ACM. The condition of the ACM, good, damaged or significantly damaged, must also be determined.

In addition to AHERA, the EPA also regulates asbestos abatement during renovation and/or demolition activities. Land disposal requirements are also regulated by the EPA through State Landfill Permits. These efforts are now administered by the Oklahoma Department of Environmental Quality (ODEQ) Air Quality and Land Protection regulations. The ODEQ requires the filing of advance notices for any demolition or renovation activities. These notices are referred to as a NESHAP Notification. Both historical and future asbestos abatement response actions track asbestos removal to an ODEQ approved landfill on a project-by-project basis as part of this NESHAP notification process.

A NESHAP Notice is required for renovation and/or demolition whenever the quantities of ACM are greater than 160-square feet, 260-linear feet or 35-cubic feet. All required NESHAP Notifications must be submitted to the DEQ 10-business days prior to any renovation or demolition activities where asbestos is present. Instruction of how to file and comply with DEQ and NESHAP notification requirements are provided on the DEQ web site at:

<http://www.deq.state.ok.us/aqdnew/asbestos/index.htm>

The ODOL regulates Asbestos Abatement. The ODOL Asbestos Division implements the ODOL Rules governing the abatement for friable asbestos. Under the ODOL asbestos rule, OAC 380:50, only Licensed Contractors can perform asbestos abatement, develop management plans and project designs. All abatement supervisors, abatement workers and asbestos inspectors must also be licensed by the ODOL. It should be noted that the ODOL Asbestos Rules are currently undergoing a review for pending rule change. The ODOL Rules are available on the ODOL web site at:

<http://www.ok.gov/odol/>



# **APPENDIX**

**Chain of Custody**

**Analytical Results**

**Homogenous-Labeled Floor Plan**

**Digital Photographs**

**Licenses**

0144-120209-CLM-PLM-1-46

Phone: (405) 616-0401  
 Fax: (405) 681-6753  
 marshenv@swbell.net

**Chain of Custody**  
**Marshall Environmental Management, Inc.**

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

PROJECT				INVOICE TO				REPORT TO			
Project Number	0145-AB-120205-JM			Client/Company				Client/Company			
Project Name	Perry Army AB Inspectn			Attention				Attention			
Project Address				Address				Address			
Site Contact	Phone Number	Phone Number	Email	Phone Number	Phone Number	Phone Number	Email	Phone Number	Phone Number	Phone Number	Email
Sample Collection Date	Sample Id. # (field id)	Sample Area (room # 1, fe bedroom, lobby, etc.)	Location of Sample (with area) (north wall, ceiling, under carpet, etc.)	Sample Composition (Material) (sheetrock, caulk, floor tile, etc.)	Sample Matrix (As Acquired, etc.)	Sample Media (see legend)	Sample Time (start/stop or duration)	Calibrated Flow Rate	Total Volume/Area	Analysis Parameters	
12/2/09	B1	Room 2	Ceiling	Ceiling Tile	Bulk	N/A	N/A	N/A	N/A	PLM - Asbestos	
	B2	Room 3	Floor	12x12 Floor Tile							
	B3	Room 3	Floor	Brown Mastic							
	B4	Room 10	Floor	9x9 Beige Floor Tile							
	B5	Room 10	Floor	Black Mastic							
	B6	Room 10	Floor	9x9 Beige Floor Tile							
	B7	Room 10	Floor	Black Mastic							
	B8	Room 10	Floor	9x9 Floor Tile							
	B9	Room 10	Floor	Beige Black Mastic							
	B10	Room 10	Floor	Beige, Tan, & Brown 9x9 Floor tile							
Sample Collected By	Jamie Marshall			Date	12/2/09	Time	1600	Method of Shipper	N/A	N/A	
Sample Received By	[Signature]			Date		Time		Sample Notes			
Sample Received By	[Signature]			Date		Time		Condition Upon Receipt			
Sample Received By	[Signature]			Date		Time		Turn-Around Time			

Turn-Around-Time	
Standard	5-7 Business Days
Rush	Next Day
Immediate	Same Day

Phase Contrast Microscopy	PCM
Polarized Light Microscopy	PLM

Sample Media	
Micro-Vacuum	MV
Mold Plate	MP
Spore Trap	ST
Swab	SW
Tape-Lift	TL

Phone: (405) 616-0401  
 Fax: (405) 681-6753  
 marshenv@swbell.net

# Chain of Custody Marshall Environmental Management, Inc.

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

PROJECT			INVOICE TO			REPORT TO		
Project Number	Client/Company	Company	Client/Company	Client/Company	Company	Client/Company	Company	Company
Project Name	Attention	Address	Attention	Address	Address	Attention	Address	Address
Project Address	Phone Number	Phone Number	Phone Number	Phone Number	Phone Number	Phone Number	Phone Number	Phone Number
Site	Sample Area	Location of Sample (win area, north wall, ceiling, undercabinet, etc.)	Sample Composition/Material (sheetrock, caulk, floor tile, etc.)	Sample Matrix (Air, Aquatics, etc.)	Sample Media (see legend)	Sample Time (start/stop or duration)	Calibrated Flow Rate	Total Volume/Area
Collection Date	Sample ID # (field id)	Room # (room # 1, see legend, lobby, 1st fl., etc.)	Sample Matrix (see legend)	Sample Media (see legend)	Sample Time (start/stop or duration)	Calibrated Flow Rate	Total Volume/Area	Analysis Parameters
12/2/09	B11	Room 10	FLOOR	Black Mastic	Bulk	NIA	NIA	PLMASHES08
	B12	Room 10	FLOOR	Torn & Brown Spec 4x9 Floor Tile				
	B13	Room 10	FLOOR	Black Mastic				
	B14	Room 10	FLOOR	Beige & Brown Spec 9x9 Floor tile				
	B15	Room 10	FLOOR	Black Mastic				
	B16	Room 10	FLOOR	Beige & Brown Spec 9x9 Floor tile				
	B17	Room 10	FLOOR	Black Mastic				
	B18	Room 10	FLOOR	Beige Green & Gold Spec 9x9 Floor Tile				
	B19	Room 10	FLOOR	Black Mastic				
	B20	Room +	FLOOR	Beige 9x9 Floor				
Samples Collected By	Jamie Marsha U	Date	12/2/09	Samples Relinquished By	NIA	Date		Method of Shipment
Samples Received By	Jamie Marsha U	Time	1600	Samples Relinquished By		Time		Sample Notes
Samples Received By		Date		Samples Relinquished By		Date		Condition Upon Receipt
		Time		Samples Relinquished By		Time		Turn-Around-Time

Turn-Around-Time
Standard
Rush
Immediate

Fluorescence Microscopy	PCM
Polarized Light Microscopy	PLM

Sample Media
Micro-Vacuum
Mold Plate
Spore Trap
Swab
Tape-Lift

205

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

NIA

Phone: (405) 616-0401  
 Fax: (405) 681-6753  
 marshenv@swbcll.net

# Chain of Custody Marshall Environmental Management, Inc.

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

PROJECT		INVOICE TO										REPORT TO									
Project Number	Client/Company	Client/Company	Company	Attention	Address	Phone Number	Email	Sample Media (see insert)	Sample Matrix (Air, Surface, etc.)	Sample Composition/Material (sheetrock, caulk, floor tile, etc.)	Location of Sample (win area, north wall, ceiling, under carpet, etc.)	Sample Area (room #, se bedroom, lobby 1st fl, etc.)	Sample Id. # (field id.)	Sample Collection Date	Sample Time (Start/Stop or duration)	Calibrated Flow Rate	Total Volume/Area	Analysis Parameters			
								N/A	Bulk	Black Mastic	Floor	Room 10	B21	12/2/09	N/A	N/A	N/A	RAM Asbestos			
										Ceiling Tile	Ceiling	Room 11	B22								
										12 x 12 Floor tile	Floor	Room 11	B23								
										Yellow Mastic	Floor	Rm 11	B24								
										Beige & Tan 12x12 Floor Tile	Floor	Room 12	B25								
										Yellow Mastic	Floor	Room 12	B26								
										12x12 Floor tile	Floor	Room 17	B27								
										Black Mastic	Floor	Room 17	B28								
										Grey 9x9 Floor tile	Floor	Room 19	B29								
										Black Mastic	Floor	Room 19	B30								
Sample Collected By	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time
	Jamie Marshall	12/2/09	1600	N/A																	
Sample Received By	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time
Sample Received By	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time	Signature	Date	Time

Sample Media	Micro-Vacuum	MV	Phase Contrast Microscopy	PCM	Turn-Around-Time	Standard	5-7 Business Days
Mold Plate	MP	Polarized Light Microscopy	PLM	Rush	Next Day	Immediate	Same Day
Spore Trap	ST						
Swab	SW						
Tube-IR	TL						

Phone: (405) 616-0401  
 Fax: (405) 681-6753  
 marshenv@swbell.net

# Chain of Custody Marshall Environmental Management, Inc.

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

PROJECT				INVOICE TO				REPORT TO									
Project Number	Client/Company	Client/Company	Client/Company	Project Name	Attention	Attention	Attention	Project Address	Address	Address	Address	Project Phone Number	Phone Number	Phone Number	Project Email	Email	Email
Sample Collection Date	Sample id. # (field id.)	Sample Area (room #1, or bathroom, lobby, etc.)	Location of Sample (with area) (north wall, ceiling, under carpet, etc.)	Sample Composition/Material (chests, rock, caulk, floor tile, etc.)	Sample Matrix (Air, Adhesive, etc.)	Sample Media (see legend)	Sample Type (see legend)	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop
12/2/09	B31	Room 24	West Ceiling	Bed Mud	Blank	N/A	N/A										
	B32	Room 24	Ceiling	Drywall													
	B33	Room 24	Ceiling	Bed Tape													
	B34	Room 25	Ceiling	Bed Mud													
	B35	Room 25	Ceiling	Drywall													
	B36	Room 25	Ceiling	Bed Mud													
	B37	Room 29	Turn & Brown 12x12 Floor tile	Floor													
	B39	Room 34	Floor	Black Mastic													
	B40	Room 34	Floor	Yellow Mastic													
Sample Collected By	Signature	Date	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Time	Time
	Samie Marshall	12/2/09	1600														
Sample Received By	Signature	Date	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Time	Time
Sample Received By	Signature	Date	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Signature	Date	Time	Time	Time	Time

Standard	Turn-Around-Time
Rush	5-7 Business Days
Immediate	Next Day
	Same Day

Phase Contrast Microscopy	PCM
Polarized Light Microscopy	PLM

Sample Media	
Micro-Vacuum	MF
Mold Plate	MP
Spore Trap	ST
Swab	SW
Tape-Lift	TL

**Chain of Custody**  
**Marshall Environmental Management, Inc.**

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

PROJECT										INVOICE TO										REPORT TO															
Project Number			Client/Company			Company Attention			Address			Phone Number			Email			Client/Company			Company Attention			Address			Phone Number			Email					
Project Name			Client/Company			Company Attention			Address			Phone Number			Email			Client/Company			Company Attention			Address			Phone Number			Email					
Project Address			Client/Company			Company Attention			Address			Phone Number			Email			Client/Company			Company Attention			Address			Phone Number			Email					
Site			Client/Company			Company Attention			Address			Phone Number			Email			Client/Company			Company Attention			Address			Phone Number			Email					
Sample Collection Date			Sample Area			Location of Sample			Sample Matrix			Sample Media			Sample Time			Calibrated			Total			Analysis/Parameters											
12/2/09			Rm 33			Boys Rm			BULK			N/A			N/A			N/A			N/A			PLM Asbestos											
↓			Rm 33			Floor			Black Mastic			↓			↓			↓			↓			↓			↓			↓					
↓			Rm 27			4x4 Ceiling			4x4 Ceiling			↓			↓			↓			↓			↓			↓			↓					
↓			Room 35			Ceiling			Bed mud			↓			↓			↓			↓			↓			↓			↓					
↓			Room 35			Ceiling			Bed tape			↓			↓			↓			↓			↓			↓			↓					
↓			Room 35			Ceiling			Drywall			↓			↓			↓			↓			↓			↓			↓					
Samples Collected By			Date			Time			Signature			Date			Time			Signature			Date			Time			Signature			Date			Time		
↓			12/2/09			1600			↓			↓			↓			↓			↓			↓			↓			↓			↓		
Samples Received By			Date			Time			Signature			Date			Time			Signature			Date			Time			Signature			Date			Time		
↓			12/2/09			1600			↓			↓			↓			↓			↓			↓			↓			↓			↓		
Samples Received By			Date			Time			Signature			Date			Time			Signature			Date			Time			Signature			Date			Time		
↓			12/2/09			1600			↓			↓			↓			↓			↓			↓			↓			↓			↓		

Sample Media	Micro-Vacuum	MV
Mold Plate	MP	MP
Spore Trap	ST	ST
Swab	SW	SW
Tape-Lift	TL	TL

Phase Contrast Microscopy	PCM
Polarized Light Microscopy	PLM

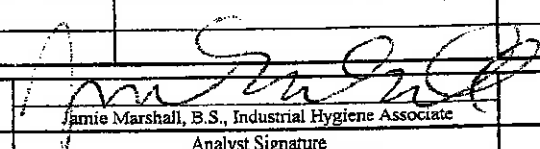
Turn-Around-Time	Standard	5-7 Business Days
	Rush	Next Day
	Immediate	Same Day

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected	
			Color	White		
0144-120209-CJM-PLM-1	December 2, 2009	Room 2	Color	White		95% Cellulose
		Ceiling Tile	Condition	Good		5% Perlite
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-2	December 2, 2009	Room 3	Color	Tan		<1% Cellulose
		12"x12" Floor Tile	Condition	Good		99% Vinyl Aggregate
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-3	December 2, 2009	Room 3	Color	Brown		100% Adhesive
		Brown Mastic	Condition	Good		
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-4	December 2, 2009	Room 10	Color	Beige and Tan Rock		1% Cellulose
		9"x9" Floor Tile	Condition			1% Synthetic Fibers
			Type			98% Vinyl Aggregate
			Note			
0144-120209-CJM-PLM-5	December 2, 2009	Room 10	Color	Black		5% Cellulose
		Black Mastic	Condition	Good		95% Tar
			Type	Miscellaneous		
			Note			

Jamie Marshall		December 23, 2009
Analyst Name (Print)	Jamie Marshall, B.S., Industrial Hygiene Associate	Date Analyzed

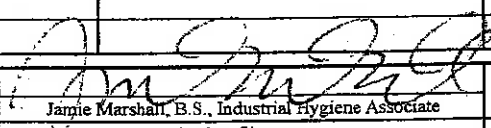
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
		Room	Area	Color	Condition	Material	Percentage
0144-120209-CJM-PLM-6	December 2, 2009	Room 10		Color	Beige		1% Cellulose
		9"x9" Floor Tile		Condition	Good		99% Vinyl Aggregate
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-7	December 2, 2009	Room 10		Color	Black		5% Cellulose
		Black Mastic		Condition	Good		5% Aggregate Material
				Type	Miscellaneous		90% Tar
				Note			
0144-120209-CJM-PLM-8	December 2, 2009	Room 10		Color	Beige		1% Cellulose
		9"x9" Floor Tile		Condition	Good		99% Vinyl Aggregate
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-9	December 2, 2009	Room 10		Color	Black Mastic		5% Cellulose
		Black Mastic		Condition	Good		5% Aggregate Material
				Type	Miscellaneous		90% Tar
				Note			
0144-120209-CJM-PLM-10	December 2, 2009	Room 10		Color	Beige/Tan/Brown		1% Cellulose
		9"x9" Floor Tile		Condition	Good		99% Vinyl Aggregate
				Type	Miscellaneous		
				Note			

Jamie Marshall Analyst Name (Print)	 Jamie Marshall, B.S., Industrial Hygiene Associate Analyst Signature	December 23, 2009 Date Analyzed
--	---	------------------------------------

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

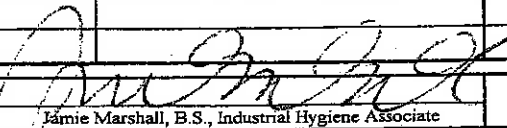


# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@den.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
		Room	Material	Color	Condition	Material	Percentage
0144-120209-CJM-PLM-11	December 2, 2009	Room 10	Black Mastic	Black	Good	Cellulose	5%
						Aggregate Material	5%
						Tar	90%
0144-120209-CJM-PLM-12	December 2, 2009	Room 10	9"x9" Floor Tile	Tan/Brown Specks	Good	Cellulose	<1%
						Vinyl Aggregate	99%
0144-120209-CJM-PLM-13	December 2, 2009	Room 10	Black Mastic	Beige/Brown Specks	Good	Cellulose	5%
						Aggregate Material	5%
						Tar	90%
0144-120209-CJM-PLM-14	December 2, 2009	Room 10	9"x9" Floor Tile	Beige/Green/Gold	Good	Cellulose	1%
						Vinyl Aggregate	99%
0144-120209-CJM-PLM-15	December 2, 2009	Room 10	Black Mastic	Black	Good	Cellulose	5%
						Aggregate Material	5%
						Tar	90%

Jamie Marshall Analyst Name (Print)	 Jamie Marshall, B.S., Industrial Hygiene Associate Analyst Signature	December 23, 2010 Date Analyzed
--	---	------------------------------------

Test Method: 40 CFR Chapter 1, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Army Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
		Room	Material	Color	Condition	Material	Percentage
0144-120209-CJM-PLM-16	December 2, 2009	Room 10		Beige		1% Cellulose	
		9"x9" Floor Tile		Good		99% Vinyl Aggregate	
				Miscellaneous			
				Note			
0144-120209-CJM-PLM-17	December 2, 2009	Room 10		Black		5% Cellulose	
		Black Mastic		Good		5% Aggregate Material	
				Miscellaneous		90% Tar	
				Note			
0144-120209-CJM-PLM-18	December 2, 2009	Room 10		Beige		1% Cellulose	
		9"x9" Floor Tile		Good		99% Vinyl Aggregate	
				Miscellaneous			
				Note			
0144-120209-CJM-PLM-19	December 2, 2009	Room 10		Black		5% Cellulose	
		Black Mastic		Good		5% Aggregate Material	
				Miscellaneous		90% Tar	
				Note			
0144-120209-CJM-PLM-20	December 2, 2009	Room 10		Green/Gold		1% Cellulose	
		9"x9" Floor Tile		Good		99% Vinyl Aggregate	
				Miscellaneous			
				Note			

Jamie Marshall <small>Analyst Name (Print)</small>	 <small>Analyst Signature</small>	December 23, 2009 <small>Date Analyzed</small>
---	--------------------------------------	---

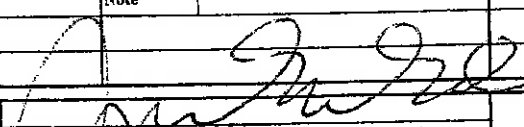
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Annory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected	
			Color	Condition		
0144-120209-CJM-PLM-21	December 2, 2009	Room 10	Black	Good		5% Cellulose
		Black Mastic				5% Aggregate Material
			Miscellaneous			90% Tar
			Note			
0144-120209-CJM-PLM-22	December 2, 2009	Room 11	White	Good		60% Fibrous Glass
		Ceiling Tile				40% Calcareous Material
			Miscellaneous			
			Note			
0144-120209-CJM-PLM-23	December 2, 2009	Room 11	Tan	Good		100% Vinyl Aggregate
		12"x12" Floor Tile				
			Miscellaneous			
			Note			
0144-120209-CJM-PLM-24	December 2, 2009	Room 11	Yellow	Good		100% Adhesive
		Yellow Mastic				
			Miscellaneous			
			Note			
0144-120209-CJM-PLM-25	December 2, 2009	Room 12	Beige/Tan	Good		100% Vinyl Aggregate
		12"x12" Floor Tile				
			Miscellaneous			
			Note			

Jamie Marshall		December 23, 2009
Analyst Name (Print)	Jamie Marshall, B.S., Industrial Hygiene Associate	Date Analyzed

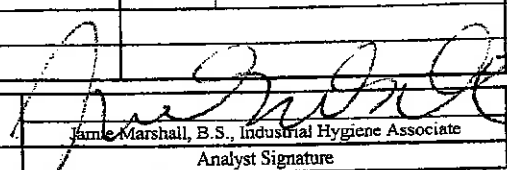
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
		Room	Material	Color	Condition	Asbestos Type	Percentage
0144-120309-CJM-PLM-26	December 2, 2009	Room 12	Yellow Mastic	Color	Yellow		100% Adhesive
				Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-27	December 2, 2009	Room 17	12"x12" Floor Tile Under Carpet	Color	Beige		1% Cellulose
				Condition	Good		99% Vinyl Aggregate
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-28	December 2, 2009	Room 17	Black Mastic Under Carpet	Color	Black	3% Chrysotile	1% Cellulose
				Condition	Good		96% Tar
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-29	December 2, 2009	Room 19	9"x9" Floor Tile	Color	Grey	3% Chrysotile	97% Vinyl Aggregate
				Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-30	December 2, 2009	Room 19	Black Mastic	Color	Black	2% Chrysotile	1% Cellulose
				Condition	Good		97% Tar
				Type	Miscellaneous		
				Note			

Jamie Marshall Analyst Name (Print)	 Jamie Marshall, B.S., Industrial Hygiene Associate Analyst Signature	December 23, 2009 Date Analyzed
--	---	------------------------------------

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		2% Asbestos Detected	
			Color	Beige	2% Chrysotile	98% Calcareous Material
0144-120209-CJM-PLM-31	December 2, 2009	Room 24		Beige		
		Bed Mud	Condition	Good		
			Type	Surfacing		
			Note			
0144-120209-CJM-PLM-32	December 2, 2009	Room 24	Color	Beige		
		Drywall	Condition	Good		100% Cellulose
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-33	December 2, 2009	Room 24	Color	Beige		1% Cellulose
		Bed Tape	Condition	Good		98% Calcareous Material
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-34	December 2, 2009	Room 25	Color	Beige	2% Chrysotile	98% Calcareous Material
		Bed Mud	Condition	Good		
			Type	Miscellaneous		
			Note			
0144-120209-CJM-PLM-35	December 2, 2009	Room 25	Color	Beige		1% Cellulose
		Drywall	Condition	Good		98% Calcareous Material
			Type	Miscellaneous		
			Note			

Jamie Marshall Analyst Name (Print)	 Jamie Marshall, B.S., Industrial Hygiene Associate Analyst Signature	December 23, 2009 Date Analyzed
--	---	------------------------------------

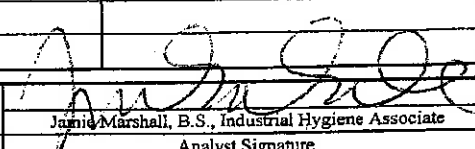
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
		Room	Material	Color	Condition	Asbestos Type	Percentage
0144-120209-CJM-PLM-36	December 2, 2009	Room 25		Color	Beige		100% Cellulose
		Bed Tape		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-37	December 2, 2009	Room 29		Color	Tan/Brown		100% Vinyl Aggregate
		12"x12" Floor Tile		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-38	December 2, 2009	Room 29		Color	Black		2% Cellulose
		Black Mastic		Condition	Good		98% Tar
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-39	December 2, 2009	Room 34		Color	Tan/Beige	2% Chrysotile	98% Vinyl Aggregate
		9"x9" Floor Tile		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-40	December 2, 2009	Room 34		Color	Yellow		100% Adhesive
		Yellow Mastic		Condition	Good		
				Type	Miscellaneous		
				Note			

Jamie Marshall		December 23, 2009
Analyst Name (Print)	Jamie Marshall, B.S., Industrial Hygiene Associate	Date Analyzed

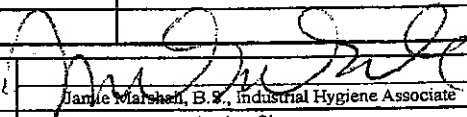
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location		Sample Description		No Asbestos Detected	
				Color			
0144-120209-CJM-PLM-41	December 2, 2009	Room 33		Color	Beige		100% Vinyl
		12"x12" Floor Tile		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-42	December 2, 2009	Room 33		Color	Black		100% Adhesive
		Black Mastic		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-43	December 2, 2009	Room 27		Color	Yellow		100% Fibrous Glass
		4'x4' Ceiling Tile		Condition	Good		
				Type	Miscellaneous		
				Note			
0144-120209-CJM-PLM-44	December 2, 2009	Room 35		Color	Beige	2% Chrysotile	1% Cellulose
		Bed Mud		Condition	Good		96% Calcareous Material
				Type	Surfacing		
				Note			
0144-120209-CJM-PLM-45	December 2, 2009	Room 35		Color	Beige		100% Cellulose
		Bed Tape		Condition	Good		
				Type	Miscellaneous		
				Note			

Jamie Marshall		December 23, 2009
Analyst Name (Print)	Jamie Marshall, B.S., Industrial Hygiene Associate	Date Analyzed

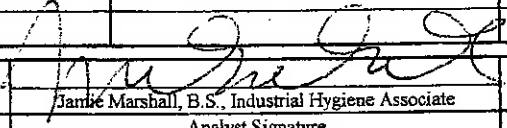
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

# Marshall Environmental Management, Inc.

## Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Id.	0145-AB-120209-PLM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name/Type	Perry Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	309 N. 14th Street Perry, OK 73077-6207	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact		Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #		Cell #		Cell #	
email		email	Cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

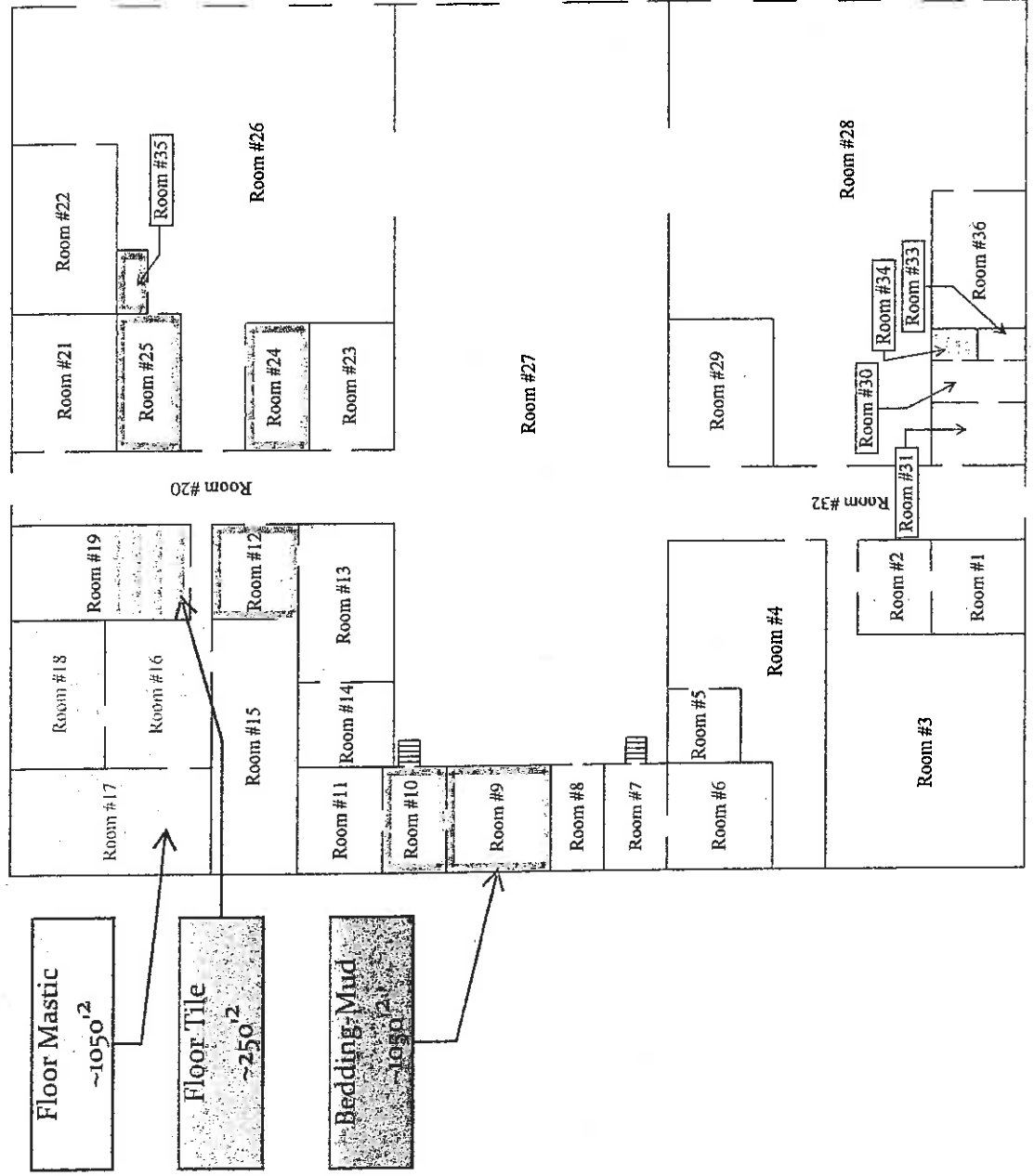
Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
			Color	Condition			
0144-120209-CJM-PLM-46	December 2, 2009	Room 35	Beige	Good		1% Cellulose	
		Drywall		Miscellaneous		99% Calcareous Material	
		Sample Location	Sample Description				
			Color				
			Condition				
			Type				
			Note				
		Sample Location	Sample Description				
			Color				
			Condition				
			Type				
			Note				
		Sample Location	Sample Description				
			Color				
			Condition				
			Type				
			Note				
		Sample Location	Sample Description				
			Color				
			Condition				
			Type				
			Note				

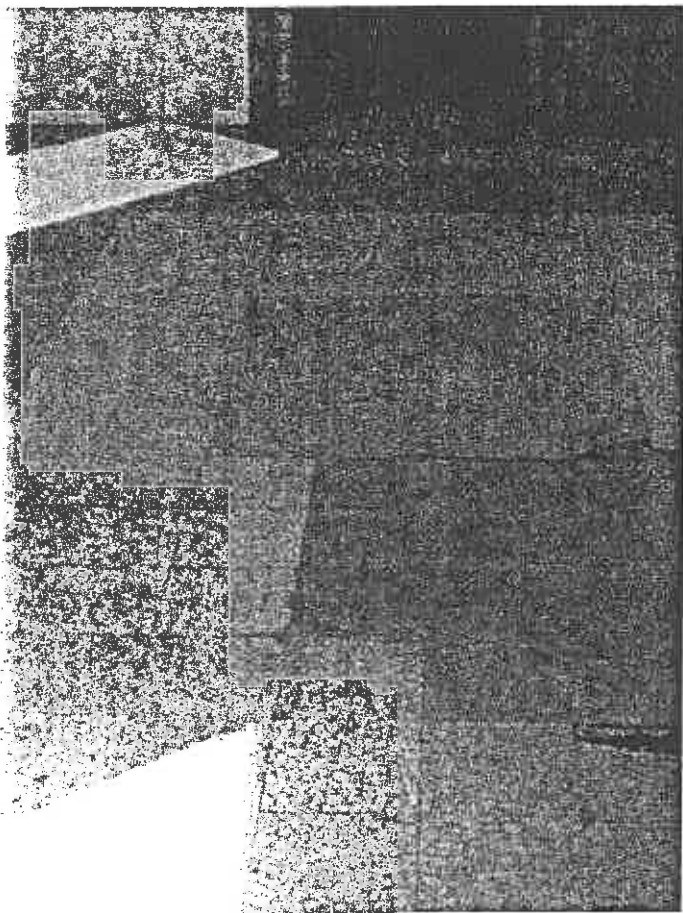
Jamie Marshall Analyst Name (Print)	 Jamie Marshall, B.S., Industrial Hygiene Associate Analyst Signature	December 23, 2009 Date Analyzed
--	---	------------------------------------

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

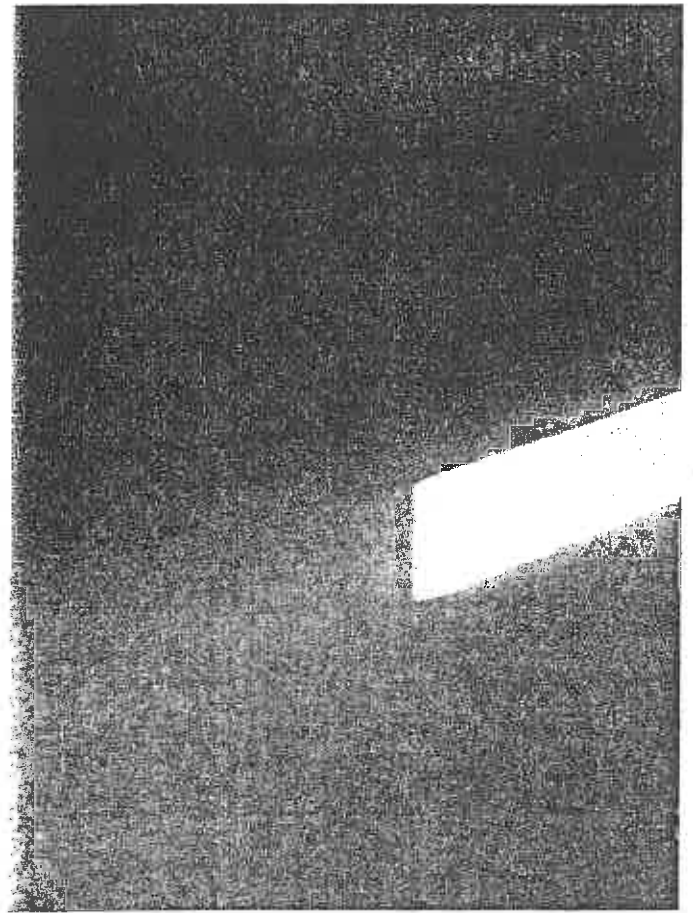


# Perry Armory Homogenous Asbestos Containing Materials

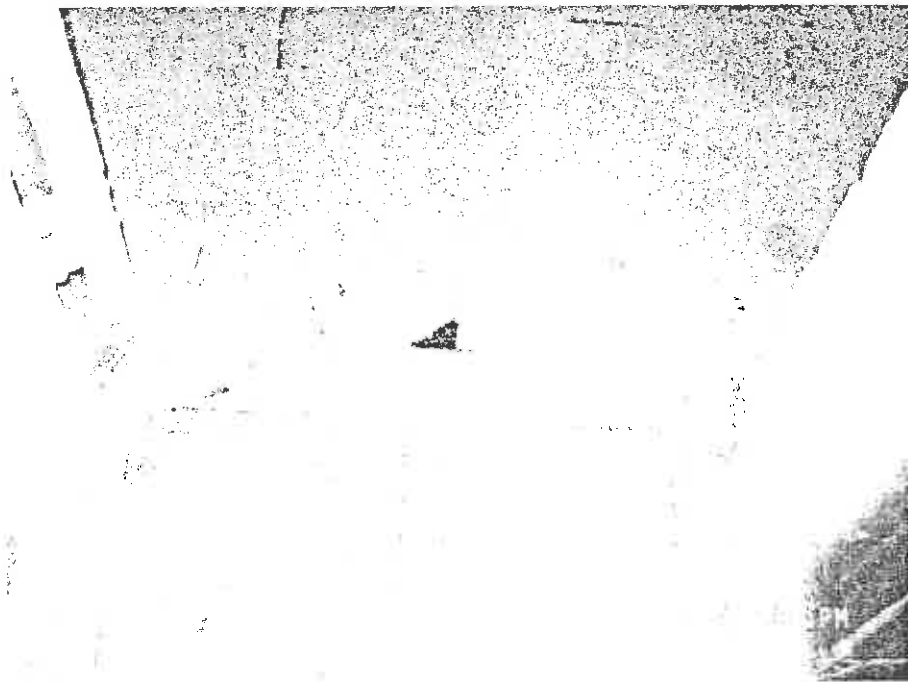




Room 10 Negative Floor Tile



Room 15 Negative Floor Tile



Room 16 and Room 19 Positive Mastic

FEE: \$500.00

Oklahoma Department of Labor



Charles Marshall

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 MANAGEMENT PLANNER

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-MP130246.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

July 08, 2009

Date of Issuance

EXPIRES: July 01, 2010

Oklahoma Department of Labor

FEE: \$25.00



**Jamie Marshall**

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. **OK158090**.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

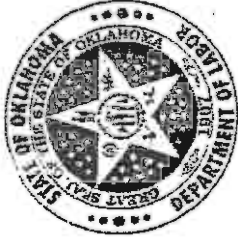
June 05, 2009

Date of Issuance

**EXPIRES: June 03, 2010**

FEE: \$0.00

Oklahoma  
Department of Labor



**Charles Marshall**

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-PD140028**.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

April 09, 2009

Date of Issuance

**EXPIRES: April 03, 2010**

**RECEIVED**

FEB 24 2010

LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**Lead-Based Paint Inspection  
And  
Settled Dust Sampling**

**Perry Armory**  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma 73077-6207

December 2, 2009

**DCS Contract NO.: ID009139-4**

***PROVIDED FOR***

Oklahoma Department of Environmental Quality  
Land Protection Division  
707 North Robinson  
Oklahoma City, OK 73102

***PROVIDED BY***

**Marshall Environmental Management, Inc.**  
1601 Southwest 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, OK 73159

# Table of Contents

CERTIFICATION .....	3
Current Owner Information .....	3
Certified Lead Based Paint Risk Assessor/Inspector.....	3
Certified Lead-Based Paint Firm .....	3
XRF Information.....	3
EXECUTIVE SUMMARY .....	4
SAMPLING METHODOLOGY .....	4
Lead-Based Paint .....	4
Lead-Laden Dust.....	5
FINDINGS.....	5
Table I: Painted Doors & Doorjams .....	5
Table II: Painted Miscellaneous Surfaces.....	6
Table III: Surfaces.....	7
DISCLOSURE STATEMENT AND OWNERS LEGAL OBLIGATION.....	8
LEAD-BASED PAINT INFORMATION.....	9
APPENDIX.....	10

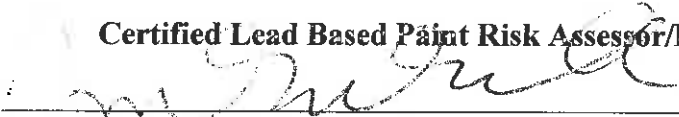
**CERTIFICATION**

This is to certify, that Marshall Environmental Management, Inc. was contracted by the State of Oklahoma, Department of Central Services to conduct a Lead-Based Paint Inspection and Settled Dust Sampling within the Perry Armory, for the State of Oklahoma Department of Environmental Quality, Land Protection Division. The Perry Armory Lead-Based Paint Inspection and Settled Dust Sampling was performed by an Oklahoma Department of Environmental Quality Certified, Lead-Based Paint Inspector/Risk Assessor, Jamie Marshall of Marshall Environmental Management, Inc., under the direction of Dr. Charles L. Marshall, Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The analytical results associated with this Lead-Based Paint Inspection and Settled Dust Sampling are believed to accurately, reflect the locations and concentrations of paint and dust containing lead.

**Current Owner Information**

State of Oklahoma

**Certified Lead Based Paint Risk Assessor/Inspector**

  
Jamie Marshall, B.S., Industrial Hygiene Associate

2-12-10  
Date

Oklahoma Department of Environmental Quality Certification Number: OKRASR13418

**Certified Lead-Based Paint Firm**

**Marshall Environmental Management, Inc.**  
1601 SW 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, OK 73159  
(405) 616-0401

Oklahoma Department of Environmental Quality Certification Number: OKFIRM11160

**XRF Information**

Niton XLp Spectrum Analyzer  
Model #XLp 300A  
Serial #12585  
Source: 40 mCi

**Information Reviewed & Approved By:**

  
Dr. Charles L. Marshall, C.I.H., C.S.P.

2-12-10  
Date



## EXECUTIVE SUMMARY

Marshall Environmental Management, Inc. performed a Lead-Based Paint Inspection (LBP), in addition to collecting samples of settled dust on December 2, 2009 within the Perry Armory, located at 309 North 14<sup>th</sup> Street in Perry, Oklahoma. This sampling event was accomplished in order to evaluate the locations and condition of lead-based paint, in addition to identifying the concentrations of lead in lead-laden dust, which may be present, so that a strategy may be prepared for remediation and/or abatement purposes.

The analytical results associated with the samples that were collected as part of this Lead-Based Paint Inspection did identify lead-based paint on various doors, doorjambs, stair rails and wall surfaces throughout the Armory. Additionally, the concentrations of lead detected in the majority of the dust wipe samples that were collected from the common areas throughout the Armory, outside of the Indoor Firing Range (IFR), exceeded the United States Department of Housing and Urban Development (HUD) guidelines and the Environmental Protection Agency (EPA) proposed regulations of 40-micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ). Furthermore, the lead concentrations correlating with the 2-samples collected within the IFR exceeded an action level of 200- $\mu\text{g}/\text{ft}^2$  set forth by the Departments of the Army National Guard (ARNG) and the Air Force National Guard (ANG) Bureau.

Specific sampling locations and the analytical data related to this Inspection and Surface-Dust Sampling Event are listed in the Findings portion of this Report. The remainder of this Report includes the Sampling Methodology, the Findings, the Disclosure Statement and Owners Legal Obligation as well as information regarding lead-based paint.

## SAMPLING METHODOLOGY

All painted surfaces within the Armory are representatively sampled and analyzed for lead content, excluding non-fixed and factory painted items. Various floor surfaces throughout the Armory are also sampled and analyzed for lead-laden dust. The sample collection and analysis are performed in accordance with HUD guidelines, "*HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*"; and EPA proposed regulations, 40 Code of Federal Regulations (CFR) part 745.

### **Lead-Based Paint**

Painted surfaces within the Armory are sampled and analyzed for lead content by utilizing an X-Ray Fluorescence (XRF), direct reading, data logging instrument. Lead concentrations identified as greater than or equal to 1-milligram per square centimeter ( $\text{mg}/\text{cm}^2$ ) are characterized as "Lead-Based Paint." per HUD guidelines and EPA proposed regulations. The street facing side of the Armory is identified as Side A and going in a clockwise direction, the remaining sides are categorized as Side B, Side C and Side D respectively. Each door and window within the Armory is given a sequential number that corresponds with a floor plan included in the Appendix of this Report.

**Lead-Laden Dust**

Floor surfaces throughout the Armory are sampled and analyzed for lead-laden dust. According to HUD guidelines and EPA proposed regulations, analytical results with lead concentrations equal to or greater than 40- $\mu\text{g}/\text{ft}^2$  represent lead contamination; this action level applies to all surfaces within the Armory excluding the IFR. In accordance with the Departments of the ARNG and the ANG Bureau guidelines, "*Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges*", lead concentrations equal to or greater than 200- $\mu\text{g}/\text{ft}^2$  represent lead contamination within an IFR. Samples of settled dust are collected by placing a template of a known dimension firmly against a selected surface; next, the area within the template is wiped in a particular pattern utilizing a specified wipe; each sample is then given an identification number; lastly, the wipe is placed in an approved container for transportation purposes.

**FINDINGS**

The analytical results associated with this Lead-Based Paint Inspection and Settled Dust Sampling did discover lead-based paint and lead-laden dust on various surfaces throughout the Perry Armory. The following tables list and categorize sampling locations and correlating analytical results.

**Table I: Painted Doors & Doorjamb**

<b>Door Number</b>	<b>Door Result</b>	<b>Doorjamb Result</b>	<b>Dimensions (Width x Height)</b>
1	<b>Positive</b>	<b>Positive</b>	64" x 82"
2	No Door	<b>Positive</b>	40" x 82"
3	<b>Positive</b>	<b>Positive</b>	34" x 82"
4	Negative	<b>Positive</b>	31" x 84"
5	<b>Positive</b>	<b>Positive</b>	41" x 86"
6	<b>Positive</b>	<b>Positive</b>	40" x 84"
7	<b>Positive</b>	<b>Positive</b>	41" x 84"
8	Negative	Negative	N/A
9	<b>Positive</b>	<b>Positive</b>	52" x 88"
10	<b>Positive</b>	<b>Positive</b>	41" x 84"
11	<b>Positive</b>	<b>Positive</b>	52" x 82"
12	<b>Positive</b>	<b>Positive</b>	111" x 118"
13	<b>Positive</b>	<b>Positive</b>	41" x 84"
14	<b>Positive</b>	<b>Positive</b>	41" x 82"
15	No Door	<b>Positive</b>	41" x 82"
16	<b>Positive</b>	<b>Positive</b>	41" x 82"
17	<b>Positive</b>	<b>Positive</b>	32" x 82"
18	<b>Positive</b>	<b>Positive</b>	40" x 84"
19	<b>Positive</b>	<b>Positive</b>	41" x 84"
20	Negative	Negative	N/A
21	<b>Positive</b>	<b>Positive</b>	41" x 84"

Door Number	Door Result	Doorjamb Result	Dimensions (Width x Height)
22	Positive	Positive	39.5" x 84"
23	Positive	Positive	39.5" x 84"
24	Positive	Positive	52" x 86"
25	Negative	Negative	N/A
26	Positive	Positive	39" x 84"
27	Negative	Negative	N/A
28	Positive	Positive	41" x 84"
29	Negative	Negative	N/A
30	Negative	Negative	N/A
31	Positive	Positive	41" x 84"
32	Positive	Positive	32" x 82"
33	No Door	Positive	32" x 82"
34	No Door	Positive	41" x 84"
35	Positive	Positive	82"x64"
36	Positive	Positive	41" x 84"
37	No Door	Negative	N/A
38	Positive	Positive	41" x 84"
39	Positive	Positive	41" x 84"
40	No Door	Positive	76" x 81"
41	Positive	Positive	111" x 118"
42	No Door	Positive	76" x 81"
43	Negative	Negative	N/A
44	Negative	Negative	N/A
45	Negative	Negative	N/A
46	Positive	Positive	41" x 84"
47	Negative	Negative	N/A
48	Negative	Negative	N/A

**Table II: Painted Miscellaneous Surfaces**

Room Number/Name	Location	Description
Exterior	Side C2	White Metal Roof Drain
Exterior	Side A1	White Metal Roof Drain #1
Exterior	Side A3	White Metal Roof Drain #1
Exterior	Side C	White Metal Roof Drain#1
Exterior	Side A1	White Metal Roof Drain #2
Exterior	Side A3	White Metal Roof Drain #2
Exterior	Side A2	White Wood Overhead Door
Exterior	Side A1	White Wood Overhead Door #1
Exterior	Side A1	White Wood Overhead Door #4
Exterior	Side A2	White Metal Overhead Doorjamb #1
Exterior	Side A1	White Metal Overhead Doorjamb #1

Room Number/Name	Location	Description
Exterior	Side A1	White Metal Overhead Doorjamb #3
Exterior	Side A3	White Metal Overhead Doorjamb #3
Exterior	Side D2	Concrete Doorway Overhang
Exterior	Side B2	Concrete Doorway Overhang
Exterior	Side B2	White Wood Door
Exterior	Side D2	White Wood Door
Exterior	Side B2	Metal Door Frame
Exterior	Side D2	Metal Door Frame
Exterior	Side A2	Metal Door Frame #1
Exterior	Side A2	Metal Door Frame #2
Room 27	Side C	White Concrete Ledge Below Mural
Room 27	Side C South	Brown Metal Stair Rail
Room 27	Side C North	Brown Metal Stair Rail
Room 4	Side B	Red Paint on Concrete Wall
Room 12	Side A	White Concrete Wall
Room 12	Side D	White Concrete Wall
Room 13	Side A	White Concrete Wall
Room 13	Side B	White Concrete Wall
Room 13	Side C	White Concrete Wall
Room 15	Side B	White Concrete Wall
Room 15	Side C-1	White Concrete Wall
Room 15	Side A-2	White Concrete Wall
Room 15	Side D	White Concrete Wall
Room 15	Side C-2	White Concrete Wall
Room 15	Side D	Green Concrete Wall
Room 27	Side D	White Concrete Wall
Room 30	Side B	Green Sheetrock Wall
Room 33	Side A	Grey Concrete Wall

**Table III: Surfaces**

Sample Number	Sample Location	Concentration ( $\mu\text{g}/\text{ft}^2$ )	Clearance Level ( $\mu\text{g}/\text{ft}^2$ )
1	Room 1	53.57	40
2	Room 2	63.81	40
3	Room 3	25.38	40
4	Room 4	282.05	40
5	Room 5	318.92	40
6	Room 6	129.08	40
7	Room 7	128.97	40
8	Room 8	261.13	40
9	Room 9	86.29	40
10	Room 10	120.66	40

Sample Number	Sample Location	Concentration ( $\mu\text{g}/\text{ft}^2$ )	Clearance Level ( $\mu\text{g}/\text{ft}^2$ )
11	Room 11	<b>51.79</b>	40
12	Room 12	<b>211.21</b>	40
13	Room 13	<b>360.23</b>	40
14	Room 14	<b>591.56</b>	40
15	Room 15	<b>74.67</b>	40
16	Room 16	31.62	40
17	Room 17	<b>85.81</b>	40
18	Room 18	21.33	40
19	Room 19	<b>49.37</b>	40
20	Room 20	35.73	40
21	Room 21	<b>51.09</b>	40
22	Room 22	25.24	40
23	Room 23	<b>198.90</b>	40
24	Room 24	<b>168.53</b>	40
25	Room 25	<b>64.56</b>	40
26	Room 26	<b>116.75</b>	40
27	Room 27 East	<b>79.04</b>	40
28	Room 27 Center	<b>164.66</b>	40
29	Room 27 West	28.16	40
30	Room 27 Composite	<b>73.37</b>	40
31	Room 28	<b>59.71</b>	40
32	Room 29	33.03	40
33	Room 30	<21.33	40
34	Room 31	31.77	40
35	Room 32	<b>66.49</b>	40
36	Room 33	<b>164.44</b>	40
37	Room 34	<b>295.83</b>	40
38	Room 35	<b>94.75</b>	40
39	Room 36	<b>150.95</b>	40
40	Indoor Firing Range Front	<b>2280.93</b>	200
41	Indoor Firing Range Rear	<b>9999.33</b>	200

Specific sampling locations, chain of custody forms, the analytical data and the labeled floor plans related to this Lead-Based Paint Inspection and Surface-Dust Sampling Event are included in the Appendix of this Report.

#### **DISCLOSURE STATEMENT AND OWNERS LEGAL OBLIGATION**

Federal law requires, to the extent this facility would be covered by HUD guidelines and EPA proposed regulations, that analytical results associated with Lead-Based Paint Inspections/Risk Assessments be disclosed to prospective renters, lessees or tenants entering into or renewing a lease, or to prospective purchasers prior to obligation under a sales contract if lead-based paint is found. If the inspection finds that lead-based paint is not present in certain multifamily dwelling units, which are to be leased, the dwelling unit(s) is exempt from disclosure requirements.

Marshall Environmental Management, Inc.

However, for dwelling units, which are being sold, not leased the owner still has certain legal responsibilities to fulfill under Federal law **even if no lead-based paint is identified**. Property owners and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that information is provided in order to protect children from lead-based paint hazards.

Information regarding the legal obligation to disclose results associated with lead-based paint inspections and/or risk assessments to tenants and/or purchasers can be obtained from the National Lead Information Center Clearinghouse (1-800-424-LEAD). This information is specified in 24 CFR, part 35 and 40 CFR, part 745 (published in the *Federal Register*, Volume 61, Number 45, April 6, 1996, beginning on p. 9064).

#### **LEAD-BASED PAINT INFORMATION**

You may contact the National Lead Information Center Clearinghouse (1-800-424-LEAD) to obtain HUD and EPA brochures, question and answer booklets, the regulations mentioned in this report and other information regarding lead-based paint disclosure.

## **APPENDIX**

### **Chain of Custody Analytical Data**

#### **XRF Data**

#### **Certificates**

#### **Digital Photographs**

#### **Labeled Floor Plans Doors and Doorjamb Miscellaneous Surfaces**

178371

1601 SW 89th St. Ste. A-100  
Oklahoma City, OK 73159

# Chain of Custody Marshall Environmental Management, Inc.

Phone: (405) 616-0401  
Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT				INVOICE TO				REPORT TO			
Project Number	0146-LBP-120209-JM	Client/Company		Client/Company		Client/Company		Client/Company		Client/Company	
Project Name		Attention		Attention		Attention		Attention		Attention	
Project Address		Address		Address		Address		Address		Address	
Site Contact		Phone Number		Phone Number		Phone Number		Phone Number		Phone Number	
Sample Collection Date	12/22/09	Sample Area (room #, l., se bedroom, lobby, 1st fl., etc.)	Room 1	Location of Sample (v. in area) (north w. wall, ceiling, under carpet, etc.)		Sample Composition/Material (sheetrock, caulk, floor tile, etc.)		Sample Matrix (Air, Aperture, etc.)	dust	Sample Media (see legend)	wip
Sample Id. # (field id.)	1	Sample Area	Room 1	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	2	Sample Area	Room 2	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	3	Sample Area	Room 3	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	4	Sample Area	Room 4	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	5	Sample Area	Room 5	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	6	Sample Area	Room 6	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	7	Sample Area	Room 7	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	8	Sample Area	Room 8	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	9	Sample Area	Room 9	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
	10	Sample Area	Room 10	Location of Sample		Sample Composition/Material		Sample Matrix		Sample Media	
Samples Collected By	James Marshall	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09
Samples Received By	James Marshall	Time	13:30	Time	12/21/09	Time	12/21/09	Time	12:30	Time	12:30
Samples Received By	James Marshall	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09
Samples Received By	James Marshall	Time	3:40	Time	3:40	Time	3:40	Time	3:40	Time	3:40
Samples Relinquished By	James Marshall	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09
Samples Relinquished By	James Marshall	Time	13:30	Time	12:30	Time	12:30	Time	12:30	Time	12:30
Samples Relinquished By	James Marshall	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09	Date	12/21/09
Samples Relinquished By	James Marshall	Time	3:40	Time	3:40	Time	3:40	Time	3:40	Time	3:40
Method of Shipment		Method of Shipment		Method of Shipment		Method of Shipment		Method of Shipment		Method of Shipment	
Sample Notes		Sample Notes		Sample Notes		Sample Notes		Sample Notes		Sample Notes	
Condition Upon Receipt		Condition Upon Receipt		Condition Upon Receipt		Condition Upon Receipt		Condition Upon Receipt		Condition Upon Receipt	
Time-Around-Time		Time-Around-Time		Time-Around-Time		Time-Around-Time		Time-Around-Time		Time-Around-Time	

Turn-Around-Time  
Standard 5-7 Business Days  
Rush NEXT DAY  
Immediate Same Day

Phase Contrast Microscopy PCM  
Polarized Light Microscopy PLM

Sample Media  
Micro-Vacuum MV  
Mold Plate MP  
Spore Trap ST  
Swab SW  
Tape-Lift TL



178371

1601 SW 89th St. Ste. A-100  
Oklahoma City, OK 73159

# Chain of Custody Marshall Environmental Management, Inc.

Phone: (405) 616-0401  
Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT				INVOICE TO				REPORT TO			
Project Number	0146-LBP-120209-JJM			Client/Company				Client/Company			
Project Name				Attention				Attention			
Project Address				Address				Address			
Site				Phone Number				Phone Number			
Contact				Email				Email			
Sample Collection Date	Sample Id. # (field id.)	Sample Area (room # 1, se bedroom, lobby 1st fl., etc.)	Location of Sample (win area) (north wall, ceiling, under carpet, etc.)	Sample Composition/Material (sheetrock, wall, floor tile, etc.)	Sample Matrix (Air, Spores, etc.)	Sample Media (see legend)	Sample Time (start/stop or duration)	Calibrated Flow Rate	Total Volume/Area	Analysis/Parameters	
12/2/09	11	Room 11					NA	NA	108 in <sup>2</sup>	Total Ph	
	12	Room 12									
	13	Room 13									
	14	Room 14									
	15	Room 15									
	16	Room 16									
	17	Room 17									
	18	Room 18									
	19	Room 19									
	20	Room 20									
Samples Collected By	James Marshall			Date	12/2/09	(print)	Date	12/21/09	Method of Shipment		
Samples Received By	S. L. Swiftwick			Time	13:30	(signature)	Time	12:30	Sample Notes		
Samples Retained By				Date	12/2/09	(print)	Date		Condition Upon Receipt		
				Time	3:40	(signature)	Time		Turn-Around-Time		
Samples Returned By				Date		(print)	Date				
				Time		(signature)	Time				

Sample Media	PCM
Micro-Vacuum	PLM
Mold Plate	
Spore Trap	
Swab	
Tap-Lift	

Standard	Turn-Around-Time
Rush	5-7 Business Days
Immediate	Next Day
	Same Day

178371

1601 SW 89th St. Ste. A-100  
Oklahoma City, OK 73159

# Chain of Custody Marshall Environmental Management, Inc.

Phone: (405) 616-0401  
Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT										INVOICE TO										REPORT TO																
Project Number			Client/Company			Project Name			Client/Company			Attention			Address			Phone Number			Email			Address			Phone Number			Email						
0146-LBP-120209-JM			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09			12/2/09						
Sample Collection Date	Sample Id. #	Sample Area	Location of Sample	Sample Matrix	Sample Media	Sample Time	Calibrated	Total	Analysis/Parameters	Start	Stop	Pre	Post	Start	Stop	Pre	Post	Start	Stop	Pre	Post	Start	Stop	Pre	Post	Start	Stop	Pre	Post	Start	Stop	Pre	Post			
12/2/09	21	Room 21		dust	Wipe	NA	NA	109 in <sup>2</sup>	Total Pb																											
	22	Room 22																																		
	23	Room 23																																		
	24	Room 24																																		
	25	Room 25																																		
	26	Room 26																																		
	27-E	Room 27 - East																																		
	27-C	Room 27 - Center																																		
	27-W	Room 27 - West																																		
	27-	Room 27 - Composite																																		
Samples Collected By	12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09			
Samples Received By	12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09		12/2/09	

Sample Media	PCM
Micro-Vacuum	MV
Mold Plate	MP
Spore Trap	ST
Swab	SW
Tape-Lift	TL

Phase Contrast Microscopy	PCM
Polarized Light Microscopy	PLM

Turn-Around-Time	Standard
	5-7 Business Days
	Next Day
	Immediate
	Same Day

178271

1601 SW 89th St. Ste. A-100  
Oklahoma City, OK 73159

### Chain of Custody Marshall Environmental Management, Inc.

Phone: (405) 616-0401  
Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT						INVOICE TO						REPORT TO							
Project Number		0146-LBP-120209-JM				Client/Company						Client/Company							
Project Name						Attention						Attention							
Project Address						Address						Address							
Site Contact		Phone Number		Sample Area		Phone Number		Email		Phone Number		Email		Phone Number		Email			
Sample Collection Date	Sample Id # (field id.)	Location of Sample (w/in area) (north wall, ceiling, under carpet, etc.)	Sample Composition/Material (sheetrock, caulk, floor tile, etc.)	Sample Matrix (Air, Agaves, etc.)	Sample Media (see legend)	Start (start/stop or duration)	Sample Time	Calibrated Flow Rate	Total Volume/Area	Analysis/Parameters	Start	Stop	Pre	Post	Date	Method of Shipment	Sample Notes	Condition Upon Receipt	Turn-Around-Time
12/2/09	28	Room 28		dust	Wipe		NA	NA	108 in <sup>2</sup>	Total Pb					12/21/09				
	29	Room 29													12:30				
	30	Room 30																	
	31	Room 31																	
	32	Room 32																	
	33	Room 33																	
	34	Room 34																	
	35	Room 35																	
	36	Room 36																	
	37	IFR Front																	
Samples Collected By		Date		Date		Date		Date		Date		Date		Date		Date		Date	
By		12/2/09		12/21/09		12/21/09		12/21/09		12/21/09		12/21/09		12/21/09		12/21/09		12/21/09	
Received By		Time		Time		Time		Time		Time		Time		Time		Time		Time	
By		13:30		3:40		3:40		3:40		3:40		3:40		3:40		3:40		3:40	
Received By		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature	
By		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith	
Received By		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature	
By		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith		Jesse M. Smith	

57 of 282

Turn-Around-Time  
 Standard 5-7 Business Days  
 Rush Next Day  
 Immediate Same Day

Phase Contrast Microscopy PCM  
 Polarized Light Microscopy PLM

Sample Media	Micro-Vacuum	MV
Mold Plate	MP	MP
Spare Trip	ST	ST
Swab	SW	SW
Tape-Lift	TL	TL

17837'

1601 SW 89th St. Ste. A-100  
 Oklahoma City, OK 73159

**Chain of Custody**  
**Marshall Environmental Management, Inc.**

Phone: (405) 616-0401  
 Fax: (405) 681-6753  
 marshenv@swbell.net

PROJECT				INVOICE TO				REPORT TO				
Project Number	Client/Company	Company	Attention	Address	Phone Number	E-mail	Client/Company	Company	Attention	Address	Phone Number	
0146-LBP-120209-JM												
Site Contact	Sample Area	Location of Sample (with area)	Sample Matrix (Air, Asbestos, etc.)	Sample Media (see legend)	Sample Time (Start/Stop as applicable)	Calibrated Flow Rate	E-mail	Total Volume/Area	Analysis/Parameters			
12/21/09 JFD	IFM Rear	NA	Dust	Wipe	NA	NA		108 in <sup>2</sup>	Total Pb			
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
					Start	Pre						
					Stop	Post						
Samples Collected By	Date		Samples Relinquished By		Date		Method of Shipment					
<i>Alicia Marshall</i>	12/21/09		<i>Alicia Marshall</i>		12/21/09		Sample Notes					
	Time		Date		Time		Condition Upon Receipt					
	13:30		12/21/09		12:30		Turn-Around-Time					
Samples Received By	Date		Samples Relinquished By		Date							
<i>Steve Haddock</i>	12/21/09				Time							
	Time		Date		Time							
	3:40				Date							
Samples Received By	Date		Samples Relinquished By		Date							
	Time		Date		Time							
			Time		Time							
			Date		Date							
			Time		Time							
			Date		Date							
			Time		Time							

*Alicia Marshall*

*Steve Haddock*

*Alicia Marshall*

*Steve Haddock*

Sample Media	Phase Contrast Microscopy	PCM
Micro-Vacuum	Polarized Light Microscopy <td>PLM</td>	PLM
Mold Plates		
Spore Trap		
Swab		
Tape-Lift		

Standard 5-7 Business Days  
 Rush Next Day  
 Immediate Same Day

Turn-Around-Time



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

## Environmental Chemistry Analysis Report

QuanTEM Set ID: 178371  
Date Received: 12/21/09  
Received By: Eric Caves  
Date Sampled:  
Time Sampled:  
Analyst: EC  
Date of Report: 12/23/2009

Client: Marshall Environmental Management, Inc.  
1601 SW 89th Street, Ste. A-100  
Oklahoma City, OK 73159  
Acct. No.: A331  
Project: NA  
Location: NA  
Project No.: 0146-LBP-120209-JM

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	53.57	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
002	2	Wipe	Lead	63.81	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
003	3	Wipe	Lead	25.38	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
004	4	Wipe	Lead	282.05	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
005	5	Wipe	Lead	318.92	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
006	6	Wipe	Lead	129.08	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
007	7	Wipe	Lead	128.97	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
008	8	Wipe	Lead	261.13	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
009	9	Wipe	Lead	86.29	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
010	10	Wipe	Lead	120.66	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
011	11	Wipe	Lead	51.79	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100

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.



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

## Environmental Chemistry Analysis Report

QuanTEM Set ID: 178371  
Date Received: 12/21/09  
Received By: Eric Caves  
Date Sampled:  
Time Sampled:  
Analyst: EC  
Date of Report: 12/23/2009

Client: Marshall Environmental Management,  
Inc.  
1601 SW 89th Street, Ste. A-100  
Oklahoma City, OK 73159

Acct. No.: A331

Project: NA

Location: NA

Project No.: 0146-LBP-120209-JM

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	12	Wipe	Lead	211.21	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
013	13	Wipe	Lead	360.23	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
014	14	Wipe	Lead	591.56	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
015	15	Wipe	Lead	74.67	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
016	16	Wipe	Lead	31.62	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
017	17	Wipe	Lead	85.81	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
018	18	Wipe	Lead	<21.33	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
019	19	Wipe	Lead	49.37	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
020	20	Wipe	Lead	35.73	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
021	21	Wipe	Lead	51.09	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
022	22	Wipe	Lead	25.24	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100

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.



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

## Environmental Chemistry Analysis Report

QuanTEM Set ID: 178371  
Date Received: 12/21/09  
Received By: Eric Caves  
Date Sampled:  
Time Sampled:  
Analyst: EC  
Date of Report: 12/23/2009

Client: Marshall Environmental Management, Inc.  
1601 SW 89th Street, Ste. A-100  
Oklahoma City, OK 73159

Acct. No.: A331

Project: NA

Location: NA

Project No.: 0146-LBP-120209-JM

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
023	23	Wipe	Lead	198.90	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
024	24	Wipe	Lead	168.53	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
025	25	Wipe	Lead	64.56	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
026	26	Wipe	Lead	116.75	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
027	27-E	Wipe	Lead	79.04	16.00	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
028	27-C	Wipe	Lead	164.66	16.00	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
029	27-W	Wipe	Lead	28.16	16.00	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
030	27-	Wipe	Lead	73.37	16.00	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
031	28	Wipe	Lead	59.71	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
032	29	Wipe	Lead	33.03	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
033	30	Wipe	Lead	<21.33	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100

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.



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

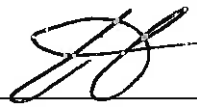
# Environmental Chemistry Analysis Report

Quantem Set ID: 178371  
Date Received: 12/21/09  
Received By: Eric Caves  
Date Sampled:  
Time Sampled:  
Analyst: EC  
Date of Report: 12/23/2009

Client: Marshall Environmental Management, Inc.  
1601 SW 89th Street, Ste. A-100  
Oklahoma City, OK 73159  
Acct. No.: A331  
Project: NA  
Location: NA  
Project No.: 0146-LBP-120209-JM

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
034	31	Wipe	Lead	31.77	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
035	32	Wipe	Lead	66.49	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
036	33	Wipe	Lead	164.44	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
037	34	Wipe	Lead	295.83	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
038	35	Wipe	Lead	94.75	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
039	36	Wipe	Lead	150.95	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
040	37	Wipe	Lead	2280.93	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100
041	38	Wipe	Lead	9999.33	21.33	ug/sq. Ft.	12/22/09 15:40	EPA 3051 / NIOSH 9100

Authorized Signature:   
Eric Caves, 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.



## Supplemental Report QAQC Results

QA ID: 7252  
Test: Lead

Date: 12/22/2009  
Matrix: Wipe

Lab Number: 178371  
Approved By: Eric Caves  
Date Approved: 12/22/2009

Notes:

**Blank Data:**

Type of Blank	Blank Value
Initial	0
Continuing	0
Final	0

**Standards Data:**

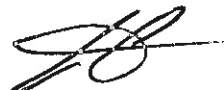
Standard	Low Limit	Obtained	High Limit
FCV	225	258	275
CCV	225	255	275
ICV	22.5	25.5	27.5
RLVS	12.8	17	19.2

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MSW 4	0.000	5369.000	5849.000	108.9	5746.000	107.0	1.8
MSW 3	0.000	5369.000	5790.000	107.8	5622.000	104.7	2.9
MSW 2	0.000	5369.000	5436.000	101.2	5696.000	106.1	4.7
MSW 1	0.000	5369.000	5356.000	99.8	5412.000	100.8	1.0

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



Eric Caves, Analyst

Index	Time	Duration	Units	Component	Substrate	Side	Color	Results	Action Level	PbC	PbI	PbK
2	2009-12-02 11:45	6.73	mg/cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	1.10 ± 0.10	0.80 ± 0.40
3	2009-12-02 11:46	6.84	mg/cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	1.10 ± 0.10	0.90 ± 0.40
4	2009-12-02 11:48	19.92	mg/cm ^2			CALIBRATE		Positive	1.00	1.00 ± 0.10	1.00 ± 0.10	1.00 ± 0.20
5	2009-12-02 11:54	1.05	mg/cm ^2	garage frame 1	METAL	side a1	w hite	Positive	1.00	< LOD : 5.40	< LOD : 5.40	< LOD : 5.40
6	2009-12-02 11:56	1.04	mg/cm ^2	garage frame 3	METAL	side a1	w hite	Positive	1.00	< LOD : 5.55	< LOD : 5.55	< LOD : 5.55
7	2009-12-02 11:58	0.70	mg/cm ^2	garage door 1	WOOD	side a1	w hite	Positive	1.00	< LOD : 7.50	< LOD : 7.50	< LOD : 10.05
8	2009-12-02 12:00	6.73	mg/cm ^2	garage door 4	WOOD	side a1	w hite	Positive	1.00	1.50 ± 0.50	1.10 ± 0.40	1.50 ± 0.50
9	2009-12-02 12:02	1.04	mg/cm ^2	roof drain 1	METAL	side a1	w hite	Positive	1.00	7.10 ± 4.50	< LOD : 8.70	7.10 ± 4.50
10	2009-12-02 12:03	0.93	mg/cm ^2	roof drain 2	METAL	side a1	w hite	Positive	1.00	< LOD : 8.55	< LOD : 9.00	< LOD : 8.55
11	2009-12-02 12:08	0.46	mg/cm ^2	garage door	WOOD	side a2	w hite	Positive	1.00	< LOD : 16.50	< LOD : 7.20	< LOD : 16.50
12	2009-12-02 12:10	3.14	mg/cm ^2	garage frame	METAL	side a2	w hite	Positive	1.00	2.40 ± 1.10	1.60 ± 0.70	2.40 ± 1.10
13	2009-12-02 12:13	1.04	mg/cm ^2	garage frame 1	METAL	side a3	w hite	Positive	1.00	< LOD : 5.70	< LOD : 4.80	< LOD : 5.70
14	2009-12-02 12:13	1.04	mg/cm ^2	garage frame 3	METAL	side a3	w hite	Positive	1.00	< LOD : 5.40	< LOD : 4.05	< LOD : 5.40
15	2009-12-02 12:14	1.04	mg/cm ^2	garage door 1	METAL	side a3	w hite	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.58
16	2009-12-02 12:16	1.04	mg/cm ^2	door frame 1	METAL	side a2	BEIGE	Positive	1.00	4.10 ± 2.70	4.10 ± 2.70	< LOD : 5.25
17	2009-12-02 12:21	1.05	mg/cm ^2	door 1	METAL	side a2	BEIGE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 3.34
18	2009-12-02 12:22	1.04	mg/cm ^2	door frame 2	METAL	side a2	BEIGE	Positive	1.00	< LOD : 6.00	< LOD : 7.20	< LOD : 6.00
19	2009-12-02 12:24	1.05	mg/cm ^2	door2	METAL	side a2	BEIGE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 3.56
20	2009-12-02 12:25	0.92	mg/cm ^2	roof drain 1	METAL	side a3	WHITE	Positive	1.00	< LOD : 9.60	< LOD : 5.85	< LOD : 9.60
21	2009-12-02 12:34	0.70	mg/cm ^2	roof drain 2	METAL	side a3	WHITE	Positive	1.00	< LOD : 12.30	< LOD : 12.45	< LOD : 9.60
23	2009-12-02 12:37	1.74	mg/cm ^2	WINDOW frame	METAL	side b1	black	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 12.30
24	2009-12-02 12:38	0.93	mg/cm ^2	DOOR	WOOD	side b2	WHITE	Positive	1.00	< LOD : 1.88	< LOD : 1.88	< LOD : 1.88
25	2009-12-02 12:41	0.69	mg/cm ^2	DOOR frame	METAL	side b2	WHITE	Positive	1.00	2.00 ± 1.20	2.00 ± 1.20	< LOD : 7.50
26	2009-12-02 12:42	1.04	mg/cm ^2	DOORWAY OVERHA	CONCRETE	side b2	WHITE	Positive	1.00	< LOD : 11.55	< LOD : 10.95	< LOD : 11.55
27	2009-12-02 12:45	0.58	mg/cm ^2	ROOF DRAIN 1	METAL	side C	WHITE	Positive	1.00	4.00 ± 2.40	4.00 ± 2.40	< LOD : 5.10
28	2009-12-02 12:46	0.70	mg/cm ^2	ROOF DRAIN 2	METAL	side C	WHITE	Positive	1.00	< LOD : 4.50	< LOD : 4.50	< LOD : 10.95
29	2009-12-02 12:48	1.05	mg/cm ^2	IFR VENT GUARD	METAL	side C	BEIGE	Positive	1.00	< LOD : 11.85	< LOD : 7.80	< LOD : 11.85
30	2009-12-02 12:49	1.05	mg/cm ^2	IFR VENT FRAME	WOOD	side C	BEIGE	Negative	1.00	0.50 ± 0.30	0.50 ± 0.30	< LOD : 4.13
31	2009-12-02 12:50	1.05	mg/cm ^2	window guard 1	METAL	side C2	BEIGE	Negative	1.00	< LOD : 0.31	< LOD : 0.31	< LOD : 1.80
32	2009-12-02 12:51	0.81	mg/cm ^2	roof drain	METAL	side C2	WHITE	Positive	1.00	3.50 ± 2.30	3.50 ± 2.30	< LOD : 8.85
33	2009-12-02 12:54	1.05	mg/cm ^2	WINDOW frame	METAL	side D1	black	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.16
34	2009-12-02 12:55	3.14	mg/cm ^2	WINDOW ledge	CONCRETE	side D1	WHITE	Negative	1.00	0.14 ± 0.07	0.14 ± 0.07	< LOD : 1.23
35	2009-12-02 12:56	1.05	mg/cm ^2	DOOR	WOOD	side d2	WHITE	Positive	1.00	4.60 ± 3.00	< LOD : 4.20	4.60 ± 3.00
36	2009-12-02 12:57	1.04	mg/cm ^2	DOOR frame	METAL	side d2	WHITE	Positive	1.00	< LOD : 6.15	< LOD : 5.25	< LOD : 6.15
37	2009-12-02 12:58	0.81	mg/cm ^2	door overhang	CONCRETE	side d2	BEIGE	Positive	1.00	< LOD : 3.45	< LOD : 3.45	< LOD : 8.55
40	2009-12-02 13:09	1.86	mg/cm ^2	WALL	CONCRETE	rm 1 a	WHITE	Negative	1.00	< LOD : 0.07	< LOD : 0.07	< LOD : 2.09
42	2009-12-02 13:11	1.28	mg/cm ^2	WALL	CONCRETE	rm 1 b	WHITE	Negative	1.00	< LOD : 0.21	< LOD : 0.21	< LOD : 2.85
43	2009-12-02 13:12	8.95	mg/cm ^2	WALL	CONCRETE	rm 1 c	WHITE	Negative	1.00	< LOD : 0.04	< LOD : 0.04	0.80 ± 0.30
44	2009-12-02 13:13	1.85	mg/cm ^2	WALL	CONCRETE	rm 1 d	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.57
45	2009-12-02 13:14	1.04	mg/cm ^2	WALL	CONCRETE	rm 2 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 3.17

Index	Date	Duration	Units	Component	Substrate	Site	Color	Results	Action Level	PbC	PbP	PbK
46	2009-12-02 13:15	1.04	mg / cm ^2	STALL DOOR	WOOD	rm 1	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.49
47	2009-12-02 13:17	3.12	mg / cm ^2	WALL	CONCRETE	rm 2b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.24
48	2009-12-02 13:18	3.13	mg / cm ^2	WALL	CONCRETE	rm 2c	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.27
49	2009-12-02 13:18	2.21	mg / cm ^2	WALL	CONCRETE	rm 2d	WHITE	Negative	1.00	< LOD : 2.13	< LOD : 0.12	< LOD : 2.13
50	2009-12-02 13:19	3.13	mg / cm ^2	WALL	CONCRETE	rm 3 a	WHITE	Negative	1.00	0.50 ± 0.10	0.50 ± 0.10	< LOD : 1.20
51	2009-12-02 13:20	1.04	mg / cm ^2	WALL	CONCRETE	rm 3 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 3.41
53	2009-12-02 13:21	1.16	mg / cm ^2	WALL	CONCRETE	rm 3 c	WHITE	Negative	1.00	< LOD : 0.10	< LOD : 0.10	< LOD : 2.99
54	2009-12-02 13:21	1.16	mg / cm ^2	WALL	CONCRETE	rm 3 d	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 3.09
55	2009-12-02 13:22	1.05	mg / cm ^2	TRIM	WOOD	rm 3	BROWN	Negative	1.00	< LOD : 0.09	< LOD : 0.09	< LOD : 2.00
56	2009-12-02 13:25	5.55	mg / cm ^2	WALL	CONCRETE	rm 4 a	silver	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 0.60
57	2009-12-02 13:26	1.85	mg / cm ^2	WALL	CONCRETE	rm 4 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.08
58	2009-12-02 13:27	6.50	mg / cm ^2	WALL	CONCRETE	rm 4 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	0.80 ± 0.40
59	2009-12-02 13:28	4.43	mg / cm ^2	WALL	CONCRETE	rm 4 b	RED	Positive	1.00	1.60 ± 0.60	1.60 ± 0.10	1.60 ± 0.60
60	2009-12-02 13:31	2.08	mg / cm ^2	WALL	CONCRETE	rm 4 b	silver	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.95
61	2009-12-02 13:32	2.09	mg / cm ^2	WALL	CONCRETE	rm 4 c1	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.43
62	2009-12-02 13:33	2.66	mg / cm ^2	WALL	CONCRETE	rm 4 e2	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.80
63	2009-12-02 13:34	3.14	mg / cm ^2	WALL	CONCRETE	rm 4 e3	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.10
64	2009-12-02 13:35	1.74	mg / cm ^2	WALL	CONCRETE	rm 4 d1	WHITE	Negative	1.00	< LOD : 0.04	< LOD : 0.04	< LOD : 2.06
66	2009-12-02 13:37	2.56	mg / cm ^2	FLOOR	CONCRETE	rm 4	grey	Negative	1.00	< LOD : 0.07	< LOD : 0.07	< LOD : 1.80
67	2009-12-02 13:38	2.67	mg / cm ^2	WALL	CONCRETE	rm 4	black	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.33
69	2009-12-02 13:40	1.85	mg / cm ^2	WALL	CONCRETE	rm 5a	grey	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.36
70	2009-12-02 13:42	2.08	mg / cm ^2	WALL	CONCRETE	rm 6 a	BLUE	Negative	1.00	< LOD : 2.22	< LOD : 0.03	< LOD : 2.22
71	2009-12-02 13:44	1.04	mg / cm ^2	WALL	CONCRETE	rm 6	BLUE	Negative	1.00	< LOD : 0.31	< LOD : 0.31	< LOD : 3.30
72	2009-12-02 13:45	1.97	mg / cm ^2	WALL	CONCRETE	rm 6 b	BLUE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.95
74	2009-12-02 13:45	1.63	mg / cm ^2	WALL	CONCRETE	rm 6 c	BLUE	Negative	1.00	< LOD : 0.11	< LOD : 0.11	< LOD : 2.41
75	2009-12-02 13:46	3.02	mg / cm ^2	WALL	CONCRETE	rm 6 d	BLUE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.80
76	2009-12-02 13:48	3.14	mg / cm ^2	WALL	CONCRETE	rm 7 a	WHITE	Negative	1.00	< LOD : 1.07	< LOD : 0.13	< LOD : 1.07
78	2009-12-02 13:49	3.12	mg / cm ^2	WALL	CONCRETE	rm 7 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.05
79	2009-12-02 13:50	3.13	mg / cm ^2	WALL	CONCRETE	rm 7 c	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.20
80	2009-12-02 13:50	1.04	mg / cm ^2	WALL	CONCRETE	rm 7 d	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.79
81	2009-12-02 13:54	3.14	mg / cm ^2	WALL	CONCRETE	rm 8 c	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.05
82	2009-12-02 13:56	1.63	mg / cm ^2	FLOOR	CONCRETE	rm 9	grey	Negative	1.00	< LOD : 0.31	< LOD : 0.31	< LOD : 2.77
83	2009-12-02 13:57	1.04	mg / cm ^2	WALL	DRYWALL	rm 9a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.26
84	2009-12-02 13:58	1.04	mg / cm ^2	WALL	DRYWALL	rm 9b	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 2.24
85	2009-12-02 13:58	1.04	mg / cm ^2	WALL	DRYWALL	rm 9c	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 2.17
86	2009-12-02 13:59	1.05	mg / cm ^2	WALL	CONCRETE	rm 9d	WHITE	Negative	1.00	< LOD : 0.35	< LOD : 0.35	< LOD : 2.55
87	2009-12-02 14:02	17.53	mg / cm ^2	WALL	CONCRETE	rm 10 a	WHITE	Negative	1.00	0.70 ± 0.20	< LOD : 0.03	0.70 ± 0.20
88	2009-12-02 14:02	2.45	mg / cm ^2	WALL	CONCRETE	rm 10 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.80
89	2009-12-02 14:03	3.26	mg / cm ^2	WALL	CONCRETE	rm 10 c	WHITE	Negative	1.00	< LOD : 1.10	< LOD : 0.06	< LOD : 1.10
90	2009-12-02 14:03	1.62	mg / cm ^2	WALL	CONCRETE	rm 10 d	WHITE	Negative	1.00	< LOD : 0.16	< LOD : 0.16	< LOD : 2.26

Index	Time	Duration	Units	Component	Substrate	Side	Color	Results	Action Level	Pbl.	PHL
91	2009-12-02 14:24	1.04	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 12 a	WHITE	Positive	3.00 ± 1.70	3.00 ± 1.70	5.30 ± 3.40
92	2009-12-02 14:25	1.40	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 12 a	WHITE	Positive	1.80 ± 0.80	1.80 ± 0.80	< LOD: 3.75
93	2009-12-02 14:28	1.28	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 12 b	WHITE	Negative	< LOD: 0.10	< LOD: 0.10	< LOD: 1.97
95	2009-12-02 14:29	1.74	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 12 d	WHITE	Positive	< LOD: 3.00	< LOD: 3.00	< LOD: 3.00
96	2009-12-02 14:31	2.43	mg/cm <sup>2</sup>	FLOOR	CONCRETE	rm 12	grey	Negative	0.40 ± 0.20	0.40 ± 0.20	< LOD: 2.27
98	2009-12-02 14:33	0.70	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 13 a	WHITE	Positive	2.30 ± 1.30	2.30 ± 1.30	< LOD: 6.45
99	2009-12-02 14:34	0.47	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 13 b	WHITE	Positive	2.70 ± 1.60	2.70 ± 1.60	< LOD: 10.95
100	2009-12-02 14:34	0.46	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 13 c	WHITE	Positive	2.90 ± 1.80	2.90 ± 1.80	< LOD: 10.05
101	2009-12-02 14:36	2.79	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 14 a	WHITE	Negative	< LOD: 0.07	< LOD: 0.07	< LOD: 2.04
102	2009-12-02 14:37	1.75	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 14 b	WHITE	Negative	< LOD: 0.07	< LOD: 0.07	< LOD: 2.03
103	2009-12-02 14:37	2.68	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 14 c	WHITE	Negative	< LOD: 0.08	< LOD: 0.08	< LOD: 1.80
104	2009-12-02 14:38	1.05	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 14 d	WHITE	Negative	< LOD: 0.16	< LOD: 0.16	< LOD: 1.57
105	2009-12-02 14:40	1.04	mg/cm <sup>2</sup>	WALL	WOOD	rm 15 a	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.13
106	2009-12-02 14:42	4.51	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 15 b	WHITE	Negative	1.80 ± 0.80	1.80 ± 0.80	1.80 ± 0.80
109	2009-12-02 14:43	3.15	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 15 c	WHITE	Positive	2.00 ± 0.80	2.00 ± 0.80	2.00 ± 0.80
110	2009-12-02 14:46	3.14	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 15 c 2	WHITE	Positive	2.50 ± 1.09	2.50 ± 1.09	2.50 ± 1.00
111	2009-12-02 14:47	3.13	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 15 a 2	WHITE	Positive	2.30 ± 0.90	2.30 ± 0.90	2.30 ± 0.90
112	2009-12-02 14:48	2.55	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 15 d	WHITE	Positive	1.80 ± 0.80	1.80 ± 0.80	< LOD: 2.40
113	2009-12-02 14:49	1.04	mg/cm <sup>2</sup>	electrical box	METAL	rm 15 d	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 3.45
115	2009-12-02 14:50	2.44	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 15 d	green	Positive	2.80 ± 1.80	2.80 ± 1.80	2.80 ± 1.80
116	2009-12-02 14:53	2.21	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 19 a	WHITE	Negative	< LOD: 0.26	< LOD: 0.26	< LOD: 2.37
117	2009-12-02 14:54	2.89	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 19 b	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.85
118	2009-12-02 14:55	2.78	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 19 c	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.94
119	2009-12-02 14:55	4.17	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 19 d	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.04
120	2009-12-02 14:57	1.05	mg/cm <sup>2</sup>	stall door	METAL	rm 19	WHITE	Negative	< LOD: 0.06	< LOD: 0.06	< LOD: 3.35
122	2009-12-02 15:00	1.75	mg/cm <sup>2</sup>	FLOOR	CONCRETE	rm 19	grey	Negative	< LOD: 0.06	< LOD: 0.06	< LOD: 2.60
123	2009-12-02 15:01	1.05	mg/cm <sup>2</sup>	FLOOR	CONCRETE	rm 20	grey	Negative	< LOD: 0.07	< LOD: 0.07	< LOD: 3.69
124	2009-12-02 15:02	1.75	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 20 a	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.25
125	2009-12-02 15:03	1.27	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 20 b	WHITE	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.31
126	2009-12-02 15:03	1.05	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 20 c	WHITE	Negative	< LOD: 0.21	< LOD: 0.21	< LOD: 3.30
127	2009-12-02 15:04	3.02	mg/cm <sup>2</sup>	WALL	CONCRETE	rm 20 d	WHITE	Negative	< LOD: 0.06	< LOD: 0.06	< LOD: 1.50
128	2009-12-02 15:05	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 21 a	WHITE	Negative	< LOD: 0.04	< LOD: 0.04	< LOD: 2.17
129	2009-12-02 15:06	1.05	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 21 b	WHITE	Negative	< LOD: 0.09	< LOD: 0.09	< LOD: 2.17
130	2009-12-02 15:06	1.05	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 21 c	WHITE	Negative	< LOD: 0.23	< LOD: 0.23	< LOD: 2.08
131	2009-12-02 15:07	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 21 d	WHITE	Negative	< LOD: 0.15	< LOD: 0.15	< LOD: 1.99
132	2009-12-02 15:07	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 22 a	WHITE	Negative	< LOD: 0.04	< LOD: 0.04	< LOD: 2.09
133	2009-12-02 15:08	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 22 b	WHITE	Negative	< LOD: 0.10	< LOD: 0.10	< LOD: 2.11
134	2009-12-02 15:08	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 22 c	WHITE	Negative	< LOD: 0.07	< LOD: 0.07	< LOD: 1.98
135	2009-12-02 15:09	1.04	mg/cm <sup>2</sup>	WALL	DRYWALL	rm 22 d	WHITE	Negative	< LOD: 0.05	< LOD: 0.05	< LOD: 1.92
136	2009-12-02 15:09	1.04	mg/cm <sup>2</sup>	Window/ledge	DRYWALL	rm 22	WHITE	Negative	< LOD: 0.05	< LOD: 0.05	< LOD: 2.24

Index	Time	Duration	Units	Component	Substrate	Size	Color	Results	Verifying Level	Ppb	Ppk
137	2009-12-02 15:12	1.16	mg / cm ^2	FLOOR	DRYWALL	mm 23	grey	Negative	1.00	< LOD : 0.03	< LOD : 3.37
138	2009-12-02 15:14	1.27	mg / cm ^2	WALL	DRYWALL	mm 23	silver	Negative	1.00	< LOD : 0.03	< LOD : 2.78
139	2009-12-02 15:14	1.97	mg / cm ^2	WALL	DRYWALL	mm 23 a	silver	Negative	1.00	< LOD : 0.06	< LOD : 2.18
140	2009-12-02 15:15	1.27	mg / cm ^2	WALL	DRYWALL	mm 23 b,	silver	Negative	1.00	< LOD : 0.03	< LOD : 2.65
141	2009-12-02 15:16	1.16	mg / cm ^2	WALL	DRYWALL	mm 23 C	silver	Negative	1.00	< LOD : 0.03	< LOD : 2.55
142	2009-12-02 15:16	1.85	mg / cm ^2	WALL	DRYWALL	mm 23 D	silver	Negative	1.00	< LOD : 0.05	< LOD : 2.42
143	2009-12-02 15:20	1.05	mg / cm ^2	WALL	DRYWALL	mm 24 a	silver	Negative	1.00	< LOD : 0.04	< LOD : 1.95
144	2009-12-02 15:20	1.04	mg / cm ^2	WALL	DRYWALL	mm 24 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.11
145	2009-12-02 15:20	1.51	mg / cm ^2	WALL	DRYWALL	mm 24 b	WHITE	Negative	1.00	< LOD : 0.11	< LOD : 2.41
146	2009-12-02 15:21	1.51	mg / cm ^2	WALL	CONCRETE	mm 24 b	grey	Negative	1.00	< LOD : 0.21	< LOD : 2.64
147	2009-12-02 15:22	1.51	mg / cm ^2	WALL	CONCRETE	mm 24 c	WHITE	Negative	1.00	< LOD : 0.04	< LOD : 2.72
148	2009-12-02 15:23	1.04	mg / cm ^2	WALL	DRYWALL	mm 24 d	WHITE	Negative	1.00	< LOD : 0.04	< LOD : 2.00
149	2009-12-02 15:24	1.04	mg / cm ^2	TRIM	WOOD	mm 24 d	grey	Negative	1.00	< LOD : 0.05	< LOD : 1.50
150	2009-12-02 15:26	1.05	mg / cm ^2	WALL	DRYWALL	mm 25 a	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 2.27
151	2009-12-02 15:27	1.04	mg / cm ^2	WALL	DRYWALL	mm 25 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.28
152	2009-12-02 15:28	1.39	mg / cm ^2	WALL	CONCRETE	mm 25 c	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.37
153	2009-12-02 15:29	1.17	mg / cm ^2	WALL	CONCRETE	mm 25 d	WHITE	Negative	1.00	< LOD : 0.07	< LOD : 2.90
154	2009-12-02 15:30	2.44	mg / cm ^2	FLOOR	CONCRETE	mm 25	WHITE	Negative	1.00	< LOD : 0.14	< LOD : 2.20
155	2009-12-02 15:31	1.04	mg / cm ^2	FLOOR	DRYWALL	mm 35 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.26
156	2009-12-02 15:32	1.05	mg / cm ^2	WALL	DRYWALL	mm 35 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.28
158	2009-12-02 15:32	1.05	mg / cm ^2	WALL	DRYWALL	mm 35 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.03
159	2009-12-02 15:33	1.04	mg / cm ^2	WALL	DRYWALL	mm 35 c	WHITE	Negative	1.00	< LOD : 0.14	< LOD : 1.80
160	2009-12-02 15:34	2.21	mg / cm ^2	WALL	CONCRETE	mm 35 d	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 2.05
161	2009-12-02 15:35	1.86	mg / cm ^2	FLOOR	CONCRETE	mm 35	grey	Negative	1.00	< LOD : 0.13	< LOD : 2.76
162	2009-12-02 15:38	3.84	mg / cm ^2	WALL	CONCRETE	mm 26 a	silver	Negative	1.00	< LOD : 0.90	< LOD : 2.07
163	2009-12-02 15:39	1.28	mg / cm ^2	WALL	CONCRETE	mm 26 b	silver	Negative	1.00	< LOD : 0.07	< LOD : 2.63
165	2009-12-02 15:40	2.09	mg / cm ^2	WALL	CONCRETE	mm 26 c	silver	Negative	1.00	< LOD : 0.30	< LOD : 2.73
166	2009-12-02 15:41	1.28	mg / cm ^2	WALL	CONCRETE	mm 26 d	silver	Negative	1.00	< LOD : 0.14	< LOD : 1.80
168	2009-12-02 15:43	1.05	mg / cm ^2	TRIM	WOOD	mm 26 d	BROWN	Negative	1.00	< LOD : 0.14	< LOD : 1.80
169	2009-12-02 15:44	1.75	mg / cm ^2	FLOOR	CONCRETE	mm 26	grey	Negative	1.00	< LOD : 0.13	< LOD : 2.61
175	2009-12-02 15:50	7.07	mg / cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	1.20 ± 0.40
176	2009-12-02 15:51	7.08	mg / cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	1.20 ± 0.40
177	2009-12-02 15:51	3.25	mg / cm ^2			CALIBRATE		Positive	1.00	1.20 ± 0.20	< LOD : 0.90
179	2009-12-03 11:01	6.38	mg / cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	0.40 ± 0.20
180	2009-12-03 11:02	6.82	mg / cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	0.50 ± 0.20
181	2009-12-03 11:02	7.42	mg / cm ^2			CALIBRATE		Positive	1.00	1.10 ± 0.10	0.40 ± 0.10
182	2009-12-03 11:06	0.35	mg / cm ^2	inside overhead door	WOOD	41	grey	Positive	1.00	4.20 ± 2.70	< LOD : 5.25
183	2009-12-03 11:07	0.35	mg / cm ^2	inside overhead door	WOOD	41	red	Positive	1.00	3.30 ± 2.00	< LOD : 5.25
185	2009-12-03 11:08	0.23	mg / cm ^2	inside overhead door	WOOD	41	YELLOW	Positive	1.00	< LOD : 6.00	< LOD : 7.95
186	2009-12-03 11:09	0.81	mg / cm ^2	inside overhead door	WOOD	41	WHITE	Positive	1.00	< LOD : 7.65	< LOD : 3.60

Index	Date	Duration	Units	Component	Substrate	Site	Color	Results	Action Level	PbI	PbK
187	2009-12-03 11:14	1.04	mg / cm ^2	overhead door track	METAL	26 a	grey	Negative	1.00	< LOD : 0.03	< LOD : 1.35
188	2009-12-03 11:16	1.05	mg / cm ^2	overhead door track	METAL	26 b	black	Negative	1.00	< LOD : 0.03	< LOD : 1.50
189	2009-12-03 11:17	0.93	mg / cm ^2	WALL	CONCRETE	27 a	WHITE	Negative	1.00	< LOD : 0.11	< LOD : 1.03
190	2009-12-03 11:18	0.12	mg / cm ^2	WALL	CONCRETE	27 b	WHITE	Negative	1.00	< LOD : 1.33	< LOD : 1.33
191	2009-12-03 11:18	0.12	mg / cm ^2	WALL	CONCRETE	27 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.90
192	2009-12-03 11:20	0.12	mg / cm ^2	WALL MURAL	WOOD	27 c	WHITE	Negative	1.00	< LOD : 0.21	< LOD : 0.21
193	2009-12-03 11:20	0.12	mg / cm ^2	WALL MURAL	WOOD	27 c	BLACK	Negative	1.00	< LOD : 0.03	< LOD : 0.21
194	2009-12-03 11:21	0.23	mg / cm ^2	WALL MURAL	WOOD	27 c	GRAY	Negative	1.00	< LOD : 0.16	< LOD : 1.14
195	2009-12-03 11:21	0.35	mg / cm ^2	WALL MURAL	WOOD	27 c	GREEN	Negative	1.00	< LOD : 0.07	< LOD : 1.23
196	2009-12-03 11:22	0.69	mg / cm ^2	LEDGE	CONCRETE	27 c	WHITE	Positive	1.00	3.40 ± 2.20	< LOD : 2.55
197	2009-12-03 11:24	1.16	mg / cm ^2	WALL	CONCRETE	27 D	WHITE	Positive	1.00	1.90 ± 0.80	< LOD : 1.05
198	2009-12-03 11:24	1.40	mg / cm ^2	WALL	CONCRETE	27 D	WHITE	Positive	1.00	1.90 ± 0.90	< LOD : 1.50
199	2009-12-03 11:26	0.12	mg / cm ^2	WALL	CONCRETE	28 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.91
200	2009-12-03 11:27	0.35	mg / cm ^2	WALL	CONCRETE	28 b	WHITE	Negative	1.00	< LOD : 0.21	< LOD : 1.23
201	2009-12-03 11:28	1.04	mg / cm ^2	sink	METAL	28 b	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 1.20
202	2009-12-03 11:30	0.58	mg / cm ^2	WALL	CONCRETE	28 c	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 1.12
203	2009-12-03 11:30	0.12	mg / cm ^2	WALL	CONCRETE	28 d	WHITE	Negative	1.00	< LOD : 0.15	< LOD : 1.03
204	2009-12-03 11:31	0.93	mg / cm ^2	floor ramp	CONCRETE	28 d	grey	Negative	1.00	< LOD : 0.27	< LOD : 1.15
205	2009-12-03 11:32	0.23	mg / cm ^2	floor barrier	CONCRETE	28	grey	Negative	1.00	< LOD : 0.13	< LOD : 1.23
206	2009-12-03 11:33	0.12	mg / cm ^2	WALL	CONCRETE	29 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.93
207	2009-12-03 11:34	0.58	mg / cm ^2	WALL	CONCRETE	29 b	WHITE	Negative	1.00	< LOD : 1.17	< LOD : 1.17
208	2009-12-03 11:34	0.46	mg / cm ^2	WALL	CONCRETE	29 b	WHITE	Negative	1.00	< LOD : 0.34	< LOD : 1.30
209	2009-12-03 11:35	0.35	mg / cm ^2	WALL	CONCRETE	29 c	WHITE	Negative	1.00	< LOD : 1.30	< LOD : 1.06
210	2009-12-03 11:35	0.35	mg / cm ^2	WALL	CONCRETE	29 d	WHITE	Negative	1.00	< LOD : 0.08	< LOD : 1.08
211	2009-12-03 11:36	1.86	mg / cm ^2	sink	METAL	29 c	WHITE	Negative	1.00	< LOD : 0.13	< LOD : 0.90
212	2009-12-03 11:37	0.58	mg / cm ^2	kitchen bar trim	WOOD	29 c	grey	Negative	1.00	< LOD : 0.46	< LOD : 1.13
213	2009-12-03 11:38	1.05	mg / cm ^2	support beam	WOOD	29 d	grey	Negative	1.00	< LOD : 0.17	< LOD : 1.35
214	2009-12-03 11:40	0.81	mg / cm ^2	FLOOR	CONCRETE	27 b	black	Negative	1.00	< LOD : 0.34	< LOD : 1.08
215	2009-12-03 11:43	0.12	mg / cm ^2	WALL	DRYWALL	30 a	GREEN	Negative	1.00	< LOD : 0.15	< LOD : 0.36
216	2009-12-03 11:43	0.46	mg / cm ^2	WALL	DRYWALL	30 B	GREEN	Positive	1.00	< LOD : 4.05	< LOD : 4.50
217	2009-12-03 11:44	0.81	mg / cm ^2	WALL	DRYWALL	30 A	GREEN	Negative	1.00	< LOD : 1.15	< LOD : 1.15
218	2009-12-03 11:44	0.46	mg / cm ^2	WALL	DRYWALL	30 C	GREEN	Negative	1.00	< LOD : 0.28	< LOD : 1.20
219	2009-12-03 11:45	0.12	mg / cm ^2	WALL	DRYWALL	30 D	GREEN	Negative	1.00	< LOD : 0.22	< LOD : 1.37
220	2009-12-03 11:48	0.23	mg / cm ^2	WALL	CONCRETE	32 a	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 1.25
221	2009-12-03 11:49	0.58	mg / cm ^2	WALL	CONCRETE	32 b	WHITE	Negative	1.00	< LOD : 0.15	< LOD : 1.12
222	2009-12-03 11:49	0.46	mg / cm ^2	WALL	CONCRETE	32 c	WHITE	Negative	1.00	< LOD : 1.14	< LOD : 1.14
223	2009-12-03 11:50	0.12	mg / cm ^2	WALL	CONCRETE	32 d	WHITE	Negative	1.00	< LOD : 0.03	< LOD : 0.20
224	2009-12-03 11:51	0.93	mg / cm ^2	FLOOR	CONCRETE	32	grey	Negative	1.00	< LOD : 0.18	< LOD : 1.07
226	2009-12-03 11:54	6.72	mg / cm ^2	WALL	CONCRETE	33a	grey	Positive	1.00	1.30 ± 0.20	0.60 ± 0.20
227	2009-12-03 11:57	15.30	mg / cm ^2	WALL	CONCRETE	33b	grey	Negative	1.00	0.90 ± 0.10	0.50 ± 0.10

Index	Time	Duration	Units	Component	Substrate	Side	Color	Results	Action Level	PbC	PbL	PbS
230	2009-12-03 12:03	19:83	mg / cm ^2	WALL	CONCRETE	33c	grey	Negative	1.00	0.50 ± 0.10	0.90 ± 0.10	0.50 ± 0.10
231	2009-12-03 12:06	20:00	mg / cm ^2	WALL	CONCRETE	33d	grey	Negative	1.00	0.40 ± 0.10	0.90 ± 0.10	0.40 ± 0.10
232	2009-12-03 12:08	0:93	mg / cm ^2	WALL	CONCRETE	34 a	BEIGE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.02
233	2009-12-03 12:08	0:23	mg / cm ^2	WALL	CONCRETE	34 b	BEIGE	Negative	1.00	< LOD : 0.06	< LOD : 0.06	< LOD : 1.13
234	2009-12-03 12:09	0:69	mg / cm ^2	WALL	CONCRETE	34 c	BEIGE	Negative	1.00	< LOD : 0.04	< LOD : 0.04	< LOD : 1.02
235	2009-12-03 12:09	0:35	mg / cm ^2	WALL	CONCRETE	34 d	BEIGE	Negative	1.00	< LOD : 0.06	< LOD : 0.06	< LOD : 1.38
236	2009-12-03 12:11	0:35	mg / cm ^2	WALL	CONCRETE	36 a	silver	Negative	1.00	< LOD : 0.32	< LOD : 0.32	< LOD : 1.34
237	2009-12-03 12:11	0:35	mg / cm ^2	WALL	CONCRETE	36 b	silver	Negative	1.00	< LOD : 0.11	< LOD : 0.11	< LOD : 1.28
238	2009-12-03 12:12	0:69	mg / cm ^2	WALL	CONCRETE	36 c	silver	Negative	1.00	< LOD : 0.03	< LOD : 0.03	< LOD : 1.19
239	2009-12-03 12:12	0:35	mg / cm ^2	WALL	CONCRETE	36 d	silver	Negative	1.00	< LOD : 0.42	< LOD : 0.42	< LOD : 1.14
240	2009-12-03 12:13	0:23	mg / cm ^2	FLOOR	CONCRETE	36	RED	Negative	1.00	< LOD : 0.50	< LOD : 0.50	< LOD : 0.82
241	2009-12-03 12:13	0:12	mg / cm ^2	FLOOR	CONCRETE	36	RED	Negative	1.00	< LOD : 0.42	< LOD : 0.42	< LOD : 1.13
242	2009-12-03 12:15	0:23	mg / cm ^2	inside overhead door	WOOD	12	grey	Positive	1.00	< LOD : 5.10	< LOD : 5.10	< LOD : 5.70
243	2009-12-03 12:17	0:70	mg / cm ^2	inside overhead door	WOOD	12	WHITE	Positive	1.00	< LOD : 4.95	< LOD : 4.95	< LOD : 3.30
244	2009-12-03 12:20	0:35	mg / cm ^2	kitchen bar trim	WOOD	27 b	WHITE	Negative	1.00	< LOD : 0.25	< LOD : 0.25	< LOD : 0.89
245	2009-12-03 12:23	1:04	mg / cm ^2	DOOR	WOOD	1	WHITE	Positive	1.00	< LOD : 4.20	< LOD : 4.20	< LOD : 1.65
246	2009-12-03 12:24	1:04	mg / cm ^2	DOOR jam	CONCRETE	1	WHITE	Positive	1.00	3.90 ± 2.30	3.90 ± 2.30	< LOD : 1.80
247	2009-12-03 12:32	0:81	mg / cm ^2	stair	CONCRETE	27 c South	BROWN	Negative	1.00	< LOD : 0.64	< LOD : 0.64	< LOD : 1.08
248	2009-12-03 12:33	0:58	mg / cm ^2	stair rail	CONCRETE	27 c South	BROWN	Positive	1.00	3.70 ± 2.40	3.70 ± 2.40	< LOD : 4.20
250	2009-12-03 12:34	0:12	mg / cm ^2	stair	CONCRETE	27 c North	BROWN	Negative	1.00	< LOD : 0.45	< LOD : 0.45	< LOD : 0.20
251	2009-12-03 12:35	0:46	mg / cm ^2	stair rail	METAL	27 c North	BROWN	Positive	1.00	3.30 ± 2.20	3.30 ± 2.20	< LOD : 4.80
252	2009-12-03 12:48	1:04	mg / cm ^2	DOOR jam	CONCRETE	2	WHITE	Positive	1.00	3.40 ± 2.00	3.40 ± 2.00	< LOD : 2.10
253	2009-12-03 12:50	0:70	mg / cm ^2	DOOR jam	CONCRETE	3	WHITE	Positive	1.00	< LOD : 5.55	< LOD : 5.55	< LOD : 4.35
255	2009-12-03 12:52	1:16	mg / cm ^2	DOOR	METAL	3	WHITE	Positive	1.00	1.90 ± 0.90	1.90 ± 0.90	< LOD : 1.20
256	2009-12-03 12:53	0:70	mg / cm ^2	DOOR jam	CONCRETE	4	WHITE	Positive	1.00	< LOD : 6.30	< LOD : 6.30	< LOD : 3.90
257	2009-12-03 12:54	0:46	mg / cm ^2	DOOR	WOOD	4	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.11
258	2009-12-03 12:54	0:35	mg / cm ^2	DOOR	WOOD	4	WHITE	Negative	1.00	< LOD : 0.05	< LOD : 0.05	< LOD : 1.25
259	2009-12-03 12:56	1:39	mg / cm ^2	DOOR jam	METAL	5	WHITE	Positive	1.00	2.90 ± 1.80	2.90 ± 1.80	< LOD : 1.80
260	2009-12-03 12:57	1:04	mg / cm ^2	DOOR	WOOD	5	WHITE	Positive	1.00	4.20 ± 2.70	4.20 ± 2.70	< LOD : 1.95
261	2009-12-03 12:59	0:47	mg / cm ^2	DOOR	WOOD	6	GREEN	Positive	1.00	3.30 ± 2.20	3.30 ± 2.20	< LOD : 3.45
262	2009-12-03 13:00	0:46	mg / cm ^2	DOOR jam	METAL	6	GREEN	Positive	1.00	3.90 ± 2.40	3.90 ± 2.40	< LOD : 4.20
263	2009-12-03 13:01	1:04	mg / cm ^2	DOOR jam	METAL	7	BLUE	Positive	1.00	3.00 ± 1.90	3.00 ± 1.90	< LOD : 2.10
264	2009-12-03 13:02	0:58	mg / cm ^2	DOOR	WOOD	7	BLUE	Positive	1.00	< LOD : 5.70	< LOD : 5.70	< LOD : 4.95
265	2009-12-03 13:04	2:89	mg / cm ^2	DOOR	METAL	8	BLUE	Negative	1.00	0.70 ± 0.30	0.70 ± 0.30	0.80 ± 0.50
267	2009-12-03 13:05	2:55	mg / cm ^2	DOOR jam	METAL	8	grey	Negative	1.00	0.70 ± 0.30	0.70 ± 0.30	< LOD : 0.90
268	2009-12-03 13:07	1:04	mg / cm ^2	DOOR jam	METAL	9	WHITE	Positive	1.00	2.70 ± 1.70	2.70 ± 1.70	< LOD : 1.95
269	2009-12-03 13:08	3:14	mg / cm ^2	DOOR	WOOD	9	WHITE	Positive	1.00	1.70 ± 0.50	1.70 ± 0.50	1.30 ± 0.40
270	2009-12-03 13:11	1:04	mg / cm ^2	DOOR	WOOD	10	WHITE	Positive	1.00	3.40 ± 2.20	3.40 ± 2.20	< LOD : 1.35
271	2009-12-03 13:12	0:81	mg / cm ^2	DOOR jam	METAL	10	WHITE	Positive	1.00	< LOD : 3.60	< LOD : 3.60	< LOD : 3.30
272	2009-12-03 13:13	1:05	mg / cm ^2	DOOR jam	METAL	11	WHITE	Positive	1.00	2.40 ± 1.30	2.40 ± 1.30	< LOD : 2.10

Index	Time	Duration	Units	Component	Substrate	Side	Color	Results	Action Level	Pb	Pb/C	Pb/K
273	2009-12-03 13:14	1.16	mg/cm <sup>2</sup>	DOOR	WOOD	11	WHITE	Positive	1.00	2.30 ± 1.00		< LOD : 1.05
274	2009-12-03 13:15	1.04	mg/cm <sup>2</sup>	DOOR jam	CONCRETE	12	WHITE	Positive	1.00	3.10 ± 1.80		< LOD : 2.25
275	2009-12-03 13:19	0.58	mg/cm <sup>2</sup>	DOOR jam	METAL	13	grey	Positive	1.00	2.90 ± 1.80		< LOD : 3.60
276	2009-12-03 13:20	0.35	mg/cm <sup>2</sup>	DOOR	WOOD	13	grey	Positive	1.00	< LOD : 3.45		< LOD : 4.50
277	2009-12-03 13:21	1.04	mg/cm <sup>2</sup>	DOOR	WOOD	14	WHITE	Positive	1.00	4.60 ± 2.80		< LOD : 1.50
278	2009-12-03 13:22	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	14	WHITE	Positive	1.00	3.60 ± 1.90		< LOD : 1.95
279	2009-12-03 13:24	0.58	mg/cm <sup>2</sup>	DOOR jam	METAL	15	GREEN	Positive	1.00	2.70 ± 1.60		< LOD : 4.20
280	2009-12-03 13:26	0.81	mg/cm <sup>2</sup>	DOOR jam	METAL	16	WHITE	Positive	1.00	3.30 ± 2.20		< LOD : 2.85
281	2009-12-03 13:26	0.35	mg/cm <sup>2</sup>	DOOR	METAL	16	WHITE	Positive	1.00	< LOD : 5.85		< LOD : 4.05
282	2009-12-03 13:27	0.46	mg/cm <sup>2</sup>	DOOR	WOOD	16	BROWN	Positive	1.00	< LOD : 5.70		< LOD : 3.45
283	2009-12-03 13:28	0.46	mg/cm <sup>2</sup>	DOOR jam	METAL	17	BROWN	Positive	1.00	3.20 ± 2.10		< LOD : 4.80
284	2009-12-03 13:30	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	18	BEIGE	Positive	1.00	2.90 ± 1.80		< LOD : 1.35
285	2009-12-03 13:30	1.04	mg/cm <sup>2</sup>	DOOR	WOOD	18	BEIGE	Positive	1.00	3.40 ± 2.10		< LOD : 1.50
286	2009-12-03 13:32	1.16	mg/cm <sup>2</sup>	DOOR	WOOD	19	BLUE	Positive	1.00	1.90 ± 0.80		< LOD : 1.05
287	2009-12-03 13:33	0.46	mg/cm <sup>2</sup>	DOOR jam	METAL	19	BLUE	Positive	1.00	< LOD : 3.60		< LOD : 4.50
288	2009-12-03 13:34	0.12	mg/cm <sup>2</sup>	DOOR jam	WOOD	20	BLUE	Negative	1.00	< LOD : 0.03		< LOD : 0.85
289	2009-12-03 13:35	0.23	mg/cm <sup>2</sup>	DOOR	WOOD	20	BLUE	Negative	1.00	< LOD : 0.03		< LOD : 1.07
290	2009-12-03 13:36	1.04	mg/cm <sup>2</sup>	DOOR	WOOD	21	WHITE	Positive	1.00	5.80 ± 3.70		< LOD : 1.50
291	2009-12-03 13:37	0.58	mg/cm <sup>2</sup>	DOOR jam	METAL	21	BROWN	Positive	1.00	< LOD : 5.25		< LOD : 3.75
292	2009-12-03 13:38	0.58	mg/cm <sup>2</sup>	DOOR jam	WOOD	22	RED	Positive	1.00	< LOD : 4.05		< LOD : 3.75
293	2009-12-03 13:39	0.58	mg/cm <sup>2</sup>	DOOR	WOOD	22	RED	Positive	1.00	2.70 ± 1.70		< LOD : 3.15
294	2009-12-03 13:41	0.35	mg/cm <sup>2</sup>	DOOR	WOOD	23	WHITE	Positive	1.00	< LOD : 4.35		< LOD : 4.50
295	2009-12-03 13:41	0.47	mg/cm <sup>2</sup>	DOOR	METAL	23	RED	Positive	1.00	< LOD : 3.60		< LOD : 4.35
296	2009-12-03 13:44	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	24	WHITE	Positive	1.00	2.60 ± 1.30		< LOD : 2.10
297	2009-12-03 13:45	0.46	mg/cm <sup>2</sup>	DOOR	WOOD	24	grey	Positive	1.00	3.30 ± 2.00		< LOD : 4.05
298	2009-12-03 13:47	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	25	WHITE	Negative	1.00	< LOD : 0.03		< LOD : 0.36
299	2009-12-03 13:47	0.23	mg/cm <sup>2</sup>	DOOR jam	WOOD	25	BLUE	Negative	1.00	< LOD : 0.16		< LOD : 0.83
300	2009-12-03 13:48	1.16	mg/cm <sup>2</sup>	DOOR jam	METAL	26	WHITE	Positive	1.00	1.60 ± 0.50		< LOD : 1.50
301	2009-12-03 13:49	0.35	mg/cm <sup>2</sup>	DOOR	METAL	26	grey	Positive	1.00	3.50 ± 2.20		< LOD : 5.70
302	2009-12-03 13:53	0.81	mg/cm <sup>2</sup>	DOOR	WOOD	28	WHITE	Positive	1.00	3.10 ± 2.00		< LOD : 2.55
303	2009-12-03 13:53	1.16	mg/cm <sup>2</sup>	DOOR jam	METAL	28	WHITE	Positive	1.00	2.20 ± 1.20		< LOD : 1.65
304	2009-12-03 13:55	0.23	mg/cm <sup>2</sup>	DOOR jam	WOOD	29	BROWN	Negative	1.00	< LOD : 0.07		< LOD : 0.97
305	2009-12-03 13:56	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	29	WHITE	Negative	1.00	< LOD : 0.03		< LOD : 0.21
306	2009-12-03 13:57	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	30	WHITE	Negative	1.00	< LOD : 0.01		< LOD : 0.01
307	2009-12-03 13:57	0.35	mg/cm <sup>2</sup>	DOOR jam	WOOD	30	BROWN	Negative	1.00	< LOD : 0.07		< LOD : 0.89
308	2009-12-03 13:58	0.81	mg/cm <sup>2</sup>	DOOR jam	METAL	31	WHITE	Positive	1.00	2.70 ± 1.70		< LOD : 3.00
309	2009-12-03 13:59	1.05	mg/cm <sup>2</sup>	DOOR	WOOD	31	WHITE	Positive	1.00	3.00 ± 1.40		< LOD : 1.20
311	2009-12-03 14:00	1.40	mg/cm <sup>2</sup>	DOOR	METAL	32	WHITE	Positive	1.00	2.20 ± 1.10		< LOD : 1.20
312	2009-12-03 14:01	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	32	WHITE	Positive	1.00	2.50 ± 1.40		< LOD : 2.10
313	2009-12-03 14:03	1.63	mg/cm <sup>2</sup>	DOOR jam	METAL	33	WHITE	Positive	1.00	2.10 ± 1.00		< LOD : 1.35



Index	Time	Duration	Units	Component	Substrate	Side	Color	Results	Action Level	PbC	PbL	PbK
314	2009-12-03 14:04	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	34	WHITE	Positive	2.60 ± 1.10	2.60 ± 1.10	2.60 ± 1.10	<LOD: 2.10
315	2009-12-03 14:06	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	35	WHITE	Positive	3.50 ± 1.90	3.50 ± 1.90	3.50 ± 1.90	<LOD: 1.95
317	2009-12-03 14:07	1.05	mg/cm <sup>2</sup>	DOOR	WOOD	35	WHITE	Positive	<LOD: 5.55	<LOD: 5.55	<LOD: 5.55	<LOD: 1.95
318	2009-12-03 14:08	0.81	mg/cm <sup>2</sup>	DOOR	WOOD	36	WHITE	Positive	<LOD: 6.45	<LOD: 6.45	<LOD: 6.45	<LOD: 2.85
319	2009-12-03 14:08	0.70	mg/cm <sup>2</sup>	DOOR jam.	WOOD	36	WHITE	Positive	<LOD: 6.90	<LOD: 6.90	<LOD: 6.90	<LOD: 3.45
320	2009-12-03 14:10	1.04	mg/cm <sup>2</sup>	DOOR jam.	WOOD	37	WHITE	Negative	<LOD: 0.08	<LOD: 0.08	<LOD: 0.08	<LOD: 0.80
321	2009-12-03 14:11	1.05	mg/cm <sup>2</sup>	DOOR jam.	METAL	38	WHITE	Positive	1.80 ± 0.70	1.80 ± 0.70	1.80 ± 0.70	<LOD: 1.80
323	2009-12-03 14:12	0.81	mg/cm <sup>2</sup>	DOOR	WOOD	38	WHITE	Positive	3.00 ± 1.90	3.00 ± 1.90	3.00 ± 1.90	<LOD: 1.80
324	2009-12-03 14:13	0.93	mg/cm <sup>2</sup>	DOOR	WOOD	39	WHITE	Positive	3.00 ± 1.90	3.00 ± 1.90	3.00 ± 1.90	<LOD: 1.95
325	2009-12-03 14:13	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	39	WHITE	Positive	2.80 ± 1.40	2.80 ± 1.40	2.80 ± 1.40	<LOD: 1.95
326	2009-12-03 14:15	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	40	WHITE	Positive	<LOD: 4.05	<LOD: 4.05	<LOD: 4.05	<LOD: 1.95
327	2009-12-03 14:17	1.62	mg/cm <sup>2</sup>	DOOR jam	METAL	42	WHITE	Positive	2.10 ± 1.10	2.10 ± 1.10	2.10 ± 1.10	<LOD: 1.50
328	2009-12-03 14:21	0.23	mg/cm <sup>2</sup>	DOOR jam	WOOD	43	BROWN	Negative	<LOD: 0.06	<LOD: 0.06	<LOD: 0.06	<LOD: 0.62
329	2009-12-03 14:21	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	43	BROWN	Negative	<LOD: 0.20	<LOD: 0.20	<LOD: 0.20	<LOD: 0.20
330	2009-12-03 14:22	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	45	BROWN	Negative	<LOD: 0.19	<LOD: 0.19	<LOD: 0.19	<LOD: 0.20
331	2009-12-03 14:22	0.58	mg/cm <sup>2</sup>	DOOR jam	WOOD	45	BROWN	Negative	<LOD: 0.10	<LOD: 0.10	<LOD: 0.10	<LOD: 1.06
332	2009-12-03 14:23	0.23	mg/cm <sup>2</sup>	DOOR jam	WOOD	44	BROWN	Negative	<LOD: 0.24	<LOD: 0.24	<LOD: 0.24	<LOD: 0.74
333	2009-12-03 14:23	0.12	mg/cm <sup>2</sup>	DOOR	WOOD	44	BROWN	Negative	<LOD: 0.44	<LOD: 0.44	<LOD: 0.44	<LOD: 0.20
334	2009-12-03 14:24	0.47	mg/cm <sup>2</sup>	DOOR	WOOD	46	grey	Positive	2.40 ± 1.30	2.40 ± 1.30	2.40 ± 1.30	<LOD: 2.85
335	2009-12-03 14:25	0.93	mg/cm <sup>2</sup>	DOOR jam	METAL	46	grey	Positive	2.20 ± 1.10	2.20 ± 1.10	2.20 ± 1.10	<LOD: 2.55
336	2009-12-03 14:27	1.05	mg/cm <sup>2</sup>	DOOR jam	METAL	47	WHITE	Negative	<LOD: 0.03	<LOD: 0.03	<LOD: 0.03	<LOD: 1.05
337	2009-12-03 14:28	1.05	mg/cm <sup>2</sup>	DOOR	METAL	47	WHITE	Negative	<LOD: 0.03	<LOD: 0.03	<LOD: 0.03	<LOD: 1.20
338	2009-12-03 14:28	1.05	mg/cm <sup>2</sup>	DOOR	METAL	48	WHITE	Negative	<LOD: 0.03	<LOD: 0.03	<LOD: 0.03	<LOD: 1.35
339	2009-12-03 14:29	1.04	mg/cm <sup>2</sup>	DOOR jam	METAL	48	WHITE	Negative	<LOD: 0.10	<LOD: 0.10	<LOD: 0.10	<LOD: 1.20
340	2009-12-03 14:32	19.91	mg/cm <sup>2</sup>					Positive	1.00 ± 0.10	1.00 ± 0.10	1.00 ± 0.10	0.40 ± 0.10
341	2009-12-03 14:33	13.14	mg/cm <sup>2</sup>					Negative	0.90 ± 0.10	0.90 ± 0.10	0.90 ± 0.10	0.40 ± 0.10
342	2009-12-03 14:34	7.09	mg/cm <sup>2</sup>					Positive	1.10 ± 0.10	1.10 ± 0.10	1.10 ± 0.10	0.40 ± 0.10

# Department of Environmental Quality

Environmental Quality

## MARSHALL ENVIRONMENTAL MANAGEMENT

1000 University Blvd., Suite 1000, Charleston, WV 25304  
Tel: 304.261.2200 Fax: 304.261.2201

### FIRM

Certification # OKFIRM11160

This certificate is valid from the date of issuance until the expiration date provided below.

Issued on: 4/1/2009

Expires on 3/31/2010



Division Director  
Air Quality Division





Environmental Programs Manager  
Air Quality Division

# Department of Environmental Quality

Division of Air Quality

**CHARLES MARSHALL**

The seal of the Department of Environmental Quality is a symbol of the Department's commitment to the protection and improvement of the environment.

## INSPECTOR/RISK ASSESSOR

Certification # OKRASR13418

This seal is valid from 4/1/2009 to 3/31/2010.

Issued on: **4/1/2009**

Expires on **3/31/2010**



Division Director  
Air Quality Division





Environmental Programs Manager  
Air Quality Division



*Figure 1. Browa Stair Rail- Room 27 (Side C - North)*



*Figure 2. Browa Stair Rail- Room 27 (Side C - South)*



Figure 3. White Concrete Ledge - Room 27 (Side C)

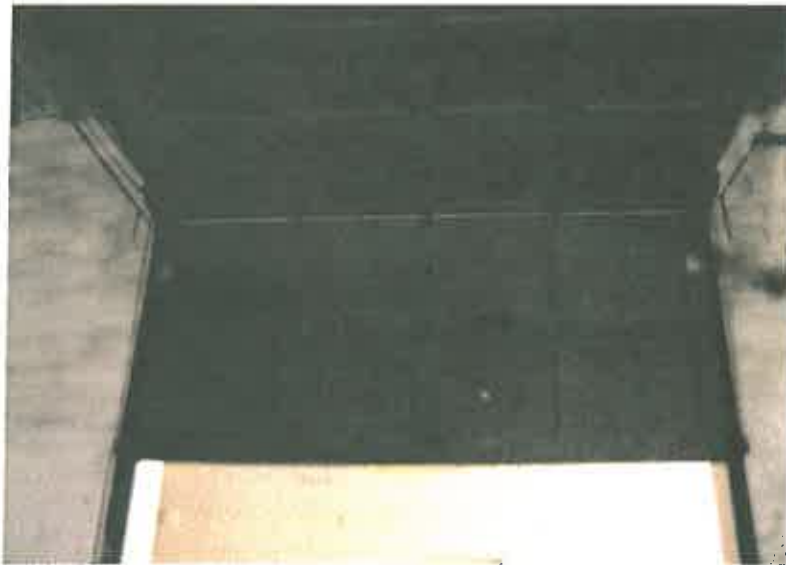


Figure 4. Overhead Door (# 12)



Figure 5. Overhead Door (# 12) (Opposite Side)

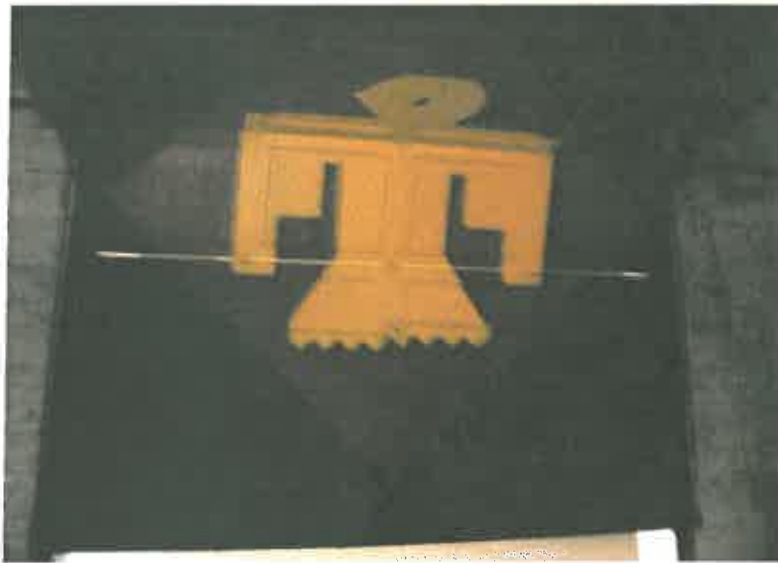


Figure 6. Overhead Door (# 41)



Figure 7. Overhead Door (# 41) (Opposite Side)



Figure 8. Exterior Door (Side D-2)



Figure 9. Door Frame (Side A-2, #1)



Figure 10. Door Frame (Side A-2, #2)





Figure 11. Exterior Door Frame (Side B-2)



Figure 12. Exterior Door Frame (Side D-2)



Figure 13. Doorway Overhang (Side B-2)



Figure 14. Exterior Door (Side B-2)



Figure 15. Doorway Overhang (Side D-2)



Figure 16. Garage Door (Side A2)



Figure 17. Garage Door (Side A-1, #1)



Figure 16. Garage Door (Side A-1, #3)



Figure 19. Garage Frame (Side A2)



Figure 20. Garage Frame (Side A-3, #1)



Figure 21. Garage Frame (Side A-3, #3)



Figure 22. Garage Frame (Side A-1, #1)



Figure 23. Garage Frame (Side A-1 #3)



Figure 24. Roof Drain (Side A-1, #2)



Figure 25. Roof Drain (Side A-1, #1)



Figure 26. Roof Drain (Side A-3, #1)





Figure 27. Roof Drain (Side A-3, #2)



Figure 28. Roof Drain (Side C-1)



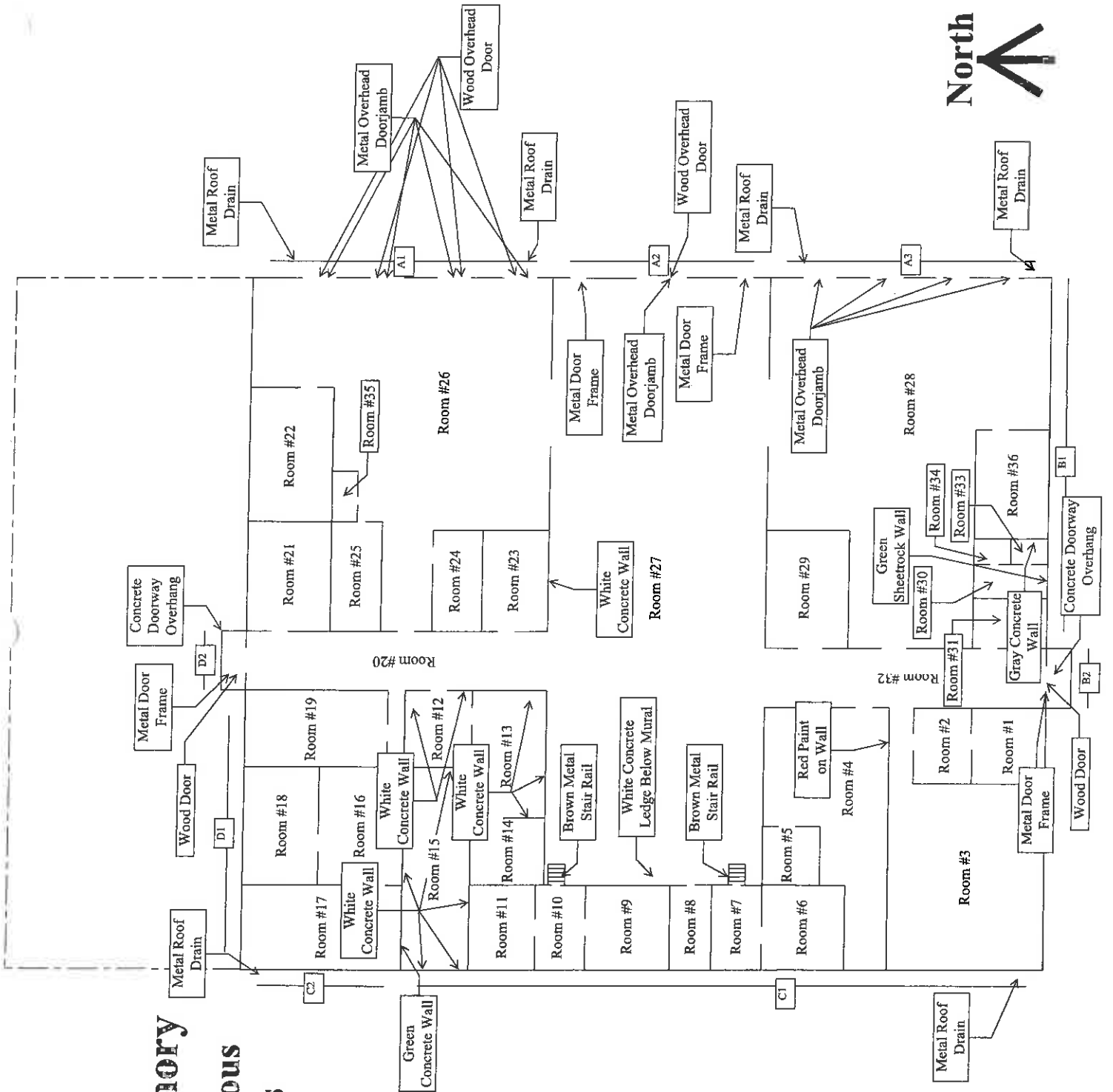
Figure 29. Roof Drain (Side C-2)



Figure 30. Room #4 - Red Paint. (Side B)

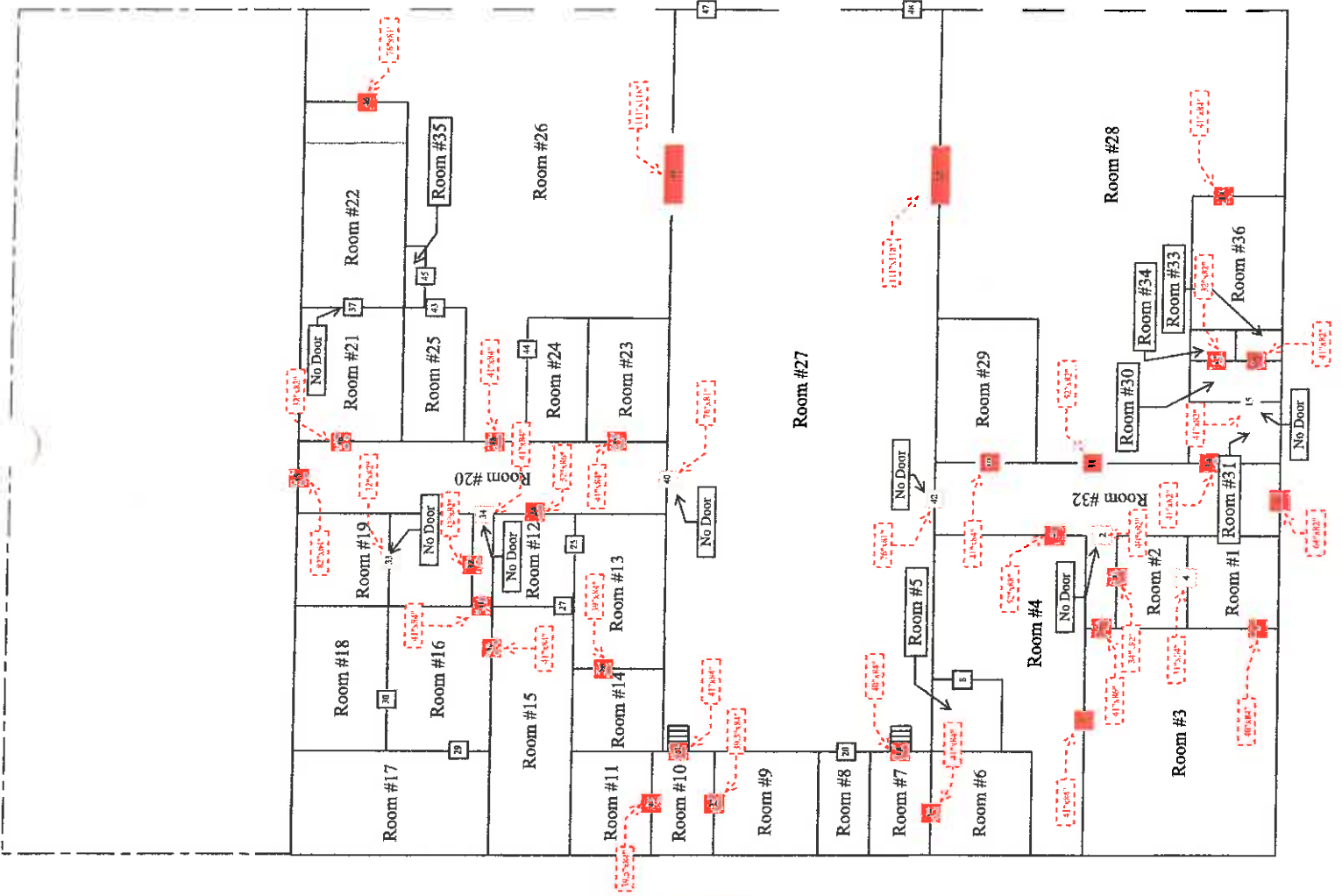
# Perry Armory

## Miscellaneous Surfaces



# Perry Armory Lead-Based Paint Doors & Doorjamb

+Doorjamb
+Door
-Door & Doorjamb



## SCOPES OF WORK

**Scope of Work  
For  
Abatement of Non-Friable and/or Non-Regulated Asbestos at  
The Former Perry, Pawhuska and Miami National Guard  
Armories**

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from licensed asbestos abatement contractors for asbestos remediation services at the former Perry, Pawhuska and Miami National Guard Armories. Qualified bidders shall follow all appropriate OSHA requirements. This scope of work (SOW) describes the non-friable and/or non-regulated asbestos containing materials (ACM) that will either be removed or left in place. The ACM to be removed shall be included in your bid.

- Friable and regulated ACM shall be removed as described in the attached project designs.
- Non-friable and / or non-regulated ACM shall be removed or left in place as described below.
- For more information on asbestos locations and quantities of asbestos to be removed, see the attached asbestos inspection reports and project designs for each armory.

Marshall Environmental will be performing oversight on this project. Once asbestos has been removed, contractor shall contact Marshall Environmental to perform the final inspection. The phone number for Marshall Environmental is (405) – 616-0401. Marshall Environmental will determine if all asbestos has been appropriately removed or if additional work needs to be performed.

The Perry Armory is located at 309 North 14<sup>th</sup> Street, Perry, Oklahoma 73077. The building **does** have available electricity but **does not** have available water to use during remediation.

The Pawhuska Armory is located at 836 East 8<sup>th</sup> Street, Pawhuska, Oklahoma 74056. The building **does not** have available electricity and **does not** have available water to use during remediation.

The Miami Armory is located at 830 D Street Southeast, Miami, Oklahoma 74354. The building **does not** have available electricity and **does not** have available water to use during remediation.

**Pawhuska Armory**

- **Remove** sheetrock from wall in Room Number 10.

## **Perry Armory**

- **Remove** floor tile and mastic from Room Numbers 16, 17, 18, 19, and 34;
- **Remove** all sheetrock as described in the attached Perry Armory Project Design.

## **Miami Armory**

- **Remove** floor tile and mastic from Room Numbers 3, 4, and 5.
- **Remove** mastic on flu in Room Number 1.
- **Do Not Remove** caulking from around all windows.
- **Remove** all TSI as described in the attached Miami Armory Project Design.

Project Design Review Form

Oklahoma Department of Labor  
Asbestos Division

4001 N. Lincoln Blvd., Oklahoma City, OK 73105

Phone - (405) 526-1500 Fax - (405) 524-6793

Project Name: Peary Armory

Project No.: 10-6165 Date: 02-25-10

Project Designer: Charles L. Marshall OKP-D#140028

Approved

Disapproved

ITEM NO.	ITEM	ACCEPT- ABLE	NOT ACCEPT- ABLE	COMMENTS
1.	A statement that DOL Abatement of Friable Asbestos Materials Rules apply.	X		Oklahoma Department of Labor (Title 40 Sections 451-457) OAC 380:50 and Abatement of Friable Materials Rules 29 CFR 1926 Construction Industry Standards
2.	Sequencing and phasing of work.	X		One phase Rooms 9, 10, 12, 24, 25, and 35
3.	Identification of means of egress and a fire protection plan.	X		3 ABC 10lb fire extinguisher will be placed in work area. Workers will be trained in the use of fire extinguishers, emergency egress plans, basic fire safety, and emergency reporting procedures prior to work beginning.
4.	The quantity, type, and location of asbestos materials to be abated.	X		Approx. 3000 square feet of wallboard and ceiling board containing 2% chrysotile asbestos.
5.	Abatement methods, and techniques, and numbers of glovebags or mini-containment.	X		Procedures shall be conducted similar to and prescribed in 380:50-23-4 with the exception of externally vented and monitored neg air machines.
6.	Numbers of area air monitoring pumps.	X		One background sample per room. Minimum of 2 personal or 1 for every 4 workers. One 30 min. excursion sample. 1 inside the work area. 1 outside (the decontamination facilities. 1 outside the load-out during load-out activities 1(30 minute) excursion sample. 1 sample per AFD vented externally. 1 clearance samples per room for 6 hours and 3000 liters.
7.	Numbers, capacities, location, and discharge points, if any, of negative air machines.	X		One AFD per room with manometer and monitored. AFD is being exhausted to the exterior of building
8.	Details of the project containment(s).	X		Shut down and lock out all HVAC systems in work area and install critical barriers at all entrances into work area. Install two separate two stage load-outs. Lock-out all electrical power in work area. Power supplied through GFCI circuits.
9.	Details of the decontamination system(s).	X		Three stage centralized decontamination unit with attach AFD.
10.	The extent to which asbestos-contaminated soils, if any, must be removed, and the sampling methods of determining the efficacy of such removal.	X		None
11.	Special materials or methods required to protect objects in the work area should be detailed, (e.g., plywood over carpeting or hardwood floors to prevent damage from scaffolds and falling material).	X		None
12.	Any variances from the Abatement of Friable Asbestos Materials Rules.	X		Variances Accepted

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: *[Signature]* DATE: 3-18-10  
 REVIEWED BY: *[Signature]* DATE: 3/18/10

MARSHALL ENV No. 8603 RECEIVED 03/18/2010 14:30 405-681-6753 2010-2:26PM



**ASBESTOS PROJECT DESIGN  
AND  
SCOPE OF WORK  
RELATED TO THE  
ASBESTOS ABATEMENT  
AT THE  
DEQ OKLAHOMA ARMORY RESTORATION PROJECTS**

**DCS Project #**  
**(DCS Bid Packet of Project #)**

**ODOL Project # \_\_\_\_\_**

**Perry Armory**

**February 12, 2010  
(Version 1.0)**

**Services Provide For:**  
***Oklahoma Department of Environmental Quality***  
Land Protection Division  
707 N. Robinson Ave.  
*Oklahoma City, OK 73102*

**Asbestos Inspection Services Provided By:**  
***Marshall Environmental Management, Inc.***  
1601 SW 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, Oklahoma 73159  
(405) 616-0401

# Contents

I.	Scope of Work.....	3
II.	Responsible Parties and Consultants: .....	4
III.	Location, Types of ACM and Estimated Quantities .....	5
IV.	Sequence of Events, Projected Dates and Duration.....	6
V.	General Requirements .....	7
VI.	Prep for Abatement.....	11
VII.	Abatement Procedures.....	12
VIII.	Engineering Controls.....	14
IX.	Worker Protection .....	15
X.	Decontamination and Waste Load-out .....	16
XI.	Air Monitoring and Clearance Testing .....	16
XII.	Load-out and Disposal.....	20
XIII.	Safety Issues, Electrical, Fire and Emergency Egress .....	20
XIV.	Requests for Variances .....	20
XV.	Removal of Asbestos in Soil .....	21
XVI.	Special Materials or Methods .....	21
	Appendix .....	22

## I. SCOPE OF WORK

This Project Design has been prepared to allow for the safe and economical removal of friable Asbestos Containing Material (ACM) as part of the Oklahoma Department of Environmental Quality (DEQ), Land Protection Division's (LPD), Oklahoma Armory Restoration Projects. This Asbestos Abatement Project will receive a Project Number that is to be assigned by the Oklahoma Department of Labor (ODOL).

This Project Design will be used to address the removal of friable ACM from the Armory. The scheduled for abatement will be determined by the DEQ LPD. The Project Design includes the Scope of Work for the Abatement of Friable Asbestos and the approximate locations and quantities of friable ACM to be abated at the Armory. Once hired, an ODOL Licensed Asbestos Abatement Contractor will file the individual notifications required by ODOL and DEQ (NESHAP). The information on the Armory floor plan and the estimated quantities and types of ACM is provided in the Appendix.

The work to be conducted for the asbestos abatement work at this Armory involves the removal of friable asbestos. Therefore, the ODOL rules that govern the removal of friable asbestos containing materials shall apply to this Project.

The identified friable ACM present in this Armory consists of in the plasters used for bedding tape, joint and mud compounds on wallboard and ceiling boards at the locations identified in the Table provided in the Appendix of this Project Design.

The Licensed Asbestos Contactor will also be authorized by the DEQ LPD to conduct the removal of non-friable asbestos floor tile and mastic, and potentially cement asbestos (transite) exhaust flues. The removal of non-friable ACM is not to be considered a part of the Project Design for ODOL notification purposes. The estimated quantities of non-friable ACM to be removed are identified in the Table provided in the Appendix of this Project Design. The Licensed Asbestos Contactor shall indicate the quantity of non-friable ACM to be abated on the Project's NESHAP Notice. The abatement of non-friable floor tile and mastic shall be consistent with the requirements of the Occupational Safety and Health Administration regulations 29 CFR 1910.1101 and the recommendations of the Resilient Floor Tile Institute.

The methods used for work area preparation, cleaning, and abatement of the friable ACM shall be consistent with the requirements of the Oklahoma Rules for Abatement of Friable Asbestos Materials, OAC 380:50 (ODOL Rules).

## II. RESPONSIBLE PARTIES AND CONSULTANTS:

### Licensed Contractor:

An ODOL Licensed Asbestos Contractor is to be selected based on a successful bid submittal. The Oklahoma Department of Central Services (DCS) Construction and Properties Division will oversee the bidding and the Award of the Contract. The DEQ LPD will be the Project's Contracting Officer.

### Licensed Project Designer:

Marshall Environmental Management, Inc.  
1601 SW 89<sup>th</sup> Street Suite A-100  
Oklahoma City, Oklahoma 73159  
(405) 616-0401 (Office)  
(405) 820-1656 (Mobile)  
(405) 681-6753 (Fax)  
[marshenv@swbell.net](mailto:marshenv@swbell.net)



Charles L. Marshall, Ph.D., C.I.H., OKPD-140028

### Owner's Representative:

Dustin Davidson, Environmental Programs Specialist  
Oklahoma Department of Environmental Quality  
Land Protection Division  
707 N. Robinson  
Oklahoma City, OK 73102  
(405) 702-5115 (Office)  
(405) 702-5101 (Fax)  
[dustin.davidson@deq.ok.gov](mailto:dustin.davidson@deq.ok.gov)

### Department of Central Services:

DCS Project Manager  
To be identified by DCS in the Bid Packet.

### III. LOCATION, TYPES OF ACM AND ESTIMATED QUANTITIES

The Appendix to the Project Design contains the documentation on the location and estimated quantities for the type of ACM identified in the Armory.

The types of the response actions to be taken, methods for removal, quantities, dates and responsible parties performing the abatement, air monitoring and waste disposal landfill locations shall be indicated on the Licensed Asbestos Contractor's NESHAPS Notice and Notification of Asbestos Abatement that are to be filed with DEQ and ODOL, respectively.

The ODOL Asbestos Division will assign this Armory Project. The ODOL will utilize the approved Project Design, and any subsequent Project Design Amendments, as a basis to assess the Project's required scope of work, sequence of events, abatement procedures, air monitoring, clearance sampling and any other related requirements of ODOL Rules.

The asbestos abatement work will also include removal of all of the wallboard and ceiling board that contains asbestos in the bedding tape and or mud compounds for Rooms 9, 10, 12, 24, 25, and 35. The friable ACM, consisting of 2% Chrysotile, is present in the beading tape mud and it is assumed that a similar mud may cover joints, seams and nails with in these rooms. The quantity of ceiling board is estimated at approximately 3000 square feet. These quantities are only estimates and the actual quantity that the Contractor must verify may vary. Regardless of variations in quantity, all of the wallboard and ceiling board in the work areas associated with these rooms, and the associated beading tape and mud or joint compounds, shall to be abated by the Licensed Asbestos Contractor.

The Asbestos Abatement Contractor shall remove all non-friable asbestos containing floor tiles and mastics and any of the non-friable cement asbestos exhaust flues identified for removal by the DEQ. These response actions are not governed by the ODOL rules but will require a negative exposure assessment and clearance monitoring to be evaluated by the DEQ and the Project Designers Representative.

The amounts and types of ACM are provided as an Appendix to this Project Design. Questions regarding the Scope of Work shall be addressed in writing to the DCS Constructions and Properties Division (DCS) Representative.

#### IV. SEQUENCE OF EVENTS, PROJECTED DATES AND DURATION

The Abatement Contractor will follow the following sequence of events.

1. The Licensed Asbestos Contractor shall file required ODOL and NESHAP Notification NESHAPS notifications. **Note:** Copies of the notifications are to be provided to DEQ LPD and the Licensed Project Designer.
2. Licensed Asbestos Contractor will mobilize to begin prep work based upon the DEQ LPD approval to start work and after coordination is confirmed with any appropriate authorities (e.g. armory occupants) for the work dates and times of work approved by the DEQ LPD at the specific Armory.
3. The Air Monitoring Firm shall conduct background air monitoring prior to prep inspection.
4. As part of the preparation for abatement, the Licensed Asbestos Contractor shall isolate adjacent areas and install critical barriers.
5. Establish GFI circuits and a Decon for use throughout prep.
6. Establish a Centralized Decon for use during prep work and abatement
7. Place abatement supplies in the Armory rooms.
8. Surround regulated work areas with asbestos hazard warning tape.
9. Perform any pre-cleaning of loose ACM, if necessary, to complete the Prep.
10. Prepare any rooms requiring abatement of wallboard or ceiling board plaster mud and/or joint compounds in a manner similar to the requirements of ODOL Rules 380:50-23-4, except that the decon and load out shall be at a remote location or room with the Armory were they can attached a negative air machines to the dirty room as specified in this Project Design and ODOL Rules. Each separate room will have 2-6-mil layers of polyethylene sheeting put in place at the doorway as an "air lock" (e.g. Z-Flap).
11. As stated above, provide adequate negative pressure HEPA filtered exhaust machines to establish a negative pressure to the Central Decon Facility and the associated loadout facility for all phases of abatement work.
12. When prep is completed, schedule an ODOL Prep Inspection.
13. Perform the asbestos abatement and loadout all wastes.
14. Schedule any interim ODOL visual inspections per ODOL Inspector requirements.
15. Upon completion of final cleaning call for the ODOL visual inspection.
16. Perform post abatement lock-down applications as required.
17. Schedule the final visual inspection with ODOL and conduct clearance sampling to coincide with the ODOL inspection requirements.
18. Schedule any final ODOL inspection that may be required.
19. Schedule the non-friable ACM with the Owners Representative.
20. Conduct a final inspection to verify the completion of the Scope of Work with the Project Designer's representative.
21. Tear down prep work and critical barriers and demobilize after approval by the ODOL and Owner's Representative (DEQ LPD).
22. File final project documents with ODOL and provide a copy to the DEQ LPD Representative.

The Licensed Asbestos Contractor shall file the notification of the intended start date based upon the schedule to be determined by the DEQ LPD Representative. This Project is anticipated to start, once a Licensed Contractor is selected as a successful bidder and a Notice to Proceed is issued by the DEQ LPD and DCS.

The Project duration is estimated to take less than less than five days to complete friable ACM abatement. Clearance testing will be conducted per ODOL rules or as specified in the approved Project Design or any subsequent Project Specific Project Design Amendments.

## V. GENERAL REQUIREMENTS

### A. Asbestos Contractor

The DCS Bid Packet will be used to select an ODOL Licensed Asbestos Abatement Contractor for use by the DEQ on this Oklahoma Armory Remediation Project. The ODOL Licensed Asbestos Contractor shall perform the asbestos abatement work in accordance with the ODOL Rules, this Project Design, any Site Specific Project Design Amendments and all applicable rule and regulations issued by those authorities' having jurisdiction.

### B. Codes and Regulations

**The Asbestos Abatement Contractor (herein and hereafter referred to as the Contractor)** shall abide by this Project Design and the requirements, which govern asbestos removal in OAC 380:50 and transportation of asbestos waste materials to include, but not limited to, the following:

1. 29 CFR 1910, OSHA General Industry Standards.
2. 29 CFR 1926, OSHA Construction Industry Standard.
3. 29 CFR 1926, 1101 OSHA Asbestos Construction Standard
3. 40 CFR 61, Subpart M (NESHAPS) enforced by ODEQ.
4. ANSI Z88.2 latest edition (Respiratory Protection).
5. Oklahoma Asbestos Control Act Title 40 Sections 450-456.
6. OAC 380:50 (All-inclusive), Oklahoma Rules for Abatement of Friable Asbestos Materials.
7. 49 CFR (USDOT) Hazardous Material Transportation Regulations.
8. All Applicable State Statutes, County and City Codes/Ordinances
9. OAC 252:100-40, Air Pollution Control Rules, Control of Emission of Friable Asbestos during Demolition and Renovation Operations (replaces OAC 252:100-41-16).
10. OAC 252:515-19, Management of Solid Wastes (DEQ Asbestos Land Protection Division Asbestos Disposal Requirements).
11. Resilient Floor Covering Institute (RFCI) Recommended Work Practices for Removal of Resilient Floor Covering.  
<http://www.rfci.com/files/pdf/RFCIRecommended9-04.pdf>

Wherever conflicts arise in any of this Project Design's General Requirements or Procedures and/or among the applicable Rules and Regulations, the most stringent rules shall apply, subject to approval by ODOL or other authorities' having jurisdiction (e.g. DEQ). Wherever allowed by the authority that has jurisdiction, a request for a variance can be submitted, provided it is acceptable to the Owner's Representative (DEQ) and its representatives in advance of consideration by the authority having jurisdiction.

C. Notifications

The Asbestos Abatement Contractor, prior to any abatement work, shall be required to file a Notifications of Asbestos Removal with both the ODOL Asbestos Division and the DEQ NESHAP Division (per Subchapter 9 ODOL Rules). These processes require ten days, unless the Agency waves the waiting period due to an emergency. The Contractor shall also be responsible for submitting any request for variances within this period of notification.

**Note:** A NESHAP notification shall be filed by the Licensed Asbestos Contractor with the DEQ Air Quality Division. A copy is to be provided to the ODOL, Project Designer and DEQ LPD representative. All quantities and disposition of waste shall conform to the notification. Changes in the amounts of asbestos waste materials (greater or less than 20% of the notified amounts) shall require that the Licensed Asbestos Contractor files a revised NESHAP Notice with the DEQ AQD at the time the waste is prepared for disposal. The DEQ LPD representative shall approve the landfill indicated on the NESHAP form prior to the Contractor filing the notification.

A copy of the required NESHAP Notice can be obtained at the following DEQ website: <http://www.deq.state.ok.us/aqdnew/asbestos/NESHAPfm.pdf>

A copy of the ODOL Asbestos Project Check list can be obtained from the following ODOL web site:

<http://www.ok.gov/odol/documents/AsbestosProjectChecklist.pdf>

D. Waste Disposal

The Licensed Asbestos Contractor is responsible for all fees for wastes, storage, transportation and disposal. Unless properly insured, in accordance with the Oklahoma Asbestos Control Act, the Licensed Asbestos Contractor shall hire a Licensed and Insured Asbestos Disposal Contractor that is also a Licensed Asbestos Contractor, for the transportation and disposal of all asbestos wastes as specified in the Project Design and in accordance with the NESHAP notification and Subchapter 40 of the Oklahoma Clean Air Act.



The Contractor or Licensed Transporter shall be responsible to provide onsite storage and licensed transportation of all asbestos wastes to the DEQ Permitted Asbestos Landfill where the ACM will be disposed of at the end of the job. The Project's NESHAP notification shall list the disposal site to be used for the Project.

During periods of time when the asbestos waste is to be stored onsite, the Asbestos Abatement Contractor shall maintain an enclosed and properly placarded waste storage unit and/or waste disposal trailer or roll-off bin, which is to be located in a secure area on the Armory campus at a location determined by the Owner's Representative (DEQ LPD).

The storage area, trailer or roll-off bin shall be prepared with 6-mil polyethylene and placarded in accordance with OSHA and DOT requirements. When not in use, the enclosed storage area, trailer or roll-off bin will be kept locked, wherever possible (e.g. trailer), or sealed tightly (e.g. roll-off bin) to control access to any stored waste. The trailer or storage unit shall be available for inspection to representatives of the ODOL during all site visits, no later than the initial prep inspection.

A uniform style industrial waste manifest or asbestos disposal record shall accompany each load transport to the landfill as specified in the NESHAP regulation. All 6 mil double wrapped wastes, 6-mil double bagged asbestos waste, manifests, landfill disposal records and NESHAP notices shall designate the DEQ and the specific Armory Name (with its address) as the generator of each specific project (e.g. DEQ LPD – Perry Armory – Address and Dates).

The list of DEQ Approved Landfills that can accept Asbestos Waste can be found on the DEQ Land Protection web site at the following web site link: <http://www.deq.state.ok.us/lpdnew/SW/MSWLFsAcceptingAsbestos.htm>

#### E. Insurance

The Asbestos Abatement Contractor performing the asbestos abatement and any related contract services (e.g. re-insulation), shall provide the DCS and the DEQ LPD with copies of current Certificates of Insurance. Use of any sub-contracts shall require written approval by the DCS Construction and Properties Division. The Contractor's General Liability Insurance, Worker Compensation, Hired and Non-Owned Auto Insurance shall meet the requirements of the DCS as specified in the Bid Packet and this Project Design, as well as applicable State Statutes and meet the requirements of Section 452 of Title 40, Oklahoma Asbestos Control Act.

F. Documentation

The Asbestos Abatement Contractor shall complete all documentation as required by the authorities having jurisdiction and those specified in this Project Design. Air monitoring data shall be generated by the Project's Air Monitoring Firm and supplied to the Licensed Asbestos Abatement Contractor for any required submittals upon completion of the clearance sampling.

Upon completion of the job, the Licensed Asbestos Abatement Contractor shall provide the Owner's Representative with copies of ODOL inspections, copy of:

1. Asbestos supervisor's daily reports
2. List the names of all Licensed Asbestos Personnel and other site workers, visitors and/or other employees with their valid ODOL License Numbers and valid State ID or valid Driver License Numbers.
3. Any electrical engineers safety instructions (if required)
4. All air monitoring results.
5. Final clearance testing results.
6. Copies of negative pressure recording devices (if required) tapes.
7. All signed asbestos disposal manifests.
8. Copies of All ODOL Inspector Forms and Approval for the Project.

G. Site Security, Electrical Safety and Employee Hazard Communication

All entrances and exits to the regulated work areas within the Armory (i.e. areas marked by asbestos warning signs) and entrance to the central decon shall have an asbestos hazard warning sign attached. During off shift hours, all entryways into the Armory shall be kept locked to restrain unauthorized personnel from entry into the Armory until such time as all the ACM has been removed and clearance sampling has conducted and the final visual inspection has been approved by the ODOL.

A daily log must be maintained by the Licensed Asbestos Abatement Contractor, which includes the names of all Licensed Asbestos Personnel and other site workers, visitors and/or other employees with their valid ODOL License Numbers and valid State ID or valid Driver License Numbers.

The Owner's Representative shall be responsible to see that all required lockout-tagout of electrical lines are performed in accordance with the OSHA Standards 29 CFR 1910.147 and 29 CFR 1926.417 and applicable Armory Policy. The Licensed Asbestos Contractor and individual

employees who work around electrical energy lines will also perform their own lockout-tagout procedures to de-energize all electrical circuits necessary to ensure worker safety. If an electrical engineers statement is required to work around live electrical circuits, it will be the responsibility of the Licensed Asbestos Contractor to obtain the Engineers Statement in accordance with ODOL Rules. Based on the pre-abatement inspection, no live electricity is anticipated to be left on in the abatement work areas located within the Armory.

The Owner's Representative will be responsible for any required hazard communication notifications of all applicable Armory personnel. Access to the abatement work areas, "the regulated work area", is to be kept to licensed personnel. Access to other areas of the Armory is to be authorized DEQ LPD personnel.

## VI. PREP FOR ABATEMENT

### A. Available Utilities

**Special Condition:** Some Armories do not have utilities. This may include the supply of potable water for the use in abatement methods, decontamination facility, and wastewater disposal. Also, some armories do not have an active electrical supply hook-up with the local electric utility authority. Those Armories that do not have utilities for electricity, potable water and sewer connections will be identified by the Owner's Representative at the pre-bid site visit or Project walk-through by the DEQ Representative. The Asbestos Contractor will be responsible to provide all utility services in connection with their services for any location that does not have these services. Any fees or cost for the connection and disconnection of these services shall be paid by the Asbestos Contractor as a part of the SOW and are to be included in the cost for the services for these projects.

### B. Requirements for the Prep Work for the Abatement of Wallboard and Ceiling Board with Asbestos Containing Plaster Mud's and Joint Compounds.

The Asbestos Abatement Contractor shall prepare the area for abatement in the manner that is similar to and meets the requirements of ODOL regulations OAC 380:50-23-4. The methods for work area preparation are outlined in previous sections of this Project Design and the following requirements.

The Contractor shall ensure that the wallboard and/or ceiling board removal will not compromise the adjacent interior walls, which must remain intact as a barrier whenever the wallboards and/or ceiling boards are removed from the inner side of the containment.

If the Contractor's work would penetrate the adjacent room's wall or ceiling, the Contractor shall extend the dimensions of the Containment area to include the demolition of adjacent room and prep the adjacent rooms as a part of the project containment in order maintain negative pressure throughout the abatement process.

1. Assist as need, the Armory Personnel in the moving out from the work area all non-fixed items (e.g. desks, files, non-attached shelving, stored paperwork, etc.) identified by Facility Representative.
2. Establish required asbestos warning signs and regulated work area boundaries using asbestos warning tape at the entrances to the rooms that are undergoing the removal of the ACM. Establish GFI circuits, and a Central Decon for use throughout Prep as needed.
3. Setup GFI circuits panels and temporary lighting in the work area and adjacent locations to assist with prep work, inspections and air monitoring. Any connections to the buildings electrical circuits for the purpose of obtaining power for GFI circuits shall be performed at the contractor's expense using a State Licensed Electrical Contractor.
4. Once the Armory heating and air conditioning is turned off, begin to pre-clean all visible dust on surface inside the work area using HEPA vacuums.
5. Place critical barriers over the HVAC supply and return vents, windows and adjacent room doorways and hallways.
6. Prep the floor space and walls within the work area with two layers of 6-mil polyethylene to protect the floor and wall surface in the work area.
7. Mark all fire exit routes with red arrow or signage type markings with the arrows showing path of egress.
8. Cover any fixed items (lights fixtures, fire extinguisher cabinets, etc.) in a sheet of 6-mil polyethylene per ODOL requirements.
9. Set-up an attached load-out chamber area and an attached decon and connect to the water supply and wastewater drain at a location approved by the Owner's Representative.
10. Provide adequate negative pressure HEPA Filter exhaust machines to establish a negative pressure of  $-0.02''$  water pressure in the work area and provide a continuously recording negative pressure monitor. Mark the tape each day at the start and end of each work shift with the time and date.
11. When prep is completed call for an ODOL prep inspection.

## VII. ABATEMENT PROCEDURES

**Phasing:** The phasing of asbestos removal work shall be indicated on Contractor's initial ODOL notification for scheduling purposes. The Friable Asbestos Removal for this Project is to be conducted in one phase. The First Phase will consist of the removal of wall and ceiling board from all rooms of the

Armory. After friable ACM is abated, the Asbestos Abatement Contractor will schedule the non-friable ACM removal with the DEQ Representative.

**A Modified Negative Pressure Containment:** The Modified Negative Pressure Containment is required for the efforts to remove the wall and ceiling boards from Rooms 9, 10, 12, 24, 25, and 35.

The Modified Negative Pressure Containment is required to facilitate a safe removal of asbestos containing plaster used as a bedding or joint compound for each layer of gypsum ceiling board. The prep work to seal the area, install critical barriers and seal the work area containment shall in general follow the requirements of OAC 380:50-23-4 as summarized in the previous section of this Project Design.

**Notice:** The quantity for this Project's containment work exceeds 160 square feet. The Contractor must file a NESHAPS notice with DEQ Air Quality Division, which requires a 10-day notice prior to the start of asbestos removal activities.

During all phases of the work, the building's re-circulating heat and air system will be turned off, and the critical barriers are to be placed over all HVAC supply and return air grilles. These shall be routinely inspected and maintained in a sealed condition by the Licensed Abatement Contractor.

#### **A. Modified Negative Pressure Containment Work to Abate the Wall and Ceiling Board Plaster Material**

Insure that the work areas are isolated from adjacent occupied areas and that all critical barriers are installed.

The Asbestos Abatement Contractor shall perform this abatement work in accordance with the requirements of ODOL regulations OAC 380:50-23-4, except that the decon and load out shall be centralized and a negative air machines shall be provided as specified in this Project Design.

1. Once the prep has been approved by the ODOL, the Asbestos Abatement Contractor can begin the ACM removal operations.
2. Each worker involved in removal shall perform a careful and cautious manner for the removal all wallboard and ceiling wallboard containing the ACM and prepare it for loadout as asbestos waste.
3. Initially wet each section of ceiling board and its beading tape and seam of plaster or joint compound with amended water using a low-pressure hand-held spray bottle or pressure sprayer.
4. Then dismantle the ceiling boards by cutting them into suitable size section that can be easily prepared for disposal in 6-mil asbestos waste disposal bags.
5. Collect and HEPA vacuum all residues and all dusts that are generated in the removal process for collection in the asbestos disposal bags.

6. Upon completion of the asbestos removal call for an initial visual inspection with the ODOL Inspector.
7. Once the gross removal and final cleaning work is completed, the Asbestos Abatement Contractor will call for an ODOL visual inspection.
8. Upon approval of the visual inspection, apply an EPA approved post abatement sealant as a "lockdown" onto all the surfaces throughout the containment.
9. Once the lockdown is dry schedule an ODOL inspection or follow the ODOL inspector's recommendation for the timing of clearance sampling.
10. Upon completion of successful clearance sampling and any addition required ODOL inspections, tear down the containment barriers and restore the area for occupancy.

## **VIII. ENGINEERING CONTROLS**

- A. Asbestos Containing Ceiling Board Plaster, Bedding Tape and/or Joint Compound Removal.

The primary engineering control will consist of the use the negative pressure containment and HEPA vacuums and wet methods to wet and abate the ACM while working with the negative pressure containment.

The HEPA Filtered Negative Air Equipment shall maintain a -0.02 inches of water pressure for the abatement of all asbestos containing materials. Based on the area involved (~3000 ft<sup>3</sup>) two negative air filtration units are recommended for use to supply at least (4) air exchanges per hour and a minimum of -0.02 inches of negative pressure to the work area. However, a total of six (6) may be needed onsite in order to provide one for use in each room during that room's abatement. Individual negative air machines may be moved around as needed to accomplish this with fewer negative air units so long as the -0.02 inches of negative pressure to the work area is maintained throughout the project.

The Asbestos Abatement Contractor shall have onsite at least one additional Negative Air Filtration Unit throughout the project for use in the event that one of the units supplied to the containment fails to operate properly during the course of the abatement work.

## IX. WORKER PROTECTION

### A. Respiratory Protection.

**Full Face (FF-APR's) –** are to be worn by all personnel in the regulated areas during all prep work that has a potential to disturb ACM and during each work shift for the asbestos removal activities until final clearance levels have been met provided the fiber counts remain <0.5 f/cc UCL .

**Full Face PAPR's -** Full Face PAPR's may be provided to employees who request them or who need to wear one on the basis of a physician's recommendation provided the fiber counts remain <0.5 f/cc UCL.

### B. Work Clothing and Associated PPE.

Additional PPE will consist of disposable asbestos worker clothing, protective gloves, hard hats, steel toe rubber boots and disposable work gloves.

All disposable PPE not limited to respirator cartridges, asbestos work clothing, gloves and other disposable items will be disposed of as asbestos waste throughout all phases of work.

Re-use items will be decontaminated using wet methods and HEPA vacuums at the central decontamination unit before they are brought out of the work area (e.g. rubber boots, respirator face piece).

The Abatement Contractor shall have sufficient work clothing and associated PPE on-site so as to supply these items to the Project Designer's Representative and Air Monitoring Firm Representative as needed to assist them in their work.

Workers may need to use a "double suit" protocol whenever they egress from a work area room after conducting abatement work in order to walk to the central decon or loadout through an adjacent hallway.

## **X. DECONTAMINATION AND WASTE LOAD-OUT**

### **A. Decon and Loadout.**

Workers will be provided a three-chamber centralized decontamination facility (Central Decon).

The central decon will be connected up with a HEPA filtered negative pressure device/machine, such as a low speed negative air machine attached to the dirty side of the central decon. The set-up will allow for the flow of clean air into the clean room and then allow for the air to exhaust through the HEPA filter device attached to the dirty side of the Decon.

This will allow the central decon to have a flow of clean air that is drawn into the clean room and exhausts out through the central decon's dirty room per ODOL requirements OAC 380:50-15-12 (7).

Due to limitations in space, the Licensed Asbestos Contractor shall have some flexibility in the placement of the decontamination facility and loadout.

Workers may need to use a "double suit" protocol whenever they egress from a work area room after conducting abatement work in order to walk to the central decon or loadout through an adjacent hallway.

A containment diagram is provided in the Appendix to the Project Design that give the approximate location for the decon, the loadout and the negative pressure exhaust equipment.

The Clean Room shall conform to the requirements of OAC 380:50-15-7 and 15-12(8) dealing with size and suitable shower water temperature. When space is limited, the Contractor may request a variance from the ODOL rule for the size and configuration of the centralized or attached decontamination facility.

## **XI. AIR MONITORING AND CLEARANCE TESTING**

### Sampling Requirements.

#### **A. Background Samples**

At least one background air sample will be collected in each of the rooms scheduled for abatement at the Armory prior to the start of any asbestos abatement.



## B. Personal Monitoring

### 1. During Preparation for Abatement

A minimum of 25% of the workers will be monitored during preparation of the containment work area if any prep work has the potential to disturb asbestos. Examples of tasks requiring air monitoring during prep work include such tasks as pre-cleaning contaminated fixed and non-fixed items, cleanup of loose ACM on floors or ceiling tiles, and putting up of any critical barriers within arms reach of exposed friable ACM (e.g. where ACM is significantly damaged or missing).

### 2. During Abatement in Negative Pressure Containments

A minimum of 25% of the workers will be monitored during the abatement activities for all negative pressure containments or modified containment abatement work efforts. Personal monitoring is required during these phases to assure adequate respirator protection factors are applied in respirator selection.

### 3. Excursion (30-minute sampling)

One or more 30-minute excursion sample will be collected during the removal of the asbestos that is representative work conducted for each work activity that may generate a potential for worker exposure in excess of the OSHA PEL for the 30 minute Excursion Limit of 1.0 f/cc as specified in 29 CFR 1926.1101.

The Contractor may use prior air monitoring for compliance with the requirement to collect an excursion sample whenever the representative sampling was conducted for work conducted in the previous 12 months as specified in 29 CFR 1926.1101(f)(2)(iii)(B). ODOL has no excursion limit requirement, therefore it the Contractor responsibility to see that appropriate excursion sampling is conducted by the Third Party Air Monitoring firm.

## C. Area Monitoring

The following area samples shall be collected inside the Armory during each work shift when asbestos removal activities are being conducted.

One inside work area sample should be placed in the vicinity of a work crew during each day of work inside the negative pressure containment.

One outside area sample shall be collected adjacent to the work area in the entrance to the Armory's abatement work area (e.g. hallway) and at the Building's Drill Floor Area.

One outside area sample will be collected outside the Clean Room for the Decon Facility for each shift that the Decon is in use.

One area sample will be collected outside the Loadout during the loading out of wastes.

#### D. Action Level

Fiber counts for outside area samples collected in adjacent spaces which exceed an actual fiber concentration of  $>0.01$  fibers/cc, shall be cause to stop work and evaluate the need to change procedures and perform necessary cleanup. A representative set of such samples will be re-analyzed by the NIOSH 7402 TEM method to establish a confirmed level of asbestos fibers. If it is determined that a representative number of samples tested using the NIOSH 7402 procedure exceed the 0.01 fibers per cc then all the work will stop and ODOL will be notified before any work is allowed to continue. Those samples, which are B.D.L., due to insufficient sample volume or sampling time, will not be considered as exceeding this action level.

#### E. Clearance Testing

Clearance testing containments or modified containments will consist of PCM samples collected for a minimum of 6 hours and 3000 liters. A minimum of one clearance sample shall be collected inside each room or Hallway of the Armory where asbestos removal activities have taken place.

The sampling duration can be proportionally reduced to 3 hours by doubling the number of pumps used as stated in DOL rules.

The Clearance Testing can be scheduled once a visual inspection has been approved by ODOL.

The Clearance Criteria will be 0.01-fibers/cc UCL. NIOSH 7402 TEM Analysis will be used to confirm asbestos levels if the PCM clearances exceed 0.01-fibers/cc UCL. If they exceed the criteria, the Licensed Asbestos Contractor will contact ODOL, reclean the work areas and schedule a re-test for clearance. This process will be repeated until the clearance criteria are met or as approved by ODOL.

Whenever the Armory is governed by an AHERA Asbestos Management Plan of a Local Educational Authority (LEA) for school activities grades K-12, the Asbestos Abatement Contractor's Third Party Air Monitoring Firm shall conduct the Clearance Testing using an AHERA protocol with Transmission Electron Microscopy (TEM) analysis by allowing for the collection of a total of 5 PCM samples per each response action location/phase of work for a minimum volume of 1200 liters (i.e. AHERA requirements).

#### F. Laboratory Requirements

*PCM Asbestos Fiber Analysis - Marshall Environmental Management, Inc.*

All routine and periodic asbestos air monitoring, performed during this response action, will be performed by the Third Party Air Monitoring Firm hired by the Licensed Asbestos Abatement Contractor. The Third Party Air Monitoring Firm shall be identified on the ODOL and NESHAPS Notification Forms.

**Notice: It is the Contractors Responsibility to include all costs for Third Party Air Monitoring in the DCS Bid Amount. The DEQ LPD is not responsible for providing any Third Party or other Air Monitoring as a part of any of the Scope of Work for the Project Awarded.**

Air monitoring personnel will have an ODOL Asbestos Worker category and/or Asbestos Inspector Licenses where applicable. Air monitoring staff and lab analysts will have completed the NIOSH 582 equivalency course for sampling and analysis of airborne asbestos. The Lab or air monitoring firm shall be a participant in the AIHA Proficiency Analytical Testing Program (PAT) in accordance with ODOL requirements.

*PLM – Bulk Asbestos Analysis - Marshall Environmental Management, Inc.*

Bulk Asbestos samples will be analyzed in accordance with EPA methods. Bulk Asbestos analysis labs shall be a participant in the AIHA/RTI Bulk Asbestos Proficiency Analytical Testing Program (PAT) or NVLAP Lab.

*TEM – Transmission Electron Microscopy Analysis – QUANTEM LABS, OKC*

Transmission Electron Microscope (TEM) analysis of asbestos air samples, when PCM results exceed 0.01 f/cc UCL, or when AHERA Protocol Clearance sampling is conducted will be performed by Quantem Labs of Oklahoma City.

## **XII. LOAD-OUT AND DISPOSAL**

Double-bagged asbestos waste will be brought from the egress area of the Central Decon/Loadout location to an exit location at the Armory. Waste generator labels will be placed on each bag. Then each bag will be transported by the workers to the prepared storage unit, waste trailer or roll-off bin. Worker personal air monitoring and one outside area air sample shall be performed during each loadout activity in the vicinity of the loadout.

Waste manifests will be used to track the quantity of waste to the disposal site on the NESHAPS Notice.

## **XIII. SAFETY ISSUES, ELECTRICAL, FIRE AND EMERGENCY EGRESS**

No work will be performed without adequate lighting. The work area will be clearly illuminated by droplights, light stands, or equivalent lighting, if the ambient room light does not properly illuminate the work area through the polyethylene sheeting used for critical barriers over the windows.

All work will be performed using a buddy system.

All power to the area is to be supplied by the GFI power source.

All exit routes from the Armory building work areas will be clearly marked with a sign and red arrow designating the exit path. Emergency lights will be in place, where necessary, in all areas that are not properly illuminated so as to assist in the identification of the exit locations.

A minimum of three fire extinguishers will be on site during all phases of work. The fire extinguishers shall be a #10-A:B:C rated extinguisher.

A minimum of one fire extinguisher will be in the work area and one in each of the containment area prepared for the removal of the wallboard and ceiling board material.

A minimum of one fire extinguisher shall be placed in the clean room of the Decon facility.

## **XIV. REQUESTS FOR VARIANCES**

Request for variances must be submitted to both the Licensed Project Designer and ODOL Inspector.

A variance from starting the work in Type "C" supplied air is requested. The Contractor may start the initial shift of work in Powered Air Purifying Respirators (PAFP) and then down grade to full face APR's once a full shift of air monitoring

shows asbestos fiber counts are below <0.50 fibers/cc UCL. Alternatively, the Asbestos Abatement Contractor may submit to ODOL a request to start the containment work in full face APR's based on air monitoring records from previous projects where similar work practices maintained the fiber count exposure level below <0.50 fiber/cc UCL.

The Licensed Project Designer supports the variance request for starting the wallboard and ceiling board abatement work in full face APR's due to the low percentage of chrysotile asbestos in the materials to be abated.

No other variances were anticipated at the Pre-abatement Bid Conference.

**XV. REMOVAL OF ASBESTOS IN SOIL**

This Project does not require the removal of any soils contaminated with ACM.

**XVI. SPECIAL MATERIALS OR METHODS**

The Armory location selected for this asbestos abatement project is to be unoccupied during the asbestos removal work. No special materials or methods for accomplishing the removal are anticipated. Requests for the use of any special materials or methods shall be coordinated with the Licensed Project Designer and submitted as a Project Design Amendment for consideration by the ODOL.

**APPENDIX**

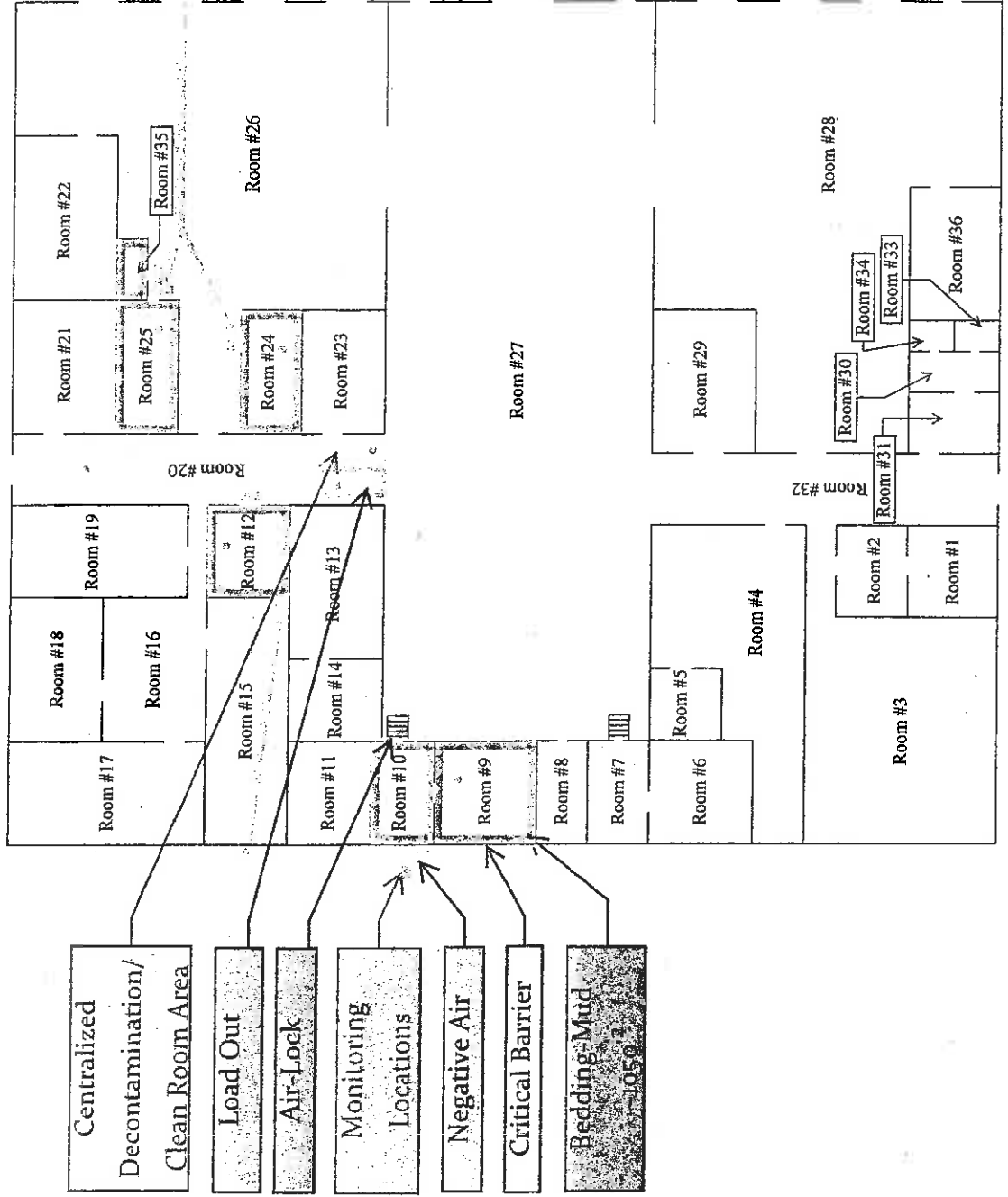
**Armory Containment Area Diagram**

**Armory Estimated Quantities of ACM**

**Asbestos Inspection Report and Bulk Asbestos Test Results**

**Project Designer License**

# Perry Armory Project Design



## Estimated Quantities of ACM

Location	Material	Quantities	Total Quantities
Room-16	Floor Mastic	~310-ft <sup>2</sup>	~1050-ft <sup>2</sup>
Room-17	Floor Mastic	~330-ft <sup>2</sup>	
Room-18	Floor Mastic	~160-ft <sup>2</sup>	
Room-19	Floor Mastic	~100-ft <sup>2</sup>	
Room-34	Floor Mastic	~150-ft <sup>2</sup>	
Room-19	Gray 9"x9" Floor Tile	~100-ft <sup>2</sup>	~250-ft <sup>2</sup>
Room-34	Tan/Beige 9"x9" Floor Tile	~150-ft <sup>2</sup>	
Room-9	Bedding-Mud	~1130-ft <sup>2</sup>	~2,890-ft <sup>2</sup>
Room-10	Bedding-Mud	~160-ft <sup>2</sup>	
Room-12	Bedding-Mud	~230- ft <sup>2</sup>	
Room-24	Bedding-Mud	~450-ft <sup>2</sup>	
Room-25	Bedding-Mud	~570-ft <sup>2</sup>	
Room-35	Bedding-Mud	~350- ft <sup>2</sup>	



# STATEMENT OF WORK

For

## Remediation of Lead Contamination at Perry and Pawhuska Armories

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at former National Guard armories located in Perry and Pawhuska, Oklahoma. This statement of work (SOW) describes the cleanup of lead contamination associated with the indoor firing range (IFR), and lead contaminated dust on the floors of the building. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. A mandatory site visit and walk through will be held to give a better understanding of the site. Sample results are attached for review (**Attachment 1**).

The Perry Armory building is located at 309 North 14<sup>th</sup> Street, Perry, Oklahoma 73077. The building **does** have available electricity but **does not** have available water to use during remediation.

The Pawhuska Armory building is located at 836 East 8<sup>th</sup> Street, Pawhuska, Oklahoma 74056. The building **does not** have available electricity or water to use during remediation.

### SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within forty five (45) calendar 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 Scope of Work 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. DEQ will sign as generator, if necessary.

### CONTRACTOR SHALL:

- Attend mandatory pre-bid meeting and site walk through.
- Possess a current lead-based paint firm license and have a certified lead-based paint supervisor on staff in order to perform lead-based paint abatement.
- Read Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges, November 3, 2006, Departments of the Army and Air Force, National Guard Bureau (**Attachment 4**), and refer to this document as a reference and guideline for remediating IFR lead contamination.
- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for indoor firing range remediation and lead dust remediation.

### Submit With Bid:

- Copy of lead-based paint firm license.
- Copy of lead-based paint supervisor license.
- Three references with name, type of project, phone number, and location of similar work in the last three years.

### Submit After Contract Award:

- A Work Plan with planned activities and schedule to DEQ for approval.

# LEAD REMEDIATION INSTRUCTIONS

## Sequence of Events

The initial cleaning of the building shall be as follows:

1. First –
  - Any remaining debris inside the building determined by DEQ to be trash shall be properly disposed.
  - The indoor firing range (IFR) shall be cleaned (See Section 1. Indoor Firing Range (IFR) below for details).
2. Second –
  - All floors of the entire building shall be cleaned (See Section 2. Remaining Building for details).

### 1. Indoor Firing Range (IFR)

The IFR in these buildings is a long narrow basement room with attached small side room where the Oklahoma Military Department would target practice with weapons. Sometimes the IFR will have a steel bullet deflection plate and sand trap. The IFR is to be cleaned by removal of all lead contaminated materials, including debris (if present), sand (if present), steel plate (if present), lead-based paint (if present), and lead contaminated dust and other lead containing particulates on the floor, walls, and ceiling of the IFR.

#### • Pre-remediation Preparation

- To ensure cross contamination does not occur, use engineering controls such as:
  - Sealing openings with 6 mil poly sheeting to contain dust inside IFR;
  - Covering floor of area outside IFR with 6 mil poly sheeting to make sure not to track lead dust into clean areas;
  - Securing IFR at the end of the work day. At no time shall the IFR be accessible for unauthorized entry without the contractor present;
- When inside IFR wear appropriate personal protective equipment (See Attachment 2).

#### • Water Removal

- All wash water from the IFR shall be filtered through a 1 micron filter and then 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. Wash water shall be disposed appropriately. Sample results shall be submitted to DEQ to determine if wash water can be disposed at the local Waste Water Treatment Facility.

- **Pre-remediation Removal**

- Decontaminate door to IFR side room, remove from frame, wrap in poly sheeting, and properly dispose;
- Remove all paint from side room door frame to bare metal and paint frame with neutral colored primer;
- Decontaminate all items to be removed from the IFR, wrap in poly sheeting, and properly dispose.
  - Items such as acoustical tiles, carpet, or other porous materials shall be HEPA vacuumed, washed, and sampled for TCLP. Acoustical tile, if present, will have 3 – five part composite samples taken. All other materials shall have 1 – five part composite sample taken of each material. If samples pass TCLP then properly dispose. If any samples fail TCLP, dispose of that item as hazardous waste.

- **Remediation**

- HEPA vacuum and wet wash walls, floor, ceiling, vent fan, and other structures that are contaminated;
- Dispose lead contaminated dust, wash water, and appropriate cleaning materials as hazardous waste or as appropriate (See section 3. Disposal of Materials for detailed information).

- **Post-remediation**

- All post-remediation sampling shall be performed by Enercon Services, Inc. (ESI). The Contractor shall provide ESI a minimum of five (5) calendar days prior notice to perform sampling. See Section C (Confirmation and Clearance Sampling) for contact information;
- Post remediation sampling is required to confirm the IFR has been remediated to 200 micrograms per square foot (ug/SF);
  - Areas above 200 ug/SF shall be re-cleaned and re-tested until results are at or below 200 ug/SF;
- If surfaces of the IFR cannot be cleaned and DEQ determines that these surfaces contain imbedded lead fragments, construction grout shall be used over these surfaces.
  - Surfaces shall be thoroughly cleaned;
  - BASF Acryl 60 or DEQ approved equivalent shall be applied to surfaces according to manufacturer's specifications. Specifications are attached (Attachment 3);
  - BASF Construction Grout or DEQ approved equivalent shall be applied (sprayed or troweled) to surfaces according to manufacturer's specifications. Specifications are attached (Attachment 3).

- Once the IFR has been remediated to 200 ug/SF, seal the floor, ceiling, and walls with appropriate sealant;
  - Floor, ceiling, and walls will be sealed with KM-669 Acrylic Sealer or equivalent. Specifications attached (**Attachment 3**);
  - IFR area will have forced air applied to room 4 days after sealer is applied. This will be done to remove all vapors from the area;
- After surfaces are sealed, the Contractor shall provide ESI a minimum of five (5) calendar days prior notice to perform post remediation wipe sampling to confirm the IFR has been remediated to 40 ug/SF;
- Areas above 40 ug/SF shall be cleaned to remove lead dust from sealed surface. Once cleaned, the area shall be retested to confirm area has been remediated to 40 ug/SF;
- All re-testing of previously failed areas shall be performed by ESI. Contractor shall provide ESI a minimum of five (5) calendar day's prior notice to perform sampling.
- The chart below summarizes the clearance numbers for the indoor firing range. All lead wipe samples must be at or below these numbers in order for the room to be considered clean.

<b>Post Remediation</b>	<b>Post Sealant</b>
<b>200 ug/SF</b>	<b>40 ug/SF</b>

## 2. Remaining Building

### Lead Dust Remediation (See Attachment 1)

- 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.
- Floors of the entire building shall require lead dust remediation;
  - 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 floor are high in many areas of the building and 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).
- Contact Enercon Services, Inc. to perform independent third-party post remediation wipe sampling to confirm that room floors with lead contamination have been appropriately remediated to 40 micrograms per square foot (ug/SF). See Section C (Confirmation and Clearance Sampling) for additional information;
- Areas above 40 ug/SF shall be re-cleaned and re-tested until results are at or below 40 ug/SF;
- Lead dust and appropriate cleaning materials shall be disposed as appropriate.
- Wash Water Disposal
  - 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 shall be disposed appropriately.

### 3. Disposal of Materials

#### Hazardous Waste

- Lead contaminated sand shall be disposed as hazardous waste;
- Lead contaminated dust from the cleaning of the IFR and remaining building shall be disposed as hazardous waste;
- Wash water filters shall be disposed as hazardous waste;
- Mop heads, towels, brushes, wipes, and other cleaning supplies shall be disposed as hazardous waste;

#### Other

- 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.

#### 4. Confirmation and Clearance Sampling

- Contractor may use his own lab to check progress of remediation, however all DEQ decisions shall be based on analytical data from ESI.
- Enercon Services, Inc. (ESI) will be responsible for taking all post remediation samples.
- ESI shall be notified five (5) days prior to each sampling event.
- Contact Information:           Enercon Services, Inc.  
6525 North Meridian, Suite 400  
Oklahoma City, Oklahoma 73116  
Contact: Bill Muenker  
Phone: (405) 722-7693
- The third-party sampling shall not be included in the contractors base bid;
- All post remediation sampling done outside the indoor firing range will be performed after all initial abatement, remediation, and cleaning is complete.
- The chart below summarizes the clearance numbers for the building. All lead wipe samples shall be at or below these numbers in order for these areas to be considered clean.

IFR Post Remediation	IFR Post Sealant	Room Floors
200 ug/SF	40 ug/SF	40 ug/SF

#### 5. FINAL REPORT

- Write final report and submit to DEQ;
- Final report shall include:
  - A detailed summary of work including any warranties and data;
  - copy of post remediation sampling report;
  - waste manifests (if any); and
  - photo documentation of work;
    - Photo documentation of work will have color digital photos with captions describing photo;
- Final report will be submitted in hard copy and electronically on disc.

OWNER REPRESENTATIVE

Owner's Representative:

Dustin Davidson  
Oklahoma Department of Environmental Quality  
Land Protection Division  
707 N. Robinson  
Oklahoma City, OK 73102

Phone Numbers:

(405) 702-5115 (Office)

(405) 702-5101 (Fax)

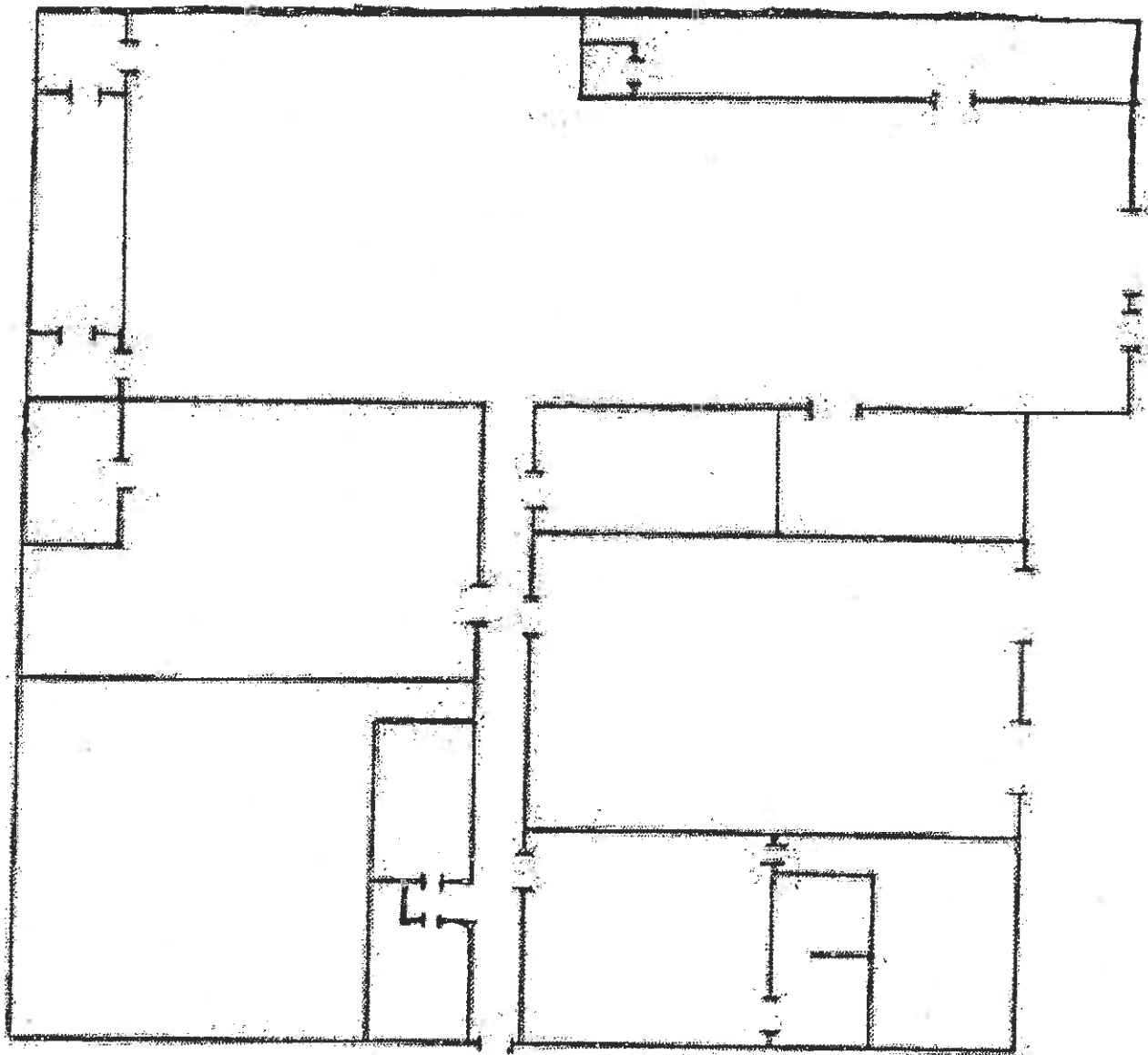
E-Mail: [Dustin.Davidson@deq.ok.gov](mailto:Dustin.Davidson@deq.ok.gov)

# ATTACHMENT 1

## Sample Results and Floor Plan



PAWHUSKA ARMORY



# **ATTACHMENT 3**

## **Sealant and Encapsulant Specifications**

# KELLY-MOORE PAINTS INDUSTRIAL COATINGS HIGH PERFORMANCE SYSTEMS

## KM-669 Acrylic Sealer

THIS PRODUCT MAY NOT BE AVAILABLE IN SOME AREAS DUE TO VOC REGULATIONS  
Contact your Kelly-Moore representative for more information

### Product Description

A one component, solvent borne, high gloss, clear acrylic sealer designed for use on concrete, masonry, and brick. Dustproofs concrete by penetrating surface pores leaving a tough, durable film.

### Performance Features

- Non-Yellowing
- Excellent Adhesion to Concrete
- Good Water & Salt Chemical Resistance
- Good Abrasion Resistance
- Can be Sprayed, Padded or Rolled

### Product Specifications

Resin Type	Acrylic
Color Range	Clear
Finish	High Gloss
Drying Time	8 hours to recoat
Practical Coverage	250-450 Sq. Ft. / Gallon
Recommended Dry Film Thickness	1.2 - 2.2 mils per coat
Solids By Volume	35%
Sizes	Five gallon pails
V.O.C.	560 Grams per liter
Clean Up	KM-S-74 or KM-SA-50

### Surface Preparation

**WARNING!** If you scrape, sand or remove old paint from any surface, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

### Surface Preparation:

Remove all dirt, grease, oil, soil, chemical contaminants, and other matter. Allow surface to dry.

### Application Procedure:

When mixing, use an EXPLOSION PROOF SLOW SPEED DRILL WITH A JIFFY MIXER. Apply a uniform wet film, do not puddle material. Do not cover more area than can be worked in 10 minutes due to fast dry time. When spraying, use a low pressure machine. Two coats may be necessary depending on porosity or type of service.

For safety and product curing, proper ventilation is necessary throughout application and cure.

**Dry Times:** 8 hours

*See Precautions and Limited Warranty next page*

# KM-669 (cont.)

## Precautions

KM-669 is Flammable. KM-669 contains flammable solvents. Keep away from all sources of ignition during mixing, application, and cure. In confined areas, provide adequate forced air ventilation. The use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream and protective clothing is a recommended standard practice when spraying coatings

## Proper Disposal

For proper disposal of excess material, please contact your local city or county waste management agency.

**Limited Warranty:** The statements made on this bulletin, product labels or by any of our agents concerning this material are given for information only. They are believed to be true and accurate and are intended to provide a guide to approved construction practices and materials. As workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control, Kelly-Moore Paint Company, Inc., does not make nor does it authorize any agent or representative to make any warranty of MERCHANTABILITY OR FITNESS for any purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Kelly-Moore's quality control standards. Any liability whatsoever of Kelly-Moore Paint Company, Inc. to the buyer or user of this product is limited to the purchaser's cost of the product itself.

**SEE MATERIAL SAFETY DATA SHEETS FOR  
FULL SAFETY PRECAUTIONS.**

**KM-669 IS FOR PROFESSIONAL USE ONLY**

**KM-669 IS FOR INDUSTRIAL USE ONLY**

**KEEP AWAY FROM CHILDREN**

**KELLY-MOORE PAINT COMPANY INC. • 987 COMMERCIAL ST. • SAN CARLOS, CA 94070**  
**Technical Assistance 1-888-MR-PAINT [www.kellymoore.com](http://www.kellymoore.com)**

# MATERIAL SAFETY DATA SHEET

For Coatings, Resins & Related Materials

## Section I

Manufactured For: Kelly-Moore Paints  
Address: 987 Commercial Street  
San Carlos, CA 94070

Prep Date: 07/28/06

Emergencies Involving Spills, Leaks,  
Fires, Exposure, Or Accident Contact  
Chemtrec: 1-800-424-9300

Product Class: Acrylic Lacquer Sealer  
Trade Name: KM-669 CLEAR  
H.M.I.S. Codes: H F R P  
2\* 3 0 -

Information Phone: 1-888-677-2468

## Section II - HAZARDOUS INGREDIENTS

Ingredient	C.A.S.#	Weight Percent	Occup. Exposure Limits		Vapor Pressure	
			OSHA PEL	ACGIH TLV	mm Hg	Temp.F
Acrylic Resins	Mixture	30-40	Not Established		Not Determined	
*Xylene	1330-20-7	40-50	100 ppm	100 ppm	5.1	68
*Ethyl Benzene	100-41-4	15-20	100 ppm	100 ppm	7.1	68

\*Indicates toxic chemical(s) subject to reporting requirements of Section 313 of Title III and of 40 CFR 372.

## Section III - PHYSICAL DATA

Boiling Range (Deg. F): 240°  
Evaporation Rate: Slower than Ether  
Percent Volatile By Volume: 70 ± 3%

Vapor Density: Heavier than air

Weight Per Gallon (lbs.): 7.75 ± .25

## Section IV - FIRE & EXPLOSION HAZARD DATA

Flash Point (Deg. F): 80°

Lower Explosive Limit: 1.0

Extinguishing Media: Foam, alcohol foam, CO2, dry chemical, water spray

OSHA Flammability Classification: Flammable Liquid IC

Special Firefighting Procedures: Wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Use water to keep fire exposed containers cool. Water may be ineffective as an extinguishing agent.

Unusual Fire & Explosion Hazards: Vapors are heavier than air and may travel along the ground or be moved by ventilation to ignition sources at locations distant from material handling point. Pressure may build up in containers and create an explosion hazard.

KM-669 CLEAR

=====**Section V - HEALTH HAZARD DATA**=====

**THIS PRODUCT IS FLAMMABLE**

**Effects Of Overexposure:**

**Eyes:** Irritation, burning, tearing and redness.

**Skin:** Moderate irritation or defatting of skin upon prolonged or repeated contact.

**Ingestion:** Abdominal pain, nausea, vomiting and diarrhea.

**Inhalation:** Excessive exposure to vapors can cause headache, dizziness, uncoordination, nausea and loss of consciousness.

**Emergency & First Aid Procedures:**

**Eyes:** Flush with water for 15 minutes.

**Skin:** Remove contaminated clothing, wash skin with soap and water.

**Ingestion:** Do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air, aid breathing if necessary.

In all cases, consult a physician for best treatment.

Chemical listed as carcinogen or potential carcinogen:

NTP: No IARC: No OSHA: No

=====**Section VI - REACTIVITY DATA**=====

**Stability:** Product Stable

**Conditions to Avoid:** All sources of ignition

**Incompatibility (Materials to Avoid):** Oxidizing agents, strong acids & bases

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, nitrogen oxides and organic compounds.

**Hazardous Polymerization:** Will Not Occur

=====**Section VII - SPILL OR LEAK PROCEDURES**=====

**Steps To Be Taken In Case Material Is Released Or Spilled:** Dike spill area. Absorb spill with inert absorbent material. Place in sealed metal containers for proper disposal.

**Waste Disposal Method:** Dispose of in accordance with local, state and federal regulations.

=====**Section VIII - SPECIAL PROTECTION INFORMATION**=====

**Respiratory Protection:** Use a NIOSH/MSHA jointly approved respirator

**Ventilation:** Use mechanical ventilation

**Protective Gloves:** Neoprene or rubber

**Eye Protection:** Chemical splash goggles

**Other Protective Equipment:** Protective clothing, barrier cream, eye bath, safety shower

=====**Section IX - SPECIAL PRECAUTIONS**=====

**Precautions To Be Taken In Handling & Storing:** Store in dry area. Keep away from open flames and high temperatures.

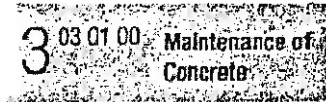
**Other Precautions:** Minimize contact. Avoid breathing vapors. Practice good industrial hygiene and safe working practices.

**State and Local Regulations**

California Proposition 65

This product contains the following substances known to the State of California to cause cancer, birth defects or other reproductive hazards: Benzene, Toluene.

PRODUCT DATA



# ACRYL 60®

Water-based acrylic bonding and modifying admixture

### Description

Acryl 60® is an acrylic-polymer emulsion mixed with Portland cement mortars, plasters, stucco, and concrete mixes to enhance their physical properties, adhesion to substrates, and durability.

### Packaging

- 1 quart (0.9 L) bottles
- 1 gallon (3.8 L) bottles
- 5 gallon (18.9 L) pails
- 30 gallon (113.5 L) drums
- 55 gallon (208 L) drums

### Color

Milky white

### Shelf Life

1 year when properly stored

### Storage

Transport and store in unopened containers between 40 and 100° F (4 and 38° C). Protect from freezing.

### Features

- Acrylic polymer
- Excellent chemical and UV resistance
- Improved freeze/thaw stability of Portland cement-based materials
- Stable

### Benefits

- Significantly improves adhesion, cohesion, tensile, compressive, and flexural strengths of cement-based materials
- Promotes long-lasting repairs
- Suitable for cold climate applications
- Will not re-emulsify when exposed to water

### Where to Use

#### APPLICATION

- Cement-based mixes to improve their adhesion, and durability
- As gauging liquid for Thoro® waterproofing and repair products, such as ThoroSeal™ and Thorte®
- Walkways
- Ramps and structural beams

#### LOCATION

- Interior or exterior
- Above or below grade

#### SUBSTRATE

- Columns

### How to Apply

#### Surface Preparation

1. The methods required for preparation will vary depending on the end product to be applied and the site and substrate conditions.
2. In all cases the surface must be clean and sound. Remove all loose and disintegrated material. Remove any and all traces of oil, grease, dirt, dust, efflorescence, biological, mold or mildew, and release or curing agents.
3. Vacuum, sweep, or blow out the areas to be patched with clean, oil-free air.

#### CONCRETE/CMU/MASONRY SURFACES

Predampen the area to be patched or coated with potable water to a saturated surface-dry (SSD) condition. Do not leave standing water on surface. Proper surface preparation and cleanliness are extremely important.

#### OTHER SURFACES

For other surface preparation guidelines, refer to the specific Thoro® product data guide for information.

#### Mixing

1. The normal ratio of Acryl 60® to clean potable water is 1 part Acryl 60® to 3 parts water (1 to 3). Where increased physical and chemical resistance are required, increase the Acryl 60® content in the mixing liquid to a 1 to 2 or 1 to 1 Acryl 60® to water ratio (see chart above).
2. Always mechanically mix. Do not overmix or mix at a high speed.



## Technical Data

### Composition

Acryl 60® is an acrylic-polymer emulsion.

### Typical Properties

PROPERTY	VALUE
Density, lbs/gal (kg/L), Lab Method	8.65 (1.04)
Solids content, by volume, %, Lab Method	28
Maximum water dilution, Parts Acryl 60® to H <sub>2</sub> O, Lab Method	1:3

### Test Data

The following properties are for sand/cement mortar samples:

PROPERTY	RESULTS		TEST METHODS
	With Water	With 1 to 1 Acryl 60® and Water	
Compressive strength, psi (MPa) 28 days	3,800 (26.2)	4,500 (31)	ASTM C 109
Tensile strength, psi (MPa) 28 days	225 (1.5)	350 (2.4)	ASTM C 190
Flexural strength, psi (MPa) 28 days	1,000 (6.9)	1,800 (12.4)	ASTM C 348
Freeze/thaw durability	11 at 98 cycles	102 at 300 cycles	Method A

Test results are averages obtained under laboratory conditions at 70° F (21° C) and 50% RH. Reasonable variations can be expected.

### Mixing Ratios

APPLICATION	RATIOS
For scrub coats applied before patching or overlays	Use straight Acryl 60®
To improve the adhesion properties of pointing mortars and to reduce cracking in cement plaster	Use 1 part Acryl 60® to 3 parts water
For large overlays or topping	Use 2 parts Acryl 60® to 1 part water
For bonding cement plaster no thicker than 1/4 - 3/8" (6 - 10 mm)	Use 1 part Acryl 60® to 3 parts water

NOTE: The above ratios are for normal conditions. Where bonding is more critical, increase the Acryl 60® content of the mixing liquid. A TEST PATCH IS ALWAYS RECOMMENDED.

For detailed application instructions for Thoro® products, see specific product data sheets.

### Application

#### SAND/CEMENT MORTAR

1. Thoroughly mix all cement and sand first. The sand must be clean, free of clay, and dry.
2. Make up mixing liquid from a 1 to 3 or 1 to 2 Acryl 60® water ratio depending upon requirements.
3. Slowly add the mixing liquid to the cement/sand mixture and mix with a slow-speed mixer for 1 - 2 minutes to avoid entrapping air. After preparing, cleaning, and predampening the surface, brush apply a scrub coat (not diluted) of the Acryl 60®-modified cement/sand. Scrub vigorously into the surface to displace any air pockets.

4. Place the mix into the scrub-coated repair area while the scrub coat is still wet or tacky. Place the mix and avoid over-troweling. The trowel should be cleaned frequently, kept wet, and used with minimal pressure.

5. Maximum time for placement should not exceed 20 minutes. Higher air and surface temperatures will decrease working and placement time.

#### Curing

1. When rapid drying is expected due to high temperatures, rapid air movement, or wind, it is recommended that the surface be covered with wet burlap to retain moisture.
2. For normal use, allow a 24-hour curing period.
3. For heavy wheeled traffic, allow a 4-day curing period.

#### Clean Up

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means only.



### For Best Performance

- Do not use Acryl 60® modified mixes when the ambient air or surface temperature is below 40° F (4° C) or when the temperature is expected to fall below 40° F (4° C) within 24 hours. High relative humidity, excessive moisture, and low temperatures will retard the curing of Acryl 60® modified mixes.
- Do not use with air-entrained cement mixes or with air-entraining admixtures.
- Do not overmix or aerate mixes.
- Use with proper ventilation.
- Do not use Acryl 60® as a surface-applied external bonding agent or as a primer.
- Do not expose cement-based mixes modified with Acryl 60® to water immersion service for a minimum of 24 hours at 73° F (23° C).
- Not recommended for exposure to soft water or immersion where contact with water-treatment chemicals is present without a protective top coat.
- Caution should be used when a highly solvent material is being used over a base system that contains Acryl 60®.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

### Health and Safety

#### ACRYL 60®

#### Caution

Acryl 60® contains no hazardous ingredients as defined by 29 CFR 1910.1200 WHMIS.

#### Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

#### Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

### First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

### Proposition 65

This product contains material listed by the state of California as known as to cause cancer, birth defects, or other reproductive harm.

### VOC Content

1 g/L or 0.01 lbs/gal less water and exempt solvents.

For medical emergencies only,  
call ChemTrec (1-800-424-9300).

**BASF Construction Chemicals, LLC –  
Building Systems**

889 Valley Park Drive  
Shakopee, MN, 55379

[www.BuildingSystems.BASF.com](http://www.BuildingSystems.BASF.com)

Customer Service 800-433-9517  
Technical Service 800-243-6739



**LIMITED WARRANTY NOTICE:** Every reasonable effort is made to assure BASF's ongoing adherence with the manufacture of our products and to the information which we have concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any product or product defective, satisfactorily results of general industry used casing products, but only upon timely notice being our control. However, except for such replacement or refund, BASF MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and BASF shall have no other liability with respect thereto. Any claim regarding product defectiveness is required to be filed within one (1) year from the date of shipment. Material and labor expenses involved in the repair or replacement of such defective products, however, shall constitute the liability of the contractor for the work and shall be assumed as risks and losses in accordance therewith. Any authorized change in the product technical specifications pertaining the use of our products shall bear the approval of the BASF Technical Manager.

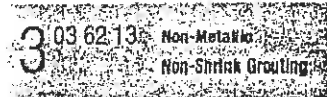
This information and all other technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice and any the user in which a risk assessment and the user's own safety and health are concerned. BASF disclaims all CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. BASF SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION, FAILURE OR INCIDENTAL DAMAGES INCLUDING LOSS OF PROFITS OR REVENUE. BASF reserves the right to make any changes without notice in any of its products or services. It is the user's responsibility and obligation to comply with all applicable laws, regulations, codes, and standards. Excesses of the products described herein shall be worked by testing and covered only by qualified records. It is the user's responsibility to take proper care of the product and storage for its safe use. References to other documents is neither a recommendation, nor endorsement of any product, and does not imply that similar products exist and be used.

For professional use only. Not for sale to or use by the general public.

Form No. 10190-3 9/07  
Printed on recycled paper containing 10% post consumer fiber.

© 2007 BASF  
Printed in U.S.A.

## PRODUCT DATA



# CONSTRUCTION GROUT

General construction, mineral-aggregate  
nonshrink grout

**Description**

Construction Grout is a noncatalyzed, multi-purpose construction grout containing mineral aggregate.

**Yield**

One 50 lb (22.7 kg) bag of Construction Grout mixed with 1.15 gallons (4.35 L) of water (flowable mix) provides approximately 0.45 ft<sup>3</sup> (0.013 m<sup>3</sup>) of mixed grout.

**Packaging**

50 lb (22.7 kg) multi-wall paper bags

**Color**

Concrete gray when cured

**Shelf Life**

1 year when properly stored

**Storage**

Store in unopened bags under clean, dry conditions.

**Features**

- Concrete gray color (after curing)
- No organic accelerators, including chlorides or other salts
- Can be extended with clean, well-graded coarse aggregate
- Hardens free of bleeding when properly placed

**Benefits**

Blends in with surrounding concrete.

Will not corrode reinforcing steel

Fills large voids without additional mix water

Provides high effective bearing area for proper support and load transfer

**Where to Use****APPLICATION**

- Normal loads for columns and baseplates
- Bedding grout for precast panels
- Repairing of cavities resulting from ineffective concrete consolidation
- Caulking concrete pipe
- Backfilling, underpinning foundations, and pressure grouting of slabs needing alignment
- General construction applications
- Damp pack applications

**LOCATION**

- Interior or exterior

**How to Apply****Application**

For aggregate extension guidelines refer to Appendix MB-10: Guide to Cementitious Grouting.

**Mixing**

By using the minimum amount of water to provide the desired workability, maximum strength will be achieved. Whenever possible, mix the grout with a mechanical mixer. Either a mortar mixer or an electric drill with a paddle device is acceptable. Put the measured amount of water into the mixer, add grout, then mix till a uniform consistency is attained. Do not use water in an amount or a temperature that will cause bleeding or segregation.

**Curing**

Cure all exposed grout shoulders by wet curing for 24 hours and by applying a recommended curing compound compliant with ASTM C 309 or preferably ASTM C 1315.

**For Best Performance**

- Contact your local representative for a pre-job conference to plan the installation.
- Construction Grout is designed for the 50 to 90° F (10 to 32° C) application temperature range. Consult your BASF representative when applying outside this range. Use cold and hot weather concreting practices (ACI 305 and ACI 306) when grouting within 10° F (6° C) of these minimum and maximum temperature ranges.
- To ensure optimum performance of Construction Grout, place at a plastic or flowable consistency and at ambient temperatures of 50° F (10° C) and above.
- For best results, allow a minimum of 1" (25 mm) vertical clearance under baseplates when placing Construction Grout.
- Do not use Construction Grout where it will come in contact with steel designed for stresses above 80,000 psi (552 MPa). Use Masterflow® 816, Masterflow® 1205, or Masterflow® 1341 post-tensioning cable grouts.



Technical Data

Composition

Construction Grout is a noncatalyzed hydraulic cement-based grout containing mineral aggregate.

Compliances

- CHD C 621 and ASTM C 1107, Grade C, at flowable or plastic consistency
- City of Los Angeles Research Report Number RR 23137

Typical Properties

Mixed Grout Data\* (Flowable Mix)

PROPERTY	VALUE
Approximate Water, gal (L)	1.15 (4.35)
Initial set, hrs, at 70° F (21° C)	6
Final set, hrs, at 70° F (21° C)	8

\*At a constant percent of water consistency will vary with temperature. Final set takes place in approximately 8 hours at a flowable consistency and 70° F (21° C).

Test Data

PROPERTY	RESULTS	TEST METHODS
Flow, %, 5 drops	125 - 145	ASTM C230
Volume change, %, flowable consistency, after 28 days	0.08	ASTM C 1090
Compressive strength, psi (MPa)		ASTM C 942, according to ASTM C 1107

	Consistency		
	Flowable <sup>1</sup>	Plastic <sup>2</sup>	Stiff <sup>3</sup> (damp pack)
1 day	1,500 (10)	—	—
3 days	5,000 (34.5)	6,000 (41.4)	8,000 (55.2)
7 days	6,000 (41.3)	7,000 (48.3)	9,500 (66.5)
28 days	7,000 (48.0)	8,500 (58.6)	10,000 (69.0)

<sup>1</sup> 140% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
<sup>2</sup> 100% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
<sup>3</sup> 40% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
 Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

- Do not add plasticizers, accelerators, retarders, or other additives unless advised in writing by BASF Technical Services.
- The surface to be grouted should be clean, strong, and roughened to CSP 5 - 9 according to ICRI Guideline D3732 to permit proper bond. For freshly placed concrete, consider using Liquid Surface Etchant (see Form No. 1020198).
- Do not place Construction Grout in lifts greater than 6" (152 mm) unless the product is extended with aggregate to dissipate hydration heat.
- Where precision alignment and severe service, such as heavy loading, rolling, or impact resistance are required, use metallic-reinforced, noncatalyzed Embeco® 885 grout. If the amount of impact resistance needed is not great enough to require metallic reinforcement, use natural-aggregate, Masterflow® 928.
- The water requirement may vary with mixing efficiency, temperature, and other variables.
- The concrete surfaces should be saturated (ponded) with clean water for 24 hours before grouting. Remove water immediately before application.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.

- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

CONSTRUCTION GROUT

WARNING!

Construction Grout contains silica, crystalline quartz; portland cement; limestone; calcium oxide; gypsum; silica, amorphous.

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or it swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Waste Disposal Method

This product when discarded or disposed of is not listed as a hazardous waste in federal regulations. Dispose of in a landfill in accordance with local regulations. For additional information on personal protective equipment, first aid, and emergency procedures, refer to the product Material Safety Data Sheet (MSDS) on the job site or contact the company at the address or phone numbers given below.

Proposition 65

This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

For medical emergencies only, call ChemTrec (1-800-424-9300).

BASF Construction Chemicals, LLC - Building Systems

889 Valley Park Drive  
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517  
Technical Service 800-243-6739



we warrant our products to be of good quality and will replace or, at our discretion, refund the purchase price of any product proved defective. Satisfaction results depend not only upon quality products, but also upon proper handling, storage and use. Therefore, we warrant our products only when used in accordance with the instructions on the label. THIS WARRANTY DOES NOT COVER PRODUCTS USED IN CONSTRUCTION OF STRUCTURES OR OTHER CONSTRUCTION PURPOSES. THE USER SHALL BE RESPONSIBLE FOR CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PERSONNEL INVOLVED IN THE CONSTRUCTION PROCESS. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PERSONNEL INVOLVED IN THE CONSTRUCTION PROCESS. ANY APPLICABLE CHANGE IN THE PRODUCT INFORMATION AND ALL INFORMATION ON OUR PRODUCTS MUST BE THE PROPERTY OF THE BASF TECHNICAL SERVICES.

we warrant our products to be of good quality and will replace or, at our discretion, refund the purchase price of any product proved defective. Satisfaction results depend not only upon quality products, but also upon proper handling, storage and use. Therefore, we warrant our products only when used in accordance with the instructions on the label. THIS WARRANTY DOES NOT COVER PRODUCTS USED IN CONSTRUCTION OF STRUCTURES OR OTHER CONSTRUCTION PURPOSES. THE USER SHALL BE RESPONSIBLE FOR CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PERSONNEL INVOLVED IN THE CONSTRUCTION PROCESS. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PERSONNEL INVOLVED IN THE CONSTRUCTION PROCESS. ANY APPLICABLE CHANGE IN THE PRODUCT INFORMATION AND ALL INFORMATION ON OUR PRODUCTS MUST BE THE PROPERTY OF THE BASF TECHNICAL SERVICES.

For professional use only. Not for sale to or use by the general public.

## **ATTACHMENT 4**

### **Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges**

Facilities Engineering

Guidelines and Procedures for Rehabilitation and  
Conversion of Indoor Firing Ranges

By Order of the Secretaries of the Army and the Air Force:

H. STEVEN BLUM  
Lieutenant General, USA  
Chief, National Guard Bureau

Official:

GEORGE R. BROCK  
Chief, Plans and Policy Division

**History.** This printing publishes a revision of NG Pam (AR) 385-16/ANGPAM 91-101.

**Summary.** This pamphlet prescribes policy for rehabilitation and conversion of National Guard Indoor Firing Ranges (IFR).

**Applicability.** This guidance applies to all persons responsible for the operation of National Guard IFRs. As no regulation/guidance can foresee all situations that might arise, the following is written in a broad scope and is intended to be interpreted so as to ensure compliance with all applicable Federal and State laws and regulations.

**Proponent and exception authority.** The proponent of this regulation is Chief, NGB-SG-IH. The proponent has the authority to approve exceptions to this regulation that are consistent with controlling law and regulation.

**Suggested Improvements.** Users of this pamphlet are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to NGB-SG-IH, 1411 Jefferson Davis Highway, Arlington, VA 22202-3231.

**Distribution.** A.

*Table of Contents*

**Chapter 1**

**Introduction**

- 1-1. Purpose
- 1-2. References
- 1-3. Explanation of abbreviations and terms
- 1-4. Policy and Procedures
- 1-5. Goal
- 1-6. Deviation

**Chapter 2**

**Health and Medical Aspects**

- 2-1. Health Effects
- 2-2. Medical Surveillance for Occupational Exposure to Lead (Pb)
- 2-3. Air Monitoring

\* This publication supersedes NP Pam (AR) 385-16/ANGPAM 91-101, dated 31 January 1994.

- 2-4. Wipe Sampling Protocol and Media
- 2-5. Personal Protection Equipment

**Chapter 3**

**Education, Maintenance, Cleaning and Conversion**

- 3-1. Worker Education
- 3-2. Range Cleaning Instructions
- 3-3. Cleaning Stored Contaminated Equipment
- 3-4. Contaminated Sand and Lead Waste
- 3-5. Range Rehabilitation
- 3-6. Conversion of Indoor Firing Ranges

**Appendixes**

- A. References
- B. Protocol for Collecting Wipe Samples
- C. Sampling Strategy for Collection of Wipe Samples

**Glossary**

**1-1. Purpose**

This pamphlet establishes the policy and procedures for rehabilitation and conversion, of National Guard IFRs.

**1-2. References**

Required and related publications and referenced and prescribed forms are listed in Appendix A.

**1-3. Explanation of abbreviations and terms**

Abbreviations and special terms used in this publication are listed in the glossary.

**1-4. Policy and Procedures**

Indoor firing ranges can be safely rehabilitated or converted for other uses, such as a storage area, classrooms or office space, provided the following –

a. Prior to conversion active ranges must be thoroughly decontaminated and cleaned to acceptable levels. *All ranges converted prior to the publication date of this pamphlet, must be inspected and evaluated to determine lead contamination.* This will be accomplished by a certified National Guard Industrial Hygienist (IH) or a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs.

b. The level of cleanliness is to be determined by sampling. The Occupational Safety and Health Administration's (OSHA) Technical Manual, 5th Edition, provides guidance on the methods and techniques needed to collect wipe samples (Appendix B).

(1) Wipe samples must be collected and analyzed prior to and after cleaning.

(2) Post-cleaning surface wipe sample results must be less than 200 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) (40 micrograms in the case of child exposure). The sampling strategy, which is the amount and location of wipe samples to be collected, is provided in Appendix C.

c. Equipment/items previously stored in the range must be decontaminated and cleaned to acceptable levels as determined by a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs.

(1) Samples must be collected from equipment/items stored in the range. Sample selection is critical, because the number of items stored, length of storage, and level of contamination differs from range to range. The amount and location of the samples should be representative of the areas where lead dust is most likely to accumulate. The more samples collected, the better the statistical comparison of the results.

(2) Samples must be collected from the smooth surfaces of the equipment/items, as much as possible. Results of samples collected from a rough surface will be inaccurate due to the minimal surface contact of the media. Further, the likelihood of tearing the media filter is greater on rough surfaces.

(3) Samples should also be collected on items stored the longest period of time, and which have not been disturbed. Items stored closest to the bullet trap and firing line are likely to have higher concentrations of lead dust.

**1-5. Goal**

To ensure that every IFR is free of lead dust which means to test less than 200 micrograms and to reduce the number of unsafe National Guard IFRs.

**1-6. Deviation**

Deviations from this guidance will require a written exception to policy from your Regional Industrial Hygiene Office. Questions and/or comments regarding this subject should be directed to your Regional Industrial Hygiene Office or Chief, National Guard Bureau, Office of the Joint Surgeon, ATTN: NGB-SG-IH, 1411 Jefferson Davis Highway, Arlington, VA 22202-3231.

**Chapter 2****Health and Medical Aspects****2-1. Health Effects**

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indestructible, and common in the environment. Lead can enter the body by inhalation (breathing) or



ingestion (eating). In addition, lead is a cumulative poison. It accumulates in the blood, bones, and organs, including the kidneys, brain and liver. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension. Symptoms include loss of appetite, difficulty sleeping, irritability, fatigue, headache, and inability to concentrate. It can stay in the bones for decades. Worker awareness and training are important to ensure that employees can recognize the symptoms of exposure and get prompt medical attention.

#### 2-2. Medical Surveillance for Occupational Exposure to Lead (Pb)

a. Per 29 CFR 1910.1025 (j)(i-ii), Medical Surveillance - General, "The employer shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year. The employer shall assure all medical examinations and procedures are performed by or under the supervision of a licensed physician."

b. The DOD 6055.5-M, Occupational Medical Surveillance Manual - Table 2-1 lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

#### 2-3. Air Monitoring

Worker breathing zone air samples must be collected to ensure that personnel are not overexposed to airborne lead during the cleanup phase. Daily air samples will be collected from all personnel involved in the cleanup operation. These exposure levels will be used to evaluate work practices and medical surveillance requirements.

#### 2-4. Wipe Sampling Protocol and Media

A template measuring 10 centimeters by 10 centimeters square, approximately 4 inches square, should be used to accurately measure and mark the area before collecting wipe samples. Samples should be staggered to different areas of the range. A grid system should be utilized. Samples should not be collected all on one section of a wall, or end of the building. OSHA Technical Manual provides the necessary guidance on the technique needed to collect wipe samples (Appendix B). Only distilled or deionized water will be used to saturate dry sample media. At least one field blank must be submitted with every 10 samples. The field blank must be from the same lot, and labeled as a blank.

#### 2-5. Personal Protective Equipment

29 CFR 1910.1025 (f) (2), for housekeeping and rehabilitation the employer shall select respirators from among those approved for protection against dust, fume, and mist by the National Institute for Occupational Safety and Health (NIOSH), under the provision of 42 CFR part 84. The employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134 (b), (d), (e) and (f). As a minimum, personnel conducting the decontamination of the range will be provided with the following personal protective equipment.

a. Under 29 CFR 1910.1025 (g). For employees engaged in range rehabilitation and/or range conversion, the employer shall provide at no cost to the employee, and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

- (1) Protective coveralls with hood and shoe covers or disposable Tyvek™ full body suit.
- (2) Disposable rubber gloves, and disposable shoe coverlets (if necessary).
- (3) Full-face air purifying respirator with P-100 cartridges.

b. The employer shall provide the clothing required in a clean and dry condition at least daily to employees engaged in the conversion of IFRs.

c. The employer shall provide for the cleaning, laundering, or disposal of used or contaminated protective clothing and equipment.

d. The employer shall assure that all protective clothing is removed at the completion of a work shift only in areas designated for that purpose (Change Areas or Change Rooms).

e. The employer will ensure that contaminated protective clothing that is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area that seals sufficiently enough to prevent dispersion of lead dust.

f. The employer will further inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

g. The employer will ensure that the containers of contaminated protective clothing and equipment are labeled as follows: **CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.**

Chapter 3  
Education, Maintenance, Cleaning and Conversion

3-1. Worker Education

a. 29 CFR 1910.1025, Appendix B, requires an information and training program for all employees exposed to lead above the action level or who may suffer skin or eye irritation from lead. The program must inform the employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition you must make readily available to all employees, including those exposed below the action level, a copy of this standard and its appendices. This training program will be repeated annually for personnel in range cleanup operations.

b. The commander/supervisor will ensure that each soldier or Army National Guard (ARNG) employee is informed of the following:

- (1) The content of the standard and its appendices.
- (2) The specific nature of operations that could result in exposure to lead above the action level.
- (3) The purpose, proper selection, fitting, use and limitations of respirators.
- (4) The purpose and a description of medical surveillance program.
- (5) Eating and drinking are prohibited in lead contaminated areas.
- (6) Smoking and smoking materials will not be permitted in contaminated areas.
- (7) Soldiers and ARNG employees must wash their hands and other exposed skin whenever they leave the work area.
- (8) The engineering controls and work practices associated with the individual's job assignment.
- (9) The contents of any compliance plan in effect.
- (10) Instructions to soldiers and ARNG employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

3-2. Range Cleaning Instructions

a. Written procedures, such as a scope of work, or standing operating procedure that complies with all Federal, State and local regulations must be established prior to decontamination operations.

b. The range ventilation system will be in operation during range cleaning to ensure that a negative pressure environment is maintained. In the absence of mechanical ventilation system, all doors and windows will be sealed to eliminate fugitive emissions.

c. A High Efficiency Particulate Air (HEPA) filtered vacuum system, which is designed to collect loose surface lead dust particles, is the preferred method of cleanup. If a HEPA filtered vacuum is not available, the range can be cleaned using a wet method.

d. Prohibited methods include:

(1) Wet cleaning using high-pressure systems, since this method may embed the lead into the substratum and generate large quantities of hazardous waste.

(2) Dry sweeping is not permitted.

e. All surface areas of the range must be cleaned. In addition, areas outside of the IFR where lead can be tracked must be cleaned.

f. The preferred progression of cleaning is from top to bottom and from behind the steel bullet trap to the firing line.

- (1) Clean the steel bullet trap, areas in front of and behind the bullet trap, and the steel bullet trap plate(s), after removing the sand (if applicable).
- (2) Clean the ceiling, floors, lights, baffles, retrieval system, heating system(s), and ventilation duct(s).
- (3) Vacuum and remove acoustical material. *Painting over this material is not recommended.*
- (4) Clean the floor the last, starting at the bullet trap and ending behind the firing line.

g. When using a HEPA filtered vacuum, vacuum all surface areas until no dust or residue is visible.

h. Any general purpose cleaning solutions can be used for the wet method. However, Spic and Span™ has been found to be an effective cleaning solution by other Army organizations. Mix new solutions of cleaning solution frequently. Wet wiping will require dual containers of water, one container for wetting the applicator (mops, rags, sponge, etc.) and the other container for rinsing the applicator after the dust has been wiped from the surfaces. After wet wiping all surfaces, permit the area to dry.

i. Properly dispose of all hazardous waste. Do not place lead contaminated waste into the sewer system or onto the ground.

(1) When placed in containers, wastewater should be left to evaporate.

(2) Mop-heads, sponges and rags will be discarded as hazardous waste following cleanup.

j. A thorough visual inspection to detect dust should be made following cleanup and prior to collecting post surface wipe samples.

k. Wood floors should receive a coat of deck enamel or urethane; concrete floors should be sealed with deck enamel.

l. As a variety of conditions exist in ranges, unique situation may arise and specific written guidance from your Regional Industrial Hygiene Office may be required.

m. Any cleaning activities must be under the supervision by a trained and competent personnel IAW with OSHA and other nationally accepted standards and the work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer. Cleaning must recognize that there likely will be "background" lead presence in the readiness center totally independent of the existence of an indoor range and that the method of cleaning is less important than achieving the goal of less than 200 micrograms (40 micrograms in the case of child exposure).

### 3-3. Cleaning Stored Contaminated Equipment

a. Equipment contaminated (sample result is higher than 200 ug/ft<sup>2</sup>) with lead dust must be decontaminated before it is removed from the range.

b. Equipment located near the bullet trap and firing line should be cleaned first and then removed. The cleaning method depends on the size of the equipment and the material it is comprised of, i.e. metal, wood, concrete, porous, non-porous, smooth or rough finish etc. However, either HEPA vacuum or the wet wipe method will be used. Refer to paragraph 3-2 for additional guidance.

c. Every attempt should be made to clean and reclaim items since disposing of equipment, as hazardous waste is costly and wasteful. Only as a last resort will the item be discarded as hazardous waste. Porous items, such as office partitions and carpet that were present during firing should be considered grossly contaminated and be discarded unless analysis proves otherwise. Consult your State Environmental Office for the proper hazardous waste disposal methods.

### 3-4. Contaminated Sand and Lead Waste

Consult your State Environmental Office for specific disposal guidance to ensure compliance with local laws and regulations.

### 3-5. Range Rehabilitation

This chapter applies to all IFRs that have been identified as candidates for rehabilitation. It provides further guidance for cleaning and/or sampling that might be required prior to the start of rehabilitation.

a. The portion(s) of the range to under go rehabilitation must be sampled to determine the level of lead contamination. Wipe samples will be taken per the established sampling protocol. See Appendix B.

b. All personnel involved in range rehabilitation will wear a NIOSH approved respirator (P-100) and proper personal protective equipment as prescribed in paragraph 2-5 above.

c. Prior to the start of rehabilitation, the environmental office must be notified to determine the disposition of any debris containing hazardous materials (lead).

d. Supervision shall be by a person who is certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted III practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs. All work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer.

### 3-6. Conversion of Indoor Firing Ranges

Prior to the start of decontamination, employers must ensure that all procedures to be used comply with Federal, State, and local regulations. To ensure that all lead contamination is eradicated, the following procedure is established.

a. The State shall follow the project approval process as delineated in NGR 420-10 (or NGR 415-5 if the use of the military construction appropriation is required).

b. All ranges slated for conversion will be inspected and evaluated by the NGB Regional Industrial Hygiene Office.

- c. All equipment stored in the range, if applicable, prior to the start of decontamination must be sampled, decontaminated, re-sampled and removed or turned in as lead contaminated material.
- d. All acoustical tiles and/or sound proofing material (if applicable) must be removed and turned in as lead contaminated material through the environmental office.
- e. The bullet trap, target retrieval system and firing line stations must be removed and turned in as lead containing material through the environmental office.
- f. Light fixtures and ventilation system grills must be removed and decontaminated.
- g. Ventilation system ducts need to be decontaminated or removed and replaced.
- h. The exhaust fans and/or the complete ventilation air-handling unit (if applicable) must be decontaminated or removed to include roof fans.
- i. Cover all openings of any component previously decontaminated prior to start of interior decontamination of the firing range.
- j. Prior to start of washing, the interior of the range should be vacuumed with a HEPA filtered vacuum. The range should be washed using a cleaning solution of hot water and Spic and Span in five gallons of hot water. A progression of cleaning from top to bottom, and from back to front should be used. All surface areas of the range must be cleaned. Mix new solutions of water frequently. Washing will require dual containers of water, one container for wetting the applicators (mops, rags, sponges, etc.), and the other container for rinsing the applicators. Waste water placed into containers can be left to evaporate. *Properly dispose of all hazardous waste and do not place any lead contaminated waste into the sewer system or onto the ground.* Mop heads, sponges and rags will be discarded as hazardous waste following decontamination of the range. After completion of decontamination, and prior to taking clearance samples, the ventilation system must be run for a period of 36 hours. Wipe clearance samples will be taken from ceiling, walls and floors. The range will be considered clean if no clearance sample is greater than 200 ug/ft<sup>2</sup>, if any sample is above 200 ug/ft<sup>2</sup>, the range is not considered clean, the range will need to be re-washed until clearance samples are below 200 ug/ft<sup>2</sup>.
- k. The regional industrial hygienist will do quality assurance sampling as needed.
- l. After obtaining clearance, the walls of the range will be coated with a sealant (Not Paint), which is smooth, wood floors will receive a coat of deck enamel or urethane, concrete floors will be sealed with deck enamel. After sealing, floors will be tiled or covered with linoleum.
- m. As a variety of conditions exist in ranges, unique situations may arise and specific written guidance from the Regional Industrial Hygiene Office may be required.
- n. All personnel involved in the decontamination/conversion of IFRs as a minimum will be provided with the following personal protective equipment.
  - (1). Full Face air purifying respirator with HEPA cartridges. The requirements outline in 29 CFR 1910.134, must be met prior to placing workers in respiratory protection.
  - (2). Individuals will be provided personal protective equipment as required per paragraph 2-5, this pamphlet.
- o. Any conversion must be supervised by a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs. All work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer. Cleaning must recognize that there likely will be "background" lead presence in the readiness center totally independent of the existence of an indoor range and that the method of cleaning is less important than achieving the goal of less than 200 micrograms (40 micrograms in the case of child exposure)
- p. After conversion, lead testing shall continue on an annual basis to verify that no lead migration from the substrate is occurring.

**Appendix A  
References**

**Section I  
Required Publications**

There are no entries in this section.

**Section II  
Related Publications**

**ASTM E1792-03**  
Standard Specification for Wipe Sampling Materials for Lead in Surface Dust

**AR 11-34**  
The Respiratory Protection Program

**AR 40-5**  
Preventive Medicine

**DODI 6055.5**  
Industrial Hygiene and Occupational Health

**DOD 6055.5-M**  
Occupational Medical Surveillance Manual

**29 CFR, Part 1910**  
Occupational Safety and Health Administration, Department of Labor

**National Institute for Occupational Safety and Health (NIOSH) 76-130**  
Lead Exposure and Design Considerations for Indoor Firing Ranges, Department of Health, Education and Welfare

**NGR 385-15**  
Policy and Responsibilities for Inspection, Evaluation and Operation Army National Guard National Guard Indoor Firing Ranges (IFRs).

**NGR 415-5**  
Army National Guard Military Construction Program Development and Execution

**NGR 420-10**  
Construction and Facilities Management Office Operations

**Technical Manual, 5<sup>th</sup> Edition**  
Occupational Safety and Health Administration, Department of Labor

**Section III  
Prescribed Forms**

There are no entries in this section.

**Section IV  
Referenced Forms**

There are no entries in this section

**Appendix B  
Protocol for Collecting Wipe Samples**

- B-1. If multiple samples are to be collected at the work site, prepare a rough sketch of the area(s) or room(s), which are to be wipe sampled.
- B-2. A new set of clean, impervious gloves should be used for each sample to avoid contamination of the media by previous samples and to prevent contact with the substance.
- B-3. **Wipe Samples**
  - a. If using Ghost Wipes™, tear open the individually sealed package. Remove the moistened wipe. Unfold the wipe.
  - b. If using a dry media such as MCE or Whatman™ filter, moisten the filter with distilled or deionized water prior to sampling.
- B-4. Place a 10 centimeter by 10 centimeter template on the area to be wiped.
- B-5. Apply uniform firm pressure while wiping the area inside the template.
- B-6. To ensure that all portions of the partitioned area are wiped, start at the outside edge and progress toward the center making concentric squares decreasing in size.
- B-7. After collecting a sample, fold the filter or wipe inward and place into a container and number it. Note the number at the sample location on the sketch.
- B-8. At least one blank filter treated in the same fashion but without wiping, should be submitted to the laboratory.

**Appendix C  
Sampling Strategy for Collection of Wipe Samples**

- C-1. Prior to cleaning the ranges, three samples must be collected and analyzed for total lead dust on each surface, i.e., floor, ceiling, bullet trap, and wall to include the plenum wall, if applicable. In addition, a total of three samples should be collected from areas which have been least disturbed by airflow. Established walkways should be avoided.
- C-2. Samples should be collected from different areas of the range. A grid system should be utilized. Each range surface areas should be divided evenly into 3 by 3 sections. Samples should not be collected from only one section of a wall or end of the building.

**Glossary****Section I  
Abbreviations**

**ARNG**  
Army National Guard

**CFR**  
Code of Federal Regulations

**HEPA**  
High Efficiency Particulate Air

**IFR**  
Indoor Firing Range

**NIOSH**  
National Institute for Occupational Safety and Health

**OSHA**  
Occupational Safety and Health Administration

**ug/ft<sup>2</sup>**  
Micrograms per square foot

**Section II  
Terms**

**Air monitoring**  
The sampling for and measuring of pollutants in the atmosphere.

**Breathing zone**  
The imaginary globe of two feet radius surrounding the head.

**General area**  
Collection of and later analysis of airborne contaminants in a given work environment. As the sampling pump and collection media are not attached to a worker, the concentrations found represent average concentrations in that area but may not be representative of the actual exposure of the worker.

**HEPA**  
Refers to high efficiency particulate air filter systems capable of capturing up to 99.97 percent of particles 0.3 microns in size or larger.

**Lead-Contaminated Range**  
It is assumed that all IFRs, which have been fired in, are lead-contaminated.

**Respirator**  
A device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants.

**Wipe Sample**  
The terms wipe, swipe, or smear samples are used synonymously to describe the techniques utilized for assessing lead surface contamination.

**Section III**  
**Special Abbreviations and Terms**

This section contains no entries



April 2010



Perry and Pawhuska Armories Lead Paint Abatement  
State of Oklahoma  
Department of Central Services  
Construction and Properties Division

10276

---

This addendum forms a part of the contract document and modifies the original specifications as noted below. Please acknowledge receipt of this addendum in the space provided on the bid form. Failure to do so may subject bidders to disqualification.

---

Date of Issue: May 3, 2010

Addendum Number: 01

DCS Project Number: 10276

Project Name: Perry and Pawhuska Armories Lead Paint Abatement

**TO ALL BIDDERS OF CONCERN:**

---

Item #1: Attached (3) Three (8 1/2 x 11) page of additional instructions / clarifications issued by DEQ to be added to the original contract bid documents.

---

ALL OTHER DOCUMENTS, SPECIFICATIONS AND DRAWINGS ARE TO REMAIN THE SAME AND INTACT.

  
Rebekah Richardson  
Contract Manager  
Department of Central Services - CAP

# **Perry & Pawhuska Armories Lead Paint Abatement**

## **Addenda #1 – Summary of Changes**

### **Perry Armory –**

1. All interior and exterior window sills shall be cleaned. Once window sills are cleaned, interior and exterior window sills shall be painted with a primer and then encapsulated with a lead-based paint encapsulant. All loose and peeling paint shall be removed prior to priming and encapsulating.
2. Exterior window bars located on two windows shall be removed and properly disposed.
3. Exterior bars and exterior wood located on vent fan shall be removed and properly disposed. Wood around vent fan shall be wet scraped to remove loose and peeling paint, primed, and sealed with lead-based paint encapsulant. Metal lintel above vent fan and concrete sill below vent fan shall be wet scraped to remove loose and peeling paint, cleaned, primed, and then sealed with lead-based paint encapsulant.
4. The vault rooms (Room #5 and #14) shall have all walls and ceiling wet scraped, primed, and sealed with lead-based paint encapsulant.
5. The lead-based paint abatement of Room #13, Room #30, Room #31, Room #12, and Room #15 walls shall extend above drop ceiling to original ceiling. Drop ceiling and insulation may be moved to allow access to the walls in these areas.
6. All wainscoting on walls in Room #12 and Room #15 shall be removed prior to lead-based paint abatement.
7. All wallpaper in Room #30 and Room #31 shall be completely removed prior to lead-based paint abatement.

8. The paint on the floor of Room #4 and Room #5 shall be visibly removed. Once paint is visibly removed, floors shall be HEPA vacuumed, wet washed, and sealed with KM-669 Acrylic Sealer or equivalent.
9. The lead-based paint abatement of Room #27 (Drill Floor) walls shall not extend above drop ceiling.

### **Pawhuska Armory –**

1. All interior and exterior window sills shall be cleaned. Once window sills are cleaned, interior and exterior window sills shall be painted with a primer and then encapsulated with a lead-based paint encapsulant. All loose and peeling paint shall be removed prior to priming and encapsulating.
2. The Pawhuska armory **does not** have available electricity. Corrected page attached.

# STATEMENT OF WORK

For

## Remediation of Lead-Based Paint Contamination at Perry and Pawhuska Armories

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at former National Guard armories located in Perry and Pawhuska, Oklahoma. This statement of work (SOW) describes the cleanup of lead-based paint located on surfaces throughout the building. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. A mandatory site visit and walk through will be held to give a better understanding of the site. A floor plan map of the Perry and Pawhuska Armories is attached for review (**Attachment 1**).

The **Perry Armory** is located at 309 North 14<sup>th</sup> Street, Perry, Oklahoma 73077. The building does have available electricity and does not have available water to use during remediation.

The **Pawhuska Armory** is located at 823 East 8<sup>th</sup> Street, Pawhuska, Oklahoma 74056. The building does not have available electricity and does not have available water to use during remediation.

### SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within ninety (90) calendar 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 Scope of Work and answer and 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. DEQ will sign as generator, if necessary.

### CONTRACTOR SHALL:

- Attend mandatory pre-bid meeting and site walk through;
- Posses a current lead-based paint license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;
- 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;



# DCS Construction & Properties

DATE: 12/27/2010

TRANSMITTAL  
No. CO#1

**PROJECT:** 10276  
DEQ/Lead Remediation/Perry/Pawhuska  
**TO:** Department of Environmental Quality

**REF:** Change Order #1  
DCS #10276  
Crystal Creek Environmental

**FAX:**

**ATTN:** Wendy Caperton

**PHONE:**

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Approval	<input checked="" type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input checked="" type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input checked="" type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	<b>SENT VIA:</b>	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other: Change Order	<input type="checkbox"/> Separate Cover Via: Mail	<input type="checkbox"/> Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
1		12/27/2010	CO	CO#1		Crystal Creek Environmental Solutio	APP

Remarks: DCS/CAP has approved Change Order #1 for DCS #10276 and is forwarding for your use.

DCS #10276  
PO #2929012965  
Net Increase: +\$1,280.91

RECEIVED  
DEC 29 2010

CC: DCS/CAP, UA, **Vender**

Signed: T. Lyon  
Tiffany Lyon



# Purchase Order

**Dept of Environmental Quality**  
 OK DEPT OF ENVIRONMENTAL QUALITY  
 SHIPPING & RECEIVING  
 707 N ROBINSON  
 OKLAHOMA CITY OK 73102

**Vendor:** 0000237377  
 CRYSTAL CREEK ENVIRONMENTAL SOLUTIONS  
 1401 CORNELL PARKWAY  
 OKLAHOMA CITY OK 73108-1811

## CHANGE ORDER

Dispatch via Print

<b>Purchase Order</b>	<b>Date</b>	<b>Revision</b>	<b>Page</b>
2920012965	06/11/2010	1 - 12/20/2010	1
<b>Payment Terms</b>	<b>Freight Terms</b>	<b>Ship Via</b>	
0 Days	Free on board at Destination	Common	
<b>Buyer</b>	<b>Phone</b>	<b>Currency</b>	
Tiffany McBurnett (580)	405/522-0047	USD	

**Ship To:** OK DEPT OF ENVIRONMENTAL QUALITY  
 SHIPPING & RECEIVING  
 707 N ROBINSON  
 OKLAHOMA CITY OK 73102

**Bill To:** OK DEPT OF ENVIRONMENTAL QUALITY  
 ADMINISTRATIVE SERVICES  
 PO BOX 1677  
 OKLAHOMA CITY OK 73101-1677

Line-Sch	Item Id	Description	Quantity	UOM	PO Price	Extended Amt	Due Date
----------	---------	-------------	----------	-----	----------	--------------	----------

1- 1	096131	Environmental Remediation Services. Furnish All Labor, Materials & Equipment Necessary.	1.0000	SUM	107,735.9100	107,735.91	06/11/2010
------	--------	---	--------	-----	--------------	------------	------------

BIDDING FOR LEAD REMEDIATION SERVICES FOR PERRY AND PAWHUSKA ARMORIES THROUGH THE DEPARTMENT OF CENTRAL SERVICES

VENDOR AND PRICE TO BE DETERMINED BY DCS

**Total PO Amount** 107,735.91

### COMMENTS:

DCS #10276  
 Rebekah Richardson-Project Manager  
 405-522-0050

FY 2010

PROJECT: SITE CLEANUP ASSISTANCE PROGRAM  
 PERRY AND PAWHUSKA ARMORIES LEAD-BASED PAINT REMEDIATION BIDDING

JUSTIFICATION: UNDER THE SITE CLEANUP ASSISTANCE PROGRAM THE DEQ WILL HIRE A LICENSED PROFESSIONAL TO ABATE LEAD-BASED PAINT AND REPLACE DOORS CONTAINING LEAD-BASED PAINT IN PERRY AND PAWHUSKA ARMORIES.

(FOR AGENCY USE ONLY)

CONTACT: KAREN RUMSEY/ASD/(405)702-1168  
 MARY JOHNSON/LPD/(405)702-5100

DEQ IS AN EQUAL OPPORTUNITY EMPLOYER.

FUNDING: 493

REQUISITION #2920002978 - PLEASE RETURN PO TO MARY JOHNSON

3/17/10

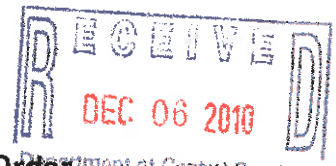
CC#01 - 12/20/10 - A door and frame were missed for replacement for LBP abatement and replacement in room 18 of the Perry Armory. This is an heater closet. CONTRACT SUM INCREASED \$1,280.91; CONTRACT TIME REMAINS UNCHANGED -TM

Authorized Signature



State of Oklahoma  
Department of Central Services  
Construction and Properties

NOV 15 2010



Change Order Department of Central Services  
Construction & Properties

**IMPORTANT NOTE: THE WORK DESCRIBED HEREIN IS NOT AUTHORIZED UNTIL THIS CHANGE ORDER IS COMPLETED AND SIGNED BY ALL ENTITIES LISTED BELOW. DO NOT PROCEED WITH WORK UNTIL THE CHANGE ORDER IS COMPLETED AND SIGNED BY EACH PARTY.**

This form is required and shall be prepared by the Contractor. All costs must be broken down.

10274

DATE: 11/14/10 P. O. NUMBER: 2929013570 DCS/CAP PROJECT NUMBER: 11042

FROM PROPOSAL REQUEST NUMBER(S): 11042 CONTRACT NUMBER:

PROJECT NAME: Perry and Pawhuska Lead Paint Remediation DCS/CAP PROJ. MANAGER: RR

CONTRACTOR: Crystal Creek Environmental Solutions Inc. CHANGE ORDER NUMBER: 001

**BRIEF DESCRIPTION OF CHANGE:**

A Door and frame were missed for replacement for LBP abatement and replacement in room 18 of the Perry Armory. This is a heater closet.

**BRIEF DESCRIPTION OF TIME DELAY:**

No time delay.

Not valid until signed by the Contractor, Consultant, Using Agency and Authorized CAP Representative.

The original <input checked="" type="checkbox"/> Contract Sum <input type="checkbox"/> Guaranteed Maximum Price was	\$	106,455.00
Net change by previously authorized Change Orders	\$	0.00
The <input checked="" type="checkbox"/> Contract Sum <input type="checkbox"/> Guaranteed Maximum Price prior to this Change Order was	\$	106,455.00
The <input type="checkbox"/> Contract Sum <input type="checkbox"/> Guaranteed Maximum Price will be <input checked="" type="checkbox"/> increased <input type="checkbox"/> decreased <input type="checkbox"/> unchanged by this Change Order in the amount of	\$	1,280.91
The new <input type="checkbox"/> Contract Sum <input type="checkbox"/> Guaranteed Maximum Price including this Change Order will be	\$	107,735.91
The Contract Time will be <input checked="" type="checkbox"/> increased <input type="checkbox"/> decreased <input checked="" type="checkbox"/> unchanged by	0	Calendar Days
The date of Substantial Completion as of the date of this Change Order therefore is		11/14/10 Date

**APPROVALS:**

Mike Jenkinson, President, Crystal Creek  
Contractor Name Signature Date 11/14/10

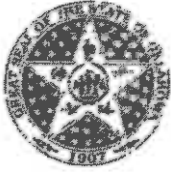
Consultant Name Signature Date

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Using Agency Signature Wendy Caputo Date 12-1-10

GL Unit: Amt Sub Amt Fund Type: Class Fund: Dept: Fund Row:

Mike Jones Authorized CAP Representative Signature Date 12-6-10

Signature Date



State of Oklahoma  
 Department of Central Services  
 Construction and Properties

Cost Breakdown For Change Order  
 (Not Required If Change Is Less Than \$10,000)

(1) Materials	Unit	Unit Cost	Total
Door and Frame	1	691.42	691.42
Hardware	1	93.33	93.33
			0.00
			0.00
			0.00
			0.00
<b>Subtotal (1)</b>			<b>784.75</b>

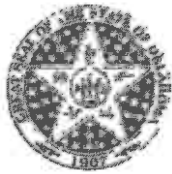
(2) Labor	No. Of Hours	Hourly Cost	Total
Labor to strip LBP from old door frame	1	136.00	136.00
Labor to install door and frame	1	302.25	302.25
			0.00
			0.00
			0.00
			0.00
<b>Subtotal (2)</b>			<b>438.25</b>

(3) Equipment	No. Of Hours	Hourly Cost	Total
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
<b>Subtotal (3)</b>			<b>0.00</b>

(4) Sub Contractors (List each Sub Contractor)	Total	
<b>Subtotal (4)</b>		<b>0.00</b>

Column 1	Column 2	
Insurance Cost	Overhead Costs (15% Maximum of 1,2 & 3)	0.00
Bond Cost	Profit (10% Maximum of 1,2 & 3)	0.00
Social Security Taxes (FICA)	Overhead Costs & Profit (Total limited to 15% of 4)	
Other Taxes	<b>Total of Column 2</b>	0.00
Worker's Compensation	<b>Total of Column 1</b>	57.91
Employee Fringe Benefits		
<b>Total of Column 1</b>	<b>Total for this Page (Subtotals 1 - 4, and Col. 1 &amp; 2 Totals)</b>	<b>\$1,280.91</b>





State of Oklahoma  
Department of Central Services  
Construction and Properties

Explanation For Change Order

REQUESTED BY: Contractor  Consultant  Using Agency  Owner (DCS/CAP)

REASON FOR CHANGE: (check box) Detailed explanation required below.

- Unforeseen site condition.  Work not specified in Contract Documents, but essential to completion of the project.
- Scope change: Using Agency request.  Other: (Describe) \_\_\_\_\_
- Scope change: DCS/CAP request.  Other: (Describe) \_\_\_\_\_

Provide a detailed description of the proposed change in the Work and provide detailed reasons why this change is necessary.

**DETAILED REASON FOR CHANGE IN THE WORK:**

A Door and frame were missed for replacement for LBP abatement and replacement in room 18 of the Perry Armory. This is a heater closet. Picture Attached.

**CONTRACT TIME REQUEST EXPLANATION:**

Describe how the time requested will extend the "critical path" of the project schedule and will not be concurrent with other work.  
No time delay.

## STATEMENT OF WORK

For

### Remediation of Lead-Based Paint Contamination at Perry and Pawhuska Armories

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at former National Guard armories located in Perry and Pawhuska, Oklahoma. This statement of work (SOW) describes the cleanup of lead-based paint located on surfaces throughout the building. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. A mandatory site visit and walk through will be held to give a better understanding of the site. A floor plan map of the Perry and Pawhuska Armories is attached for review (**Attachment 1**).

The **Perry Armory** is located at 309 North 14<sup>th</sup> Street, Perry, Oklahoma 73077. The building **does** have available electricity and **does not** have available water to use during remediation.

The **Pawhuska Armory** is located at 823 East 8<sup>th</sup> Street, Pawhuska, Oklahoma 74056. The building **does** have available electricity and **does not** have available water to use during remediation.

### SPECIAL PROVISIONS:

1. **Work Schedule:** The Contractor shall schedule all work to be complete within ninety (90) calendar 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 Scope of Work and answer and 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. DEQ will sign as generator, if necessary.

### CONTRACTOR SHALL:

- Attend mandatory pre-bid meeting and site walk through;
- Posses a current lead-based paint license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;
- 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 Bid:**

- Copy of lead-based paint license;
- Three references with name, type of project, phone number, and location of similar work in the last three years;

**Submit After Contract Award:**

- A Work Plan with planned activities and schedule to DEQ for approval;

## **LEAD-BASED PAINT ABATEMENT INSTRUCTIONS**

### **1. LEAD-BASED PAINT ABATEMENT**

#### **A. Non-Friction and Non-Impact Surfaces**

##### **Perry Armory**

- All down spouts, all window lintels, all wood overhead doors, the walls of room numbers 4, 12, 13, 15, 27, 30, 31, 33, and 34, the concrete doorway overhang above both exterior side doors, the white concrete ledge below mural in drill floor, and all overhead door frames and guards 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 3**). Encapsulant shall be a minimum of 20 mils thick. Floor plan map is attached (**Attachment 1**). For a detailed list of lead-based paint locations see the Perry Armory Lead-Based Paint and Settled Dust Sampling Report (**Attachment 5**);
- The drill floor hand rails shall have all paint removed and then be painted with a neutral colored primer;
- Deteriorated paint removed from building surface shall be properly disposed.

##### **Pawhuska Armory**

- All down spouts, all window lintels, all wood overhead doors, the walls of room number 17, and all overhead door frames and guards 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 3**). Encapsulant shall be a minimum of 20 mils thick. Floor plan map is attached (**Attachment 1**). For a detailed list of lead-based paint locations see the Pawhuska Armory Lead-Based Paint and Settled Dust Sampling Report (**Attachment 5**);
- The yellow paint on the floor of room 10 and the grey paint on the floor of room 15 shall be visibly removed. Once paint is visibly removed, floors shall be HEPA vacuumed, wet washed, and sealed with KM-669 Acrylic Sealer or equivalent;
- The drill floor hand rails shall have all paint removed and then be painted with a neutral colored primer;
- Deteriorated paint removed from building surface shall be properly disposed.

## **B. Friction and Impact Surfaces**

### **Doors and Frames**

- Pawhuska Armory and Perry Armory Door-Scope of Works with maps, door measurements, and specific details on abatement requirements for each door are attached (**Attachment 4**);
- All removed doors shall be wrapped in 6 mil poly sheeting and properly disposed;
- All door frames shall have all paint removed and frame shall be painted with neutral colored primer;
- Doors shall be replaced with pre-hung Steelcraft Commercial Replacement Door Units (Specifications Attached) or equivalent;
- Doors shall be replaced with UL listed 90 minute standard metal doors;
- Doors shall be replaced with Steelcraft L18 and L16 – Series Honeycomb Doors (Specifications Attached) or equivalent;
- Contractor must submit product data for approval if different from doors or door frames in bid package;
- Replacement doors and frames must meet all compliance and fire rating requirements in the attached specifications;

### **Exterior Doors**

- Exterior doors shall be replaced with galvanized, 16 gage, honeycomb core insulated doors;
- Hinges: As manufactured by Hagar or approved equal – Plain Bearing - Standard Weight 1279 NRP, 4 ½ X 4 ½ (Specifications Attached);
- 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 per 07920 specification attached.

### **Interior Doors**

- Interior doors shall be replaced with non-galvanized, 18 gage, honeycomb core insulated doors;
- Hinges: As manufactured by Hagar or approved equal – Plain Bearing – Standard Weight 1279, 4 ½ X 4 ½ (Specification Attached);
- Knob: As manufactured by Schlage or approved equal – A Series “Orbit”, 626 finish, function A10S (Specification Attached);
- Provide sealant (caulking) per 07920 specification attached.

### **C. Clearance Inspection**

- Once lead-based paint has been removed from surfaces, DEQ will perform a visual inspection to confirm lead-based paint has been removed appropriately before surfaces are painted or sealed.
- Once lead-based paint abatement is complete, contractor shall HEPA vacuum and wet wash surrounding areas where abatement has been performed. DEQ will perform a visual inspection to make sure abatement area has been cleaned appropriately.

### **D. Sampling and 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 and a Land Disposal Notification Form, and a Certificate of Disposal to demonstrate that the paint chips were properly disposed at a hazardous waste facility must be included in the Final Report.

## **2. FINAL REPORT**

- Write final report and submit to DEQ;
- 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 REPRESENTATIVE**

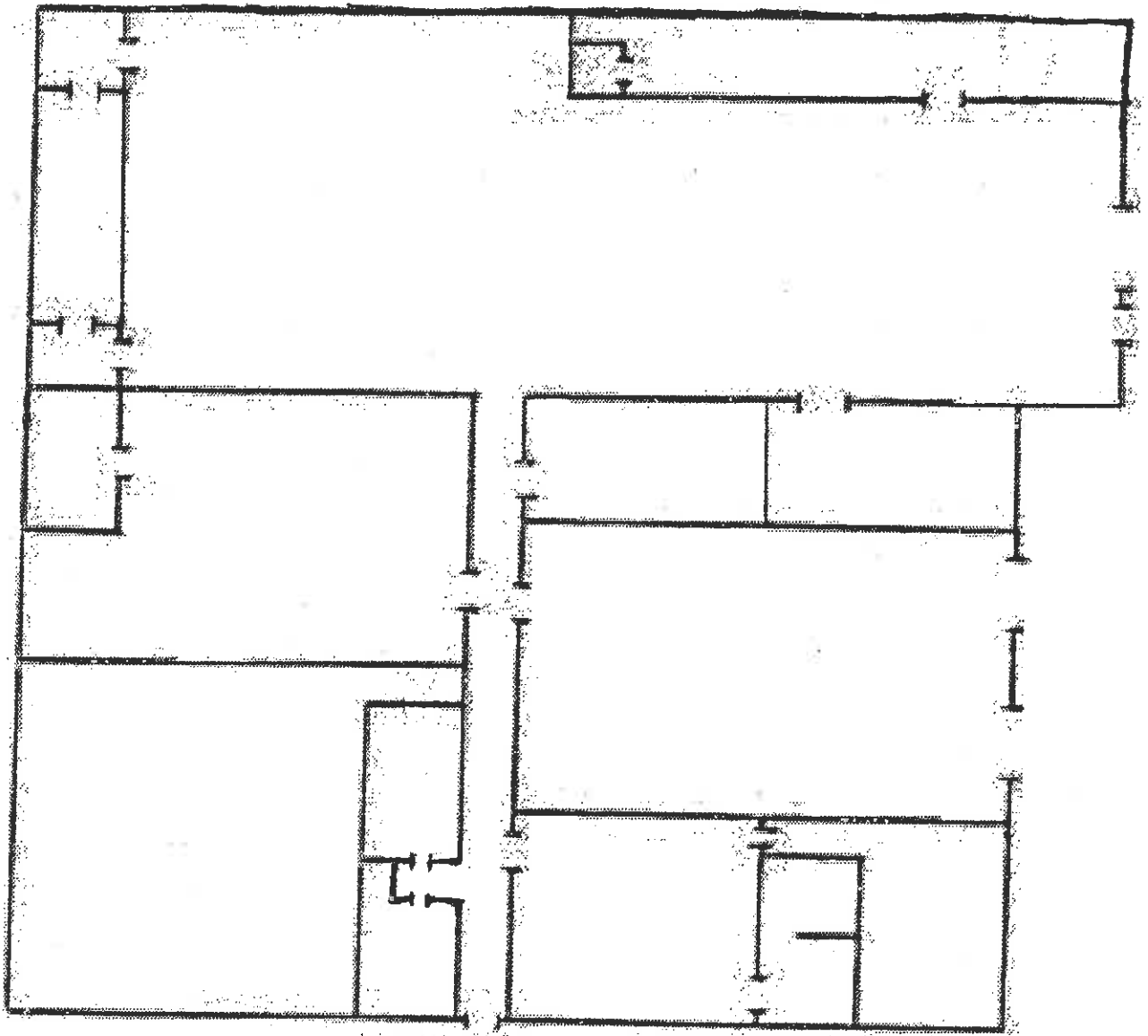
Owner's Representative: Dustin Davidson  
Oklahoma Department of Environmental Quality  
Land Protection Division  
707 N. Robinson  
Oklahoma City, OK 73102  
(405) 702-5115 (Office)  
(405) 702-5101 (Fax)  
E-Mail: [Dustin.Davidson@deq.ok.gov](mailto:Dustin.Davidson@deq.ok.gov)

# **ATTACHMENT 1**

**Pawhuska Floor Plan Map**

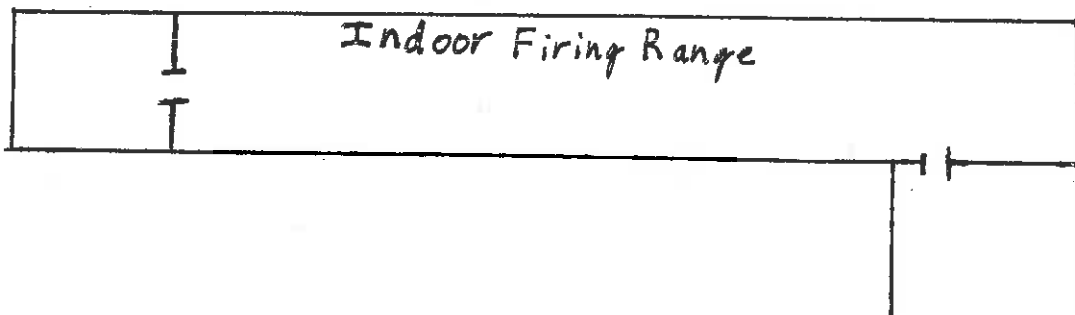
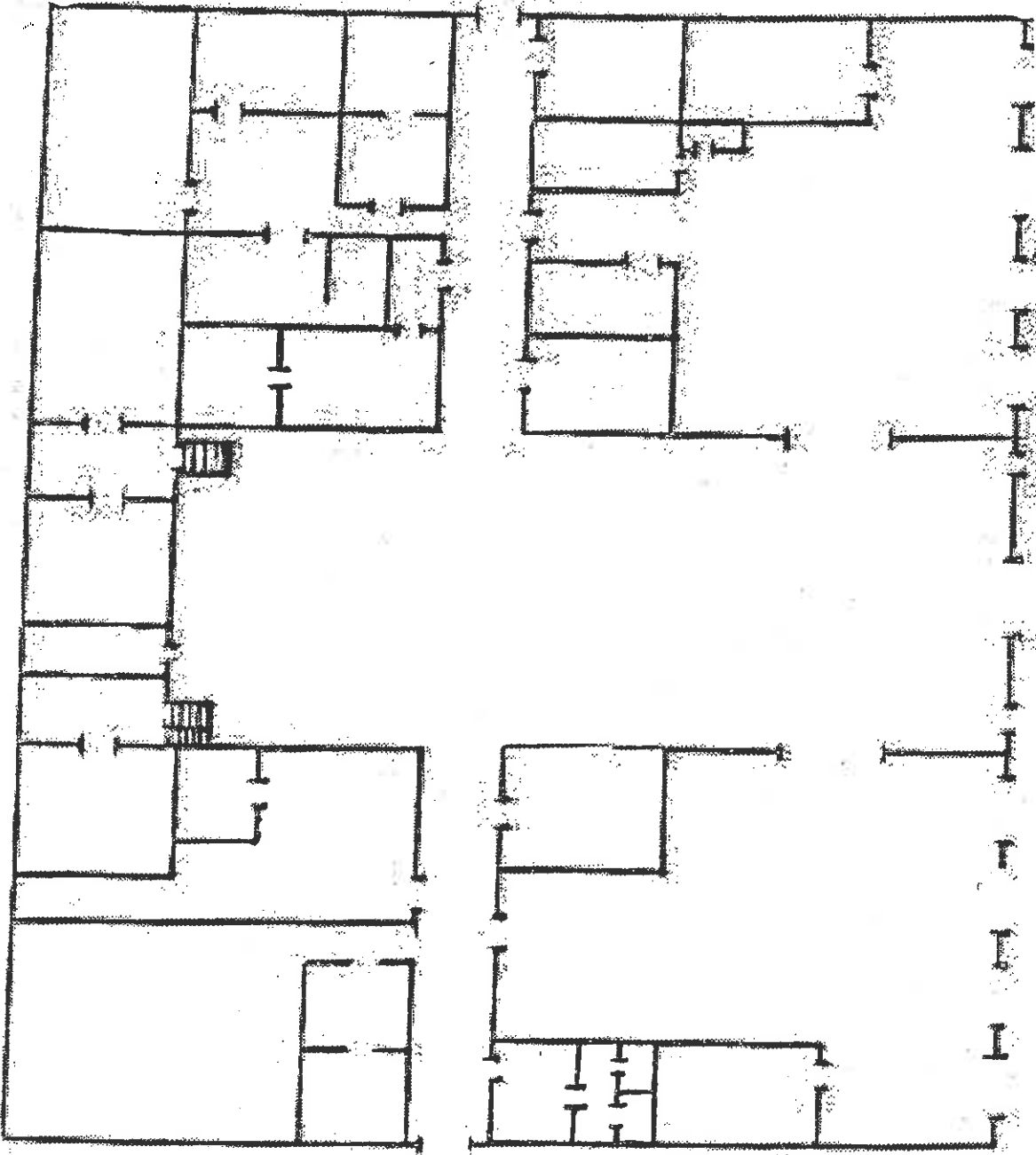
**Perry Floor Plan Map**

# PAWHUSKA ARMORY





# PERRY ARMORY



## **ATTACHMENT 2**

### **Health & Safety Aspects to Consider**

## Health & Safety Aspects to Consider

**Project Goal:** To ensure that former National Guard Armories are free of lead dust. Specifically, indoor firing ranges (IFR's) and other areas that contain lead contamination.

**Please Note:** the following information is from the Departments of the Army and the Air Force, National Guard Bureau, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges (**Attachment 4**).

### Health and Medical Aspects

#### Health Effects

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indestructible and common in the environment. Lead can enter the body by inhalation (breathing) or ingestion (eating). In addition, lead is a cumulative poison. It accumulates in the blood, bones, and organs, including the kidneys, brain and liver. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension. Symptoms include loss of appetite, difficulty sleeping, irritability, fatigue, headache, and inability to concentrate. It can stay in the bones for decades. Worker awareness and training are important to ensure that employees can recognize the symptoms of exposure and get prompt medical attention.

#### Medical Surveillance for occupational Exposure to Lead

- a. 29 CFR 1910.1025(j)(i-ii), Medical Surveillance - General: "The employer shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year. The employer shall assure all medical examinations and procedures are performed by or under the supervision of a licensed physician."
- b. The DOD 6055.5-M, Occupational Medical Surveillance Manual - Table 2-I lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

## Personal Protective Equipment

29 CFR 1910.1025(f)(2), for housekeeping and rehabilitation the employer shall select respirators from among those approved for protection against dust, fume, and mist by the National Institute for Occupational Safety and Health (NIOSH), under the provision of 42 CFR part 84. The employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134(b), (d), (e), and (f). As a minimum, personnel conducting the decontamination of the range shall be provided with the following personal protective equipment.

a. Under 29 CFR 1910.1025 (g). For employees engaged in range rehabilitation and/or range conversion, the employer shall provide at no cost to the employee, and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

- (1) Protective coveralls with hood and shoe covers or disposable Tyvek™ full body suit.
- (2) Disposable rubber gloves; and disposable shoe coverlets (If necessary).
- (3) Full-face air purifying respirator with P-100 cartridges.

b. The employer shall provide the clothing required in a clean and dry condition at least daily to employees engaged in the conversion of IFRs.

c. The employer shall provide for the cleaning, laundering, or disposal of used or contaminated protective clothing and equipment.

d. The employer shall assure that all protective clothing is removed at the completion of a work shift only in areas designated for that purpose (Change Areas or Change Rooms).

e. The employer shall ensure that contaminated protective clothing that is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area that seals sufficiently enough to prevent dispersion of lead dust.

f. The employer shall further inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

g. The employer shall ensure that the containers of contaminated protective clothing and equipment are labeled as follows: **CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.**

## Education, Maintenance, Cleaning and Conversion

### Worker Education

- a. 29 CFR 1910.1025, Appendix 13, requires an information and training program for **all employees exposed** to lead above the action level or who may suffer skin or eye irritation from lead. The program must inform the employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition you must make readily available to all employees, including those exposed below the action level, a copy of this standard and its appendices. This training program shall be repeated annually for personnel in range cleanup operations.
  
- b. The supervisor shall ensure that each individual employee is informed of the following:
  - (1) The content of the standard and its appendices.
  - (2) The specific nature of operations that could result in exposure to lead above the action level.
  - (3) The purpose, proper selection, fitting, use, and limitations of respirators.
  - (4) The purpose and a description of medical surveillance program.
  - (5) Eating and drinking are prohibited in lead contaminated areas.
  - (6) Smoking and smoking materials shall not be permitted in contaminated areas.
  - (7) Employees must wash their hands and other exposed skin whenever they leave the work area.
  - (8) The engineering controls and work practices associated with the individual's job assignment.
  - (9) The contents of any compliance plan in effect.
  - (10) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

## **REFERENCES**

### **Section 1 Required Publications**

There are no entries in this section

### **Section II Related Publications**

#### **ASTM E1792-03**

Standard Specification for Wipe Sampling Materials for Lead in Surface Dust

#### **AR 11-34**

The Respiratory Protection Program

#### **AR 40-5**

Preventive Medicine

#### **DODI 6055.5**

Industrial Hygiene and Occupational Health

#### **DOD 6055.5-M**

Occupational Medical Surveillance Manual

#### **29 CFR, Part 1910**

Occupational Safety and Health Administration, Department of Labor

#### **National Institute for Occupational Safety and Health (NIOSH) 76-130**

Lead Exposure and Design Considerations for Indoor Firing Ranges, Department of Health, Education and Welfare

#### **NGR 385-15**

Policy and Responsibilities for Inspection, Evaluation and Operation Army National Guard National Guard Indoor Firing Ranges (IFRs).

#### **NGR 415-5**

Army National Guard Military Construction Program Development and Execution

#### **NGR 420-10**

Construction and Facilities Management Office Operations

#### **Technical Manual, 5<sup>th</sup> Edition**

Occupational Safety and Health Administration, Department of Labor Section III

## **ATTACHMENT 3**

### **DEQ Approved Lead-Based Paint Encapsulants List**

## Lead-Based Paint Encapsulants approved by DEQ

<b>Encapsulant Manufacturer</b>	<b>Encapsulant Product(s)</b>
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



## **ATTACHMENT 4**

**Pawhuska Door Scope of Work Including  
Measurements and Specifications**

**Perry Door Scope of Work Including  
Measurements and Specifications**

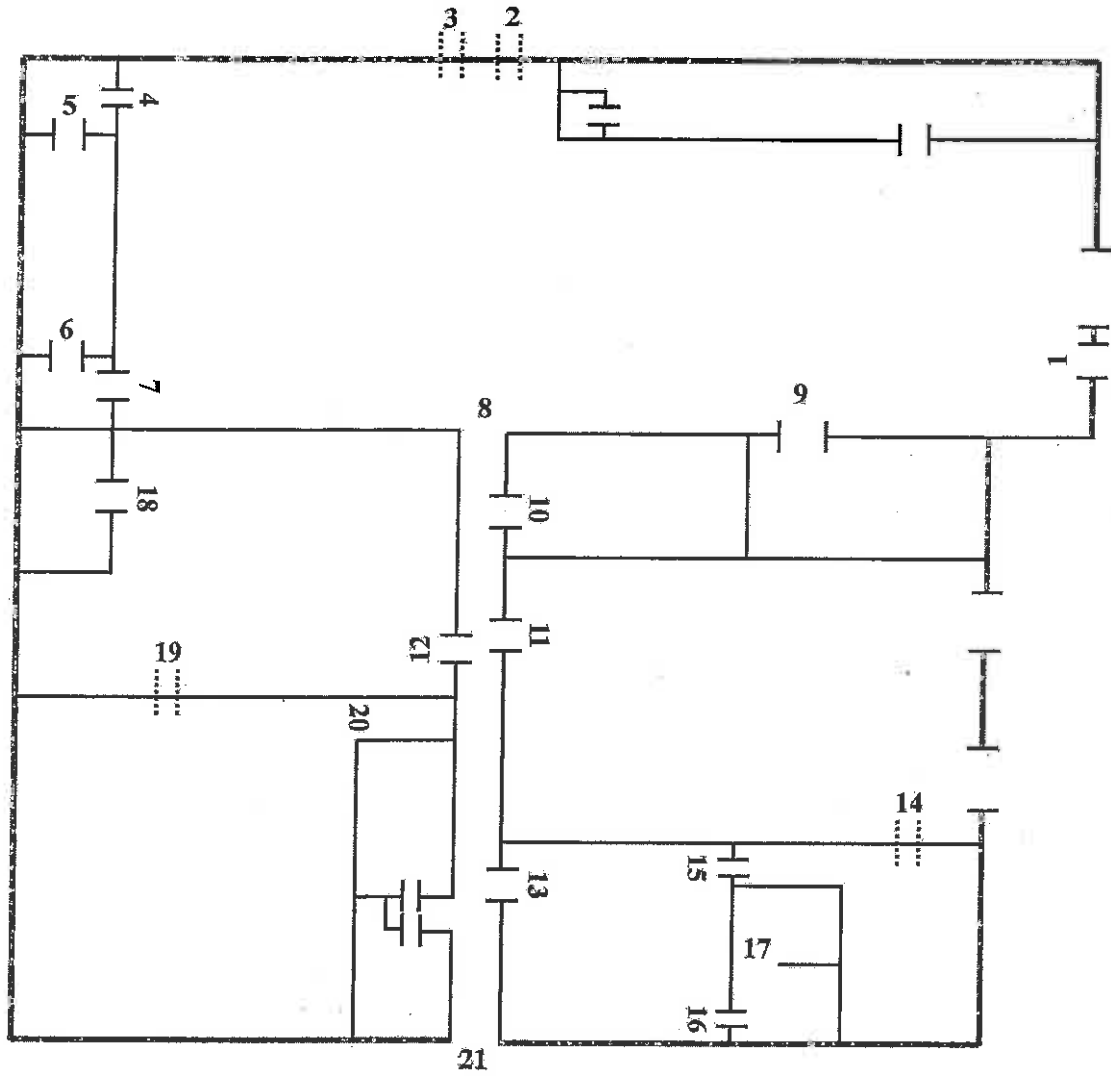
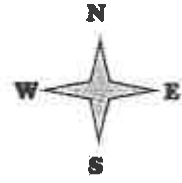
# **Pawhuska Armory Door Measurements And Scope of Work**

- **Door measurements are listed as approximate Width X Height; Contractor to field verify.**
  - **All removed doors will be properly disposed.**
  - **All removed lead-based paint will be properly disposed.**
  - **Attached is a Pawhuska Armory Floor Plan with designated door numbers that correspond with the numbers on this Scope of Work.**
  - **Specifications for replacement doors are attached.**
- 
1. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.
  2. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.
  3. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.
  4. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
  5. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
  6. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
  7. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
  8. Remove double doors. Remove all paint from door frame. Replace double doors with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Double Door Measurements – 6' X 7'

9. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
10. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
11. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
12. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
13. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
14. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
15. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'4" X 7'
16. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'4" X 7'
17. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
18. Remove all paint from vault door and door frame. Once paint is removed, paint door and frame with neutral colored primer.
19. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'8" X 7'
20. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'

21. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.

# Pawhuska Armory



## **Perry Armory Door Measurements And Scope of Work**

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

1. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
2. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
3. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
4. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
5. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
6. Remove door and frame. Do not replace.
7. Remove door. Remove all paint from door frame. Frame will be painted with a neutral colored primer. Do not replace door.
8. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.
9. Remove all paint from original outer door frame. Once paint is removed, paint frame with neutral colored primer.

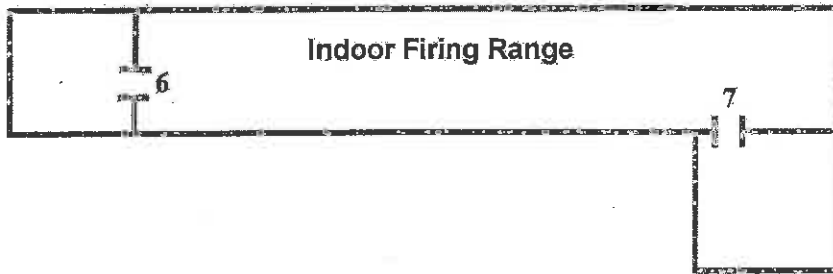
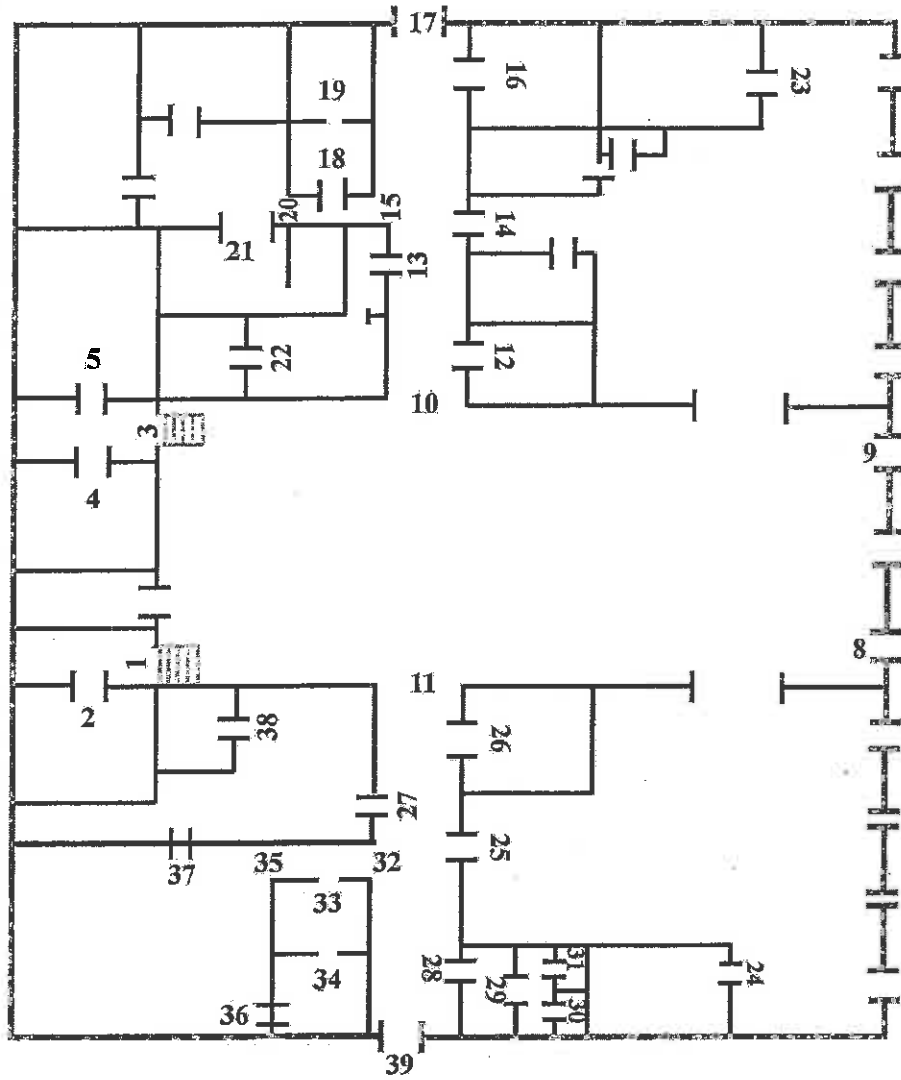
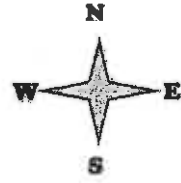
10. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
11. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
12. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
13. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
14. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
15. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
16. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
17. Remove double doors. Remove all paint from door frame. Replace double doors with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Double Door Measurements – 5' X 7'
18. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'6" X 6'8"
19. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
20. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 6'11"
21. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
22. Remove all paint from vault door and door frame. Once paint is removed, paint door and frame with neutral colored primer.

23. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
24. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
25. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
26. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
27. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 4' X 7'
28. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
29. Remove door frame. Do not replace.
30. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'4" X 7'
31. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'4" X 7'
32. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.
33. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'6" X 6'8"
34. Remove all paint from frame. Once paint is removed, paint frame with neutral colored primer.



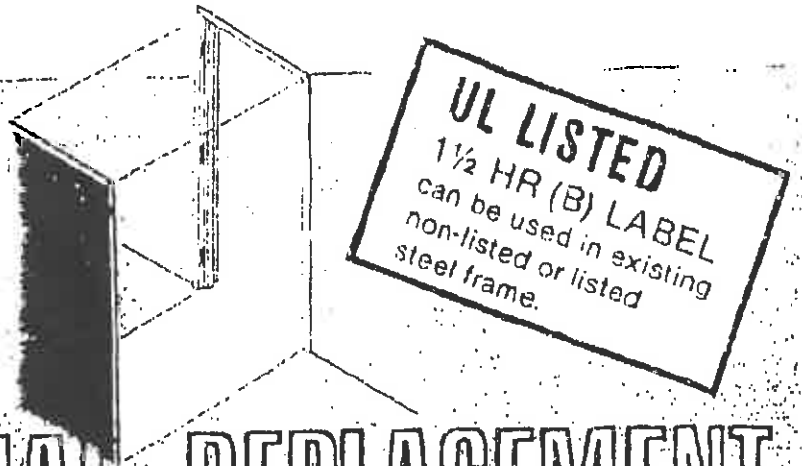
35. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
36. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 3' X 7'
37. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Door Measurements – 2'8" X 7'
38. Remove all paint from vault door and door frame. Once paint is removed, paint door and frame with neutral colored primer.
39. Remove double doors. Remove all paint from door frame. Replace double doors with pre-hung door unit. Original frame will be painted with a neutral colored primer.  
Double Door Measurements – 5' X 7'

# Perry Armory



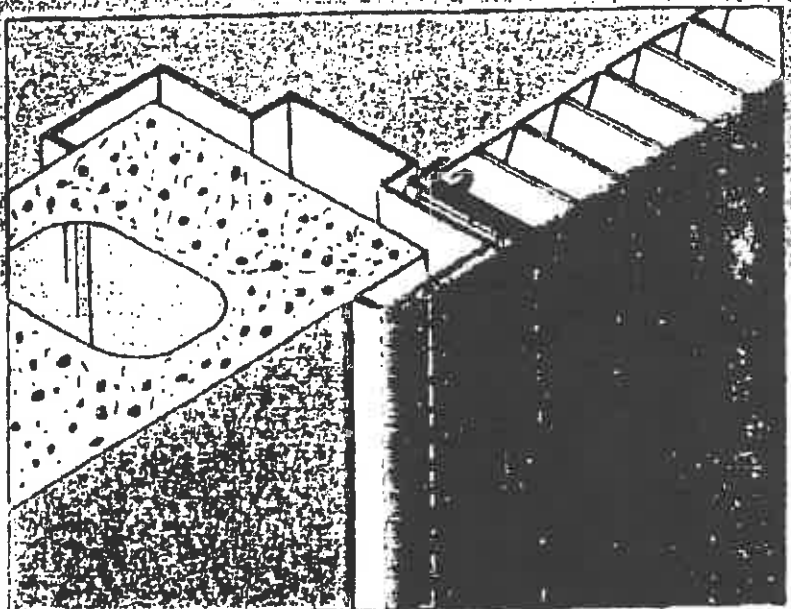
Install a pre-hung  
**Steelcraft**

# 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, 5068, 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-mortaring 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.

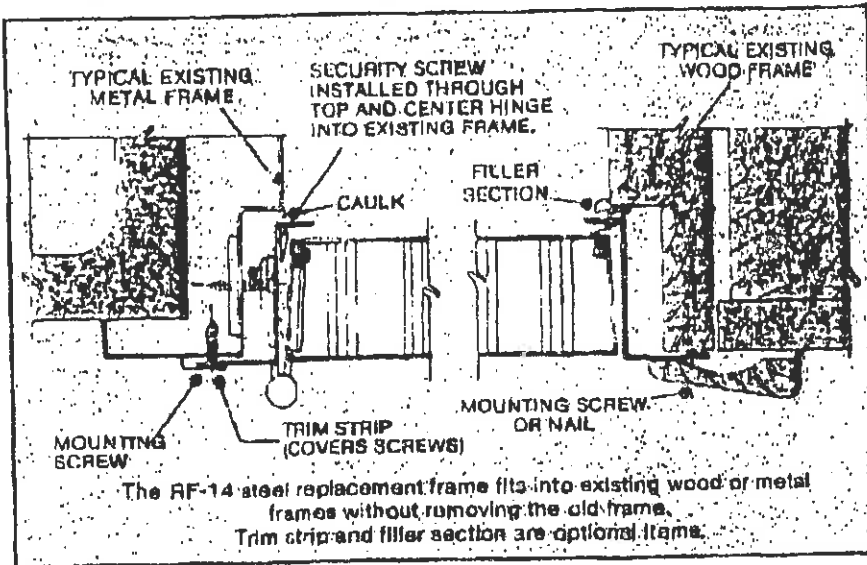
**'N EASY**

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

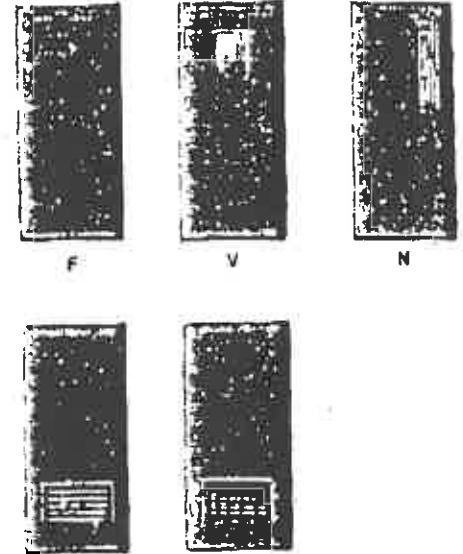
**INSTALLATION**

3. Mount hardware as required. Paint.

**TYPICAL SECTION**



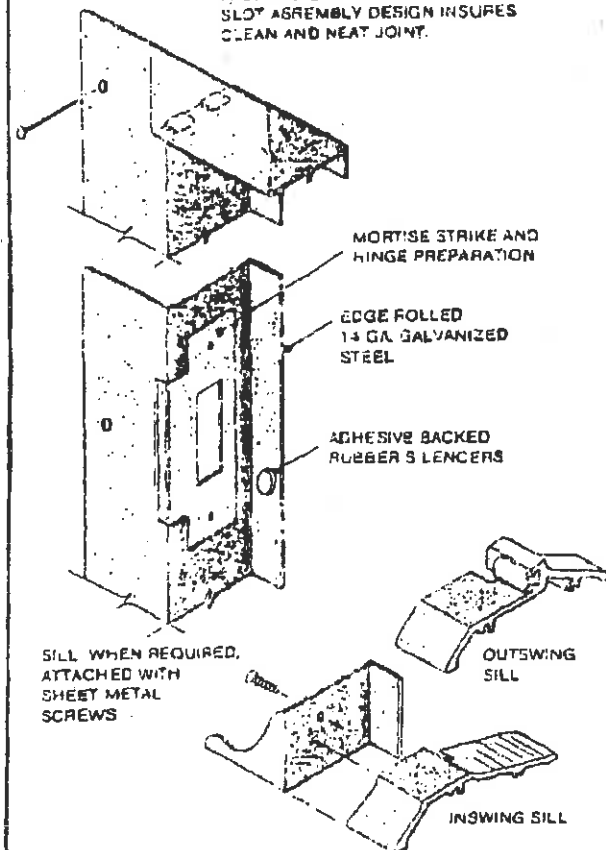
**DESIGNS AND FINISHES AVAILABLE**



LOUVERS

**FRAME DETAIL**

KNOCKED DOWN CORNER CONSTRUCTION. FAST 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:

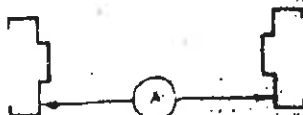
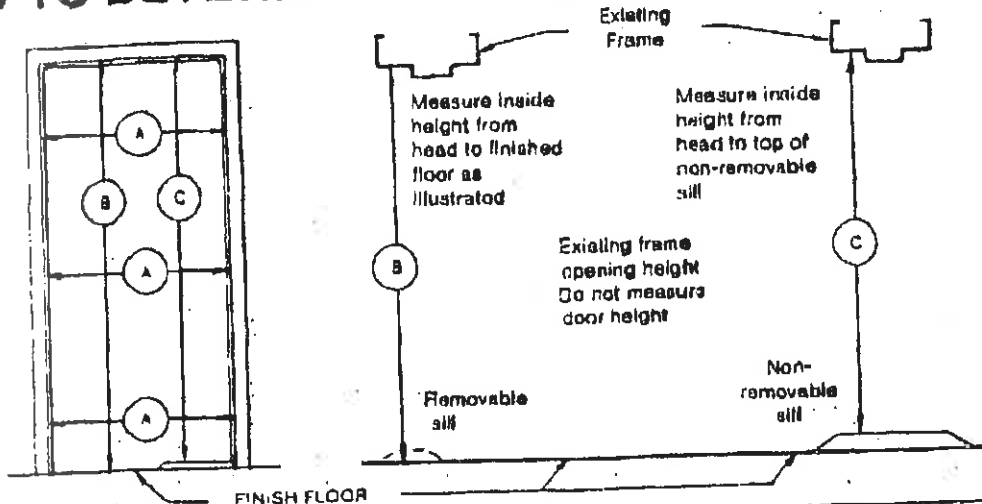
- Doors shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RL-18 (1 3/4" 18 ga. steel).
- Doors shall be fabricated from cold rolled steel.
- Doors shall have 1/8" bevel in 2" on hinges and lock edges.
- Doors shall have vertical mechanical interlocking seams on hinges and lock 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 jamb 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



Measure in 3 places. Use narrowest dimension for ordering

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

SIZE (Nominal)	FITS THESE EXISTING OPENINGS			
	A WIDTHS		B C HEIGHTS	
	MIN.	MAX.	MIN.	MAX.
2'8" x 6'8"	31 1/4"	32 3/4"	79 1/2"	80 1/2"
3'0" x 6'8"	35 1/2"	36 3/4"	79 1/2"	80 1/2"
3'8" x 6'8"	41 1/2"	42 3/4"	78 1/2"	80 1/2"
3'8" x 6'8"	43 1/2"	44 3/4"	78 1/2"	80 1/2"
4'0" x 6'8"	47 1/2"	48 3/4"	78 1/2"	80 1/2"
2'8" x 7'0"	31 1/4"	32 3/4"	83 1/2"	84 1/2"
3'0" x 7'0"	35 1/2"	36 3/4"	83 1/2"	84 1/2"
3'8" x 7'0"	41 1/2"	42 3/4"	83 1/2"	84 1/2"
3'8" x 7'0"	43 1/2"	44 3/4"	83 1/2"	84 1/2"
4'0" x 7'0"	47 1/2"	48 3/4"	83 1/2"	84 1/2"
3'4" x 8'8"	83 1/2"	84 1/2"	79 1/2"	80 1/2"
6'0" x 6'8"	71 1/2"	72 3/4"	79 1/2"	80 1/2"
6'4" x 7'0"	63 1/2"	64 3/4"	83 1/2"	84 1/2"
6'0" x 7'0"	71 1/2"	72 3/4"	83 1/2"	84 1/2"

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

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

<p><b>LEFT HAND</b> Hinges on Left Opens Inward</p>	<p><b>RIGHT HAND</b> Hinges on Right Opens Inward</p>	<p><b>LEFT HAND REVERSE</b> Hinges on Left Opens Outward</p>	<p><b>RIGHT HAND REVERSE</b> Hinges on Right Opens Outward</p>
<p><b>LEFT HAND</b> Hinges on Left Opens Inward</p>	<p><b>RIGHT HAND</b> Hinges on Right Opens Inward</p>	<p><b>LEFT HAND REVERSE</b> Hinges on Left Opens Outward</p>	<p><b>RIGHT HAND REVERSE</b> Hinges on Right Opens Outward</p>

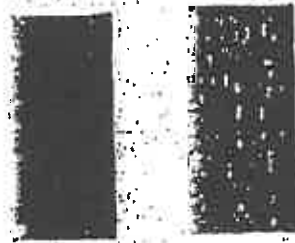
**Steelcraft**  
9011 Blue Ash Road Cincinnati, Ohio 45242 513/745-9408



LNL

B

G2/G4



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:

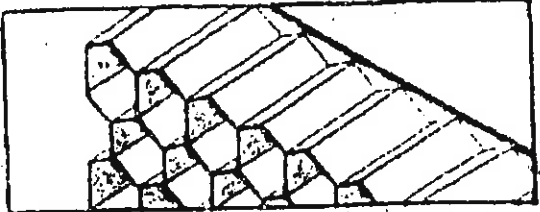
Government 161 (ANSI-A115.2) cylindrical or Government 88 (ANSI-A115.1) mortise lock with an ANSI-A115.1 or .2 strike.

Consult distributor for other hardware preparations.

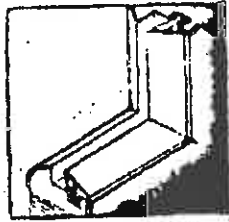
	NOMINAL SIZE	FRAME SIZE (FINISHED OPENING)		NET DOOR SIZE*	
		WIDTH	HEIGHT	WIDTH	HEIGHT
SINGLE	2868	31"	79 1/4"	30-13/16"	79W"
	3068	35"		34-13/16"	
	3668	41"		40-13/16"	
	3868	43"		42-13/16"	
	4068	47"		46-13/16"	
	2870	31"	82 1/4"	30-13/16"	82 1/4"
	3070	35"		34-13/16"	
	3670	41"		40-13/16"	
	3870	43"		42-13/16"	
	4070	47"		46-13/16"	
PAIR	5468	63"	79 1/4"	30-13/16" & 31-13/16"	78W"
	6068	71"		34-13/16" & 35-13/16"	
	5470	63"	82 1/4"	30-13/16" & 31-13/16"	82 1/4"
	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.



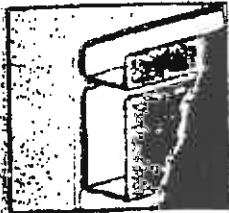
Aluminum glass trim (3/16"-in.)



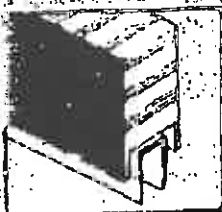
8-gage thick hinge reinforcement.



Snap-in metal top caps for exterior openings.



Steel top and bottom reinforcing channels 1/4-gage closer reinforcement when required.



Door bottom with double sweep when required.



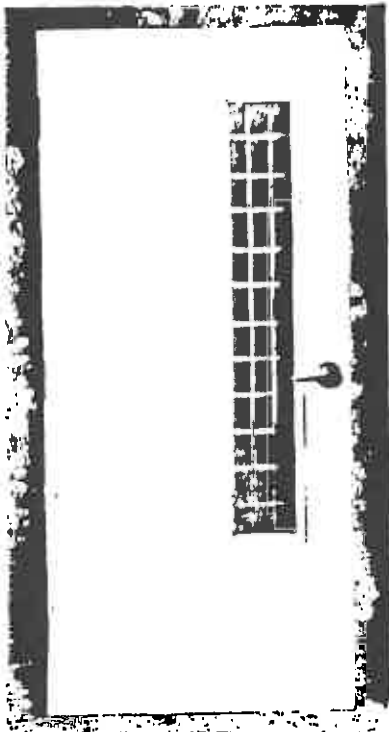
Insulated doors: one pound polystyrene core, 1 1/2 pound polyurethane core when required.

**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.



### 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.

### 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.

### SPECIFICATION COMPLIANCE:

1. Door construction for the Steelcraft L18 and L16-Series 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 <sup>1</sup>	Frame Applications
16 gage (1.3mm)	Interior & Exterior	Extra-heavy duty	• 16 & 14 gage steel frames
18 gage (1mm)	Interior & Exterior	Heavy duty	• <b>16 gage steel frames</b>
Steel Type	Opening	Building Applications	
Non Galvannealed <sup>2</sup>	Mainly Interior	• Typical building conditions	
Galvannealed <sup>2</sup>	Mainly Exterior	• Used in locations with high humidity and/or weather exposure	

### MATERIAL:

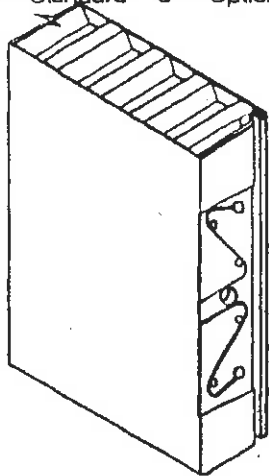
Depending on environmental conditions, exterior doors are generally galvannealed and interior doors non galvanneal. All doors are supplied with a factory applied baked on primer for field applied finish paints.

<sup>1</sup> Usage frequency is based on ANSI A250.8-1998

<sup>2</sup> Reinforcements for galvannealed doors are also galvannealed

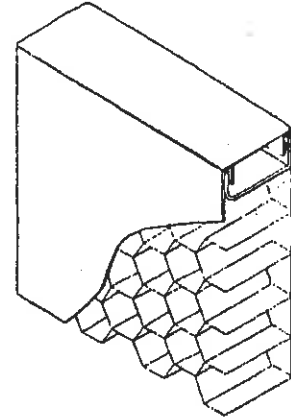
<sup>3</sup> Commercial quality carbon steel

Universal Mortise Hinge Prep  
4 1/2" - Standard 5" - Optional

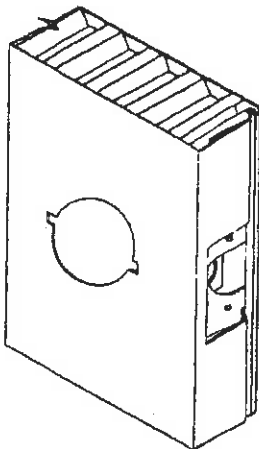


7 Gage Hinge Reinforcement

Optional Snap-In Top Cap

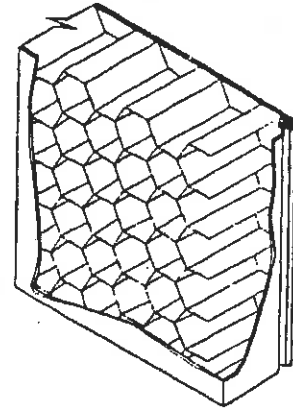


Lock Prep

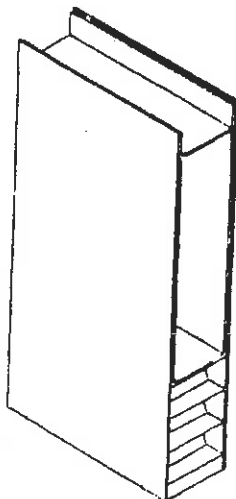


161 Cylindrical Lock shown

Rigid Honeycomb Core



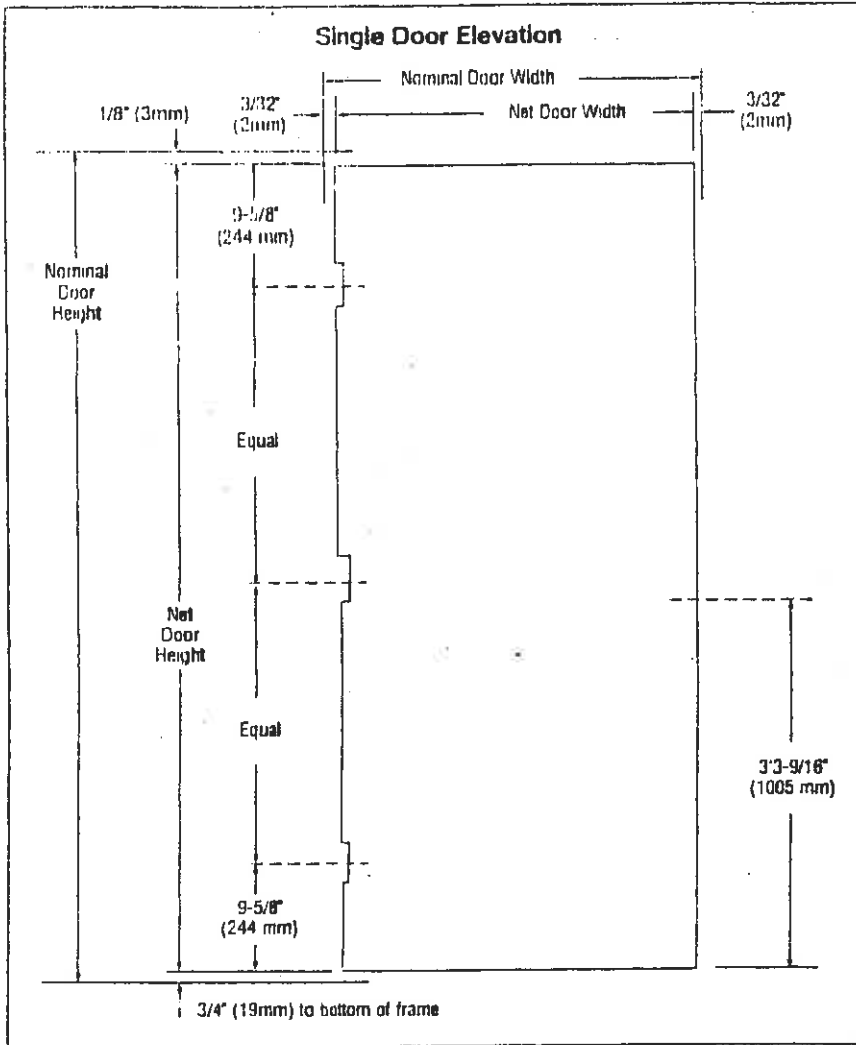
Optional 14 Gage Closer Reinforcement



**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** - 4 1/2" (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 4 7/8" (124mm) strike are 161, 61L and 86.

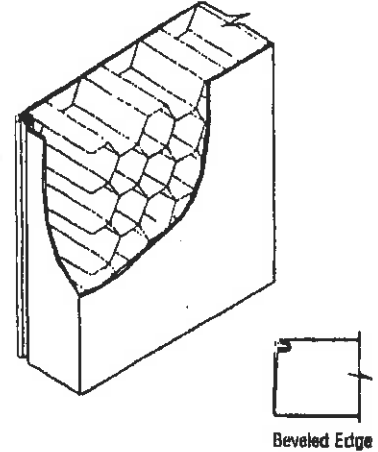




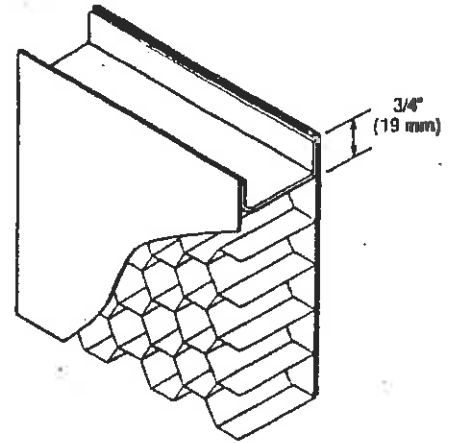
### CONSTRUCTION NOTES:

1. Doors are  $1\ 3/4"$  (45mm) thick.
2. **Door opening size maximum:**  
 Single door opening size  $4'0" \times 10'0"$  (1219mm x 3048mm)  
 Double door opening size  $8'0" \times 10'0"$  (2438mm x 3048mm)
3. **Standard operating clearances (installed in frame):**  
 Head =  $1/8"$  (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  $3/8"$  (9mm) lower.
6. **Glass lites with Designer<sup>®</sup> trim and louvers:** doors with glazed cutouts and doors with louvers are available (see *Lites and Louvers* section of *Spec Manual*).

### Beveled Edge with Full Height Mechanical Interlock

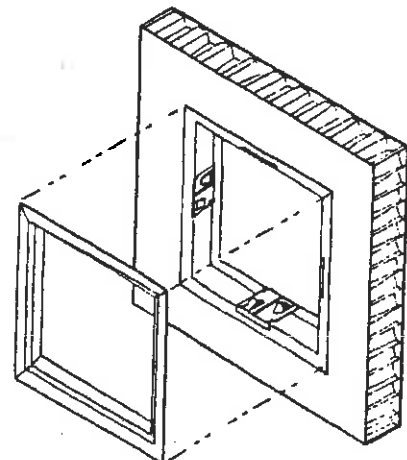


### Inverted Top & Bottom Channels 14 Gage



### Designer Trim Option

$1/4"$  – Standard  $1/2"$  – Optional



## 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

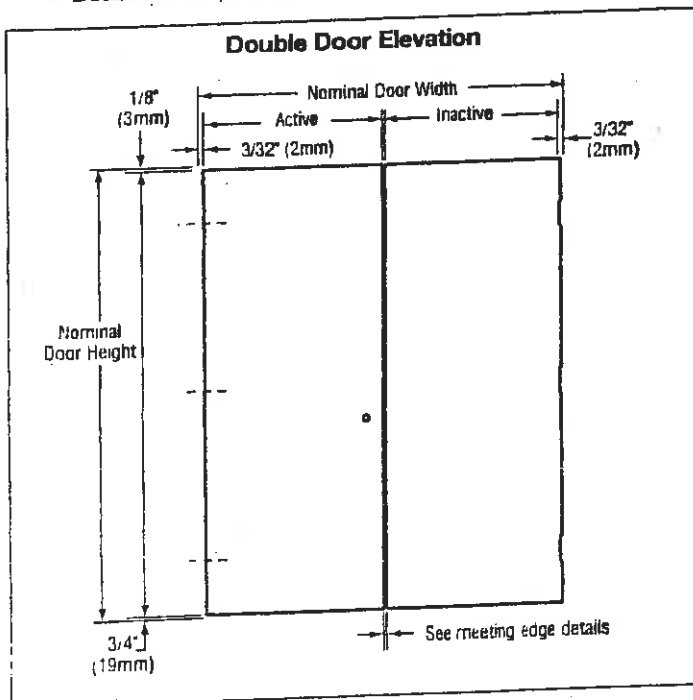
## DOUBLE DOOR APPLICATIONS:

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

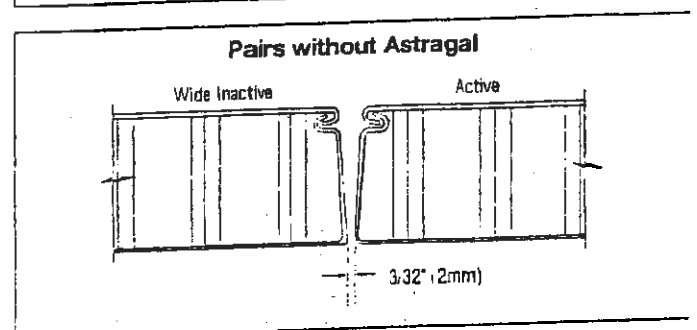
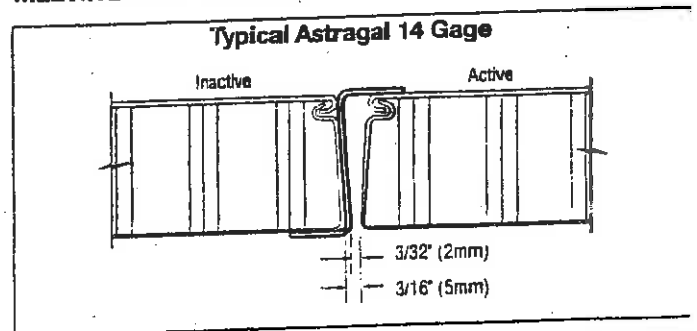
- **Standard operating clearances (installed in frame):**
  - Head =  $\frac{1}{8}$ " (3mm) to bottom of head or transom panel
  - Hinge side =  $\frac{3}{32}$ " (2mm) to rabbet on jamb
  - Meeting edges =  $\frac{3}{32}$ " (2mm) with or without astragal. For openings without an astragal, a wide inactive leaf is used.
  - Bottom =  $\frac{3}{4}$ " (19mm) to bottom of frame

### Meeting edges:

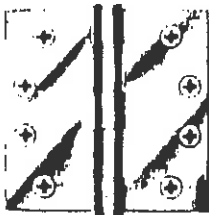
- 14 Gage astragal is furnished loose for installation in the field by others.
- Overlapping astragal kits are available to convert an active leaf to an inactive leaf.
- When an astragal is not used, the width of the inactive leaf is increased  $\frac{3}{32}$ " (2mm).
- **Hardware preparations:** the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



## MEETING EDGE DETAILS:



### 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
2 1/2 x 2 1/2	64 x 64	0.089	6	-	3/4 x 8
3 x 3	76 x 76	0.097	6	-	1 x 9
3 1/2 x 3 1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 5	152 x 127	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 6	152 x 152	0.160	10	1/2 x 1/4-20	1 1/2 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

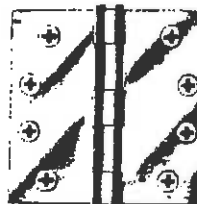
- Brass with Stainless Steel pin - ANSI A2133
- Stainless Steel with Stainless Steel pin - ANSI A5133

#### 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
3 1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3 1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1 1/4 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
3 1/2 x 3 1/2	89 x 89	0.119	6	-	1 x 9
4 x 4	102 x 102	0.129	8	-	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	-	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	-	1 1/4 x 12
5 x 4	127 x 102	0.145	8	-	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	-	1 1/4 x 12
5 x 5	127 x 127	0.145	8	-	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	-	1 1/2 x 14
6 x 5	152 x 127	0.160	10	-	1 1/2 x 14
6 x 6	152 x 152	0.160	10	-	1 1/2 x 14



Saddle Thresholds





 All thresholds this page

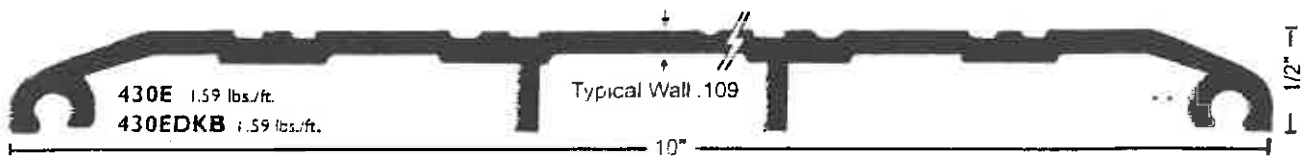
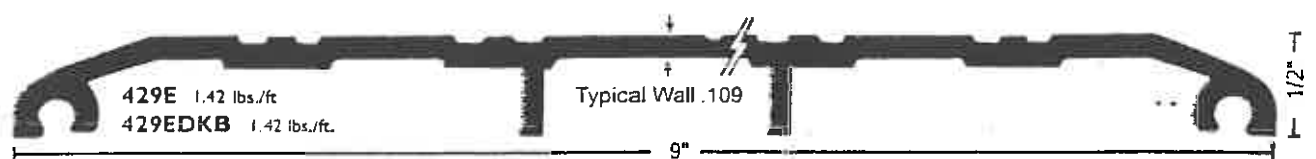
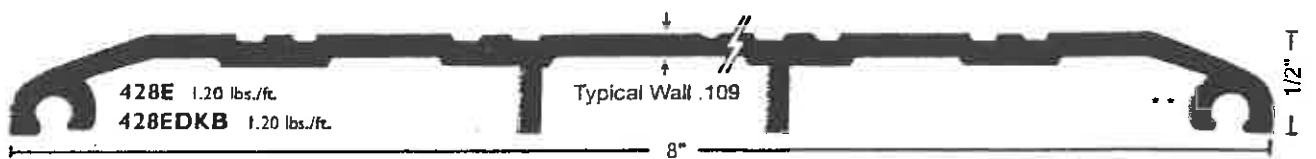
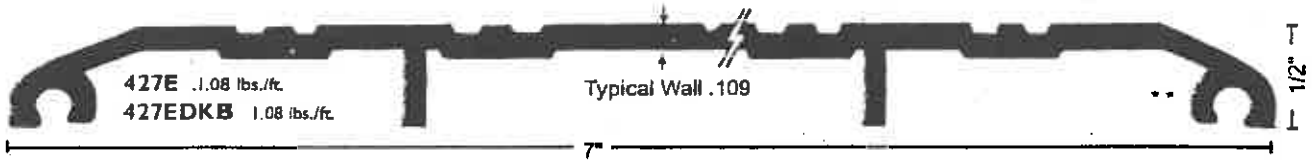
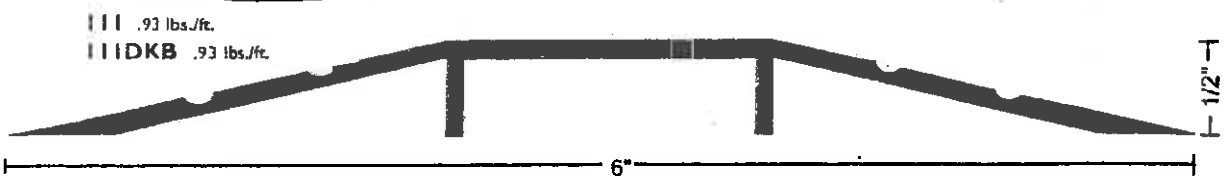
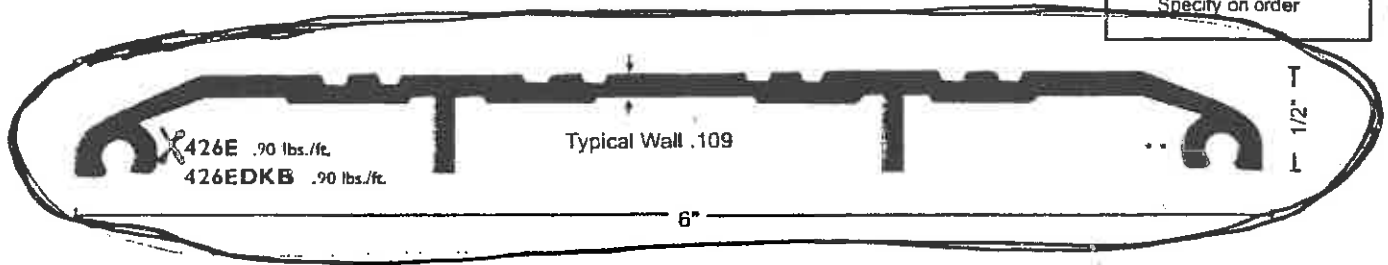
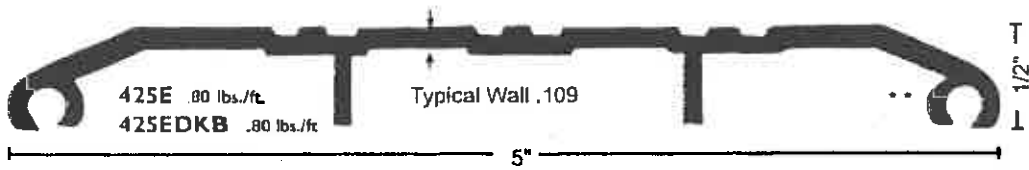
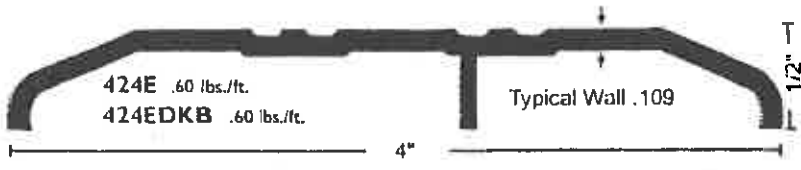
**MATERIALS & FINISHES**

- 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.



**NATIONAL GUARD PRODUCTS, INC.**

**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

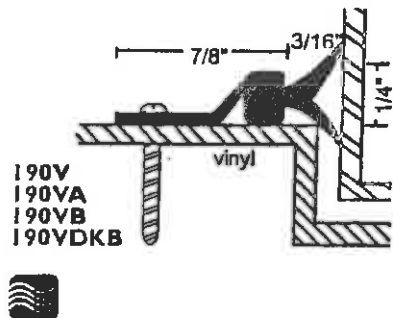
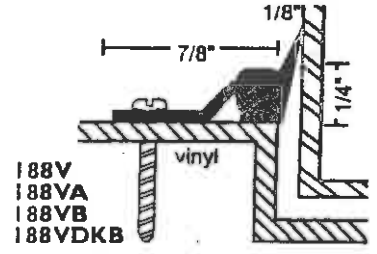
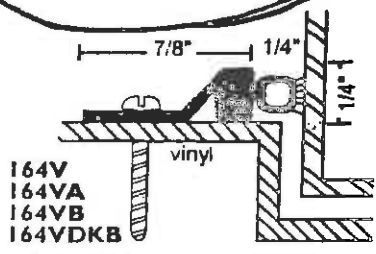
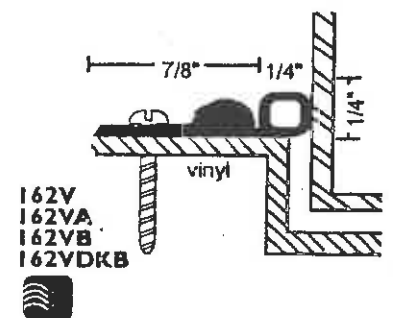
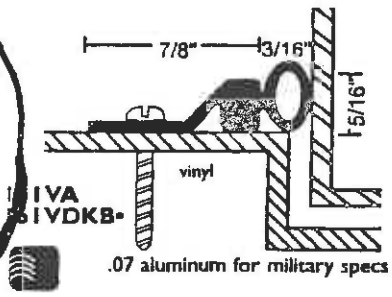
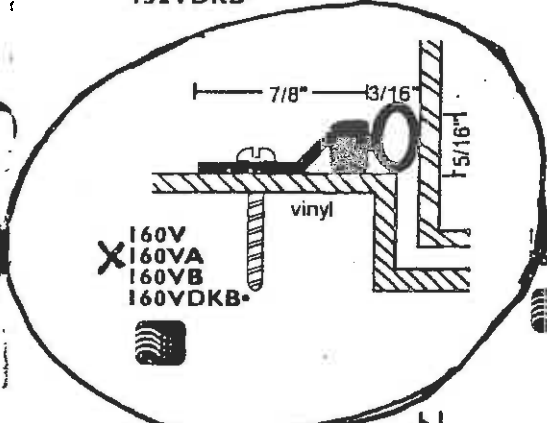
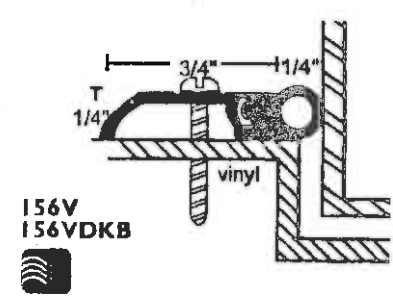
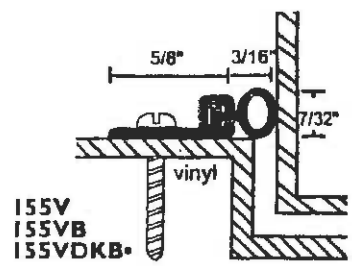
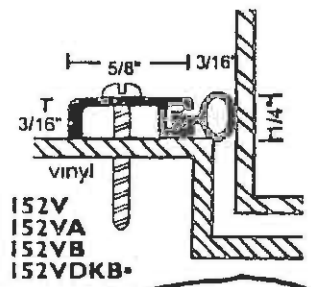
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished  
 Screw holes slotted for adjustment

 All vinyl seals this section

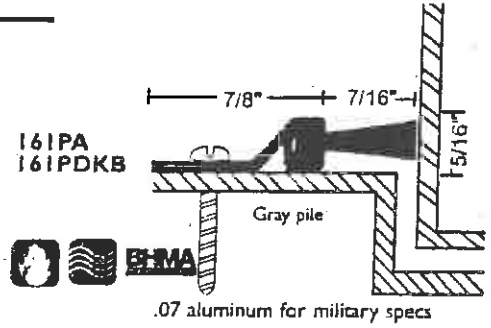
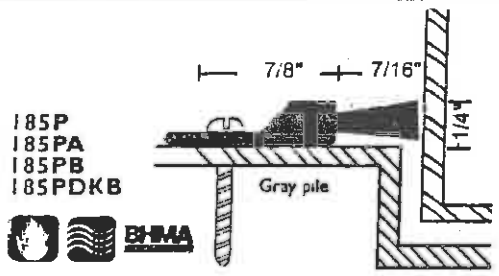
**A** - clear  
**B** - gold  
**DKB** - dark bronze  
 no suffix - mill  
 Vinyl is gray  
 (exception: \*vinyl is black)

Vinyl Perimeter Seals

Pile Seals



**Pile Seals**



## Specifications

### Handing:

All D-Series lever locksets are non-handed.

### Door Thickness:

1 $\frac{1}{8}$ " to 2 $\frac{1}{8}$ " (41mm-54mm) standard including Vandlgard<sup>®</sup> functions.

See accessories (Page 12) for spacers required for 1 $\frac{1}{8}$ " doors.

### Backsets:

2 $\frac{3}{8}$ " (70mm) standard. 2 $\frac{7}{8}$ ", 3 $\frac{1}{4}$ " and 5" (60mm, 95mm, 127mm) optional.

### Faceplate:

Brass, bronze or stainless steel. 1 $\frac{1}{8}$ " x 2 $\frac{1}{4}$ " (29mm x 57mm) square corner, beveled.

### Lock Chassis:

Zinc plated for corrosion resistance.

### Latch Bolts:

Steel,  $\frac{1}{2}$ " (12mm) throw, deadlocking on keyed and exterior functions.  $\frac{3}{4}$ " (19mm) throw anti-friction latch available for pairs of fire doors.

### Exposed Trim:

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

### Strikes:

ANSI curved lip strike 1 $\frac{1}{4}$ " x 4 $\frac{7}{8}$ " x 1 $\frac{3}{16}$ " 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:

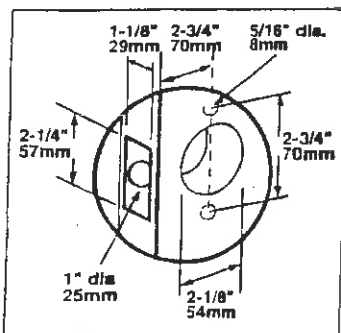
Interchangeable core and Primus<sup>®</sup> high security cylinders. Master keying, grand master keying and construction keying.

### Warranty:

Seven-year limited for all functions including Vandlgard<sup>®</sup>.

## 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)

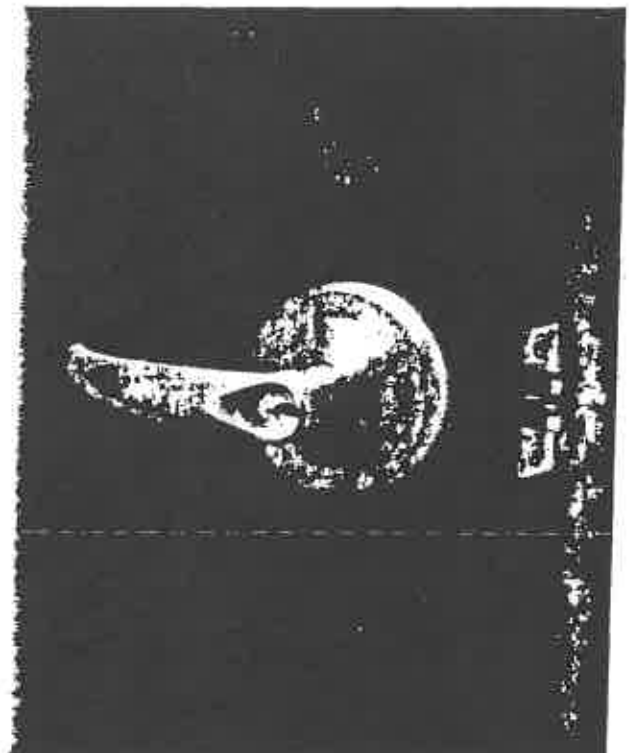
All levers with returns comply; levers return to within  $\frac{1}{2}$ " of door face.

### UL / cUL:

All locks listed for A label single doors, 4' x 8'.

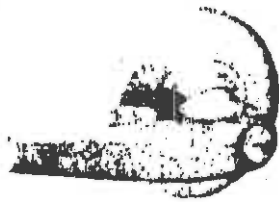
Letter F and UL symbol on latch front indicate listing. Electrified functions are UL19X Listed for single point locking applications.

UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.

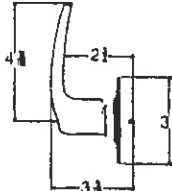


*Lever Designs & Finishes*


*Lever Designs & Finishes*



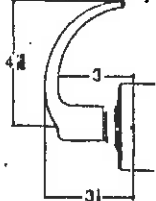
**ATHENS**  
 Symbol: ATH  
 Material: Pressure cast zinc lever; wrought brass rose  
 Finishes: 605, 606, 612, 613, 619, 625, 626




608 ♿



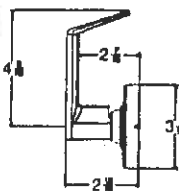
**SPARTA**  
 Symbol: SPA (17)  
 Material: Pressure cast zinc lever; wrought brass rose  
 Finishes: 605, 606, 612, 613, 619, 625, 626




628 ♿



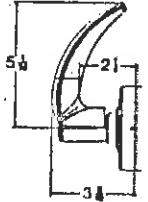
**RHODES**  
 Symbol: RHO (06)  
 Material: Pressure cast zinc lever; wrought brass rose  
 Finishes: 605, 606, 612, 613, 619, 625, 626



612 ♿



**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

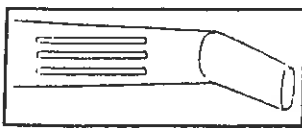


625  
Bright Chromium Plated



626  
Satin Chromium Plated

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

- 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

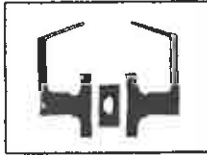
Only outside lever is knurled unless otherwise specified.

## Functions

### Non-Keyed Locks

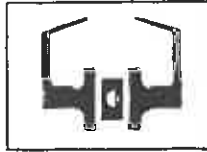
SCHLAGE ANSI

ND10S F75



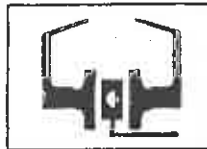
**Passage Latch**  
Both levers always unlocked.

ND12D F89



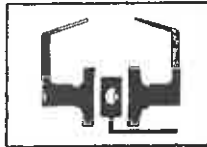
**Exit Lock**  
Outside lever always fixed. Inside lever always unlocked.

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



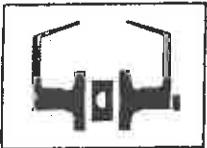
**Electrically Unlocked (Fail Secure)**  
Outside lever continuously locked until unlocked by electric current. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.

ND25D



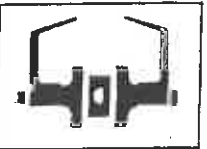
**Exit Lock**  
Blank plate outside. Inside lever always unlocked.

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

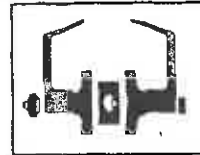


**Single Dummy Trim**  
Dummy trim for one side of door. Used for door pull or as matching inactive trim.

### Keyed Locks

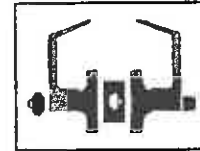
SCHLAGE ANSI

ND50PD F82



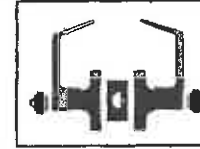
**Entrance/Office Lock\***  
Push-button locking. Push-button locks outside lever until unlocked with key or by turning inside lever.

ND53PD F109



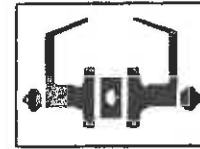
**Entrance Lock\***  
Turn/push-button locking; pushing and turning button locks outside lever, requiring use of key until button is manually unlocked. Push-button locking; pushing button locks outside lever until unlocked by key or by turning inside lever.

ND60PD F88



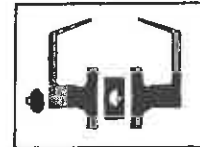
**Vestibule/Classroom Security Lock\***  
Latch retracted by key from outside when outside lever is locked by key in inside lever. Inside lever is always unlocked.

ND66PD F91



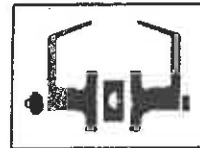
**Store Lock\*†**  
Key in either lever locks or unlocks both levers.

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

### Handings

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

### Door Thickness:

1 1/8" to 1 7/8" (35 mm to 48 mm) standard.  
2" (51 mm) to 2 1/2" (64 mm) optional extended inside.

### Backsets:

2 3/4" (60 mm) standard. 2 3/4" (70 mm), 3 3/4" (95 mm) and 5" (127 mm) optional.

### Fronts:

Steel. 1 1/8" x 2 1/4" square corner, beveled, for 2 3/4" 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 Bolts:

Brass, chrome plated, 1/2" 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.

### Striker:

T-strike 1 1/8" x 2 3/4" (29 mm x 70 mm) x 1 1/8" (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.

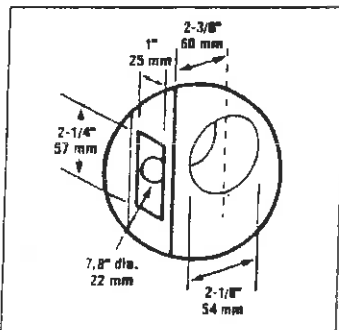
### Keying Options:

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

### Warranty:

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

## Door Preparation



## Certifications

### ANSI

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

### Federal

Meets FF-H-106C.

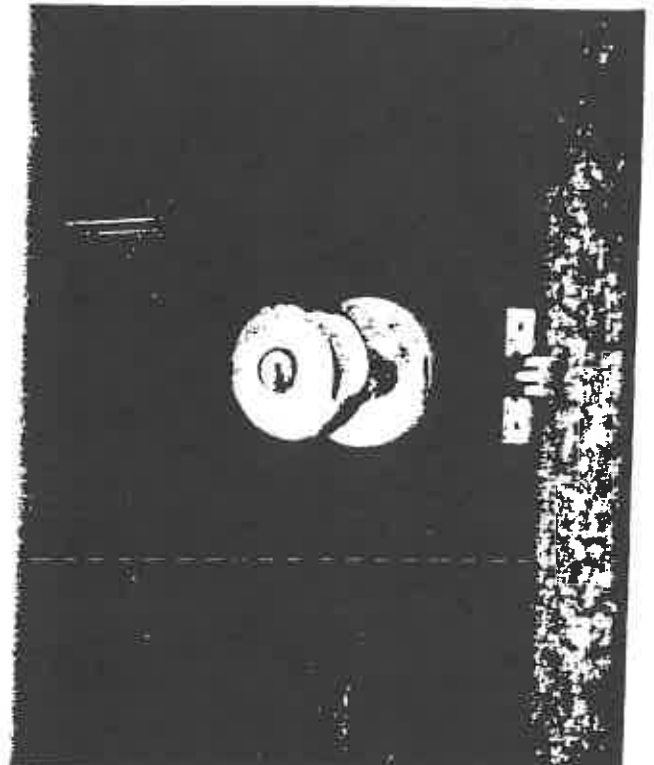
### California State Reference Code

(Formerly Title 19, California State Fire Marshal Standard)

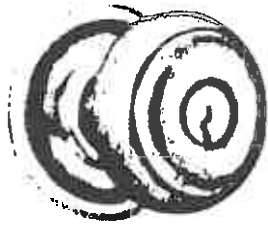
All levers with returns comply; levers return to within 1/2" of door face.

### 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.



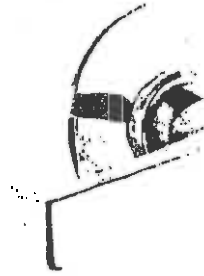
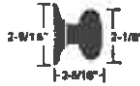
*Designs & Finishes*



609

**GEORGLAN**

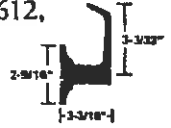
Symbol: GEO  
Material: Wrought brass  
Finishes: 605, 606,  
609, 610,  
625, 626



605

**LEVON**

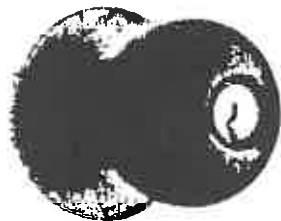
Symbol: LEV  
Material: Pressure cast  
zinc lever; wrought brass  
or bronze rose  
Finishes: 605, 612,  
613, 626



*Note: Levon 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



613

**ORBIT**

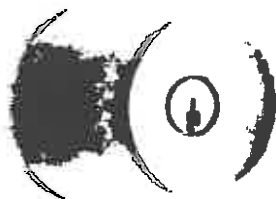
Symbol: ORB  
Material: Wrought brass  
or bronze  
Finishes: 605, 606, 609,  
610, 611, 612, 613,  
616, 625, 626



605

**PLYMOUTH**

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



626

**TULIP**

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



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, 1 1/8" or 1 3/4".



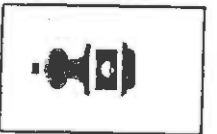
**A30D F77 Patio Lock**  
Push-button locking. Turning inside knob or closing door releases button, preventing lock-out.



**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.



**A170 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

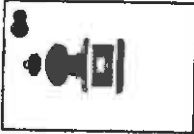
**Entrance Lock**  
Turn/push-button locking: pushing and turning button locks outside knob requires use of key until button is manually unlocked. Push-button locking: pushing button locks outside knob until unlocked by key or by turning inside knob.



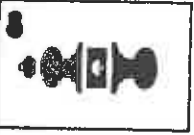
**A70PD F84 Classroom Lock**  
Outside knob locked and unlocked by key. Inside knob always unlocked.



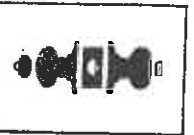
**A79PD Communicating Lock**  
Locked or unlocked by key from outside. Blank plate inside.



**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.

## 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 caulk 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:

	<u>Minimum</u>	<u>Maximum</u>
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

## FINAL ABATEMENT REPORTS



RECEIVED

FEB 20 2011

24 LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY

## Lead Remediation 10276

### Lead Remediation for Perry Armory & Pawhuska Armory

Perry Armory, 309 North 14<sup>th</sup> Street, Perry, Oklahoma

Pawhuska Armory, 823 East 8<sup>th</sup> Street, Pawhuska, Oklahoma

Report Date: March 19<sup>th</sup>, 2011

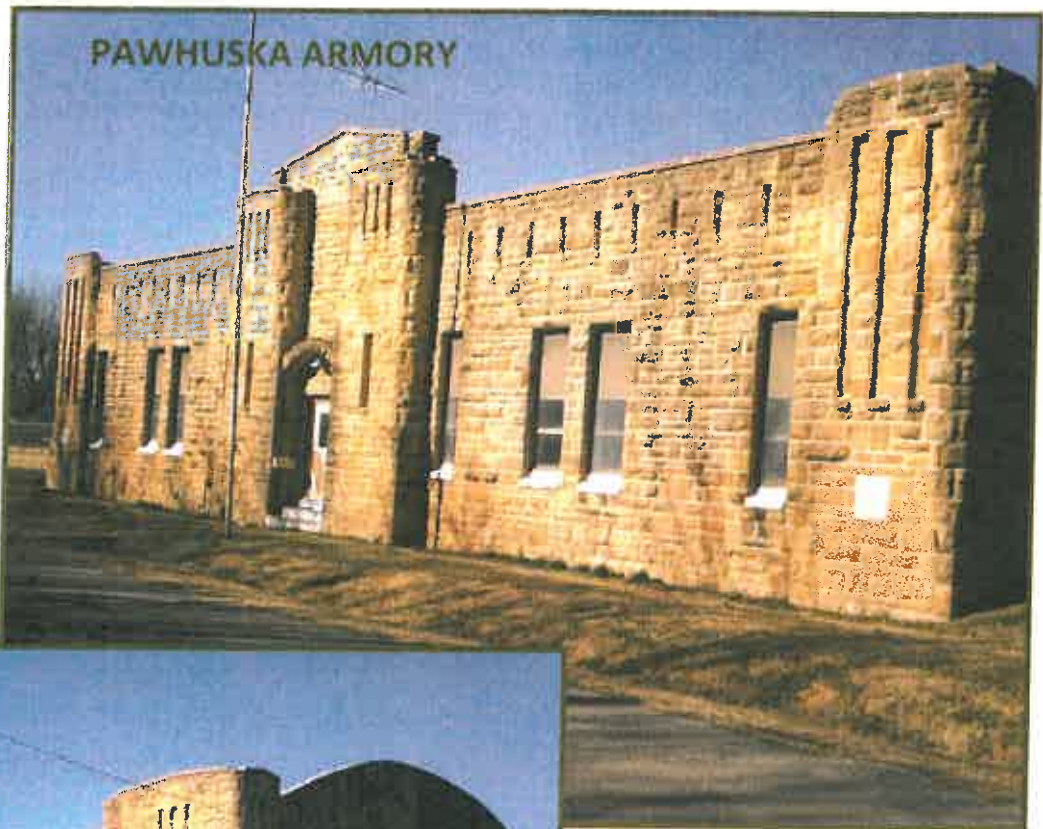


PERRY ARMORY



#### ENVIRONMENTAL ENGINEERING AND CONSTRUCTION

1401 CORNELL PARKWAY, SUITE 100 • OKLAHOMA CITY, OKLAHOMA 73108  
PH: (405) 945-0033 • FAX: (405) 945-0035 • WWW.CRYSTALCREEKENV.COM



**RECEIVED**

JUN 03 2011

LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY





**SUMMARY:**

Crystal Creek Environmental Solutions, Inc. (Crystal Creek) prepared preformed Lead Remediation under contract with the Department of Central Services and with oversight from the Oklahoma Department of Environmental Quality at the Perry and Pawhuska National Guard Armory. The purpose for the remediation was to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms or office space.

All remediation efforts were preformed in accordance with the Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges, November 3, 2006, Department of the Army and Air Force, National Guard Bureau and in accordance with OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead based paint abatement, indoor firing range remediation and lead dust remediation.

All work was preformed by skilled, Licensed Lead Based Paint Workers, licensed by the State of Oklahoma.

**LOCATIONS:****Location 1:**

309 North 14<sup>th</sup> Street, Perry, Oklahoma  
823 East 8<sup>th</sup> Street, Pawhuska, Oklahoma

# Table of Contents

Contract Documents and Change Orders	Section 1
Statement of Work and Addendums	Section 2
Perry and Pawhuska Photos	Section 3
Perry and Pawhuska Waste Profile & Water Test	Section 4
Waste Manifest	Section 5

## **SECTION 3**

### **Perry and Pawhuska Photos**

**Perry Armory  
309 North 14<sup>th</sup> Street  
Perry, OK  
Lead Remediation 10276**

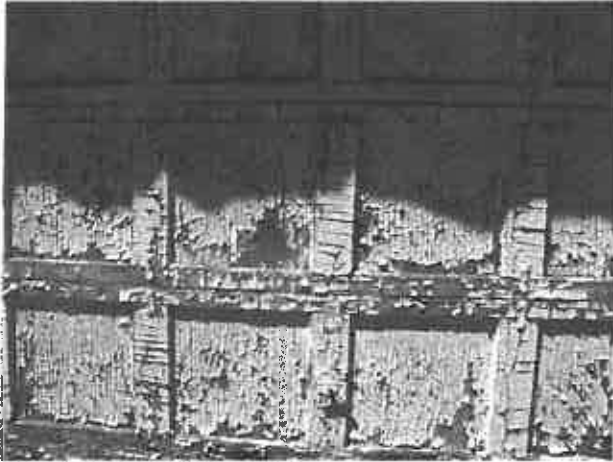


Photo: 1) Pre Lead Abatement



Photo: 2) Pre Lead Abatement

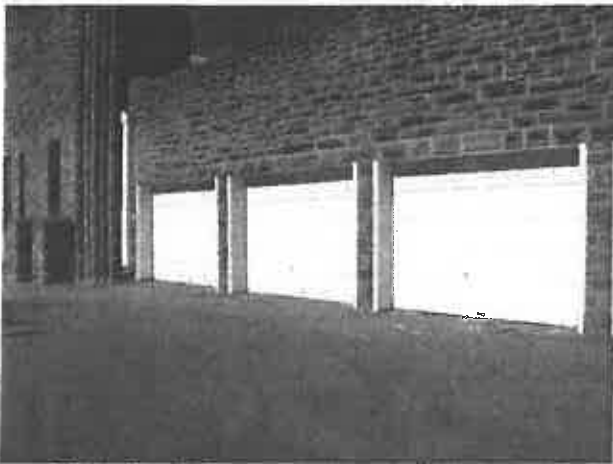


Photo: 3) Pre Lead Abatement



Photo: 4) Pre Lead Abatement



Photo: 5) Pre Lead Abatement



Photo: 6) Pre Lead Abatement

**Perry Armory  
309 North 14<sup>th</sup> Street  
Perry, OK  
Lead Remediation 10276**



**Photo: 7) Post Lead Abatement; Lead-Based Paint Frame with Paint Removed.**



**Photo: 8) Post Lead Abatement; Lead-Based Paint Door Frame with Paint Removed.**



**Photo: 9) Post Lead Abatement; Primed Door and Frame after LBP removal.**



**Photo: 10) Post Lead Abatement; Floor Sealed after LBP Strips Removal.**



**Photo: 11) Post Lead Abatement; Downspout and Window Sill Sealed with Approved Encapsulant.**



**Photo: 12) Post Lead Abatement; Overhead Door and Jamb after LBP Encapsulated.**

**Perry Armory  
309 North 14<sup>th</sup> Street  
Perry, OK  
Lead Remediation 10276**

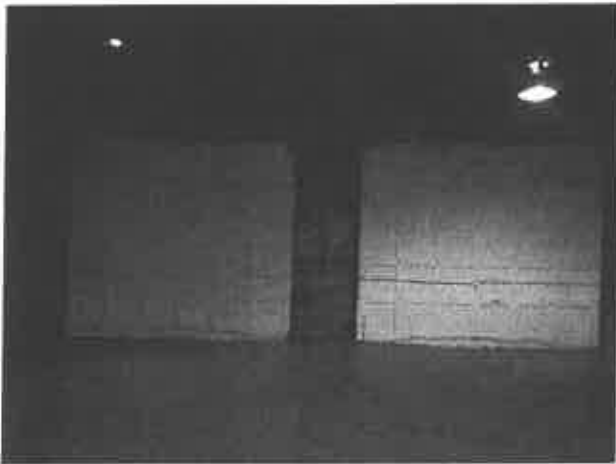


Photo: 13) Post Lead-Based Paint Abatement.



Photo: 14) Post Lead-Based Paint Abatement; New Door and Primed Door Frame after LBP Removal.

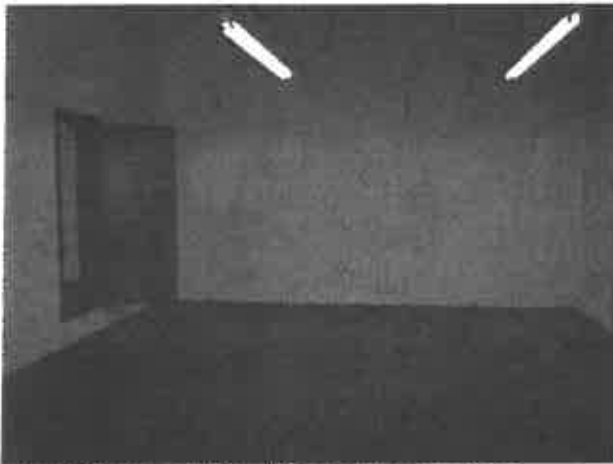


Photo: 15) Post Lead-Based Paint Abatement, Walls, Floor, Door Frame and Vault Door.



Photo: 16) Post Lead-Based Paint Abatement of Stair Rail, New Door and Door Frame.



Photo: 17) Post Lead Abatement; Primed Door Frame after LBP Removal and Encapsulated Walls.



Photo: 18) Post Lead-Based Paint Exterior Abatement;

**Pawhuska Armory  
823 East 8<sup>th</sup> Street  
Pawhuska, OK  
Lead Remediation 10276**



Photo: 1) Pre Lead Abatement

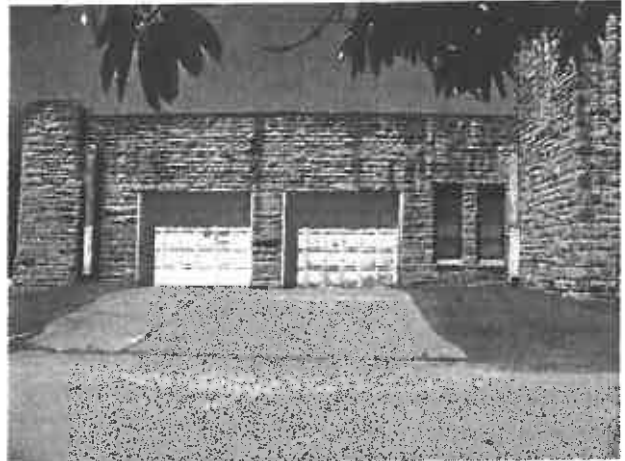


Photo: 2) Pre Lead Abatement



Photo: 3) Pre Lead Abatement



Photo: 4) Pre Lead Abatement



Photo: 5) Pre Lead Abatement



Photo: 6) Pre Lead Abatement



**Photo: 7) Post Lead Abatement; Lead-Based Paint Frame with Paint Removed.**



**Photo: 8) Post Lead Abatement; Lead-Based Paint Door Frame with Paint Removed.**



**Photo: 9) Post Lead Abatement; New Door and Primed Frame after LBP removal.**



**Photo: 10) Post Lead Abatement; Floor Sealed after LBP Strips Removal.**



**Photo: 11) Post Lead Abatement; Downspout and Window Sill Sealed with Approved Encapsulant.**



**Photo: 12) Post Lead Abatement; Overhead Door Casing, Wall Trim and Window Sill after LBP.**



**Pawhuska Armory  
823 East 8<sup>th</sup> Street  
Pawhuska, OK  
Lead Remediation 10276**

---



Photo: 13) Post Lead-Based Paint Abatement. New Door and Primed Door Frame after LBP Removal.



Photo: 14) Post Lead-Based Paint Abatement of Stair Rail, New Door and Door Frame.

## **SECTION 4**

### **Perry and Pawhuska Waste Profile and Water Test**

# Environmental Testing Inc. 488-2400



4619 N. Santa Fe, OKC, OK 73118 - (405) 488-2400 - (405) 488-2404 fax

## Analytical Report

Report Date: 10/29/2010  
Order #: 2010100420  
Project #: 10-079

Laboratory Certificate # 7211

Client: **Mr. Michael Jenkinson**  
**Crystal Creek Environmental Solutions**  
1401 Cornell Parkway  
Oklahoma City, OK 73127

Project: Perry

## Analytical Results

Client Sample ID: Tank 1 Filtered

ETI ID: 1

Sample Collected: 10/21/2010 @09:00

Matrix: Aqueous

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Analyzed On</u>	<u>Analyst</u>	<u>Method</u>
Lead	0.216	mg/L	10/28/2010 03:49:40 PM	JZ	200.7

Respectfully Submitted:

**Russell Britten**

**President**

Unless ETI receives prior notification, all sample material not consumed in analysis will be retained for a period of 30 days before disposal.

## Quality Control

### Aqueous

#### Blank

Parameter	QC Value	Units	ETI ID
Lead	<0.001	mg/L	1

#### Duplicate

Parameter	QC Value	Units	ETI ID
Lead	33.6*	% dif.	1

#### LCS

Parameter	QC Value	Units	ETI ID
Lead	101	% rec.	1

#### Matrix Spike

Parameter	QC Value	Units	ETI ID
Lead	106	% rec.	1

#### Matrix Spike Dup

Parameter	QC Value	Units	ETI ID
Lead	103	% rec.	1

E = Estimated Value (above linear range)  
M = Out of Control Due to Matrix Effect  
D = Surrogate or Matrix Spike Diluted Out  
Q = Outside of QC Limits on Both Original and Rerun  
C = Possible Laboratory Contamination  
\* = Out of Control

J = Estimated Value (below linear range)  
\*TA = Lab ID: 9412  
\*ER = Lab ID: 8727

# CHAIN OF CUSTODY RECORD



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



SAMPLE SERIES #: 2010100170

DUE DATE:

COMPANY:

Crystal Creek

1801 Cornell Parkway  
OKC OK 73108

PHONE#:

942-2233

P.O.#:

10-079

CLIENT CONTACT:

m Teakson

PROJECT #:

10-079

MANAGER:

SITE LOCATION:

Perry

SAMPLE TYPE

- 1. WATER
- 2. SOIL
- 3. SLUDGE
- 4. OIL
- 5. OTHER

CONTAINER TYPE

- P - PLASTIC
- G - GLASS
- V - VOA
- O - OTHER
- T - TEFLON

PRESERVATIVES

HNO<sub>3</sub>

ETI SAMPLE #

Task / Filtered / 1

SAMPLE TYPE

1

CLIENT SAMPLE IDENTIFICATION

Task / Filtered / 1

SIZE

250ml

CONTAINER TYPE

P

SAMPLING DATE

10-21-10

TIME

9:00

LAB COMMENTS

LEAD

SAMPLE CONDITION:

SAMPLER:

FIELD PH:

TIME:

CALIB:

4 7 10

TEMP:

10/20/10 23:80

COND:

GOOD

SPECIAL INSTRUCTIONS:

RUSH DATE REQUIRED  
(ADDITIONAL COST MAY APPLY)

REGULAR

RELINQUISHED BY:

RECEIVED BY:

RECEIVED BY:

RECEIVED BY:

DATE:

10-20-10

TIME:

8:00

DATE:

10-26-10

TIME:

3:45

DATE:

10-20-10

TIME:

11:20

COMMENTS:

LEAD



# WASTE MATERIAL PROFILE SHEET

# RECEIVED

## Clean Harbors Profile No. CH478746

IAN 05 2011 24

### A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #  
 GENERATOR CODE (Assigned by Clean Harbors)  
 ADDRESS 309 14th Street

CESQG  
 OK0184

GENERATOR NAME:  
 CITY Perry

Oklahoma Department of Environmental Quality  
 STATE/PROVINCE OK DEPARTMENT OF ENVIRONMENTAL QUALITY

CUSTOMER CODE (Assigned by Clean Harbors)  
 ADDRESS 1401 Cornell Parkway #100

CR1898

CUSTOMER NAME:  
 CITY Oklahoma City

PHONE: (405) 317-4856  
 Crystal Creek Environmental Solutions  
 STATE/PROVINCE OK ZIP/POSTAL CODE 73108

### B. WASTE DESCRIPTION

WASTE DESCRIPTION: Lead Based Paint Chips and Lead Dust

PROCESS GENERATING WASTE: Paint removal and dust cleaning

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? No

### C. PHYSICAL PROPERTIES (at 25C or 77F)

<b>PHYSICAL STATE</b> <input checked="" type="checkbox"/> SOLID WITHOUT FREE LIQUID POWDER <input type="checkbox"/> MONOLITHIC SOLID <input type="checkbox"/> LIQUID WITH NO SOLIDS <input type="checkbox"/> LIQUID/SOLID MIXTURE <input type="checkbox"/> % FREE LIQUID <input type="checkbox"/> % SETTLED SOLID <input type="checkbox"/> % TOTAL SUSPENDED SOLID SLUDGE <input type="checkbox"/> GAS/AEROSOL	<b>NUMBER OF PHASES/LAYERS</b> 1 2 3 TOP 0.00 % BY VOLUME (Approx.) MIDDLE 0.00 BOTTOM 0.00				<b>VISCOSITY (If liquid present)</b> 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses) > 10,000		<b>COLOR</b>  <u>various</u>
	<b>ODOR</b> <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG Describe:	<b>BOILING POINT °F (°C)</b> <input checked="" type="checkbox"/> ≤ 95 (≤ 35) 95 - 100 (35-38) 101 - 129 (38-54) ≥ 130 (>54)		<b>MELTING POINT °F (°C)</b> <input type="checkbox"/> < 140 (<60) <input type="checkbox"/> 140-200 (60-93) <input checked="" type="checkbox"/> > 200 (>93)	<b>TOTAL ORGANIC CARBON</b> <input checked="" type="checkbox"/> ≤ 1% 1-9% ≥ 10%		
<b>FLASH POINT °F (°C)</b> < 73 (<23) 73 - 100 (23-38) 101 - 140 (38-60) 141 - 200 (60-93) > 200 (>93)	<b>pH</b> ≤ 2 2.1 - 6.9 <input checked="" type="checkbox"/> 7 (Neutral) 7.1 - 12.4 ≥ 12.5	<b>SPECIFIC GRAVITY</b> <input checked="" type="checkbox"/> < 0.8 (e.g. Gasoline) 0.8-1.0 (e.g. Ethanol) 1.0 (e.g. Water) 1.0-1.2 (e.g. Antifreeze) > 1.2 (e.g. Methylene Chloride)	<b>ASH</b> <input type="checkbox"/> < 0.1 <input type="checkbox"/> 0.1 - 1.0 <input checked="" type="checkbox"/> 1.1 - 5.0 <input type="checkbox"/> 5.1 - 20.0 <input type="checkbox"/> > 20 <input type="checkbox"/> Unknown		<b>BTU/LB (MJ/kg)</b> <input checked="" type="checkbox"/> < 2,000 (<4.6) 2,000-5,000 (4.6-11.6) 5,000-10,000 (11.6-23.2) > 10,000 (>23.2) Actual:		

4. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	MAX	UOM
DUST, DEBRIS, DIRT, RAGS	15.0000000	25.0000000	%
LEAD BASED PAINT CHIPS	50.0000000	75.0000000	%
LEAD DUST	25.0000000	50.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES  NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES  NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES  NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES  NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES  NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES  NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES  NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. G13

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. W319

**CONSTITUENTS**

Are these values based on testing or knowledge?  Knowledge  Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and/or detailed process or operating procedures which generate the waste.  
 customer knowledge- Removal of lead-based paint and clean lead dust from old firing range.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE	
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>	
D005	BARIIUM	100.0				<input checked="" type="checkbox"/>	
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>	
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>	
D008	LEAD	5.0	14.0000	14.0000000	PPM		
D009	MERCURY	0.2				<input checked="" type="checkbox"/>	
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>	
D011	SILVER	5.0				<input checked="" type="checkbox"/>	
<b>VOLATILE COMPOUNDS</b>				<b>OTHER CONSTITUENTS</b>	<b>MAX</b>	<b>UOM</b>	<b>NOT APPLICABLE</b>
D018	BENZENE	0.5					<input checked="" type="checkbox"/>
D019	CARBON TETRACHLORIDE	0.5					<input checked="" type="checkbox"/>
D021	CHLOROBENZENE	100.0					<input checked="" type="checkbox"/>
D022	CHLOROFORM	5.0					<input checked="" type="checkbox"/>
D028	1,2-DICHLOROETHANE	0.5					<input checked="" type="checkbox"/>
D029	1,1-DICHLOROETHYLENE	0.7					<input checked="" type="checkbox"/>
D035	METHYL ETHYL KETONE	200.0					<input checked="" type="checkbox"/>
D039	TETRACHLOROETHYLENE	0.7					<input checked="" type="checkbox"/>
D040	TRICHLOROETHYLENE	0.5					<input checked="" type="checkbox"/>
D043	VINYL CHLORIDE	0.2					<input checked="" type="checkbox"/>
<b>SEMI-VOLATILE COMPOUNDS</b>							
D023	o-CRESOL	200.0					<input checked="" type="checkbox"/>
D024	m-CRESOL	200.0					<input checked="" type="checkbox"/>
D025	p-CRESOL	200.0					<input checked="" type="checkbox"/>
D028	CRESOL (TOTAL)	200.0					<input checked="" type="checkbox"/>
D027	1,4-DICHLOROBENZENE	7.5					<input checked="" type="checkbox"/>
D030	2,4-DINITROTOLUENE	0.13					<input checked="" type="checkbox"/>
D032	HEXACHLOROENZENE	0.13					<input checked="" type="checkbox"/>
D033	HEXACHLOROBUTADIENE	0.5					<input checked="" type="checkbox"/>
D034	HEXACHLOROETHANE	3.0					<input checked="" type="checkbox"/>
D036	NITROBENZENE	2.0					<input checked="" type="checkbox"/>
D037	PENTACHLOROPHENOL	100.0					<input checked="" type="checkbox"/>
D038	PYRIDINE	5.0					<input checked="" type="checkbox"/>
D041	2,4,5-TRICHLOROPHENOL	400.0					<input checked="" type="checkbox"/>
D042	2,4,6-TRICHLOROPHENOL	2.0					<input checked="" type="checkbox"/>
<b>PESTICIDES AND HERBICIDES</b>							
D012	ENDRIN	0.02					<input checked="" type="checkbox"/>
D013	LINDANE	0.4					<input checked="" type="checkbox"/>
D014	METHOXYCHLOR	10.0					<input checked="" type="checkbox"/>
D015	TOXAPHENE	0.5					<input checked="" type="checkbox"/>
D016	2,4-D	10.0					<input checked="" type="checkbox"/>
D017	2,4,5-TP (SILVEX)	1.0					<input checked="" type="checkbox"/>
D020	CHLORDANE	0.03					<input checked="" type="checkbox"/>
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008					<input checked="" type="checkbox"/>

<b>HOCs</b> <input checked="" type="checkbox"/> NONE <input type="checkbox"/> < 1000 PPM <input type="checkbox"/> >= 1000 PPM	<b>PCBs</b> <input checked="" type="checkbox"/> NONE <input type="checkbox"/> < 50 PPM <input type="checkbox"/> >= 50 PPM  IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
--	--

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES  NO (If yes, explain)

**CHOOSE ALL THAT APPLY**

- DEA REGULATED SUBSTANCE
- EXPLOSIVE
- FUMING
- OSHA REGULATED CARCINOGENS
- POLYMERIZABLE
- RADIOACTIVE
- REACTIVE MATERIAL
- NONE OF THE ABOVE



REGULATORY STATUS

YES  NO USEPA HAZARDOUS WASTE?  
**D008**

YES  NO DO ANY STATE WASTE CODES APPLY?  
 Texas Waste Code

YES  NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES  NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?  
 LDR CATEGORY: **This is subject to LDR.**  
 VARIANCE INFO:

YES  NO IS THIS A UNIVERSAL WASTE?

YES  NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES  NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES  NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES  NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES  NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES  NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES  NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES  NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES  NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?  
 Hazardous Organic NESHAP (HON) rule (subpart G)      Pharmaceuticals production (subpart GGG)

YES  NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?  
 YES  NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?  
 YES  NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?  
 What is the TAB quantity for your facility?      Megagram/year (1 Mg = 2,200 lbs)  
 The basis for this determination is: Knowledge of the Waste Or Test Data      Knowledge      Testing  
 Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:  
**NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (LEAD), 9, PG III**

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY  OTHER **as needed**

<input checked="" type="checkbox"/> CONTAINERIZED 1-20 CONTAINERS/SHIPMENT		BULK LIQUID		BULK SOLID		
STORAGE CAPACITY:	55	GALLONS/SHIPMENT:	0 Min - 0 Max	GAL.	SHIPMENT UOM:	TON      YARD
CONTAINER TYPE:					TONS/YARDS/SHIPMENT:	0 Min - 0 Max
CUBIC YARD BOX	PALLET					
TOTE TANK	<input checked="" type="checkbox"/> DRUM					
OTHER:	DRUM SIZE: 55					

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:  
*route to LG*

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
	Michael Jenkins	Consultant	1-13-11





# WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH478744

RECEIVED

### A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # **CESQG** GENERATOR NAME: **Oklahoma Department of Environmental Quality**  
 GENERATOR CODE (Assigned by Clean Harbors) **OK0183** CITY **Pawhuska** STATE/PROVINCE **OK** ZIP/POSTAL CODE **74056**  
 ADDRESS **823 East 8th Street** PHONE: **(405) 317-4856**  
 CUSTOMER CODE (Assigned by Clean Harbors) **CR1898** CUSTOMER NAME: **Crystal Creek Environmental Solutions**  
 ADDRESS **1401 Cornell Parkway #100** CITY **Oklahoma City** STATE/PROVINCE **OK** ZIP/POSTAL CODE **73108**

### B. WASTE DESCRIPTION

WASTE DESCRIPTION: **Lead Based Paint Chips, Debris and Lead Dust**

PROCESS GENERATING WASTE: **Paint removal and dust cleaning**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? **No**

### C. PHYSICAL PROPERTIES (at 25C or 77F)

<b>PHYSICAL STATE</b> <input checked="" type="checkbox"/> SOLID WITHOUT FREE LIQUID POWDER MONOLITHIC SOLID LIQUID WITH NO SOLIDS LIQUID/SOLID MIXTURE % FREE LIQUID % SETTLED SOLID % TOTAL SUSPENDED SOLID SLUDGE GAS/AEROSOL	<b>NUMBER OF PHASES/LAYERS</b> 1 2 3 TOP <b>0.00</b> % BY VOLUME (Approx.) MIDDLE <b>0.00</b> BOTTOM <b>0.00</b>				<b>VISCOSITY (If liquid present)</b> 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses) > 10,000		<b>COLOR</b>  <b>various</b>
	<b>ODOR</b> <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG Describe:		<b>BOILING POINT °F (°C)</b> <input type="checkbox"/> <= 95 (<=35) <input type="checkbox"/> 95 - 100 (35-38) <input type="checkbox"/> 101 - 129 (38-54) <input type="checkbox"/> >= 130 (>54)		<b>MELTING POINT °F (°C)</b> <input type="checkbox"/> < 140 (<60) <input type="checkbox"/> 140-200 (60-93) <input checked="" type="checkbox"/> > 200 (>93)		
<b>FLASH POINT °F (°C)</b> <input type="checkbox"/> < 73 (<23) <input type="checkbox"/> 73 - 100 (23-38) <input type="checkbox"/> 101 - 140 (38-60) <input type="checkbox"/> 141 - 200 (60-93) <input type="checkbox"/> > 200 (>93)	<b>pH</b> <input type="checkbox"/> <= 2 <input type="checkbox"/> 2.1 - 6.9 <input checked="" type="checkbox"/> 7 (Neutral) <input type="checkbox"/> 7.1 - 12.4 <input type="checkbox"/> >= 12.5	<b>SPECIFIC GRAVITY</b> <input checked="" type="checkbox"/> < 0.8 (e.g. Gasoline) <input type="checkbox"/> 0.8-1.0 (e.g. Ethanol) <input type="checkbox"/> 1.0 (e.g. Water) <input type="checkbox"/> 1.0-1.2 (e.g. Antifreeze) <input type="checkbox"/> > 1.2 (e.g. Methylene Chloride)		<b>ASH</b> <input type="checkbox"/> < 0.1 <input type="checkbox"/> 0.1 - 1.0 <input type="checkbox"/> 1.1 - 5.0 <input type="checkbox"/> 5.1 - 20.0 <input checked="" type="checkbox"/> > 20 <input type="checkbox"/> Unknown		<b>BTU/LB (MJ/kg)</b> <input checked="" type="checkbox"/> < 2,000 (<4.6) <input type="checkbox"/> 2,000-5,000 (4.6-11.6) <input type="checkbox"/> 5,000-10,000 (11.6-23.2) <input type="checkbox"/> > 10,000 (>23.2) Actual:	

J. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	MAX	UOM
DUST, DEBRIS, DIRT, RAGS	15.00000000	25.00000000	%
LEAD BASED PAINT CHIPS	50.00000000	75.00000000	%
LEAD DUST	25.00000000	50.00000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES  NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES  NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES  NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES  NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES  NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES  NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES  NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. **G13** SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. **W319**

**CONSTITUENTS**

Are these values based on testing or knowledge?  Knowledge  Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

customer knowledge- Removal of lead-based paint and clean lead dust from old firing range.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE	
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>	
D005	BARIUM	100.0				<input checked="" type="checkbox"/>	
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>	
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>	
D008	LEAD	5.0				<input checked="" type="checkbox"/>	
D009	MERCURY	0.2				<input checked="" type="checkbox"/>	
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>	
D011	SILVER	5.0				<input checked="" type="checkbox"/>	
	<b>VOLATILE COMPOUNDS</b>			<b>OTHER CONSTITUENTS</b>	<b>MAX</b>	<b>UOM</b>	<b>NOT APPLICABLE</b>
D018	BENZENE	0.5		BROMINE			<input checked="" type="checkbox"/>
D019	CARBON TETRACHLORIDE	0.5		CHLORINE			<input checked="" type="checkbox"/>
D021	CHLOROBENZENE	100.0		FLUORINE			<input checked="" type="checkbox"/>
D022	CHLOROFORM	6.0		IODINE			<input checked="" type="checkbox"/>
D028	1,2-DICHLOROETHANE	0.5		SULFUR			<input checked="" type="checkbox"/>
D029	1,1-DICHLOROETHYLENE	0.7		POTASSIUM			<input checked="" type="checkbox"/>
D035	METHYL ETHYL KETONE	200.0		SODIUM			<input checked="" type="checkbox"/>
D039	TETRACHLOROETHYLENE	0.7		AMMONIA			<input checked="" type="checkbox"/>
D040	TRICHLOROETHYLENE	0.5		CYANIDE AMENABLE			<input checked="" type="checkbox"/>
D043	VINYL CHLORIDE	0.2		CYANIDE REACTIVE			<input checked="" type="checkbox"/>
	<b>SEMI-VOLATILE COMPOUNDS</b>			CYANIDE TOTAL			<input checked="" type="checkbox"/>
D023	o-CRESOL	200.0		SULFIDE REACTIVE			<input checked="" type="checkbox"/>
D024	m-CRESOL	200.0					
D025	p-CRESOL	200.0					
D026	CRESOL (TOTAL)	200.0					
D027	1,4-DICHLOROENZENE	7.5					
D030	2,4-DINITROTOLUENE	0.13					
D032	HEXACHLOROENZENE	0.13					
D033	HEXACHLOROBUTADIENE	0.5					
D034	HEXACHLOROETHANE	3.0					
D036	NITROENZENE	2.0					
D037	PENTACHLOROPHENOL	100.0					
D038	PYRIDINE	5.0					
D041	2,4,5-TRICHLOROPHENOL	400.0					
D042	2,4,6-TRICHLOROPHENOL	2.0					
	<b>PESTICIDES AND HERBICIDES</b>						
D012	ENDRIN	0.02					
D013	LINDANE	0.4					
D014	METHOXYCHLOR	10.0					
D015	TOXAPHENE	0.5					
D016	2,4-D	10.0					
D017	2,4,5-TP (SILVEX)	1.0					
D020	CHLORDANE	0.03					
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008					

HOCs	
<input checked="" type="checkbox"/>	NONE
<input type="checkbox"/>	< 1000 PPM
<input type="checkbox"/>	>= 1000 PPM

PCBs	
<input checked="" type="checkbox"/>	NONE
<input type="checkbox"/>	< 50 PPM
<input type="checkbox"/>	>=50 PPM
IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?	
YES	<input checked="" type="checkbox"/> NO

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES  NO (If yes, explain)

**CHOOSE ALL THAT APPLY**

- DEA REGULATED SUBSTANCE
- EXPLOSIVE
- FUMING
- OSHA REGULATED CARCINOGENS
- POLYMERIZABLE
- RADIOACTIVE
- REACTIVE MATERIAL
- NONE OF THE ABOVE



REGULATORY STATUS

YES  NO USEPA HAZARDOUS WASTE?  
**D008**

YES  NO DO ANY STATE WASTE CODES APPLY?  
 Texas Waste Code \_\_\_\_\_

YES  NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?  
 \_\_\_\_\_

YES  NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?  
 LDR CATEGORY: **This is subject to LDR.**  
 VARIANCE INFO: \_\_\_\_\_

YES  NO IS THIS A UNIVERSAL WASTE?

YES  NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES  NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES  NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES  NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES  NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS  $\geq$  500 PPM?

YES  NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE  $\geq$  .3KPA (.044 PSIA)?

YES  NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES  NO IS THIS CERCLA REGULATED (SUPERFUND ) WASTE ?

YES  NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?  
 Hazardous Organic NESHAP (HON) rule (subpart G)      Pharmaceuticals production (subpart GGG)

YES  NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?  
 YES  NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?  
 YES  NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?  
 What is the TAB quantity for your facility? \_\_\_\_\_ Megagram/year (1 Mg = 2,200 lbs)  
 The basis for this determination is: Knowledge of the Waste Or Test Data      Knowledge      Testing  
 Describe the knowledge : \_\_\_\_\_

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:  
**NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (LEAD), 9, PG III**

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY  OTHER *as needed*

CONTAINERIZED		BULK LIQUID		BULK SOLID		
1-20 CONTAINERS/SHIPMENT		GALLONS/SHIPMENT: 0 Min - 0 Max		GAL.	SHIPMENT UOM:	TON      YARD
STORAGE CAPACITY:	55					
CONTAINER TYPE:						TONS/YARDS/SHIPMENT: 0 Min - 0 Max
CUBIC YARD BOX	PALLET					
TOTE TANK	<input checked="" type="checkbox"/> DRUM					
OTHER:	DRUM SIZE: 55					

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:  
*route to LG*

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
	Michael Johnson	Consultant	1-13-11

## **SECTION 5**

### **Waste Manifest**

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number 01111111	2. Page 1 of 1	3. Emergency Response Phone (800) 424-9313	4. Manifest Tracking Number 000003808 MWI
---	------------------------------------	-------------------	---	--

5. Generator's Name and Mailing Address EPA Region 1 Hazardous Waste Treatment, Storage, and Disposal Unit 1000 1st Street Perry, OR 97137	Generator's Site Address (if different than mailing address) EPA Region 1 Hazardous Waste Treatment, Storage, and Disposal Unit 1000 1st Street Perry, OR 97137
Generator's Phone: (503) 327-4000	

6. Transporter 1 Company Name EPA Region 1 Hazardous Waste Treatment, Storage, and Disposal Unit	U.S. EPA ID Number PA 10039022250
---	--------------------------------------

7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address EPA Region 1 Hazardous Waste Treatment, Storage, and Disposal Unit 1000 1st Street Perry, OR 97137	U.S. EPA ID Number OR 10000478070
Facility's Phone: (503) 327-4000	

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1	HAZARDOUS WASTE TANKS WITH GROUNDING					DA00
2						
3						
4						

14. Special Handling Instructions and Additional Information None
--

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 James K. ...	Signature <i>[Signature]</i>	Month 12	Day 16	Year 11
--	---------------------------------	-------------	-----------	------------

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: 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	<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> 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. 00000	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  
INTL  
TRANSPORTER  
DESIGNATED FACILITY



Land Disposal Restriction  
Notification Form

Printed Date :Feb 15, 2011

MANIFEST INFORMATION

Generator : Oklahoma Department of Environmental Quality

Address: 309 14th Street  
Perry, OK 73077

EPA ID #: CESQG

Manifest Tracking Info.

000098808MWI

Sales Order No: 7T3354519

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH478746	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D008	Toxicity Characteristic for Lead

Certification

Applies to  
Manifest Line  
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature :

Print Name

Jimmy Brakebill

Title :

Supv

Date :

2-16-11

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CE508</b>	2. Page 1 of <b>23</b>	3. Emergency Response Phone <b>(800) 423-3715</b>	4. Manifest Tracking Number <b>000093808 MWI</b>		
5. Generator's Name and Mailing Address <b>Ohio Department of Environmental Quality 109 14th Street Perry, OH 43077</b>				Generator's Site Address (if different than mailing address) <b>SAME</b>			
Generator's Phone: <b>(606) 317-4256</b>				U.S. EPA ID Number <b>MA003932250</b>			
6. Transporter 1 Company Name <b>Clean Harbors Environmental Services Inc</b>				U.S. EPA ID Number <b>MA003932250</b>			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Clean Harbors Long Mountain LLC 5 miles east &amp; 1 mile north of Int. 15 Highways 281 &amp; 412 Waynesville, OH 43086</b>				U.S. EPA ID Number <b>OH0066438370</b>			
Facility's Phone: <b>(630) 657-1300</b>							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	No.	Type					
1	HAZARDOUS WASTE, SOLID, 9.0% (LEAD), 9.0% (Pb)		2	Drum	500		0903
2							
3							
4							
14. Special Handling Instructions and Additional Information							
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 <b>Jimmy Kinkelbill</b>				Signature <i>[Signature]</i>		Month Day Year <b>2 16 11</b>	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>[Name]</b>				Signature <i>[Signature]</i>		Month Day Year <b>2 16 11</b>	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> 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. <b>R137</b>		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 INTL

DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
---	-------------------------	----------	------------------------------

24. Generator's Name

25. Transporter \_\_\_\_\_ Company Name U.S. EPA ID Number

26. Transporter \_\_\_\_\_ Company Name U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit WT./Vol.	31. Waste Codes		
		No.	Type					

32. Special Handling Instructions and Additional Information

33. Transporter \_\_\_\_\_ Acknowledgment of Receipt of Materials  
 Printed/Typed Name Signature Month Day Year

34. Transporter \_\_\_\_\_ Acknowledgment of Receipt of Materials  
 Printed/Typed Name Signature Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO GENERATOR  
 TRANSPORTER  
 GENERATOR



UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number	22. Page	23. Manifest Tracking Number		
24. Generator's Name						
25. Transporter _____ Company Name				U.S. EPA ID Number		
26. Transporter _____ Company Name				U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
		No.	Type			
32. Special Handling Instructions and Additional Information						
33. Transporter _____ Acknowledgment of Receipt of Materials						
Printed/Typed Name			Signature		Month	Day Year
34. Transporter _____ Acknowledgment of Receipt of Materials						
Printed/Typed Name			Signature		Month	Day Year
35. Discrepancy						
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						

GENERATOR

TRANSPORTER

CILITY

DESIGNATE

UNIFORM HAZARDOUS WASTE MANIFEST  
(Continuation Sheet)

21. Generator ID Number

CE200

22. Page

3

23. Manifest Tracking Number

000018502, P10 I

24. Generator's Name

Oklahoma Dept of Env. Quality

25. Transporter 5 Company Name

Robbie D. Ward Inc

U.S. EPA ID Number

ALD0067128371

26. Transporter \_\_\_\_\_ Company Name

U.S. EPA ID Number

27a. HM 27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))

28. Containers

No.

Type

29. Total Quantity

30. Unit Wt./Vol.

31. Waste Codes

GENERATOR

32. Special Handling Instructions and Additional Information

33. Transporter 5 Acknowledgment of Receipt of Materials

Printed/Typed Name

David Holland

Signature

[Signature]

Month

Day

Year

12

3

11

34. Transporter \_\_\_\_\_ Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month

Day

Year

35. Discrepancy

TRANSPORTER

CILITY

DESIGNATE

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

<b>UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)</b>		21. Generator ID Number	22. Page	23. Manifest Tracking Number			
24. Generator's Name							
25. Transporter _____ Company Name					U.S. EPA ID Number		
26. Transporter _____ Company Name					U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes	
		No.	Type				
32. Special Handling Instructions and Additional Information							
33. Transporter _____ Acknowledgment of Receipt of Materials							
Printed/Typed Name				Signature	Month	Day	Year
34. Transporter _____ Acknowledgment of Receipt of Materials							
Printed/Typed Name				Signature	Month	Day	Year
35. Discrepancy							
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 00000

2. Page 1 of 1

3. Emergency Response Phone: (800) 433-5715

4. Manifest Tracking Number: 000000000 MWI

5. Generator's Name and Mailing Address: ... Generator's Site Address (if different than mailing address): ...

6. Transporter 1 Company Name: ... U.S. EPA ID Number: ...

7. Transporter 2 Company Name: ... U.S. EPA ID Number: ...

8. Designated Facility Name and Site Address: ... U.S. EPA ID Number: ...

Table with 6 columns: 9a. HM, 9b. U.S. DOT Description, 10. Containers (No., Type), 11. Total Quantity, 12. Unit Wt./Vol., 13. Waste Codes. Row 1 contains data for hazardous waste.

14. Special Handling Instructions and Additional Information: ...

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above...

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: ... 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

18b. Alternate Facility (or Generator): ... Manifest Reference Number: ... U.S. EPA ID Number: ...

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):

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  
DESIGNATED FACILITY



Land Disposal Restriction  
Notification Form

Printed Date : Feb 15, 2011

MANIFEST INFORMATION

Generator : Oklahoma Department of Environmental Quality

Address: 823 East 8th Street  
Pawhuska, OK 74056

EPA ID #: CESQG

Manifest Tracking Info.

000098809MWI

Sales Order No: 7T3354487

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH478744	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D008	Toxicity Characteristic for Lead

Certification

Applies to  
Manifest Line  
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature : 

Print Name

Jimmy Brakebill

Title : Supt

Date :

2-16-11

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number CE 809	2. Page 1 of 1	3. Emergency Response Phone (800) 424-9318	4. Manifest Tracking Number 000000000 MWI			
5. Generator's Name and Mailing Address Oxbridge Department of Environmental Quality 320 West 8th Street Pawtucket, RI 02860 Generator's Phone: (401) 317-3200			Generator's Site Address (if different than mailing address) 02860					
6. Transporter 1 Company Name Oxbridge Environmental Services Inc			U.S. EPA ID Number MA000000000					
7. Transporter 2 Company Name			U.S. EPA ID Number					
8. Designated Facility Name and Site Address Oxbridge Energy Management LLC 6 miles east & 1 mile north of I-95 Highway 201 & 112 Weymouth, RI 02890 Facility's Phone: (401) 317-3200			U.S. EPA ID Number OR000543007					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
			No.	Type				
	1.	HAZARDOUS WASTE, SOLID, NOS. READY FOR DISPOSAL	1	DR	200	+	0002	
	2.							
	3.							
4.								
14. Special Handling Instructions and Additional Information								
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/Offor's Printed/Typed Name Jimmy B. Baker				Signature <i>[Signature]</i>		Month 12	Day 16	Year 11
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name <i>[Name]</i>				Signature <i>[Signature]</i>		Month 12	Day 17
Transporter 2 Printed/Typed Name				Signature		Month	Day	Year
DESIGNATED FACILITY	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____							
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 _____

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
---	-------------------------	----------	------------------------------

24. Generator's Name

25. Transporter \_\_\_\_\_ Company Name U.S. EPA ID Number

26. Transporter \_\_\_\_\_ Company Name U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					

32. Special Handling Instructions and Additional Information

33. Transporter \_\_\_\_\_ Acknowledgment of Receipt of Materials  
Printed/Typed Name Signature Month Day Year

34. Transporter \_\_\_\_\_ Acknowledgment of Receipt of Materials  
Printed/Typed Name Signature Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO GENERATOR





<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)	21. Generator ID Number <i>100-100-100</i>	22. Page <i>5</i>	23. Manifest Tracking Number <i>100-100-100</i>					
24. Generator's Name <i>Chemical Dept of East Coast Co</i>								
25. Transporter <i>B</i> Company Name <i>Robt. D. Lumber Inc</i>			U.S. EPA ID Number <i>PA D00013287</i>					
26. Transporter _____ Company Name			U.S. EPA ID Number					
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					
<div style="position: absolute; top: 0; left: 0; right: 0; text-align: center;">GENERATOR</div> <div style="position: absolute; bottom: 0; left: 0; right: 0; text-align: center;">TRANSPORTER</div> <div style="position: absolute; left: 0; bottom: 0; top: 0; text-align: center;">DESIGNATED FACILITY TO GENERATOR</div>								
32. Special Handling Instructions and Additional Information								
33. Transporter <i>B</i> Acknowledgment of Receipt of Materials								
Printed/Typed Name <i>Robert D. Lumber</i>				Signature <i>[Signature]</i>		Month <i>5</i>	Day <i>8</i>	Year <i>7</i>
34. Transporter _____ Acknowledgment of Receipt of Materials								
Printed/Typed Name				Signature		Month	Day	Year
35. Discrepancy								
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)		21. Generator ID Number	22. Page	23. Manifest Tracking Number		
24. Generator's Name						
25. Transporter _____ Company Name				U.S. EPA ID Number		
26. Transporter _____ Company Name				U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
		No.	Type			
32. Special Handling Instructions and Additional Information						
33. Transporter _____ Acknowledgment of Receipt of Materials						
Printed/Typed Name				Signature		Month    Day    Year
34. Transporter _____ Acknowledgment of Receipt of Materials						
Printed/Typed Name				Signature		Month    Day    Year
35. Discrepancy						
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

RECEIVED

JAN 12 2012

LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY

# FINAL REPORT

DCS PROJECT NO. 11277

PERRY AND PAWHUSKA ARMORIES

# INDEX

1. Sealed floors – Photos – Perry Armory
2. Sampling & Analysis – Perry Armory
3. Hazardous Waste Disposal Manifest
4. Waste Acceptance Notification
5. Sealed floors – Photos – Perry Armory
6. Sampling & Analysis – Perry Armory
7. Hazardous Waste Disposal Manifest
8. Waste Acceptance Notification

PERRY ARMORY



PERRY ARMORY



PERRY ARMORY



PERRY ARMORY





PERRY ARMORY







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

## Environmental Chemistry Analysis Report

**QuanTEM Set ID:** 200704  
**Date Received:** 10/12/11  
**Received By:** Sherie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** RS  
**Date of Report:** 10/13/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry Armory

**Location:** Perry, OK

**Project No.:** N/A

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
002	P-A-02-I	Wipe	Lead	25.3	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
003	P-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
004	P-B-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
005	P-B-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
006	P-B-04-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
007	P-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
008	P-C-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
009	P-D-01-I	Wipe	Lead	28.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
010	P-D-02-I	Wipe	Lead	47.7	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
011	P-D-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
012	P-D-04-I	Wipe	Lead	76.7	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
013	P-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
014	P-E-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
015	P-E-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
016	P-E-04-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
017	P-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	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 Preparation Modified, EPA 7420 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:** 200704  
**Date Received:** 10/12/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** RS  
**Date of Report:** 10/13/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry Armory

**Location:** Perry, OK

**Project No.:** N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	P-F-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
019	P-F-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
020	P-F-04-I	Wipe	Lead	11,100	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
021	PS-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
022	PS-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
023	PS-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
024	PS-D-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
025	PS-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
026	PS-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
027	PS1-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
028	PS1-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
029	PS1-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
030	PS1-D-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
031	PS1-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
032	PS1-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	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



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

## Environmental Chemistry Analysis Report

QuantEM Set ID: 200704  
Date Received: 10/12/11  
Received By: Sherrie Leftwich  
Date Sampled:  
Time Sampled:  
Analyst: RS  
Date of Report: 10/13/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845

Project: Perry Armory

Location: Perry, OK

Project No.: N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
------------	-----------	--------	-----------	---------	------------------	-------	--------------------	--------

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

*Rebecca Sparks*

Rebecca Sparks, 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 Preparation Modified. EPA 7420 Analysis Modified

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

## Supplemental Report QAQC Results

QA ID: 9278  
Test: Lead

Date: 10/13/2011  
Matrix: Wipe

Lab Number: 200704  
Approved By: Rebecca Sparks  
Date Approved: 10/13/2011

Notes:

**Blank Data:**

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

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5	5.5
FCV	4.5	4.84	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.34	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	5.449	6.015	110.4	6.013	110.4	0.0
MS-W2	0.000	5.525	6.085	110.1	6.145	111.2	1.0
MS-W1	0.000	5.460	6.128	112.2	6.027	110.4	1.7

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

*Rebecca Sparks*

Rebecca Sparks, Analyst



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (405) 822-1630 (405) 755-7272 Fax (405) 755-2058  
 www.quantem.com

Lab No. 200704  
 Analyst [Signature] Report

Company Name: Enclon Services, Inc. Project Name: Percy Arroyo  
 Project Location: \_\_\_\_\_ Project Number: \_\_\_\_\_

Sample Number	Sample Description	Location of Sample	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
31. <u>PS1-E-01-I</u>		<u>4432 C</u>		<u>X</u>	<u>1</u>	A - Soil
32. <u>PS1-F-01-I</u>		<u>4432 U</u>		<u>X</u>	<u>1</u>	B - Paint Chips
						C - Surface / Dust Wipes
						D - Bulk Miscellaneous
						E - Air Cassette
						F - Other (SPECIFY)

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNAROUND TIME**

Same Day  
 24 Hour  
 3-Day  
 5-day

**CONTACT INFORMATION**

Name: Marshall  
Benscua  
 Phone: 722-7697  
 Report Results Via (CHECK ONE):  
 FAX  
 Quantem Website  
 E-Mail:

Requested by: 1041 765  
 Date: 10/21/11 Time: 3:00  
 Signature: [Signature]

**Saturday FedEx Shipping - CALL TO SCHEDULE**  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8617  
 Mark Package HOLD FOR SATURDAY PICKUP



# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 522-1630 (405) 755-7272 Fax: (405) 755-2059  
 www.quanem.com

Lab No. 200704  
 (Stamp: Analyzed)

Company Name: Emerson Services, Inc Project Name: Perry Amroy  
 Project Location: Perry, OK Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Area	Analysis	Units Requested	Sample Matrix Codes	TURNAROUND TIME	CONTACT INFORMATION
1. P-A-01-I		1443	X	10/12/11 5:00	A - Soil	Same Day	Name: <u>Marshall</u>
2. P-A-02-I					B - Paint Chips	24 Hour	Phone: <u>722-783702-590</u>
3. P-B-01-I					C - Surface / Court W/Gr	3-Day	Report Results VIA (CHOOSE ONE):
4. P-02-I					D - Bulk Miscellaneous	5-day	<input checked="" type="checkbox"/> FAX
5. P-03-I					E - Air Cascade		<input checked="" type="checkbox"/> QUANEM WEBSITE
6. P-04-I					F - Other (SPECIFY)		<input type="checkbox"/> E-Mail
7. P-C-01-I							
8. P-C-02-I							
9. P-D-01-I							
10. P-02-I							
11. P-03-I							
12. P-04-I							
13. P-E-01-I							
14. P-02-I							
15. P-03-I							

Shipped By: Marshall B... Date: 10/24/11 Time: 5:00  
 Received By: MLB Date: 10-1

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





### Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (405) 822-1600 (405) 755-7272 Fax: (405) 755-2058  
 www.quntem.com

Lab No. 200704  
 Date: \_\_\_\_\_

Company Name: Emcor Services, Inc Project Name: Perry Army  
 Project Location: \_\_\_\_\_ Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Sample	Analysis	Units Reported	Sample Starts Codes
16. P-E-04-I		144/20	X		A - Soil
17. P-F-01-I					B - Paint Chips
18. P-02-I					C - Surface / Dressing
19. P-03-I					D - Bulk Miscellaneous
20. P-V-04-I					E - Air Canisters
21. P-A-D-I					F - Other (SPECIFY)
22. P-B-01-I					
23. P-C-01-I					
24. P-D-01-I					
25. P-E-01-I					
26. P-F-01-I					
27. P-A-01-I					
28. P-B-01-I					
29. P-C-01-I					
30. P-D-01-I					

**LEGAL DOCUMENT**  
 Please Print Legibly

TURNAROUND TIME

Same Day

24 Hour

3-Day

5-day

**CONTACT INFORMATION**

Name: Marchal

Phone: 722-7693

Report Results VIA (CHOOSE ONE):

FAX:

QUNTEM Website

E-Mail: \_\_\_\_\_

Signature: Michelle Brando Date: 10-10-07 1493

Signature: SP. Finch Date: 10/12/11 3:00

Signature: DAI Date: 7/15/08

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-6517  
 Mark Package HOLD FOR SATURDAY PICKUP

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number <b>001480236 FLE</b>	
		5. Generator's Name and Mailing Address			Generator's Site Address (if different than mailing address)	
Generator's Phone:		6. Transporter 1 Company Name			U.S. EPA ID Number	
7. Transporter 2 Company Name					U.S. EPA ID Number	
8. Designated Facility Name and Site Address					U.S. EPA ID Number	
Facility's Phone:						
9a. HM#	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.		1		625 P		
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information <b>10557M</b>						
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 <b>10/10/11</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name				Signature		Month Day Year <b>10/10/11</b>
Transporter 2 Printed/Typed Name				Signature		Month Day Year
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> 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

DESIGNATED FACILITY

# LAND DISPOSAL RESTRICTION AND SUBPART CC WASTE DETERMINATION CERTIFICATION

Generator Name: STATE OF OKLAHOMA DEPARTMENT  
CENTRAL  
309 N. 14TH ST  
PERRY, OK 73077

Manifest Doc. #: 001480236FLE  
State Manifest #:

Generator USEPA ID#: OKCSQ1111111

**INSTRUCTIONS:** In Column 1, identify all USEPA hazardous waste codes that apply to this waste approval/shipment. In Column 2, indicate the appropriate Treatability Group, Non-WasteWater (NWW) or WasteWater (WW) for each waste code. In Column 3, in accordance with Subpart CC, identify whether or not your waste contains >500 ppmw VOC (YES or NO). In Column 4, enter the appropriate Subcategory key # from Table - 4, If applicable, and also enter "Debris" in Column 4 if the waste is debris that will be treated using one of the alternative treatment technologies provided by 26845. In Column 5, reference the appropriate Waste Management paragraph(s) from Table -3. In Column 6, enter the Reference Number(s) from Table - 1 for all regulated constituents associated with Subpart CC VOC's, F001-F005, F039, D001-D043. If the waste is a California List waste, complete the boxes below and identify the Reference Number(s) of the appropriate California List constituent(s) identified in Table -2.

Check this box if using a continuation sheet.

MANIFEST LINE ITEM #	1. WASTE CODE(S)	2. NWW or WW	3. SUBPART CC YES/NO	4. SUBCATEGORY	5. WASTE MANAGEMENT	6. REGULATED CONSTITUENTS
1	D008	NWW	NO			

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature 

Title PS  
10-10-11

Print Name Jerry Summers

Date 10-10-11

Waste Express, Inc.

---

Waste Acceptance Notification

Dear STATE OF OKLAHOMA DEPARTMENT CENTRAL :

STATE OF OKLAHOMA DEPARTMENT CENTR.  
309 N. 14TH ST  
PERRY, OK 73077

06-OCT-11

Waste Express has reviewed your Waste Profile Sheets:

AES-57178 LEAD PAINT CHIPS AND DEBRIS

And approves the referenced waste(s) for management at our Kansas City Facility.

This letter is to notify you that Waste Express has the Authorizations and permits for the waste(s) described on the referenced Waste Profile Sheets(s) and is providing herein that management of such waste(s) delivered to Waste Express, will be in accordance with all applicable federal, state, and local laws and regulations.

Thank you for the opportunity to be of service, Please contact us if you have any questions.

Respectfully yours,

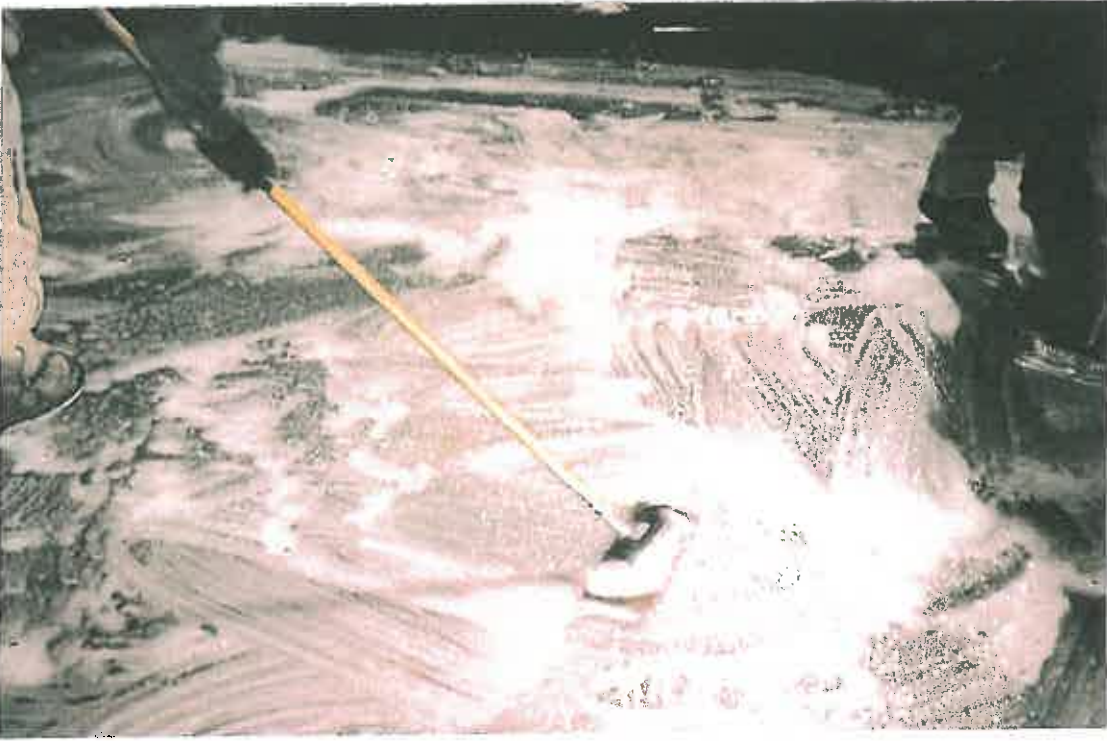


Paul Shields  
Office Manager

PAWHUSKA ARMORY



PAWHUSKA ARMORY



PAWHUSKA ARMORY



PAWHUSKA ARMORY





PAWHUSKA ARMORY





2035 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2622

## Environmental Chemistry Analysis Report

Qunem/TEM Set ID: 2024-19  
 Date Received: 12/09/11  
 Received By: Sherrie Ledford  
 Date Sampled:  
 Time Sampled:  
 Analyst: RS  
 Date of Report: 12/12/2011

Client: Emerson Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

Acc. No.: A665

Project: Pechuska Ammery  
 Location: Pechuska, OK  
 Project No.: N/A

AIRIA ID: 101352

Qunem/TEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PW-07-01-R4	Wipe	Lead	31.3	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
002	PW-07-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
003	PW-07-03-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
004	PW-10-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
005	PW-13-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
006	PW-15-01-R4	Wipe	Lead	11	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
007	PW-A-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
008	PW-A-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
009	PW-B-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
010	PW-B-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
011	PW-B-03-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
012	PW-B-04-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)

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

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 600/8-93/200 Preparation Modified, EPA 7420 Analysis Modified

EPA Method 7062 (2) = EPA 600/8-93/200 Preparation Modified, EPA 7062 Analysis Modified



5229 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 785-7872 / Fax (405) 785-8880

## Environmental Chemistry Analysis Report

<b>QuantEM Est ID:</b> 2024-9 <b>Date Received:</b> 12/09/11 <b>Received by:</b> Shanie Leitch <b>Date Sampled:</b> <b>Time Sampled:</b> <b>Analyst:</b> RS <b>Date of Report:</b> 12/12/2011	<b>Client:</b> Emerson Services, Inc. 6525 N. Meridian, Suite 400 Oklahoma City, OK 73116  <b>Acct. No.:</b> A645  <b>Project:</b> Pawhuska Armory <b>Location:</b> Pawhuska, OK <b>Project No.:</b> N/A
---	--

AIRB ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Result	Reporting Limit	Units	Date/Time Analyzed	Method
015	PW-C-01-R4	Wipe	Lead	101	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
014	PW-C-02-R4	Wipe	Lead	100	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
015	PW-D-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
016	PW-D-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
017	PW-D-03-R4	Wipe	Lead	76.3	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
018	PW-D-04-R4	Wipe	Lead	20.8	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
019	PW-E-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
020	PW-E-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
021	PW-E-03-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
022	PW-E-04-R4	Wipe	Lead	16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
023	PW-F-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
024	PW-F-02-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
025	PW-F-03-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
026	PW-F-04-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
027	PWS-A-01-R4	Wipe	Lead	16.4	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
028	PWS-B-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	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 Preparation Modified. EPA 7420 Analysis Modified

EPA Method 7002 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7002 Analysis Modified



8336 N. Orange Park Drive / Oklahoma City, OK 73120 / (405) 725-7272 / Fax (405) 765-2632

### Environmental Chemistry Analysis Report

Quantity of Samples: 002449  
Date Analyzed: 12/09/11  
Received By: Sherrie Lantucha  
Time Sampled:  
Time Analyzed:  
Analyst: RS  
Date of Report: 12/12/2011

Client: Envision Services, Inc.  
5525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Accel. No.: AM45  
Project: Pawhuska Amatory  
Location: Pawhuska, OK  
Project No.: N/A

AIRB ID: 101532

Quantified ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
029	PWS-C-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
030	PWS-D-01-R4	Wipe	Lead	12.4	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
031	PWS-E-01-R4	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)
032	PWS-F-01-R	Wipe	Lead	<16.0	16	ug/sq. Ft.	12/12/11 15:30	W EPA 7420 (1)

Authorized Signature:

Rebecca Sparks, 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 600/4-93/209 Preparation Modified, EPA 7420 Analysis Modified

EPA Method 7082 (2) - EPA 600/4-93/209 Preparation Modified, EPA 7082 Analysis Modified

**Supplemental Report  
QAQC Results**

QA ID: 9456  
Test: Lead

Date: 12/12/2011  
Matrix: Wipe

Lab Number: 20149  
Approved By: Rebecca Sparks  
Date Approved: 12/12/2011

Notes:

Blank Data:

Type of Blank	Blank Value
ICB	0
LCB	0
Matrix Blank	0

Standard Data:

Standard	Low Limit	Obtained	High Limit
CV	1.5	5.3	5.9
LV	1.5	5.3	5.9
UV	0.8	1.1	1.3

Duplicate Data:

Recovery Data:

Sample Number	Count	Spike Level	Recount Spike	% Recovery	Dep. Result Spike	% Dep. Recovery	% Spike RPD
MS-P2	0.460	0.460	6.198	113.5	5.846	107.1	5.81
MS-W2	0.000	1.297	5.507	101.2	5.363	101.2	0.1
MS-W1	0.000	1.266	5.018	79.3	5.548	165.0	1.2

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

*Rebecca Sparks*  
Rebecca Sparks, Analyst

**LEAD CHAIN OF CUSTODY**

3235 Heritage Park Drive, Oklahoma City, OK 73120-7092  
 (405) 422-1000 • (405) 752-7272 • Fax: (405) 755-2056



www.quantem.com

**LEGAL DOCUMENT - PLEASE PRINT LEGIBLY**

Contact Information		Project Information	
Company: <i>Engron Services, Inc</i>	Address: <i>7727-7615</i>	Project Name: <i>Redeveloped Highway</i>	Report Results (for one box):
Contact: <i>Mark Hill (Barnes &amp; W)</i>	Phone: <i>702-5700</i>	Location: <i>Perdote, OK</i>	<input checked="" type="checkbox"/> Quantem Website
Sampled By: <i>Mark Hill</i>	DATE & TIME: <i>12-24-11</i>	MA: <i>MA</i>	Other: _____
RECEIVED BY: <i>Stephanie</i>	DATE & TIME: <i>12/24/11</i>		

No.	Sample ID (Character last)	Sample Description	Volume (Liters)	Volume Area (Liters/area)	Analysis	Units (if one box only)	Sample Matrix
1	<i>PM-07-01-R1</i>						
2	<i>-07-02-R1</i>						
3	<i>-07-03-R1</i>						
4	<i>-10-01-R4</i>						
5	<i>-13-01-R1</i>						
6	<i>-15-01-R4</i>						
7	<i>-A-01-R4</i>						
8	<i>-A-02-R4</i>						
9	<i>-B-01-R4</i>						
10	<i>-B-02-R4</i>						
11	<i>-B-03-R4</i>						
12	<i>-B-04-R4</i>						

**REQUESTED SERVICES (Please check the appropriate boxes)**

Analysis	Units (if one box only)	Sample Matrix
<input checked="" type="checkbox"/> Volatile Organics		A Sol
<input checked="" type="checkbox"/> Semi-Volatile Organics		B Paper Chips
<input checked="" type="checkbox"/> Inorganics		C Surface Contaminants
<input checked="" type="checkbox"/> Metals		D Bulk Microbiological
<input checked="" type="checkbox"/> PCBs		E Air Canister

TURNAROUND TIME	
Same Day	<input checked="" type="checkbox"/>
24-Hour	<input checked="" type="checkbox"/>
3-Day	<input type="checkbox"/>
5-7 Day	<input type="checkbox"/>



**LEAD CHAIN OF CUSTODY**

7501 Heritage Park Drive, Channahon, IL 61110-2107  
 (815) 427-1510 • 408-757-7777 • Fax: (815) 755-2888

www.QUANTEM.com

Page 2 of 3

For Lab Use Only

**LEGAL DOCUMENT - PLEASE PRINT LEGIBLY**

Sample ID: <i>Environ</i> Client: <i>Marshall Brennan</i> Address: <i>1000 S. ...</i> City: <i>...</i>	Project Information: Project Name: <i>Prochaska Agency</i> Address: <i>Prochaska Agency</i> City: <i>Prochaska, OH</i>
Lab No.: <i>...</i> Request: <i>...</i> Report: <i>...</i>	Percent Results: <i>...</i> QUANTEM Website: <i>...</i> Other: <i>...</i>

RECEIVED BY: <i>Michelle Brennan</i> DATE & TIME: <i>12-21-17 1:51 PM</i>	RECEIVED BY: <i>...</i> DATE & TIME: <i>...</i>
--	--

NO	Sample ID (i.e. Character Mark)	Sample Description	Volume (Liters/L)	Volume Area (Square Meters)	Analysis		Units (if ONE box only)	Sample Matrix Codes
					Y	Z		
14	13-PA-C-01-R4							
15	13-PA-C-02-R4							
16	13-PA-C-03-R4							
17	13-PA-C-04-R4							
18	13-PA-C-05-R4							
19	13-PA-C-06-R4							
20	13-PA-C-07-R4							
21	13-PA-C-08-R4							
22	13-PA-C-09-R4							
23	13-PA-C-10-R4							
24	13-PA-C-11-R4							

REQUESTED SERVICES (Please Z the appropriate boxes)

TURNAROUND TIME: *...*

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE - Use this address for Saturday delivery only. (815) 427-1510 • 408-757-7777 • Fax: (815) 755-2888



www.quantem.com

### LEAD CHAIN OF CUSTODY

1000 Heritage Park Drive, Oklahoma City, OK 73102-1000  
800-822-4650 • 405-758-1372 • Fax 405-758-2638

Form QCC-3  
For Lab Use Only

### LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

Client: *Energy Services*      Project Information: *Lechelsville Hwy*

Company: *Marshall Baughum*      Report Number: *722-7493*

Address: *1000 Heritage Park Drive*      Report Date: *12/11/08*

City: *Oklahoma*      State: *OK*      County: *Wagon Wheel*

Lat No. *36° 00' 00" N*      Long No. *97° 00' 00" W*

Report Header (if one box): *Quantem Website*

Other: \_\_\_\_\_

RECEIVED BY: *Marshall Baughum*      DATE & TIME: *12/11/08*      VIA: *WA*

RECEIVED BY: \_\_\_\_\_      DATE & TIME: \_\_\_\_\_

REQUESTED SERVICES (Please X the Appropriate Boxes)

No.	Sample ID (No. does not matter)	Sample Description	Volume (Liters)	Volume Also (Complex Matrix)	Analysis					Units (2 ONE box only)					TURNAROUND TIME				
					1	2	3	4	5	6	7	8	9	10		11	12		
25	<i>25-F-05-R4</i>			<i>144.2</i>															
26	<i>26-F-04-R4</i>																		
27	<i>27-A-01-R1</i>																		
28	<i>28-B-01-R4</i>																		
29	<i>29-C-01-R4</i>																		
30	<i>30-D-01-R4</i>																		
31	<i>31-E-01-R4</i>																		
32	<i>32-F-01-R4</i>																		
33																			
34																			
35																			

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • 405-758-2638 • 800-822-4650 • Fax 405-758-2638 • 1000 Heritage Park Drive, Oklahoma City, OK 73102-1000 • www.quantem.com



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number <b>900487937 FLE</b>				
5. Generator's Name and Mailing Address				Generator's Site Address (if different than mailing address)					
Generator's Phone:									
6. Transporter 1 Company Name			U.S. EPA ID Number						
7. Transporter 2 Company Name			U.S. EPA ID Number						
8. Designated Facility Name and Site Address			U.S. EPA ID Number						
Facility's Phone:									
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
				No.	Type				
1.				1		170	P		
2.									
3.									
4.									
14. Special Handling Instructions and Additional Information									
15. GENERATOR/SUPPLIER'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/Supplier's Printed/Typed Name				Signature			Month	Day	Year
							10	10	11
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> 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 Source <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator)						Manifest Reference Number:			
						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

# LAND DISPOSAL RESTRICTION AND SUBPART CC WASTE DETERMINATION CERTIFICATION

Generator Name: STATE OF OKLAHOMA DEPARTMENT  
CENTRAL  
8TH RUBEL AVE.  
PAWHUSHA, OK 74056

Manifest Doc. #: 001480237FLE  
State Manifest #:

Generator USEPA ID#: OKCSQ1111111

**INSTRUCTIONS:** In Column 1, identify all USEPA hazardous waste codes that apply to this waste approval/shipment. In Column 2, indicate the appropriate Treatability Group, Non-WasteWater (NWW) or WasteWater (WW) for each waste code. In Column 3, in accordance with Subpart CC, identify whether or not your waste contains >500 ppmw VOC (YES or NO). In Column 4, enter the appropriate Subcategory key # from Table - 4, if applicable, and also enter "Debris" in Column 4 if the waste is debris that will be treated using one of the alternative treatment technologies provided by 26845. In Column 5, reference the appropriate Waste Management paragraph(s) from Table -3. In Column 6, enter the Reference Number(s) from Table - 1 for all regulated constituents associated with Subpart CC VOC's, F001-F005, F039, D001-D043. If the waste is a California List waste, complete the boxes below and identify the Reference Number(s) of the appropriate California List constituent(s) identified in Table -2.

Check this box if using a continuation sheet.

MANIFEST LINE ITEM #	1. WASTE CODE(S)	2. NWW or WW	3. SUBPART CC YES/NO	4. SUBCATEGORY	5. WASTE MANAGEMENT	6. REGULATED CONSTITUENTS
1	D008	NWW	NO			

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature John M. Sumner

Title Pres.

Print Name John M. Sumner

Date 10/10/11

Waste Express, Inc.

---

Waste Acceptance Notification

Dear STATE OF OKLAHOMA DEPARTMENT CENTRAL :

STATE OF OKLAHOMA DEPARTMENT CENTR.  
8TH RUBEL AVE.  
PAWHUSHA, OK 74056

06-OCT-11

Waste Express has reviewed your Waste Profile Sheets:

AES-57179 LEAD PAINT CHIPS AND DEBRIS

And approves the referenced waste(s) for management at our Kansas City Facility.

This letter is to notify you that Waste Express has the Authorizations and permits for the waste(s) described on the referenced Waste Profile Sheets(s) and is providing herein that management of such waste(s) delivered to Waste Express, will be in accordance with all applicable federal, state, and local laws and regulations.

Thank you for the opportunity to be of service, Please contact us if you have any questions.

Respectfully yours,



Paul Shields  
Office Manager


## **CONFIRMATION SAMPLING**


**ARMORY LEAD CONFIRMATION SAMPLING  
PERRY ARMORY  
309 NORTH 14<sup>TH</sup> STREET  
PERRY, OKLAHOMA**

Prepared For:  
**Oklahoma Department of Environmental Quality  
Land Protection Division  
707 N. Robinson Avenue  
Oklahoma City, OK 73102**

April 2, 2012

 **ENERCON**  
ENERCON SERVICES, INC.  
6525 North Meridian, Suite 400  
Oklahoma City, Oklahoma 73116  
(405) 722-7693 Fax: (405) 722-7694

Prepared by:  
  
\_\_\_\_\_  
Marshall Branscum  
Project Manager  
Lead-Based Paint Inspector, OKINSR13415

Reviewed by:  
  
\_\_\_\_\_  
Emmett W. Muenker, M.E.  
Lead-Based Paint Inspector/Risk Assessor  
OKRASR-112605

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 PURPOSE AND SCOPE	1
2.0 BACKGROUND	1
3.0 CONFIRMATION PROCEDURES	1
4.0 CONFIRMATION SAMPLING	2
5.0 CONCLUSIONS	4

## APPENDICES

APPENDIX A – Scope of Work for Confirmation Lead Sampling
APPENDIX B – Lead-Based Paint Firm and Individual License
APPENDIX C – Post-Remediation Initial Confirmation Sampling Results and Layouts – IFR/Storage Rooms, Drill Floor, and Office Areas
APPENDIX D – Post Remediation Conformation Re-Sample 1 Results and Layouts – IFR/Storage Rooms, Drill Floor, and Office Areas
APPENDIX E – Post Remediation Conformation Re-Sample 2 Results and Layouts – IFR/NE Storage Room, Drill Floor, and Office Areas
APPENDIX F – Post Sealant Initial Confirmation Results and Layouts – IFR/Storage Rooms
APPENDIX G – Post Sealant Final Confirmation Re-Sample 1 Results and Layouts – IFR

## 1.0 PURPOSE AND SCOPE

This clearance sampling was requested by the Oklahoma Department of Environmental Quality, Land Protection Division, in order to confirm that lead remediation at the Perry Armory, 309 North 14<sup>th</sup> Street, Perry, Oklahoma, had been satisfactorily completed. Enercon was contracted to conduct confirmation wipe samples following remediation using the sampling protocols described in the Scope of Work provided in Appendix A.

## 2.0 BACKGROUND

The State of Oklahoma has determined that a number of armories located throughout the State that are no longer needed are to be transferred to local communities. Prior to these transfers, environmental investigations were conducted by the Oklahoma Department of Environmental Quality to determine if there are any environmental issues associated with these armories. As a result, inspections for lead contamination and lead-based paint have been conducted, resulting in contracts for remediation of lead contamination by private contractors. In order to determine if the contamination has been satisfactorily remediated, following remediation confirmation testing is being done by firms licensed by the State to conduct Lead-Based Paint Inspections and Clearance Tests. These firms are independent of the remediation contractor. The remediation contractor for the Perry Armory was Abatement Systems, Inc., Environmental Safety Contractors, Post Office Box 773, Broken Arrow, OK 74013-0773.

## 3.0 CONFIRMATION PROCEDURES

Confirmation of the adequacy of remediation is done by collecting wipe samples on the floors and/or walls of the armory on a room by room basis using the sampling criteria set forth in the Scope of Work (Appendix A). All wipe samples are collected by an Oklahoma-licensed LBP Inspector or Risk Assessor who is employed by an Oklahoma-licensed Lead-Based Paint Firm. Copies of these licenses are provided in Appendix B. The procedure involves using a floor plan layout of the armory to mark all sample locations and collecting samples using a 12" by 12" template and lead wipes to collect the samples. In the Indoor Firing Range (IFR), the walls, floor and ceiling were gridded using a 3x3 grid for ranges/rooms 50 feet long or less. For ranges longer than 50 feet, the range was divided into two halves, with each half using a 3x3 grid for sampling. For other areas of the armories, single wipe samples were collected from the floor in areas where lead-based paint abatement had been completed. For larger rooms, a 3x3 gridded area was sampled for elevated lead dust levels. Following remediation, confirmation wipe samples were collected. If any sample within

a 3x3 grid in an indoor firing range or range storage room exceeded 200  $\mu\text{g}/\text{ft}^2$ , the entire 3x3 gridded area was re-cleaned and re-tested. Sample locations outside the IFR were collected within ten feet of the doorway for smaller rooms and larger rooms were sampled using a 3x3 grid. The Inspector marked the grid intersections and wipe sample locations with duct tape in preparation for sampling. Procedures for individual wipe samples as outlined for EPA/HUD dust wipe sampling were used for this project.

#### **4.0 CONFIRMATION SAMPLING**

##### **4.1 Results of Initial Confirmation Sampling Following Remediation in the Indoor Firing Range and the Northeast and South IFR Storage Rooms**

The initial round of clearance testing was conducted on August 23, 2011, following remediation in the Indoor Firing Range and the two storage rooms associated with the IFR. The IFR was approximately 110 FT long; therefore, it was divided into two 55 FT long 3 x 3 gridded areas for wipe sampling. A total of 30 wipe samples were collected from the walls, floor, and ceiling of the IFR. Seven of the 30 samples collected from the IFR contained lead in excess of 200  $\mu\text{g}/\text{ft}^2$ . The northeast and south IFR storage rooms were less than 55 FT in length and therefore, they were not divided into separate areas. A total of 18 wipe samples were collected from the walls, floor, and ceiling of each storage room. Two of the 18 wipe samples collected in the Northeast Storage Room contained lead in excess of 200  $\mu\text{g}/\text{ft}^2$ . None of the wipe samples collected in the South Storage Room contained lead in excess of 200  $\mu\text{g}/\text{ft}^2$ . Appendix C contains a sketch showing the areas that exceeded the threshold during the initial round of sampling in the IFR and the laboratory report and chain of custody with the Drill Floor and Office Area results for the August 23, 2011, initial round of sampling.

##### **4.2 Results of Re-Sample 1 Confirmation Sampling Following Re-cleaning in the Indoor Firing Range and the Northeast IFR Storage Rooms**

The areas that failed the initial clearance testing in the IFR and the Northeast IFR Storage Room were re-cleaned and then re-sampled on September 12, 2011. A total of 12 wipe samples were collected in the IFR. Two of the twelve wipe samples collected contained lead in excess 200  $\mu\text{g}/\text{ft}^2$  in the IFR. Two of the three wipe samples collected in the Northeast Storage Room contained lead in excess of 200  $\mu\text{g}/\text{ft}^2$ . Appendix D contains sketches showing the areas that exceeded the threshold during Re-Sample 1 in the IFR and Northeast Storage Room and the laboratory report and chain of custody with the Drill Floor and Office Area results for the September 12, 2011, re-sampling.



**4.3 Results of Re-Sample 2 Confirmation Sampling Following Re-cleaning in the Indoor Firing Range and the Northeast IFR Storage Rooms**

The areas that failed the Re-Sample 1 clearance testing in the IFR and the Northeast IFR Storage Room were re-cleaned and then re-sampled on September 20, 2011. A total of six wipe samples were collected in the IFR. Three of the six wipe samples collected contained lead in excess 200  $\mu\text{g}/\text{ft}^2$  in the IFR. However, these three wipe samples only slightly exceeded the threshold of 200  $\mu\text{g}/\text{ft}^2$  and therefore, it was determined at that time by Mr. Dustin Davidson, Oklahoma Department of Environmental Quality (ODEQ), that the IFR should be sprayed with a sealant and then re-sampled. Three wipe samples collected in the Northeast Storage Room and none contained lead in excess of 200  $\mu\text{g}/\text{ft}^2$ . Appendix E contains sketches showing the areas that exceeded the threshold during Re-Sample 2 in the IFR and Northeast Storage Room and the laboratory report and chain of custody with the Drill Floor and Office Area results for the September 20, 2011, re-sampling.

**4.4 Results of Initial Confirmation Sampling Following Application of a Sealant in the Indoor Firing Range and the Northeast and South IFR Storage Rooms**

On October 11, 2011, following application of a sealant to the IFR and the two IFR Storage Rooms, confirmation wipe samples were collected in these areas. Following application of the sealant to the walls, floor, and ceiling, ODEQ recommended collecting only two confirmation wipe samples from each 3x3 grid in the IFR and only one confirmation wipe sample from each 3x3 grid in the IFR Storage Rooms. A total of 20 wipe samples were collected from the IFR, with three exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. A total of 12 wipe samples were collected from the two IFR Storage Rooms, with no samples exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. Appendix F contains sketches showing the areas that exceeded the threshold during Initial Confirmation Sampling following Application of a Sealant in the IFR and Northeast Storage Room and the laboratory report and chain of custody for the October 11, 2011, sampling.

**4.5 Results of Re-Sample 1 Final Confirmation Sampling Following Re-cleaning and Resealing in the Indoor Firing Range**

On October 21, 2011, following re-cleaning and resealing the areas of the IFR that exceeded the 40  $\mu\text{g}/\text{ft}^2$  threshold, in the IFR, confirmation wipe samples were collected from these areas. A total of three samples were collected, with none exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. Appendix G contains

Deleted:

sketches showing the areas that were sampled following re-cleaning and resealing in the IFR and contains the laboratory report and chain of custody for the October 21, 2011, re-sampling.

**4.6 Results of Initial Confirmation Sampling in the Drill Floor and Office Areas**

The initial round of clearance testing was conducted on August 23, 2011, following remediation in the Drill Floor and Office Areas. A total of 51 wipe samples were collected, with 22 exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. A floor plan layout showing the location of the wipe samples is and the laboratory report and chain of custody are found in Appendix C.

**4.7 Results of Re-Sample 1 Confirmation Sampling in the Drill Floor and Office Areas**

On September 12, 2011, following additional cleaning in the areas that exceeded the threshold, confirmation wipe samples were collected from the areas. A total of 26 wipe samples were collected, with two wipe samples exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. A floor plan layout showing the location of the wipe samples and the laboratory report and chain of custody are found in Appendix D.

**4.8 Results of Re-Sample 2 Final Confirmation Sampling in the Drill Floor and Office Areas**

On September 20, 2011, following additional cleaning in the areas that exceeded the threshold, confirmation wipe samples were collected from the areas. A total of two wipe samples were collected, with no wipe samples exceeding the 40  $\mu\text{g}/\text{ft}^2$  threshold. A floor plan layout showing the location of the wipe samples and the laboratory report and chain of custody are found in Appendix E.

**5.0 CONCLUSIONS**

Based upon the foregoing confirmation sampling, it is concluded that the lead hazard associated with the walls, floor and ceiling in the IFR, and the floors in the Drill Room and Office Areas have been effectively mitigated.

## **APPENDIX A**

**SCOPE OF WORK**  
**For**  
**Armory Lead Confirmation Sampling**

The Department of Environmental Quality will soon be hiring contractors to remediate lead-based paint and lead contaminated dust from former National Guard Armories located in Sulphur, Minco, Marlow, Pawhuska, Perry, and Kingfisher, Oklahoma. Once abatement is complete, confirmation wipe samples will need to be taken on floors in areas where lead-based paint abatement was performed and in rooms that previously tested high for lead dust on floors. Attached is the Confirmation Sampling Instructions (Attachment 1). Below is a detailed list of what will be required at each site.

- Perform each sampling event within five (5) days of notice from remediation contractor.
- Provide DEQ with sampling plan for approval prior to each sampling event. There will be up to five (5) sampling events per armory.
- Travel to the each site up to (5) times to take confirmation wipe samples.
- A total of 250 confirmation wipe samples will be taken per armory.
- A total of 1500 confirmation wipe samples will be taken for this project.
- Samples will be run with a 24 hour turnaround time and results with sample location map will be submitted to DEQ for review.
- Once all sampling is complete at an armory, a Confirmation Sampling Report will be submitted to DEQ for approval.
  - A total of six (6) Confirmation Sampling Reports shall be submitted.
  - One report will be submitted for each armory.

## Confirmation Sampling Instructions

### Protocol for Collecting Wipe Samples

1. Prepare a rough sketch of the area(s) or room(s), to be wipe sampled.
  - a. Mark all sample locations on map before sample event starts.
  - b. When possible DEQ will supply a floor plan map with sample locations marked.
2. A new set of clean, impervious gloves should be used for each sample to avoid cross contamination of samples.
3. Wipe Samples
  - a. If using Ghost Wipes™, tear open the individually sealed package. Remove the moistened wipe. Unfold the wipe.
  - b. If using a dry media such as MCE or Whatman™ filter, moisten the filter with distilled or deionized water prior to sampling.
4. Place a 12 inch by 12 inch, 1 foot square, template on the area to be wiped.
5. Apply uniform firm pressure while wiping the area inside the template.
6. To insure that all portions of the partitioned area are wiped, start at the outside edge and progress toward the center making concentric squares decreasing in size.
7. After collecting a sample, fold the filter or wipe inward and place into a container and number it. Note the number at the sample location on the sketch.
8. At least one blank filter treated in the same fashion but without wiping, should be submitted to the laboratory with every 10 samples.

### Confirmation Sampling Instructions

#### Indoor Firing Range

1. To properly sample the IFR, a 3 section by 3 section grid system shall be used. Samples shall not be collected on all one section or end of a grid. A total of 3 samples shall be collected per 3 section by 3 section grid.
  - Each range surface less than 50 feet in length shall be divided into a 3 section by 3 section grid. (Figure 1 and Figure 2)
  - Each range surface more than 50 feet in length shall be divided in half and a 3 section by 3 section grid shall be established on each half. (Figure 3 and Figure 4)
2. If a sample fails, the entire 3 section by 3 section grid shall be re-cleaned and re-sampled.
  - Confirmation samples taken *after remediation* are considered to have failed if results exceed 200 ug/SF.
  - Confirmation samples taken *after sealing* are considered to have failed if results exceed 40 ug/SF.
3. If more than ten (10) confirmation samples fail, the entire IFR shall be re-cleaned.

4. DEQ reserves the right to take additional confirmation samples.

**Areas Where Lead-Based Paint Abatement Has Been Performed**

1. One (1) confirmation wipe sample shall be taken on the floor within ten feet of the abatement area.
  - a. If a confirmation sample for lead dust is located within ten feet of the lead-based paint abatement area, this sample can count as both the lead-based paint and lead dust confirmation sample (See below for details on lead dust confirmation sampling).
2. Sample results in excess of 40 ug/SF are considered to have failed. If a sample result fails, the area shall be re-cleaned and re-sampled.

**Areas Outside IFR with Elevated Lead Dust on Floor**

1. A 3 section by 3 section grid system shall be used. Samples shall not be collected on all one section or end of a grid. A total of 3 samples shall be collected per 3 section by 3 section grid.
  - Each floor surface less than 50 feet in length shall be divided into a 3 section by 3 section grid. (Figure 1 and Figure 2)
  - Each floor surface more than 50 feet in length shall be divided in half and a 3 section by 3 section grid shall be established on each half. (Figure 3 and Figure 4)
2. Sample results in excess of 40 ug/SF are considered to have failed. If a sample fails, the entire 3 section by 3 section grid shall be re-cleaned and re-sampled.
3. DEQ reserves the right to take additional confirmation samples.

**Figure 1. ACCEPTABLE FOR SURFACES LESS THAN 50 FEET**

Wipe Sample		
	Wipe Sample	
		Wipe Sample

Figure 2. NOT ACCEPTABLE FOR SURFACES LESS THAN 50 FEET

Wipe Sample	<del>OR</del> Wipe Sample	Wipe Sample
Wipe Sample		
Wipe Sample		

Figure 3. ACCEPTABLE FOR SURFACES GREATER THAN 50 FEET

Wipe Sample					Wipe Sample
	Wipe Sample		Wipe Sample		
		Wipe Sample		Wipe Sample	

Surface Center

Figure 4. NOT ACCEPTABLE FOR SURFACES GREATER THAN 50 FEET

				Wipe Sample	
Wipe Sample	Wipe Sample	Wipe Sample		Wipe Sample	
				Wipe Sample	

Surface Center

## **APPENDIX B**



# Department of Environmental Quality

This is to certify that

## ENERCON SVC INC

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

### FIRM

Certification #: OKFIRM11152

The 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

*Regulatory Compliance Unit*

## MARSHALL BRANSCUM

*Inspected the operations of the Oklahoma Lead-Based Paint Management Act and is certified as a Lead-Based Paint*

### INSPECTOR

Certification #: OKINSR13415

*This employee is qualified to inspect and certify the compliance of lead-based paint.*

Issued on: **4/1/2011**

Expires on: **3/31/2012**

*A. Todd*

Division Director  
Air Quality Division



*Rachel M. ...*

Environmental Programs Manager  
Air Quality Division

# Department of Environmental Quality

This is to Certify That

**EMMETT MUENKER**

has met the specifications of the Ohio General Land-Based Plant Management Act  
and is certified as a 1 and 3 and B and P 222

## INSPECTOR/RISK ASSESSOR

Certification #: OKRASR11260

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

Issued on: 4/1/2011

Expires on: 3/31/2012



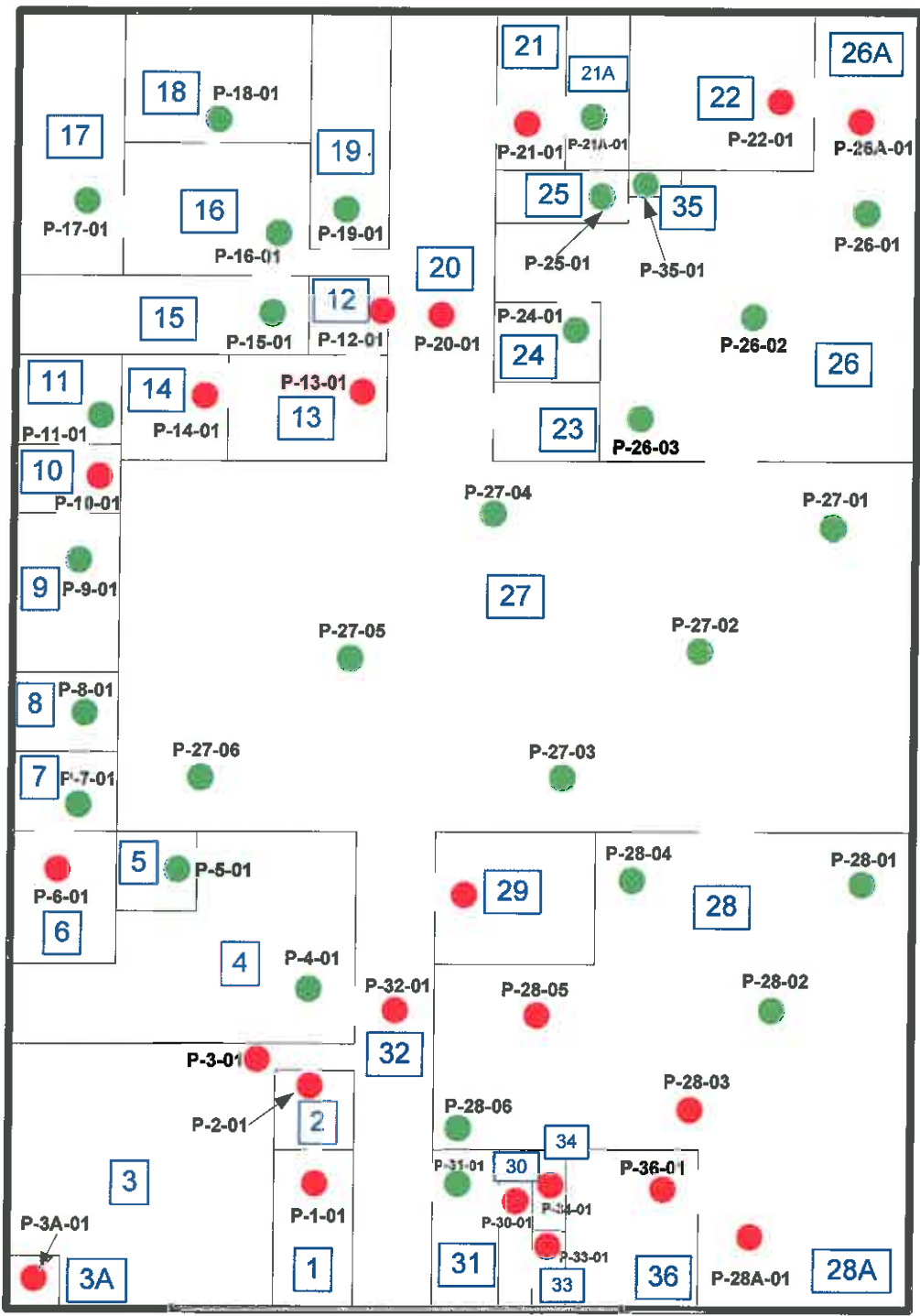
Division Director  
Air Quality Division





Environmental Programs Manager  
Air Quality Division

## **APPENDIX C**



Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

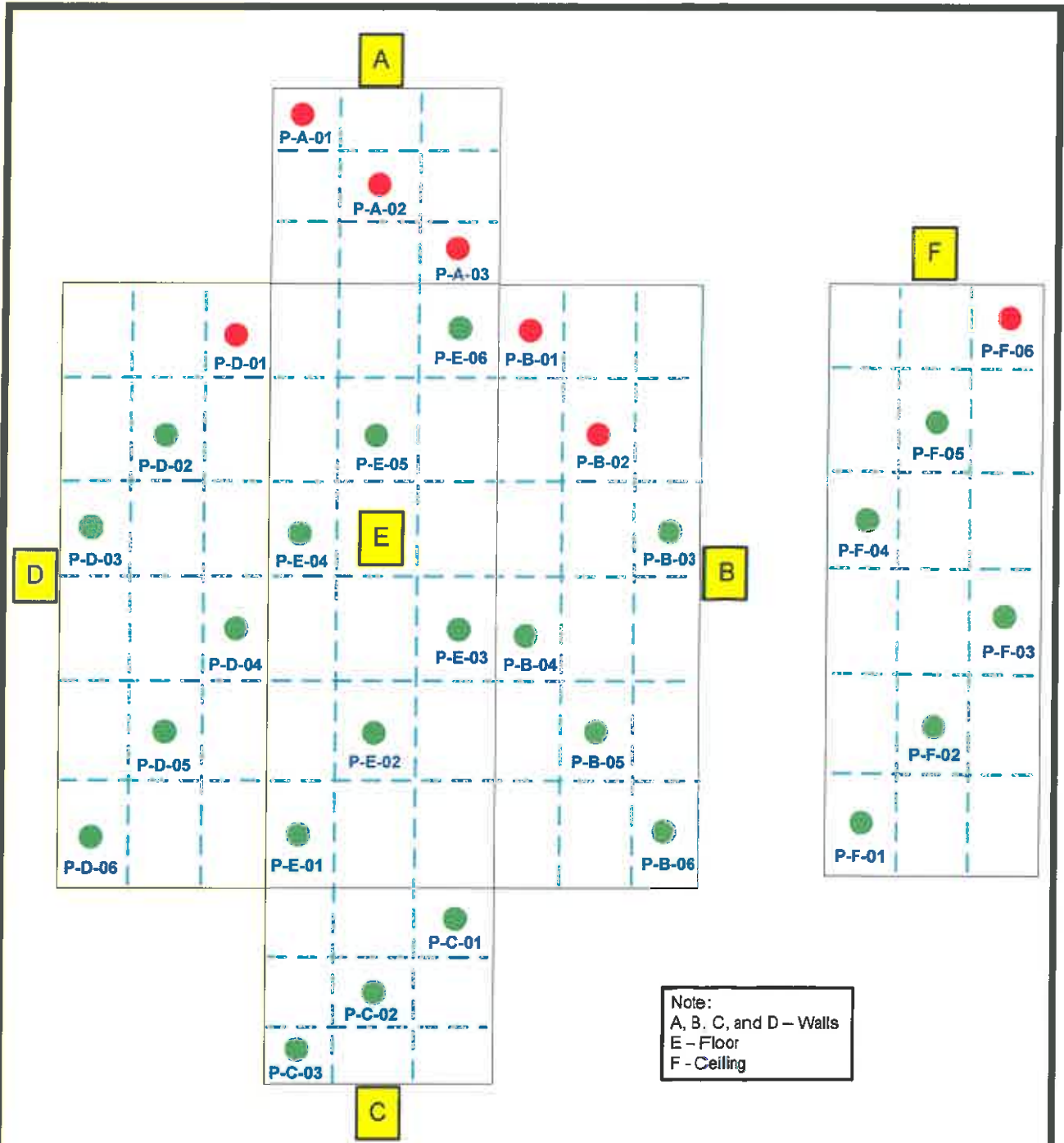
- Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale



**First Floor – Lead Dust Wipe  
Sample Locations – Initial  
Sampling 8-23-2011**

PROJECT NO: ENMISC2437



Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F – Ceiling

Oklahoma Department  
 of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**

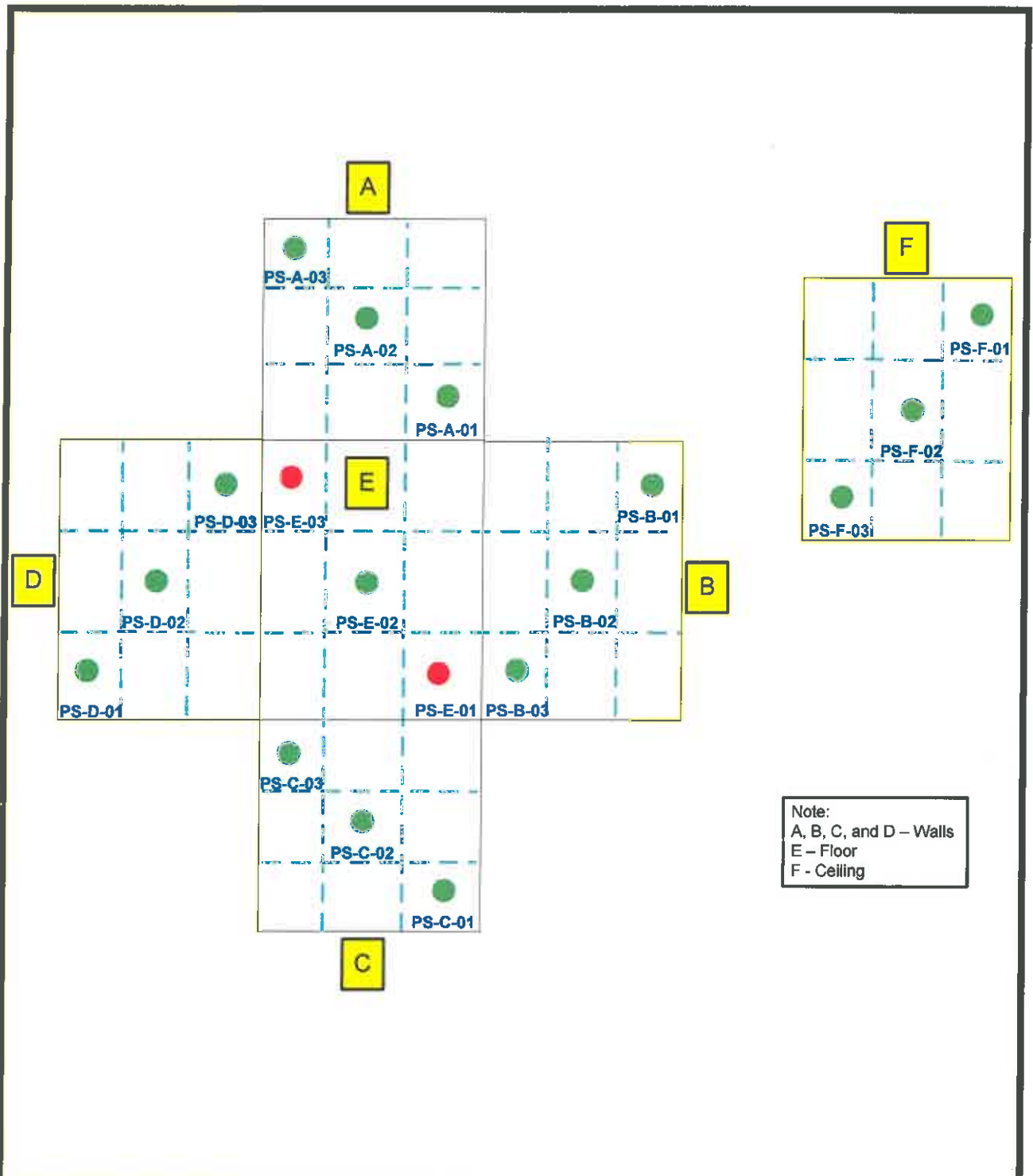
- Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale



**IFR – Lead Dust Wipe Sample  
 Locations – Initial Sampling  
 8-23-2011**

PROJECT NO: ENMISC2437



Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F - Ceiling

Oklahoma Department  
 of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**  
 ● Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>  
 ● Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

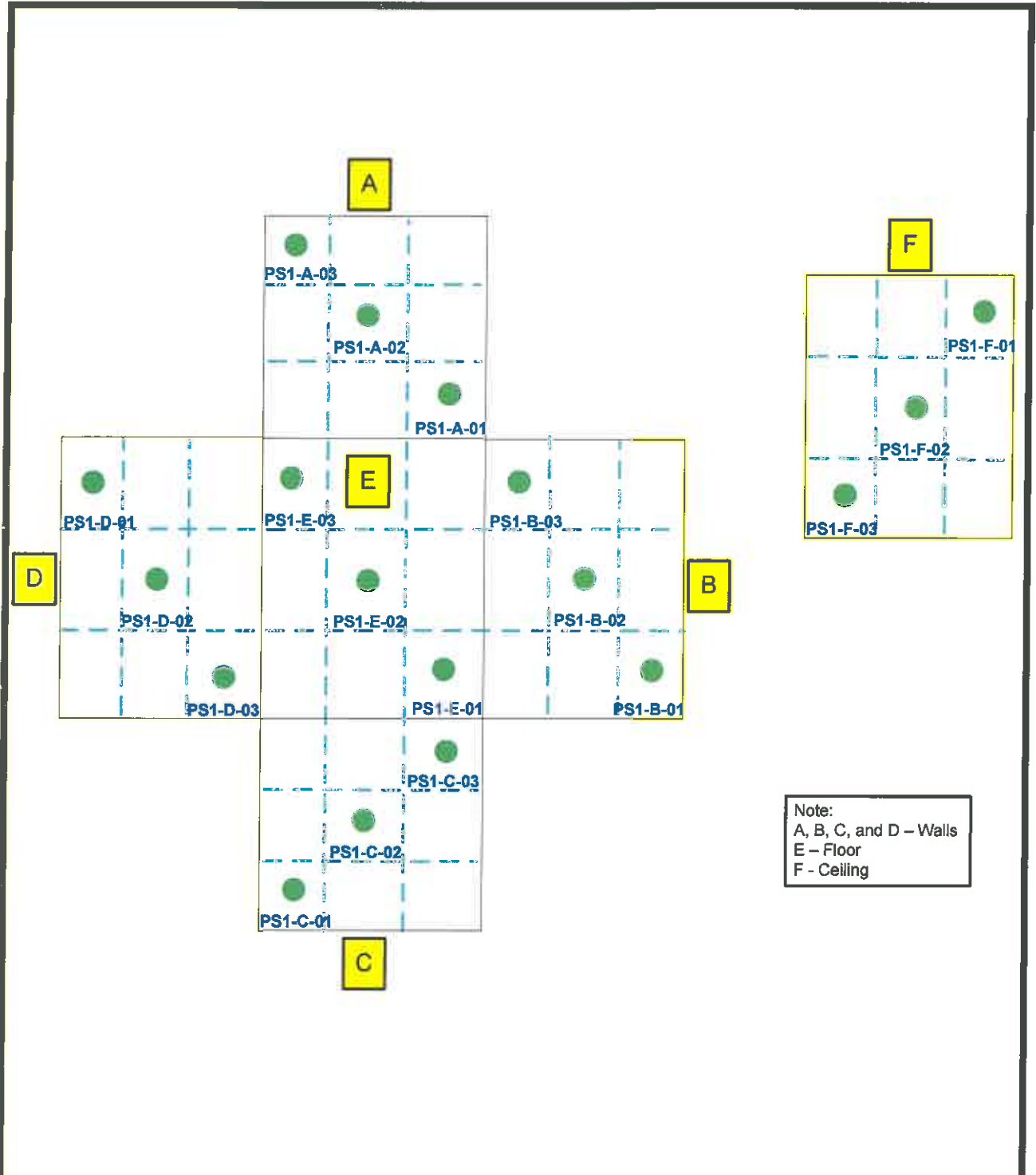
Not to Scale



**ENERCON**

IFR NE Storage Room – Lead Dust  
 Wipe Sample Locations – Initial  
 Sampling 8-23-2011

PROJECT NO: ENMISC2437



Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F – Ceiling

Oklahoma Department  
 of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**  
 ● Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>  
 ● Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale



**ENERCON**

IFR South Storage Room – Lead  
 Dust Wipe Sample Locations –  
 Initial Sampling 8-23-2011

PROJECT NO: ENMISC2437





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

## Environmental Chemistry Analysis Report

**QuanTEM Set ID:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-1-01	Wipe	Lead	45.5	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
002	P-2-01	Wipe	Lead	103	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
003	P-3-01	Wipe	Lead	163	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
004	P-3A-01	Wipe	Lead	1,440	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
005	P-4-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
006	P-5-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
007	P-6-01	Wipe	Lead	58.6	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
008	P-7-01	Wipe	Lead	27.9	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
009	P-8-01	Wipe	Lead	20.8	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
010	P-9-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
011	P-10-01	Wipe	Lead	43.5	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
012	P-11-01	Wipe	Lead	19.8	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
013	P-12-01	Wipe	Lead	43.5	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
014	P-13-01	Wipe	Lead	96.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
015	P-14-01	Wipe	Lead	52.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
016	P-15-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
017	P-16-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	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 Preparation Modified. EPA 7420 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:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	P-17-01	Wipe	Lead	17.1	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
019	P-18-01	Wipe	Lead	33.1	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
020	P-19-01	Wipe	Lead	24.1	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
021	P-20-01	Wipe	Lead	51.6	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
022	P-21-01	Wipe	Lead	49.1	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
023	P-21A-01	Wipe	Lead	18.2	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
024	P-22-01	Wipe	Lead	63.7	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
025	P-24-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
026	P-25-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
027	P-26-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
028	P-26-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
029	P-26-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
030	P-26A-01	Wipe	Lead	45.8	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
031	P-27-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
032	P-27-02	Wipe	Lead	29.4	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
033	P-27-03	Wipe	Lead	16.6	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
034	P-27-04	Wipe	Lead	16.9	16	ug/sq. Ft.	08/24/11 17:00	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 Preparation Modified. EPA 7420 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:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
035	P-27-05	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
036	P-27-26	Wipe	Lead	38.1	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
037	P-28-01	Wipe	Lead	19.3	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
038	P-28-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
039	P-28-03	Wipe	Lead	44.8	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
040	P-28-04	Wipe	Lead	20.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
041	P-28-05	Wipe	Lead	75.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
042	P-28-06	Wipe	Lead	39.2	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
043	P-28A-01	Wipe	Lead	47.9	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
044	P-29-01	Wipe	Lead	71.8	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
045	P-30-01	Wipe	Lead	292	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
046	P-31-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
047	P-32-01	Wipe	Lead	51.6	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
048	P-33-01	Wipe	Lead	185	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
049	P-34-01	Wipe	Lead	96.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
050	P-35-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
051	P-36-01	Wipe	Lead	47.9	16	ug/sq. Ft.	08/24/11 17:00	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 Preparation Modified. EPA 7420 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:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
052	P-A-01	Wipe	Lead	1,820	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
053	P-A-02	Wipe	Lead	1,070	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
054	P-A-03	Wipe	Lead	15,700	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
055	P-B-01	Wipe	Lead	2,330	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
056	P-B-02	Wipe	Lead	960	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
057	P-B-03	Wipe	Lead	111	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
058	P-B-04	Wipe	Lead	45.3	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
059	P-B-05	Wipe	Lead	34.2	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
060	P-B-06	Wipe	Lead	36.3	16	ug/sq. Ft.	08/24/11 17:00	W EPA 7420 (1)
061	P-C-01	Wipe	Lead	45.9	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
062	P-C-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
063	P-C-03	Wipe	Lead	27.7	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
064	P-D-01	Wipe	Lead	233	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
065	P-D-02	Wipe	Lead	59.3	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
066	P-D-03	Wipe	Lead	43.9	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
067	P-D-04	Wipe	Lead	31.3	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
068	P-D-05	Wipe	Lead	97.3	16	ug/sq. Ft.	08/25/11 13:30	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 Preparation Modified. EPA 7420 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:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
069	P-D-06	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
070	P-E-01	Wipe	Lead	38.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
071	P-E-02	Wipe	Lead	45.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
072	P-E-03	Wipe	Lead	49.1	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
073	P-E-04	Wipe	Lead	79.8	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
074	P-E-05	Wipe	Lead	140	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
075	P-E-06	Wipe	Lead	38.6	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
076	P-F-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
077	P-F-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
078	P-F-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
079	P-F-04	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
080	P-F-05	Wipe	Lead	29.1	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
081	P-F-06	Wipe	Lead	666	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
082	PS-A-01	Wipe	Lead	53.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
083	PS-A-02	Wipe	Lead	60.9	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
084	PS-A-03	Wipe	Lead	52.5	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
085	PS-B-01	Wipe	Lead	34.1	16	ug/sq. Ft.	08/25/11 13:30	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 Preparation Modified. EPA 7420 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:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
086	PS-B-02	Wipe	Lead	29.5	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
087	PS-B-03	Wipe	Lead	33.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
088	PS-C-01	Wipe	Lead	39.1	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
089	PS-C-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
090	PS-C-03	Wipe	Lead	26.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
091	PS-D-01	Wipe	Lead	27.8	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
092	PS-D-02	Wipe	Lead	59.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
093	PS-D-03	Wipe	Lead	21.2	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
094	PS-E-01	Wipe	Lead	416	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
095	PS-E-02	Wipe	Lead	151	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
096	PS-E-03	Wipe	Lead	337	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
097	PS-F-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
098	PS-F-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
099	PS-F-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
100	PS1-A-01	Wipe	Lead	24.3	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
101	PS1-A-02	Wipe	Lead	45.1	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
102	PS1-A-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	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



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

## Environmental Chemistry Analysis Report

**QuantEM Set ID:** 199049  
**Date Received:** 08/24/11  
**Received By:** Barbara Holder  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 8/25/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry National Guard Armory  
**Location:** 309 North 14th Street

**Project No.:** Perry, OK

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
103	PS1-B-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
104	PS1-B-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
105	PS1-B-03	Wipe	Lead	20.4	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
106	PS1-C-01	Wipe	Lead	21.7	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
107	PS1-C-02	Wipe	Lead	62.3	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
108	PS1-C-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
109	PS1-D-01	Wipe	Lead	17.5	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
110	PS1-D-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
111	PS1-D-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
112	PS1-E-01	Wipe	Lead	69.5	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
113	PS1-E-02	Wipe	Lead	74.4	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
114	PS1-E-03	Wipe	Lead	84.5	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
115	PS1-F-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
116	PS1-F-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	W EPA 7420 (1)
117	PS1-F-03	Wipe	Lead	<16.0	16	ug/sq. Ft.	08/25/11 13:30	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



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

## Environmental Chemistry Analysis Report

QuantEM Set ID: 199049  
Date Received: 08/24/11  
Received By: Barbara Holder  
Date Sampled:  
Time Sampled:  
Analyst: BM  
Date of Report: 8/25/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845  
Project: Perry National Guard Armory  
Location: 309 North 14th Street  
Project No.: Perry, OK

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
------------	-----------	--------	-----------	---------	------------------	-------	--------------------	--------

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 Preparation Modified. EPA 7420 Analysis Modified

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



## Supplemental Report QAQC Results

QA ID: 9114  
Test: Lead

Date: 8/24/2011  
Matrix: Wipe

Lab Number: 199049  
Approved By: Benton Miller  
Date Approved: 8/24/2011

**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	4.5	5.5
FCV	4.5	4.6	5.5
ICV	0.8	1	1.2
RLVS	0.256	0.351	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W2	0.000	5.449	5.272	96.7	5.282	96.9	0.2
MS-W1	0.000	5.481	5.090	92.9	5.051	92.1	0.8
MS-W3	0.000	5.427	4.913	90.5	5.051	93.1	2.8

## Supplemental Report QAQC Results

QA ID: 9118  
Test: Lead

Date: 8/25/2011  
Matrix: Wipe

Lab Number: 199049  
Approved By: Benton Miller  
Date Approved: 8/25/2011

Notes:

### Blank Data:

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

### Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5	5.5
FCV	4.5	4.5	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.318	0.384

### Duplicate Data:

### Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W5	0.000	5.438	5.529	101.7	5.457	100.4	1.3
MS-W4	0.000	5.449	5.341	98.0	5.237	96.1	2.0
MS-W3	0.000	5.460	5.112	93.6	5.237	95.9	2.4
MS-W2	0.000	5.373	5.159	96.0	5.068	94.3	1.8
MS-W1	0.000	5.405	4.814	89.1	5.068	93.8	5.1

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

Benton Miller, Analyst



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1650 (405) 755-7272 Fax: (405) 755-2058  
 www.quntem.com

Lab No. 199049

Company Name: Enercon Services, Inc. Acct.#: \_\_\_\_\_ Project Name: Perry National Guard Armory  
 Project Location: 309 North 14th Street Project Number: Perry, OK

Sample Number	Sample Description	Volume or Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
1	P-1-01	144.2C		X		A - Soil
2	-2-01					B - Paint Chips
3	-3-01					C - Sponges / Dust Wipes
4	-3A-01					D - Bulk Miscellaneous
5	-4-01					E - Air Casette
6	-5-01					F - Other (SPECIFY)
7	-6-01					
8	-7-01					
9	-8-01					
10	-9-01					
11	-10-01					
12	-11-01					
13	-12-01					
14	-13-01					
15	-14-01					

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNAROUND TIME**

Same Day  
 24 Hour  
 3-Day  
 5-day

**CONTACT INFORMATION**

Name: Marshall Branscum  
 Phone: 405-722-7693  
 Report Results Via (CHOOSE ONE):  
 FAX  
 QUNTEM Website  
 E-Mail

Signature: Marshall H. Branscum Date: 8-24-11 Time: 12:50 PM  
 Sample ID: 8/23 Matrix: MLB

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517  
 Mark Package 'HOLD FOR SATURDAY PICKUP'



# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7602  
 (800) 822-1650 (405) 755-7272 Fax (405) 755-2058  
 www.quantem.com

Lab No. 199049

Company Name: Encon Services, Inc.

Project Name: Perry National Guard Armory

Project Location: 309 North 14th Street

Project Number: Perry, OK

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
16	P-15-01	1/4 sq ft	C	X	X	A - Soil
17	-16-01					B - Paint Chips
18	-17-01					C - Surfaces / Dust Wipes
19	-18-01					D - Bulk Miscellaneous
20	-19-01					E - Air Cessate
21	-20-01					F - Other (SPECIFY)
22	-21-01					
23	-21A-01					
24	-22-01					
25	-24-01					
26	-25-01					
27	-26-01					
28	-26-02					
29	-26-03					
30	↓ 26A-01					

LEGAL DOCUMENT  
Please Print Legibly

TURNAROUND TIME

Same Day  
 24 Hour  
 3-Day  
 5-day

CONTACT INFORMATION

Name: Marsha H  
Blanscum  
 Phone: 722-7693  
 Report Results Via (CHOOSE ONE):  
 FAX  
 Quantem Website  
 E-Mail

Prepared By: M. Blanscum  
 Date: 8-24-11  
 Reviewed By: [Signature]  
 Date: 8/23  
 Matrix: MILB

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-0517  
 Mark Package HOLD FOR SATURDAY PICKUP



# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-6600 (405) 755-7272 Fax: (405) 755-2086  
 www.quantem.com

Lab No. 199049

Project Name: Perry National Guard Armory

Project Number: \_\_\_\_\_

Company Name: Enclon Services, Inc.

Project Location: 309 North 14th Street

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes	TURNAROUND TIME
31	P-27-01	144 in <sup>2</sup>	C	X	X	A - Soil	Same Day
32	-27-02					B - Paint Chips	X 24 Hour
33	-27-03					C - Surface / Dust Wipes	3-Day
34	-27-04					D - Bulk Miscellaneous	5-day
35	-27-05					E - Air Cassette	
36	-27-06					F - Other (SPECIFY)	
37	-28-01						
38	-28-02						
39	-28-03						
40	-28-04						
41	-28-05						
42	-28-06						
43	-28A-01						
44	-29-01						
45	-30-01						

**LEGAL DOCUMENT**  
Please Print Legibly

CONTACT INFORMATION  
 Name: Marshall Bouscan  
 Phone: 722-7693  
 Report Results Via (CHOOSE ONE):  
 FAX  
 Quantem Website  
 E-Mail: \_\_\_\_\_

Prepared By: Marshall Bouscan Date: 8/24/11  
 Checked By: MLB Date: 8/23

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517  
 Mark Package 'HOLD FOR SATURDAY PICKUP'



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1680 (405) 755-7272 Fax: (405) 755-2065  
 www.quantem.com

Lab No. 199049

Company Name: Emercon Services Project Name: Perry Armory  
 Project Location: 309 North 14th Street Project Number: Perry, OK

Sample Number	Sample Description	Volume of Analyte	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
46	P-31-01	14ml	C	X	1	A - Soil
47	P-32-01					B - Paint Chips
48	P-33-01					C - Surface / Dust Wipes
49	P-34-01					D - Bulk Miscellaneous
50	P-35-01					E - Air Cassette
51	P-36-01					F - Other (SPECIFY)
52	P-A-01					
53	P-B-01					
54	P-C-01					
55	P-D-01					
56	P-E-01					
57	P-F-01					
58	P-G-01					
59	P-H-01					
60	P-I-01					

**LEGAL DOCUMENT**  
 Please Print Legibly

TURNAROUND TIME

Same Day  
 24 Hour  
 3-Day  
 5-day

CONTACT INFORMATION

Name: Marshall Branscum

Phone: 722-7693

Report Results Via (CHOOSE ONE):  
 FAX  
 QUANTEM Website  
 E-Mail

Prepared By: MCS

Date: 8/23

Time: 8:24-11

Signature: [Signature]

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517  
 Mark Package 'HOLD FOR SATURDAY PICKUP'



# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1888 (405) 755-7272 Fax: (405) 755-2058  
 www.quantem.com

THIS TEST IS FOR LAB USE ONLY  
 Lab No. 199019

Company Name: Emerson      Add.#: \_\_\_\_\_      Project Name: Perry Army  
 Project Location: 309 North 14th Street      Project Number: Perry, OK

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						

Sample Matrix Codes	Turnaround Time
A - Soil	Serialize Day
B - Paint Chips	X 24 Hour
C - Surface / Dust Wipes	3-Day
D - Soil Miscellaneous	5-day
E - Air Casette	
F - Other (SPECIFY)	

Contact Information
Name: <u>Marshall</u>
Phone: <u>722-7693</u>
Report Results Via (CHOOSE ONE):
<input type="checkbox"/> FAX
<input checked="" type="checkbox"/> QUANTEM WEBSITE
E-Mail:

Signature: Marshall Z. Banta      Date: 7-29-11      Time: 12:30pm  
 Signature: [Signature]      Date: 8/23      Time: 8:28-11  
 Signature: [Signature]      Date: 8/23      Time: MLC



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1660 (405) 755-7272 Fax: (405) 755-2056  
 www.quantem.com

This form for Lab Use Only  
 Lab No. 199019  
 Amount            Releas           

Company Name: Emvicon      Project Name: Perry National Guard Armory  
 Project Location: 309 N. 14th Street      Project Number:           

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
76	P-F-01	144 sq ft	C	P	PP, % Zn, Pb, Cu, Fe, Ni, Mn, Zn, Cd, Cr, As, Hg, Se, Sb, Bi, Mo, Ag, Au, Pt, Tl, U, V, W, Y, Zr, Nb, Mo, Sn, Te, Ba, Sr, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Re, Os, Ir, Pt, Au, Hg, Pb, Bi, Po, At, Rn, Fr, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr	A - Soil
77	-02			X		B - Paint Chips
78	-03					C - Surface / Dust Wipes
79	-04					D - Bulk Miscellaneous
80	-05					E - Air Cassette
81	-06					F - Other (SPECIFY)
82	PS-A-01					
83	-02					
84	-03					
85	PS-B-01					
86	-02					
87	-03					
88	PS-C-01					
89	PS-C-02					
90	PS-C-03					

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNAROUND TIME**

Same Day  
 24 Hour  
 3-Day  
 5-day

**CONTACT INFORMATION**

Name: Marshall  
Blanscam  
 PHONE:             
 Report Results VIA (CHOOSE ONE):  
 FAX  
 Quantem Website  
 E-Mail:           

Prepared by: Marshall Blanscam      Date: 8-24-11  
 Reviewed by:                 Date:             
 Sampled by:                 Date: 8/23  
MLB

**Saturday FedEx Shipping - CALL TO SCHEDULE**  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-6517  
 Mark Package HOLD FOR SATURDAY PICKUP





**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7602  
 (800) 822-1680 (405) 765-7272 Fax: (405) 765-2068  
 www.quantem.com

Lab No. 199049  
 Account                      Balance                     

Company Name: Enforcer Project Name: Perry, OK National Guard Armory

Project Location: 309 N. 19th Street Project Number:                     

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
91	PS-D-01	141.2	C	A		A - Soil
92	↓ -02					B - Paint Chips
93	↓ -03					C - Surface / Dust Wipes
94	PS-E-01					D - Bulk Miscellaneous
95	↓ -02					E - Air Cassette
96	↓ -03					F - Other (SPECIFY)
97	PS-F-01					
98	↓ -02					
99	↓ -03					
100	PSL-A-01					
101	↓ -02					
102	↓ -03					
103	PSL-B-01					
104	↓ -02					
105	↓ -03					

**LEGAL DOCUMENT**  
 Please Print Legibly

TURNAROUND TIME

Same Day

24 Hour

3-Day

5-day

CONTACT INFORMATION

Name: Marshall

BianScum

Report Results VIA (CHOOSE ONE):

FAX

QUANTEM WEBSITE

E-Mail

By Marshall Date 8-24-11 Time 12:50p

By [Signature] Date 8-24-11 Time 12:50p

By [Signature] Date 8/23 Time                     

By [Signature] Date 8/23 Time                     

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



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-6660 (405) 755-7272 Fax (405) 755-2058  
 www.quantem.com

Page 8 of 8

Quantem Lab No. 199049

Company Name: Environ Services Project Name: Perry National Guard Armory  
 Project Location: 309 N. 14th Street Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
106	PS1-C-01	1400.2	C	X	X	A - Soil
107	↓ -02					B - Paint Chips
108	↓ -03					C - Surface / Dust Wipes
109	PS1-D-01					D - Bulk Miscellaneous
110	↓ -02					E - Air Cassette
111	↓ -03					F - Other (SPECIFY)
112	PS1-E-01					
113	↓ -02					
114	↓ -03					
115	PS1-F-01					
116	↓ -02					
117	↓ -03					

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNAROUND TIME**

Same Day \_\_\_\_\_  
 24 Hour X  
 3-Day \_\_\_\_\_  
 5-day \_\_\_\_\_

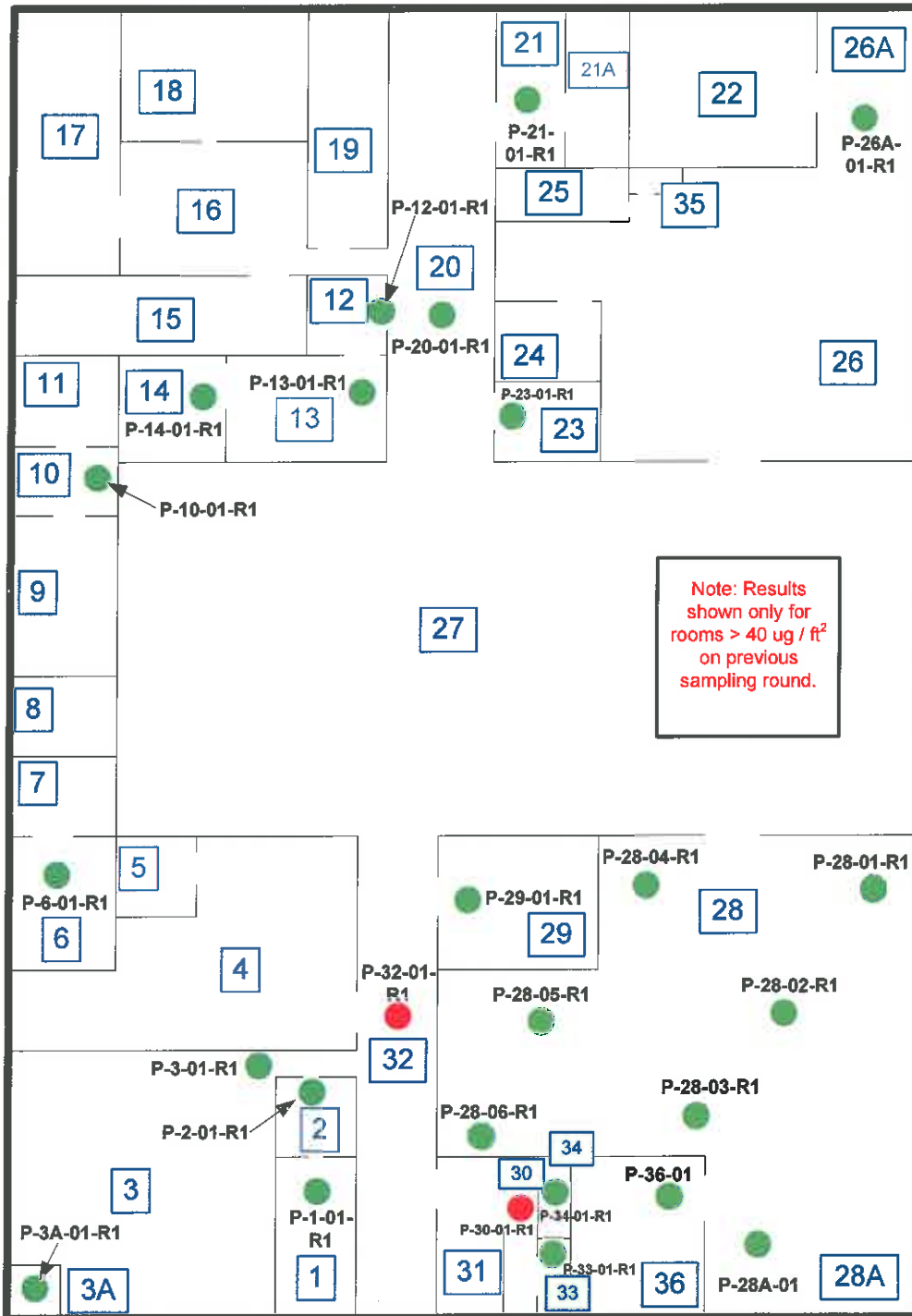
**CONTACT INFORMATION**

Name: Marshall Bantsev  
 Phone: \_\_\_\_\_  
 Report Results VIA (CHOOSE ONE):  
 FAX  
 QUANTUM YMS/SM  
 E-Mail

Prepared by: M. Bantsev  
 Date: 8-24-11  
 Project No: 1057  
 Date: 8/23  
 Initials: MLB

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517  
 Mark Package **HOLD FOR SATURDAY PICKUP**

## **APPENDIX D**



Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

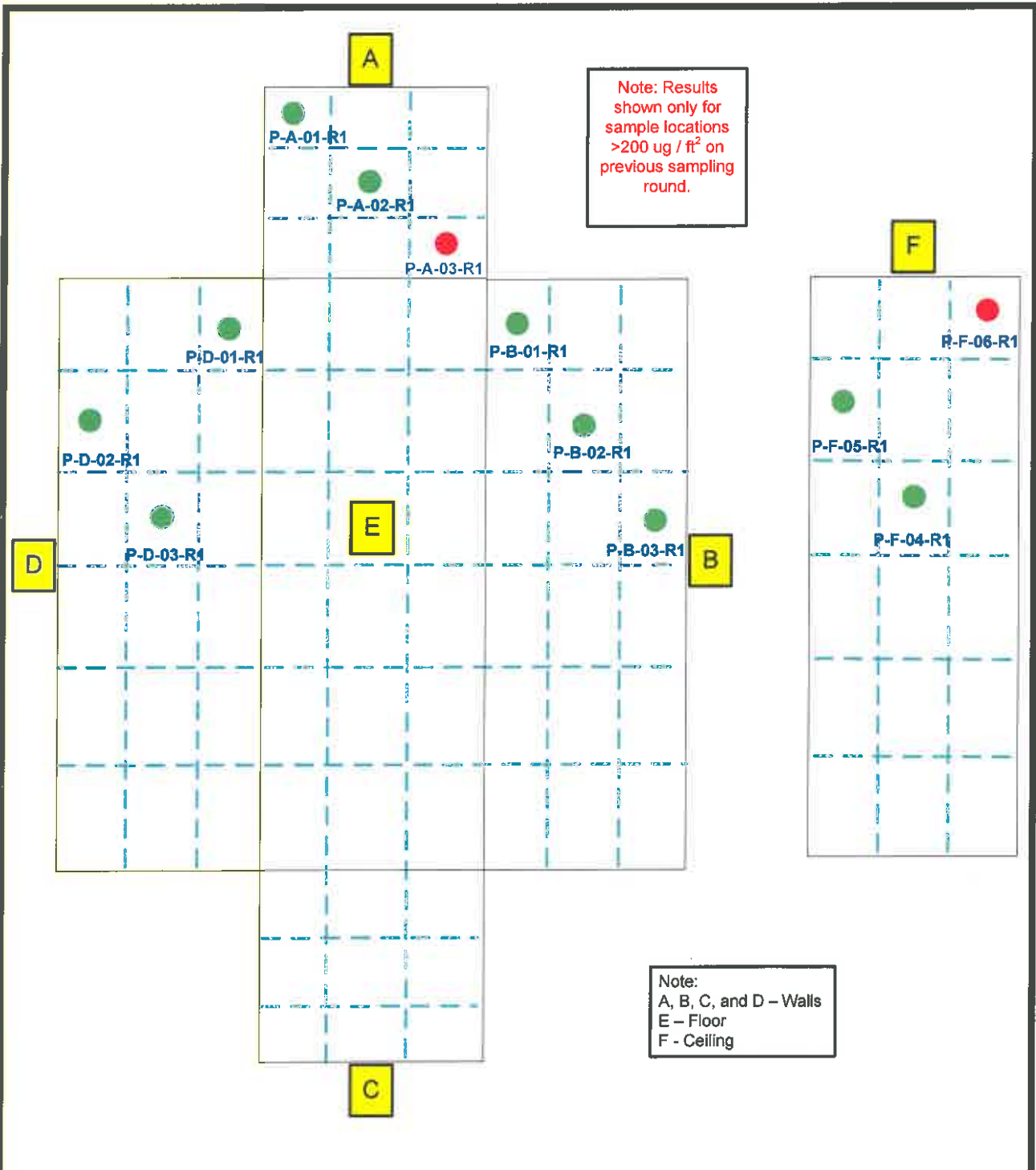
- Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale



**First Floor – Lead Dust Wipe  
Sample Locations – Re-Sample 1  
9-12-2011**

PROJECT NO: ENMISC2437



Note: Results shown only for sample locations >200 ug / ft<sup>2</sup> on previous sampling round.

Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F – Ceiling

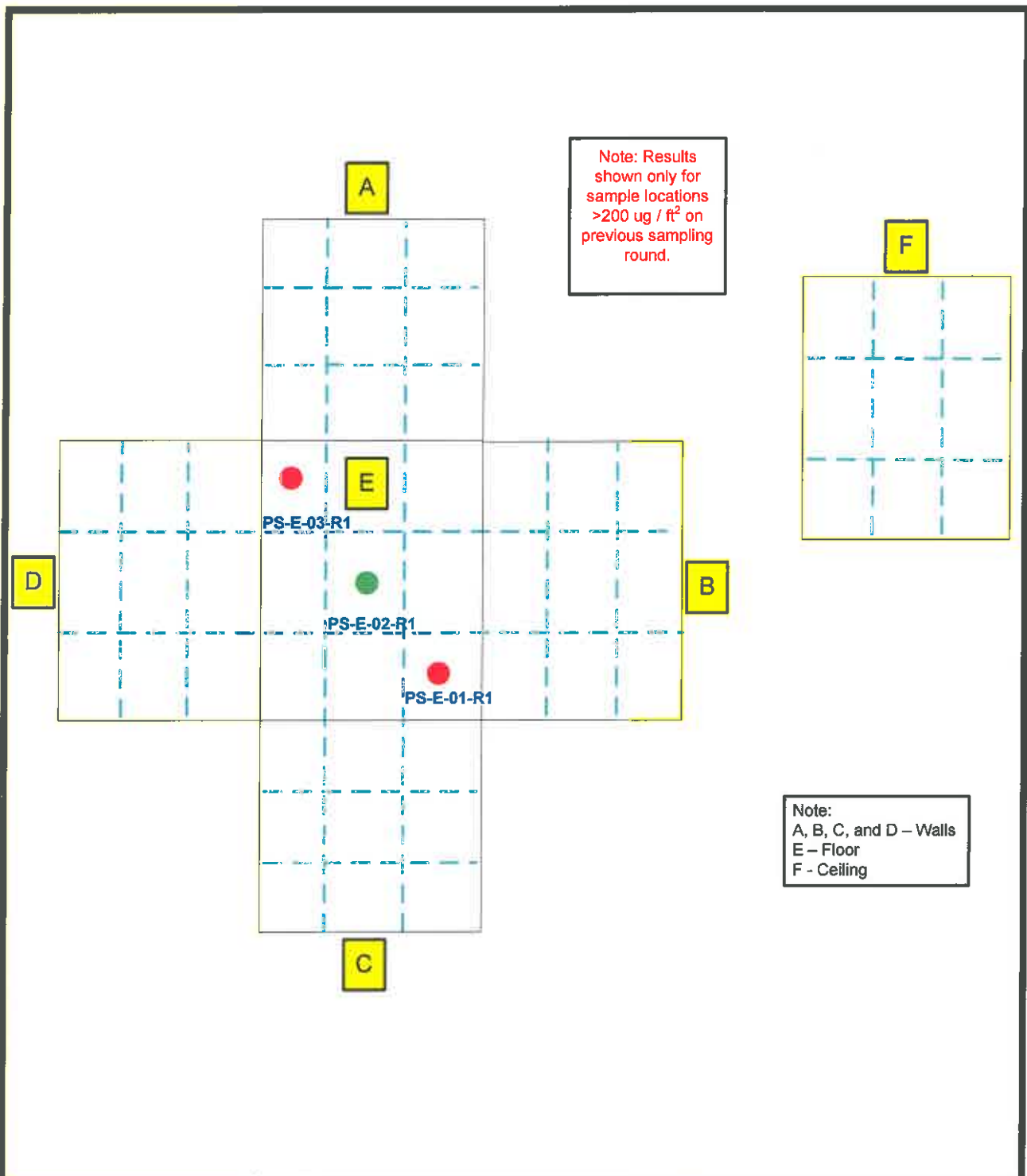
Oklahoma Department of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**  
 ● Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>  
 ● Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale



**ENERCON**  
 IFR – Lead Dust Wipe Sample Locations – Re-Sample 1  
 9-12-2011  
 PROJECT NO: ENMISC2437




Oklahoma Department  
of Environmental Quality  
National Guard Army  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

- Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale




**IFR NE Storage Room- Lead Dust  
Wipe Sample Locations -  
Re-Sample 1 - 9-12-2011**

PROJECT NO: ENMISC2437



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

## Environmental Chemistry Analysis Report

**QuanTEM Set ID:** 199691  
**Date Received:** 09/12/11  
**Received By:** Leigh Armstrong  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** RS  
**Date of Report:** 9/13/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845

**Project:** Perry Armory  
**Location:** 309 North 14th Street, Perry, OK  
**Project No.:** ENMISC 2437

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-1-01-R1	Wipe	Lead	35.9	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
002	P-2-01-R1	Wipe	Lead	20.2	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
003	P-3-01-R1	Wipe	Lead	37.5	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
004	P-3A-01-R1	Wipe	Lead	35.8	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
005	P-6-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
006	P-10-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
007	P-12-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
008	P-13-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
009	P-14-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
010	P-20-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
011	P-21-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
012	P-23-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
013	P-26A-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
014	P-28-01-R1	Wipe	Lead	39.4	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
015	P-28-02-R1	Wipe	Lead	31.6	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
016	P-28-03-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
017	P-28-04-R1	Wipe	Lead	19.6	16	ug/sq. Ft.	09/13/11 16:00	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 Preparation Modified. EPA 7420 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:** 199691  
**Date Received:** 09/12/11  
**Received By:** Leigh Armstrong  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** RS  
**Date of Report:** 9/13/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116  
  
**Acct. No.:** A845  
  
**Project:** Perry Armory  
**Location:** 309 North 14th Street, Perry, OK  
**Project No.:** ENMISC 2437

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	P-28-05-R1	Wipe	Lead	16.1	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
019	P-28-06-R1	Wipe	Lead	23.1	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
020	P-29-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
021	P-28A-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
022	P-30-01-R1	Wipe	Lead	94.6	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
023	P-32-01-R1	Wipe	Lead	45.5	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
024	P-33-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
025	P-34-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
026	P-36-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
027	P-A-01-R1	Wipe	Lead	36.8	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
028	P-A-02-R1	Wipe	Lead	24.1	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
029	P-A-03-R1	Wipe	Lead	421	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
030	P-B-01-R1	Wipe	Lead	52.4	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
031	P-B-02-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
032	P-B-03-R1	Wipe	Lead	83.2	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
033	P-D-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
034	P-D-02-R1	Wipe	Lead	26.1	16	ug/sq. Ft.	09/13/11 16:00	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 Preparation Modified. EPA 7420 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: 199691  
Date Received: 09/12/11  
Received By: Leigh Armstrong  
Date Sampled:  
Time Sampled:  
Analyst: RS  
Date of Report: 9/13/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116  
Acct. No.: A845  
Project: Perry Armory  
Location: 309 North 14th Street, Perry, OK  
Project No.: ENMISC 2437

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
035	P-D-03-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
036	P-F-04-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
037	P-F-05-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
038	P-F-06-R1	Wipe	Lead	432	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
039	PS-E-01-R1	Wipe	Lead	269	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
040	PS-E-02-R1	Wipe	Lead	61.0	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)
041	PS-E-03-R1	Wipe	Lead	405	16	ug/sq. Ft.	09/13/11 16:00	W EPA 7420 (1)

Authorized Signature: Rebecca Sparks  
Rebecca Sparks, 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 Preparation Modified. EPA 7420 Analysis Modified

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

## Supplemental Report QAQC Results

QA ID: 9192  
Test: Lead

Date: 9/13/2011  
Matrix: Wipe

Lab Number: 199691  
Approved By: Rebecca Sparks  
Date Approved: 9/13/2011

Notes:

**Blank Data:**

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

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
FCV	4.5	4.5	5.5
CCV	4.5	4.9	5.5
ICV	0.8	0.9	1.2
RLVS	0.256	0.382	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.427	4.821	88.8	4.811	88.6	0.2
MS-W2	0.000	5.394	4.739	87.9	4.845	89.8	2.2
MS-W3	0.000	5.449	4.769	87.5	4.617	84.7	3.2

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

*Rebecca Sparks*

Rebecca Sparks, Analyst



**Lead Chain-of-Custody**  
 2083 Heritage Park Drive, Oklahoma City, OK 73120-7512  
 (800) 822-1680 (405) 765-7272 Fax: (405) 765-2056  
 www.quantem.com

This Test Report Uses Only  
 Lab No: 199691  
 Date: \_\_\_\_\_

Company Name: Enron Services, Inc Project Name: Perry Army  
 Project Location: 309 North 14th Street, Perry, OK Project Number: EDMEX 2437

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
1. P-1-01-R1		144.20				A - Soil
2. 1-2-01-R1						B - Point Chips
3. -3-01-R1						C - Surface / Dust Wipes
4. -3A-01-R1						D - Bulk Microinvasive
5. -6-01-R1						E - Air Cascade
6. -10-01-R1						F - Other (SPECIFY)
7. -12-01-R1						
8. -13-01-R1						
9. -14-01-R1						
10. -20-01-R1						
11. -21-01-R1						
12. -23-01-R1						
13. -26A-01-R1						
14. -28-01-R1						
15. ✓ -28-02-R1						

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNOURD TIME**

Same Day  
 24 Hour  
 3-Day  
 5-day

**CONTACT INFORMATION**

Name: Marshall  
Senescum  
 Phone: 727-7693  
 Report Route via (CHOOSE ONE):  
 FAX  
 Quantem WebSite  
 E-Mail

Prepared By: Thy M. B... Date: 9/24/01 Time: 3:17pm  
 Analyzed By: A. Austromy Date: 9/12/01 Time: 3:20  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Approved 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  
 Mark Package HOLD FOR SATURDAY PICKUP



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 922-1686 (405) 705-7272 Fax: (405) 765-2059  
 www.quantem.com

THE SET OF LAB USE ONLY  
 Lab No: 1994A1  
 Analyst: \_\_\_\_\_  
 Date: \_\_\_\_\_

Company Name: Encon Services, Inc. Acct.#: \_\_\_\_\_ Project Name: Percy Armoury  
 Project Location: 309 N. 14th Street Project Number: EUMTSC2437

Sample Number	Sample Description	Volume or Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Config	Turnaround Time	Contact Information
16. P-28-03-R1		144.2					Same Day	Name: <u>Marshall Branson</u>
17. -04-R1							<input checked="" type="checkbox"/> 24 Hour	Phone: <u>722-7693</u>
18. -05-R1							<input type="checkbox"/> 3-Day	Report Results Via (CHOOSE ONE): <input type="checkbox"/> FAX <input checked="" type="checkbox"/> QUANTUM Website <input type="checkbox"/> E-Mail: _____
19. -06-R1							<input type="checkbox"/> 5-day	
20. 29-01-R1								
21. 28A-01-R1								
22. 30-01-R1								
23. 32-01-R1								
24. 33-01-R1								
25. 34-01-R1								
26. 36-01-R1								
27. P-A-01-R1								
28. I-A-02-R1								
29. I-A-03-R1								
30. U-B-01-R1								

Prepared by: Marshall Branson Date: 9-12-03 Matrix: MLB

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



**Lead Chain-of-Custody**  
 2003 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-4650 (405) 765-7272 Fax (405) 765-2050  
 www.quantem.com/lead

Time taken for use only  
 Lab No. 199691  
 Account \_\_\_\_\_  
 Order \_\_\_\_\_

Company Name: Enron Services, Inc. Project Name: Percy Attorney  
 Project Location: 309 N. 14th Street Project Number: EMMISC2437

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
31. P-B-02-R1		14hr2C				A - Soil
32. -B-03-R1						B - Paint Chips
33. -D-01-R1						C - Surface / Dust Wipes
34. -D-02-R1						D - Bulk Microsamples
35. -D-03-R1						E - Air Condensate
36. -F-04-R1						F - Other (SPECIFY)
37. -F-05-R1						
38. V-F-06-R1						
39. PS-E-01-R1						
40. PS-E-02-R1						
41. PS-E-03-R1						

**LEGAL DOCUMENT**  
 Please Print Legibly

**TURNAROUND TIME**

Same Day \_\_\_\_\_  
 24 Hour  \_\_\_\_\_  
 3-Day \_\_\_\_\_  
 5-day \_\_\_\_\_

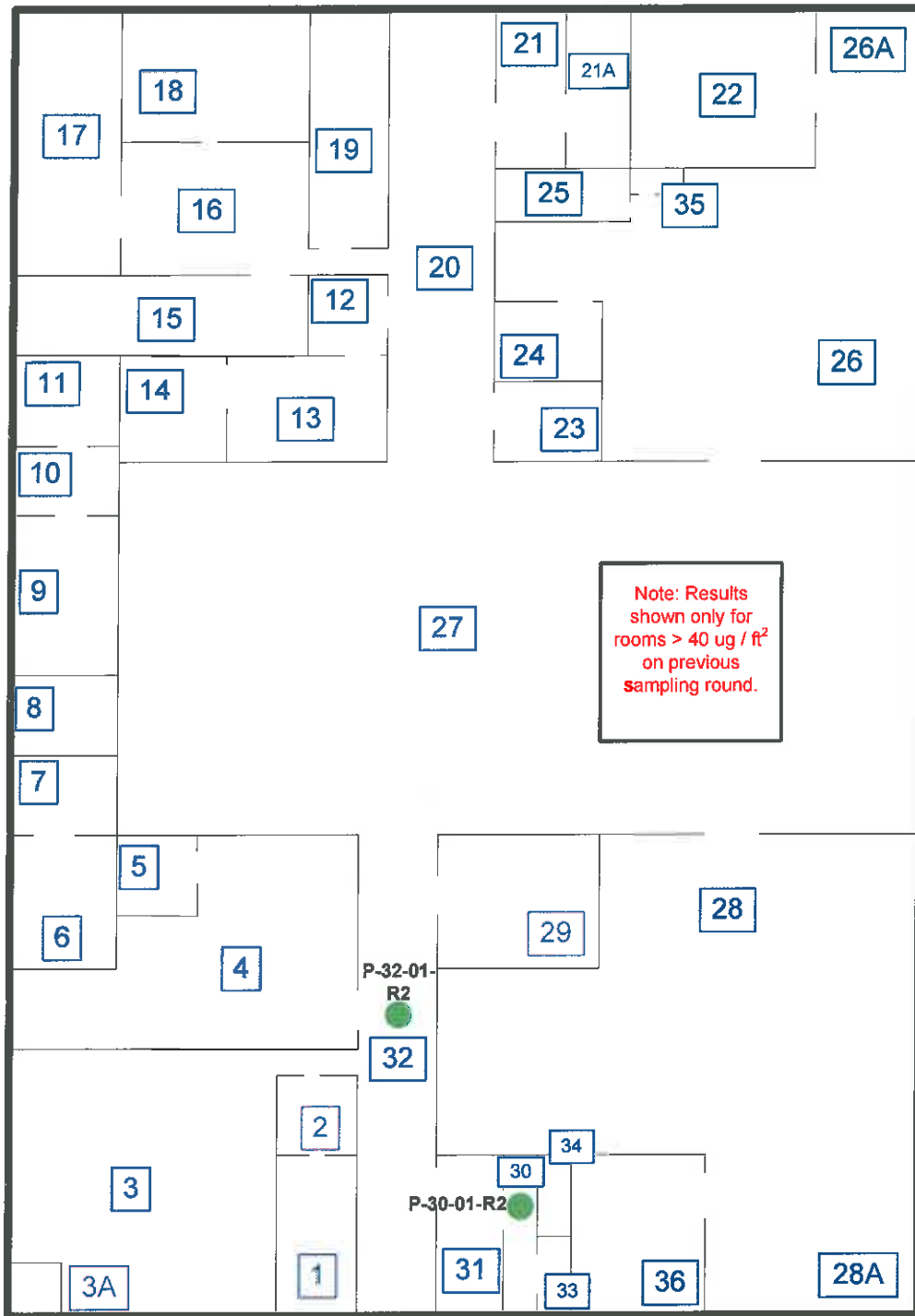
**CONTACT INFORMATION**

Name: MCS  
 Phone: 722-7693  
 Report Results Via (CHOOSE ONE):  
 FAX  
 QUANTUM Website  
 E-Mail: \_\_\_\_\_

Requested By: M. W. B...  
 Date: 9-12  
 Matrix: MLB

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

## **APPENDIX E**



Note: Results shown only for rooms > 40 ug / ft<sup>2</sup> on previous sampling round.

Oklahoma Department of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**

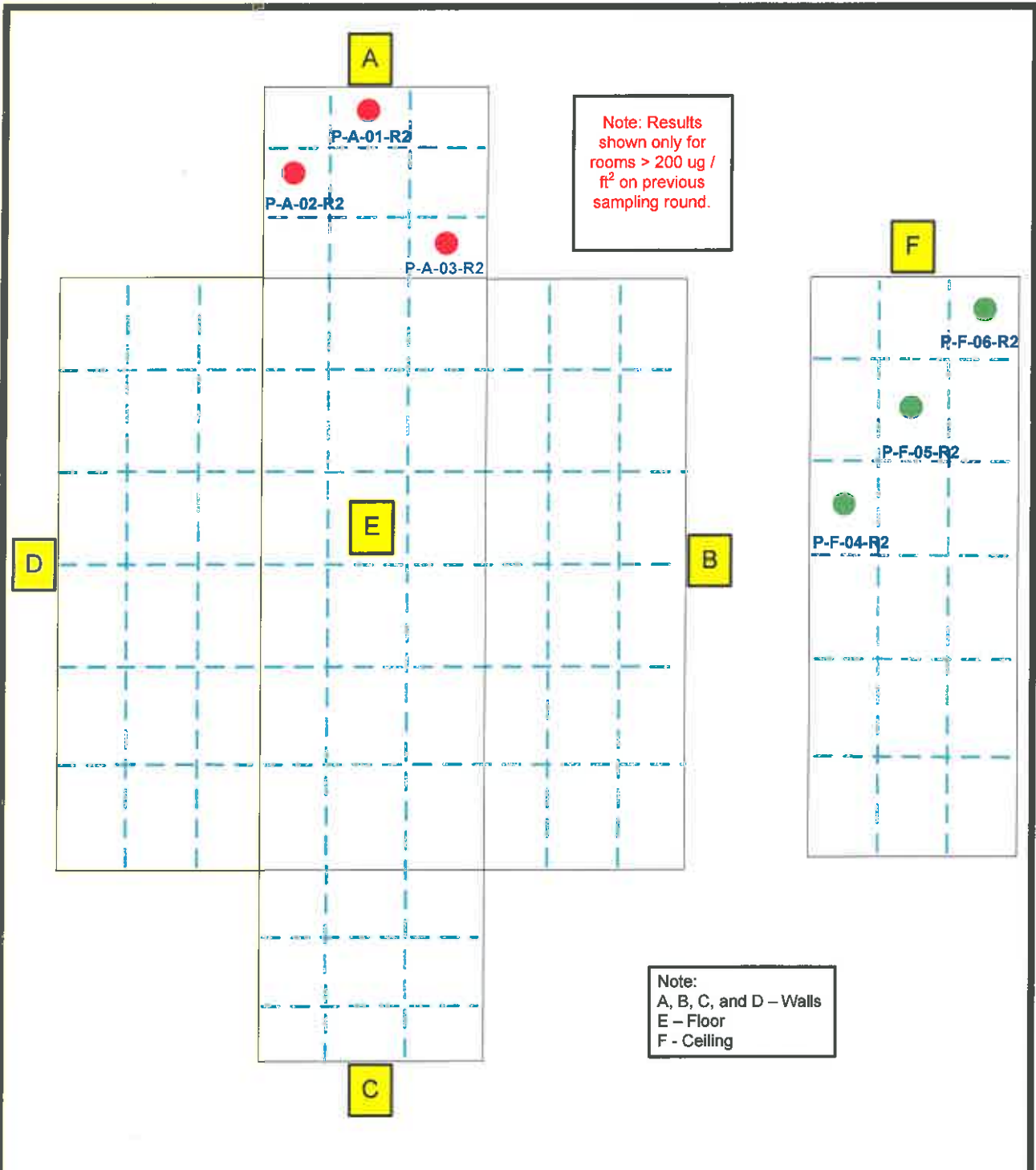
- Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale



First Floor – Lead Dust Wipe  
 Sample Locations – Re-Sample 2  
 9-20-2011

PROJECT NO: ENMISC2437



Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

- Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale

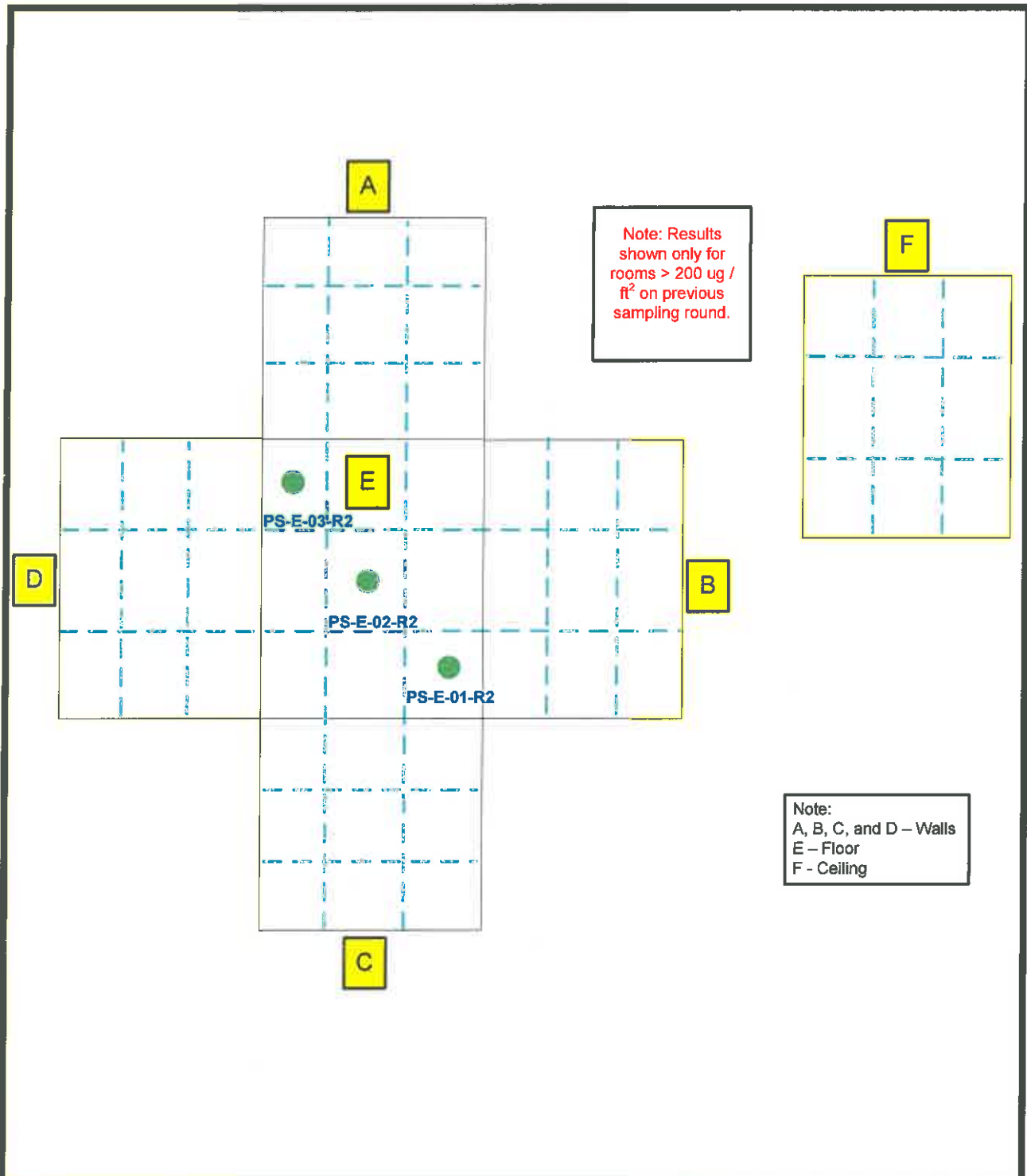


**ENERCON**

IFR – Lead Dust Wipe Sample  
Locations – Re-Sample 2  
9-20-2011

PROJECT NO: ENMISC2437





Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

- Dust Wipe Sample Location, Positive, > 200 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 200 ug / ft<sup>2</sup>

Not to Scale



**IFR NE Storage Room- Lead Dust  
Wipe Sample Locations -  
Re-Sample 2 - 9-20-2011**

PROJECT NO: ENMISC2437



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

## Environmental Chemistry Analysis Report

QuantEM Set ID: 200033  
Date Received: 09/22/11  
Received By: CeCelia Van Eck  
Date Sampled:  
Time Sampled:  
Analyst: RS  
Date of Report: 9/23/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845  
Project: Perry Armory  
Location: Perry, OK  
Project No.: ENMISC 2437

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-30-01-R2	Wipe	Lead	30.6	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
002	P-32-01-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
003	P-A-01-R2	Wipe	Lead	256	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
004	P-A-02-R2	Wipe	Lead	231	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
005	P-A-03-R2	Wipe	Lead	209	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
006	P-F-04-R2	Wipe	Lead	37.7	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
007	P-F-05-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
008	P-F-06-R2	Wipe	Lead	24.8	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
009	PS-E-01-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
010	PS-E-02-R2	Wipe	Lead	60.0	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)
011	PS-E-03-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	09/23/11 13:00	W EPA 7420 (1)

Authorized Signature: Rebecca Sparks  
Rebecca Sparks, 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 Preparation Modified. EPA 7420 Analysis Modified

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

## Supplemental Report QAQC Results

QA ID: 9225  
Test: Lead

Date: 9/23/2011  
Matrix: Wipe

Lab Number: 200033  
Approved By: Rebecca Sparks  
Date Approved: 9/23/2011

**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	5.2	5.5
FCV	4.5	5.2	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.341	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.460	5.477	100.3	5.515	101.0	0.7
MS-W2	0.000	5.481	5.732	104.6	5.724	104.4	0.1
MS-W3	0.000	5.449	5.368	98.5	5.841	107.2	8.4

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

*Rebecca Sparks*

Rebecca Sparks, Analyst



**Lead Chain-of-Custody**  
 2083 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1880 (405) 755-7272 Fax (405) 755-2058  
 www.quantem.com

Lab No. 200033  
 Accepted

Company Name: Enarcon Services, Inc. Project Name: Perry Army  
 Project Location: Perry, OK Project Number: ENMSC 2457

Sample Number	Sample Description	Volume of Area	Analysis	Units Requested	Sample Matrix Codes
1- P-30-01-R2	Floor	144 sq ft	X	1	A - Soil
2- P-32-01-R2	Floor				B - Paint Chips
3- P-A-01-R2	IFR - North Wall				C - Settles / Dust Wipes
4- P-A-02-R2					D - Bulk Microbiologic
5- P-A-03-R2					E - Air Cascade
6- P-F-04-R2	IFR - Ceiling - N/A				F - Other (SPECIFY)
7- P-F-05-R2					
8- P-F-06-R2					
9- P5-E-01-R2	IFR - Westinghouse - Floor				
10- P5-E-02-R2					
11- P5-E-03-R2					

**LEGAL DOCUMENT**  
 Please Print Legibly

TURNAROUND TIME
Same Day
<input checked="" type="checkbox"/> 24 Hour
3-Day
5-Day

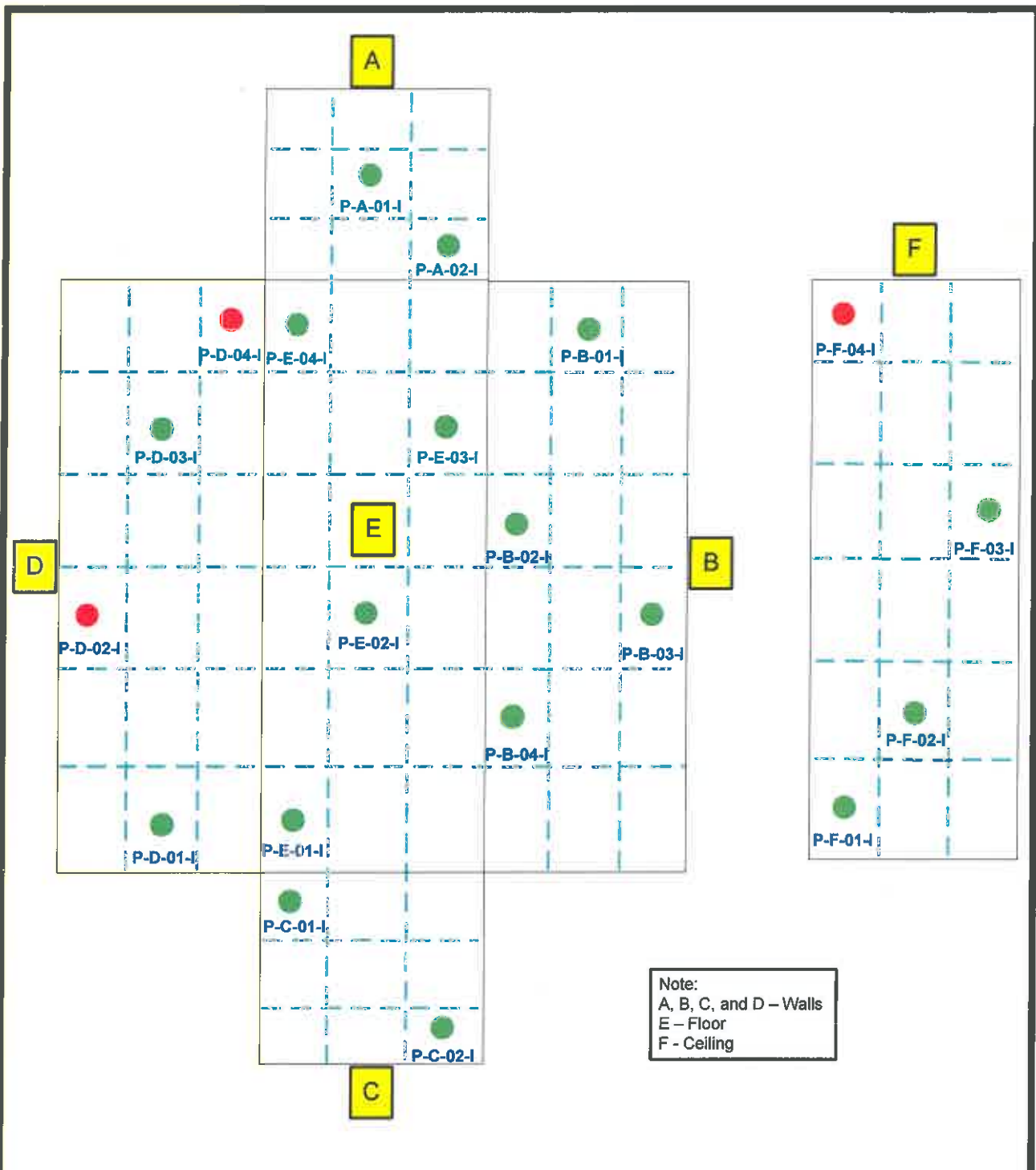
**CONTACT INFORMATION**

Name: Marshall  
Blayseum  
 Phone: 722-7693  
 Report Results Via (CHOOSE ONE):  
 FAX  
 QUANTUM WEBSITE  
 E-Mail

Sample No.	Sample Description	Volume of Area	Analysis	Units Requested	Sample Matrix Codes
1- Marshall L. Blayseum 9-23-11 / 0910	IFR - Westinghouse - Floor				
2- 9/22/11					
3- 9-20					
4- 7MB					

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8817  
 Mark Package HOLD FOR SATURDAY PICKUP

## **APPENDIX F**




Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F - Ceiling

Oklahoma Department  
 of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

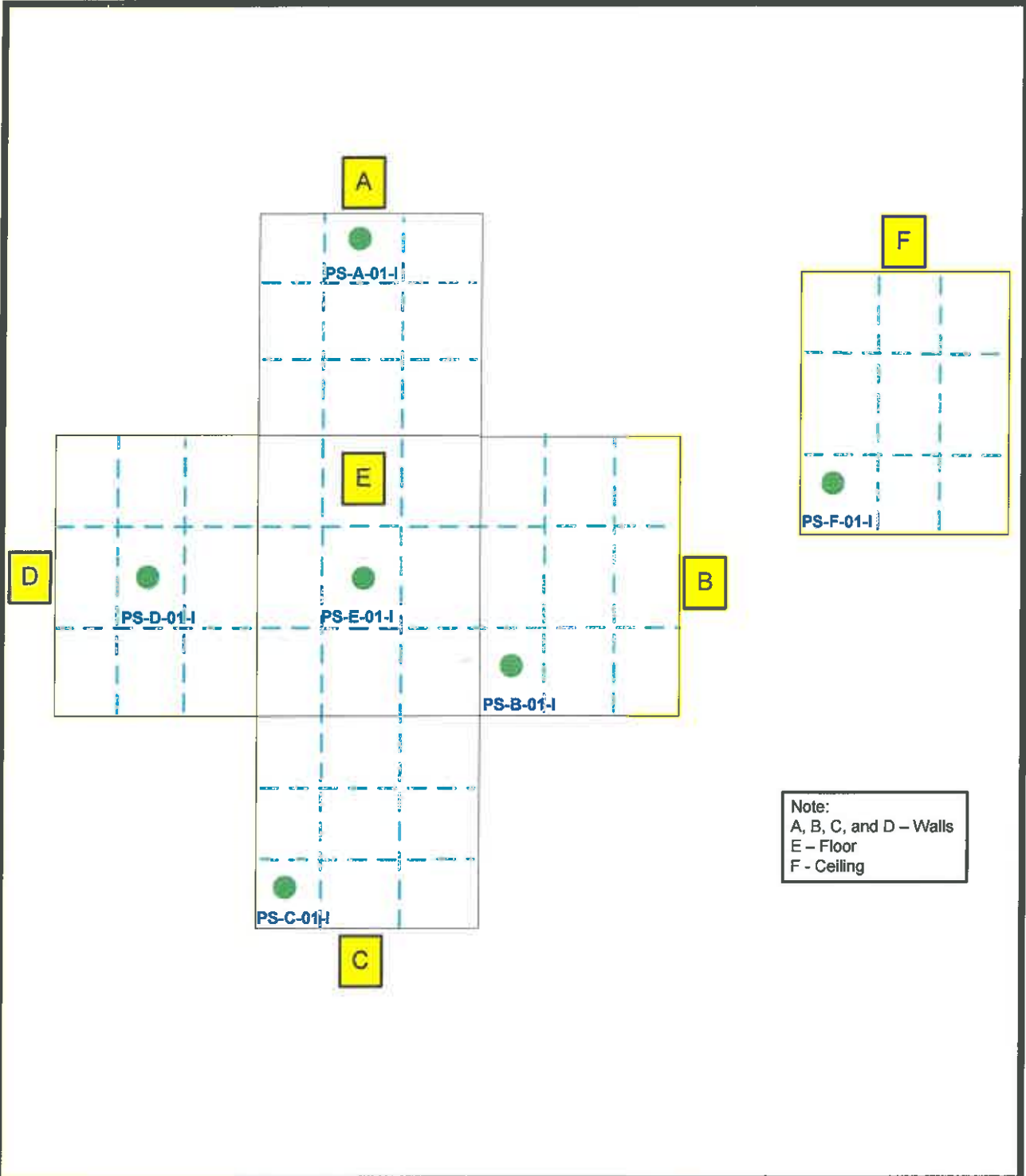
**Legend:**  
 ● Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>  
 ● Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale




**IFR – Post Sealant Sample  
 Locations – Initial Sampling  
 10-11-2011**

PROJECT NO: ENMISC2437



Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**  
 ● Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>  
 ● Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

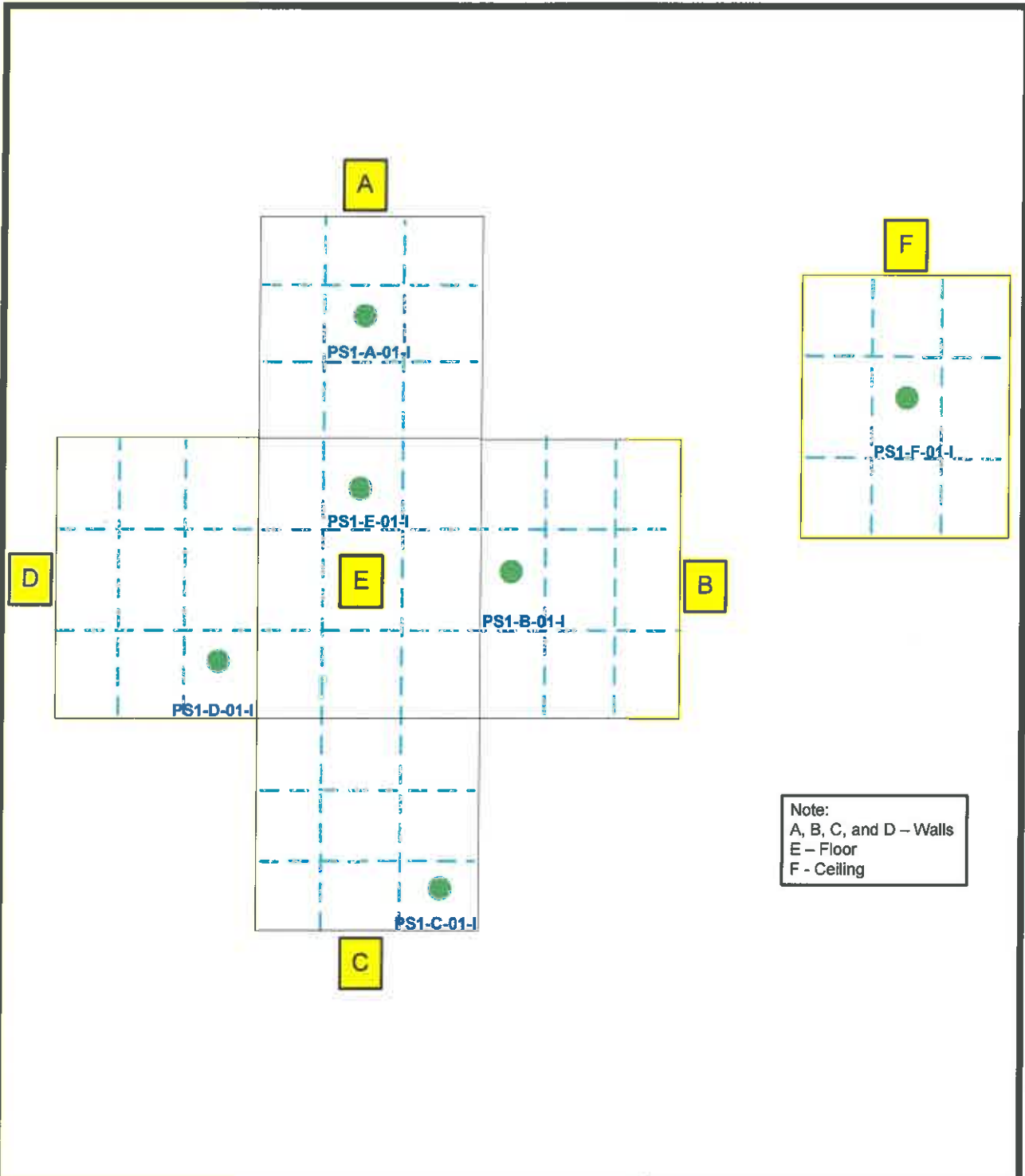
Not to Scale



**ENERCON**

IFR NE Storage Room – Post  
Sealant Sample Locations – Initial  
Sampling 10-11-2011

PROJECT NO: ENMISC2437



Note:  
 A, B, C, and D – Walls  
 E – Floor  
 F - Ceiling

Oklahoma Department  
 of Environmental Quality  
 National Guard Armory  
 309 North 14<sup>th</sup> Street  
 Perry, Oklahoma

**Legend:**

- Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale



**IFR South Storage Room – Post  
 Sealant Sample Locations –  
 Initial Sampling 10-11-2011**

PROJECT NO: ENMISC2437





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

## Environmental Chemistry Analysis Report

**QuantEM Set ID:** 200704  
**Date Received:** 10/12/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** RS  
**Date of Report:** 10/13/2011

**Client:** Enercon Services, Inc.  
 6525 N. Meridian, Suite 400  
 Oklahoma City, OK 73116

**Acct. No.:** A845  
**Project:** Perry Armory  
**Location:** Perry, OK  
**Project No.:** N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
002	P-A-02-I	Wipe	Lead	25.3	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
003	P-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
004	P-B-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
005	P-B-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
006	P-B-04-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
007	P-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
008	P-C-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
009	P-D-01-I	Wipe	Lead	28.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
010	P-D-02-I	Wipe	Lead	47.7	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
011	P-D-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
012	P-D-04-I	Wipe	Lead	76.7	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
013	P-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
014	P-E-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
015	P-E-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
016	P-E-04-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
017	P-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	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 Preparation Modified. EPA 7420 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: 200704  
Date Received: 10/12/11  
Received By: Sherric Leftwich  
Date Sampled:  
Time Sampled:  
Analyst: RS  
Date of Report: 10/13/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845  
Project: Perry Armory  
Location: Perry, OK  
Project No.: N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	P-F-02-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
019	P-F-03-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
020	P-F-04-I	Wipe	Lead	11,100	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
021	PS-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
022	PS-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
023	PS-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
024	PS-D-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
025	PS-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
026	PS-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
027	PS1-A-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
028	PS1-B-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
029	PS1-C-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
030	PS1-D-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
031	PS1-E-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	W EPA 7420 (1)
032	PS1-F-01-I	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/13/11 14:00	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 Preparation Modified. EPA 7420 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: 200704  
Date Received: 10/12/11  
Received By: Sherric Leftwich  
Date Sampled:  
Time Sampled:  
Analyst: RS  
Date of Report: 10/13/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845  
Project: Perry Armory  
Location: Perry, OK  
Project No.: N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
------------	-----------	--------	-----------	---------	------------------	-------	--------------------	--------

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

*Rebecca Sparks*

Rebecca Sparks, 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: 9278  
Test: Lead

Date: 10/13/2011  
Matrix: Wipe

Lab Number: 200704  
Approved By: Rebecca Sparks  
Date Approved: 10/13/2011

Notes:

**Blank Data:**

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

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5	5.5
FCV	4.5	4.84	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.34	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	5.449	6.015	110.4	6.013	110.4	0.0
MS-W2	0.000	5.525	6.085	110.1	6.145	111.2	1.0
MS-W1	0.000	5.460	6.128	112.2	6.027	110.4	1.7

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

*Rebecca Sparks*

Rebecca Sparks, Analyst





# Lead Chain-of-Custody

2938 Heritage Park Drive, Oklahoma City, OK 73120-7602  
 (800) 822-6850 (405) 755-7272 Fax (405) 755-2058  
 www.quantem.com

This form is for Lab Use Only  
 Lab No. 200704  
 Project \_\_\_\_\_

Company Name: Emerson Services, Inc. Project Name: Perry Army  
 Project Location: Perry, OK Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Area	Sample Matrix	Aspirate	Units Requested	Sample Matrix Codes	Turnaround Time
1. P-A-01-I		14492C		X		A - Soil	Same Day
2. P-A-02-I						B - Point Chips	24 Hour
3. P-B-01-I						C - Surface / Dust Wipes	3-Day
4.   -02-I						D - Bulk Miscellaneous	5-day
5.   -03-I						E - Air Cassette	
6. v -04-I						F - Other (SPECIFY)	
7. P-C-01-I							
8. P-C-02-I							
9. P-D-01-I							
10.   -02-I							
11. -03-I							
12. v -04-I							
13. P-E-01-I							
14.   -02-I							
15. v -03-I							

LEGAL DOCUMENT  
 Please Print Legibly

### TURNAROUND TIME

Same Day  
 24 Hour  
 3-Day  
 5-day

### CONTACT INFORMATION

Name: M. S. ...  
Quantem  
 Phone: 722-787/787-5700  
 Report Results VIA (CHOOSE ONE):  
 FAX  
 INTERNET WEBSITE  
 E-Mail

Project Name: Perry Army  
 Project Number: \_\_\_\_\_  
 Date: 10/2/11 5:00  
 Signature: [Signature]  
 Title: 10-1  
 Matrix Code: MLB

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8617  
 Mark Package HOLD FOR SATURDAY PICKUP



**Lead Chain-of-Custody**  
 2153 Heritage Park Drive, Oklahoma City, OK 73120-7882  
 (800) 832-4688 (405) 755-7772 Fax (405) 755-2058  
 www.quantem.com

Lab No. 200704  
 (This form for Lab Use Only)

Company Name: Enron Services, Inc  
 Project Name: Perry Arroyo

Acct.#: \_\_\_\_\_  
 Project Number: \_\_\_\_\_

Project Location: \_\_\_\_\_

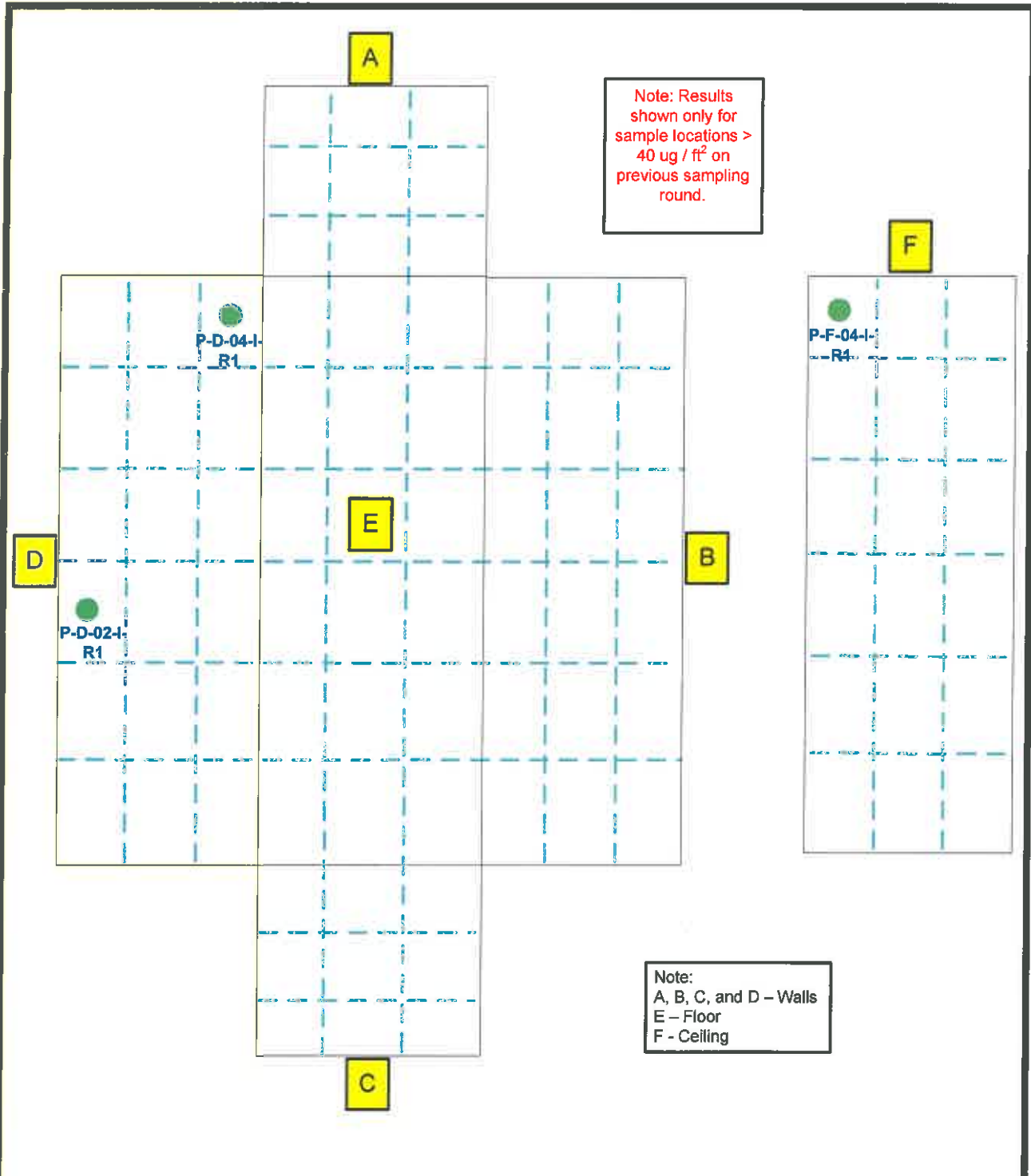
Sample Number	Sample Description	Volume of Area	Sample Matrix	Aspirate	Units Performed	Sample Matrix Codes	TURNAROUND TIME	CONTACT INFORMATION
16. P-E-04-I		144320		X	17 DU	A - Soil	Starts Day	Name: <u>Marshall</u>
17. P-F-01-I					21 DU / 17 DU	B - Paint Chips	X 24 Hour	Phone: <u>Blasium</u>
18. -02-I						C - Surface / Dust Types	3-Day	Request Results Via (CHOOSE ONE): <input type="checkbox"/> FAX <input checked="" type="checkbox"/> QUANTEM WEBSITE <input type="checkbox"/> E-Mail
19. -03-I						D - Bulk Miscellaneous	S-day	
20. V-04-I						E - Air Contests		
21. PS-A-01-I						F - Other (SPECIFY)		
22. PS-B-01-I								
23. PS-C-01-I								
24. PS-D-01-I								
25. PS-E-01-I								
26. PS-F-01-I								
27. PS1-A-01-I								
28. PS1-B-01-I								
29. PS1-C-01-I								
30. PS1-D-01-I								

Shipped by: W. Burco Date: 10-18-11 Time: 1443  
 Shipped by: S.E. Dyck Date: 10/12/11 Time: 3:00  
 Shipped by: MLB

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

## **APPENDIX G**





Oklahoma Department  
of Environmental Quality  
National Guard Armory  
309 North 14<sup>th</sup> Street  
Perry, Oklahoma

**Legend:**

- Dust Wipe Sample Location, Positive, > 40 ug / ft<sup>2</sup>
- Dust Wipe Sample Location, Negative, < 40 ug / ft<sup>2</sup>

Not to Scale



**IFR – Post Sealant Sample  
Locations – Re-Sample 1  
10-21-2011**

PROJECT NO: ENMISC2437



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

## Environmental Chemistry Analysis Report

QuantEM Set ID: 201014  
Date Received: 10/21/11  
Received By: Sherrie Leftwich  
Date Sampled:  
Time Sampled:  
Analyst: BM  
Date of Report: 10/24/2011

Client: Enercon Services, Inc.  
6525 N. Meridian, Suite 400  
Oklahoma City, OK 73116

Acct. No.: A845

Project: Perry Armory

Location: Perry, OK

Project No.: N/A

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	P-D-02-I-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/24/11 13:00	W EPA 7420 (1)
002	P-D-04-I-R1	Wipe	Lead	21.4	16	ug/sq. Ft.	10/24/11 13:00	W EPA 7420 (1)
003	P-F-04-I-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/24/11 13:00	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 Preparation Modified. EPA 7420 Analysis Modified

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

## Supplemental Report QAQC Results

QA ID: 9309  
Test: Lead

Date: 10/24/2011  
Matrix: Wipe

Lab Number: 201014  
Approved By: Benton Miller  
Date Approved: 10/24/2011

**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	5.2	5.5
FCV	4.5	5.1	5.5
ICV	0.8	1.2	1.2
RLVS	0.256	0.345	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.438	5.212	95.8	5.176	95.2	0.7

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



Benton Miller, Analyst



**Lead Chain-of-Custody**  
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1850 (405) 755-7272 Fax: (405) 755-2056  
 www.quantum.com

Pages 1 of 1

This Box for Lab Use Only  
 Lab No. 201014  
 Request

Company Name: Emcor Services, Inc Project Name: Perry Armory  
 Project Location: Perry, OK Acct. #: \_\_\_\_\_ Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analyte	Units Requested	Sample Matrix Codes
1. P-P-02-I-R1		14 ft <sup>2</sup>		X	lb / cu ft	A - Soil
2. P-D-04-I-R1					mg / cu ft	B - Paint Chips
3. P-F-04-I-R1					mg / kg	C - Surface / Dust Wipes
					ppm	D - Bulk Miscellaneous
						E - Air Cassette
						F - Other (SPECIFY)

TURNAROUND TIME	
Same Day	
<input checked="" type="checkbox"/> 24 Hour	
<input type="checkbox"/> 3-Day	
<input type="checkbox"/> 5-day	

CONTACT INFORMATION	
Name: <u>Marshall</u>	
Phone: <u>405-722-7693</u>	
Report Results Via (CHOOSE ONE):	
<input type="checkbox"/> FAX:	
<input checked="" type="checkbox"/> QuantEM Website	
E-Mail:	

Requested by: Marshall Date: 10-21-11  
 Submitted by: S. Shepard Date: 9/5/11  
 Signature: [Signature] Date: 10/21/11  
 Initials: MSB

Saturday FedEx Shipping - CALL TO SCHEDULE  
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517  
 Mark Package 'HOLD FOR SATURDAY PICKUP'