Targeted Brownfield Assessment
Oklahoma Army National Guard
Cushing Armory
Cushing, Oklahoma

ASTM E 1527-05
Phase I Environmental Site Assessment
All Appropriate Inquiry

December 17, 2007

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I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of this part. I have specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

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Background and Disclaimer: The purpose of an environmental site assessment is to identify actual or potential "recognized environmental conditions" that may result in liability or land use restrictions. The ASTM Phase I Environmental Site Assessment E 1527 – 05 is the minimum standard for environmental due diligence in the commercial real estate industry and meets the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfields Revitalization Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practices was undertaken to identify the "recognized environmental conditions" that might affect the redevelopment project. However, the identification of old hazardous waste sites is an evolving process; therefore, DEQ cannot state with absolute certainty that no other potential hazardous waste sites are located in the area. In no event shall the DEQ or its employees be liable for any damages, injury, loss, cost or expense whatsoever arising in connection with the use or reliance on the information contained in this report, except as otherwise provided by law.

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1.0 Executive Summary

This Phase I Targeted Brownfield Assessment of the Cushing Armory was performed in accordance with the ASTM E 1527-05, a guide for conducting Environmental Site Assessments. Jonathan Reid performed the site reconnaissance on March 29, 2007.

The site is located in Lots 5, 6, 7, 8, 9, 10, 11, and 12 in Block 2 of the City of Cushing. The legal description of the property is in the Southwest ¼ of the Northwest ¼ of Section 3, Township 17 North, and Range 5 East Indian Meridian in Payne County, Oklahoma (Appendix A). The property address is 218 South Little Avenue.

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- The Indoor Firing Range (IFR) was flooded up to the staircase of the Drill Floor. A water sample was taken from the IFR entrance and results showed lead concentrations of 30.3 ug/L total lead. In the past, water from the IFR was pumped outside on the north side drainage alley. Waste water would drain across the alley and south along the building's east side alley where it eventually entered the gutters of Second Street. Constant flooding would have dispersed lead contaminated sand from the bullet trap throughout the IFR and may have impacted the groundwater. The results from the water sample and observations suggest that additional investigation and potential remediation of lead inside the IFR be conducted. The IFR constitutes a recognized environmental condition (REC) based on the lead concentrations and its leachability.

- An Underground Storage Tank (UST) was once located south of the Storage & Petroleum, Oil, and Lubricants (POL) Room. It was removed in 1995. The ground surface of its past location is now vegetated. Based on the past environmental conditions of this area, the UST constitutes a historical recognized environmental condition (HREC).

- Fifteen of thirty-one asbestos samples collected from the armory were identified as having more than 1 % asbestos, which is the EPA's regulated amount. The 9 x 9 inch floor tiles and black asphalt mastics inside the Family Support Group Room, Classroom, Squad Leader Room, Storage/POL Room, and the west Orderly Room (ORD)/ Commander's Office (CO) Offices were tested positive for chrysotile asbestos. The fireproofing inside the portable safe, which is outside the Motor Pool had the remaining ACM at the Armory. There was no presence of asbestos surfacing materials or thermal system insulation (TSI) inside the Armory. Based on the test results of asbestos found inside the Armory, the suspect ACM constitutes a REC.

- A locked green portable POL storage safe located outside of the Motor Pool to the south contains ACM. It was mentioned this safe contained hazardous chemicals. A white friable substance was found inside the fireproofing of one of the safe doors. The suspect

ACM was tested and results showed the material as having 55 % chrysotile asbestos. Based on this information, the safe constitutes a REC.

- Loose paint chips were found on the walls of the Squad Leader Room, Family Support Group Room, and the latrine south of the CO Room. Entry doors of the CO Room and the west Orderly Room have large sections of peeling paint. The floor in the closet of the Family Support Group Room has chipped paint. Rail guards from each staircase leading up from the Drill Floor to the offices and classroom have chipped and peeling paint. An XRF testing device for lead-based paint was used by Marshall Environmental inside the Armory. XRF readings greater than the EPA standard of 1.0 mg/cm^2 were located on the door and door frames of the Family Support Group Room, Library, Squad Leader Room, Bunk Room, Storage Room, CO Office, Main Latrine, and the Vault. The Drill Floor's door frames, stair handrails, overhead door frames, downspouts, windows, and portable safe outside tested positive for lead-based paint. Lead-based paint was also found from the following: CO Office Latrine door; ORD Room door frame; Recruiter's Office window; Hallway door frame; Main Hallway door and cabinets. The lead-based paint in these areas constitutes a REC.

- Twelve out of eighteen floor wipe samples taken inside the Armory exceeded the Army National Guard (ARNG) and Air National Guard (ANG) action level of 200 micrograms/$feet^2$ for floor surfaces. The Family Support Group Room, Classroom, Squad Leader/Library Rooms, Drill Floor, Bunk Room, CO Room, Main Latrine, Main Hallway, and Supply Room tested positive for lead dust on the floors. The IFR was not tested and is assumed to be over the action level.

- Approximately 44 fluorescent light fixtures were found throughout the building. The Squad Leader Room, Classroom, Hallway (next to Recruiter Office), Main Hallway, Orderly Room, CO Room, Motor Pool, and the Kitchen contained fluorescent light fixtures. There is a potential these may contain mercury.

- Various cleaning supplies was found in the Storage & POL Room, Latrine (west of the Supply Room), Main Hallway floor, lockers inside the Drill Floor, and the Motor Pool. A corroded detergent bottle containing sodium carbonate was found leaking on top of a filing cabinet inside the Motor Pool.

- Motorcycle power sport batteries were found in the Motor Pool. A packaged battery containing non-rechargeable lithium/sulfur/dioxide was found on the north side of the Drill Floor. No corrosion or leaks were found from these batteries.

- Five heating, ventilation, and air conditioning (HVAC) systems were found inside the Armory. The Squad Leader Room, Latrine west of the Supply Room, Orderly Room, and the Drill Floor contain HVAC systems. There may be a potential for these HVAC systems to have Chlorofluorocarbons (CFCs).

Recommendations

Based on the findings of this assessment, The DEQ recommends that additional investigation be conducted to evaluate areas of the property that may need future clean-up and remediation.

Areas of additional evaluation and cleanup consist of the following:

- Evaluation of lead contaminated water inside the flooded IFR. The IFR vent and drainage alleys outside of the building may need to be analyzed for lead.
- A lead-based paint and lead dust abatement should be conducted at the Armory.
- The green POL portable storage safe should be disposed of in a landfill suitable for what is and was contained in the safe.
- The 9 x 9 inch floor tile and mastic found to have ACM should be removed.
- POLs, batteries, cleaning supplies, and detergent at the facility should be removed and/or properly disposed of by the OKARNG component of the Cushing Armory.
- Nonworking bulbs out of the approximate count of 44 fluorescent light bulbs in the Armory should be disposed of properly.

2.0 Introduction

The State of Oklahoma Department of Environmental Quality (DEQ) under a Brownfield Assistance Agreement (No. RP976412010) (Ref. 1) with the U.S. Environmental Protection Agency (EPA) conducted a Targeted Brownfield Assessment of the Cushing Armory.

2.1 Purpose

The purpose of this assessment is to look at the environmental conditions within the target area and provide this information to the City of Cushing to assist in its revitalization planning as well as meet the All Appropriate Inquiry requirement of the Landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund – Ref. 2), as provided in the Small Business Relief and Brownfields Revitalization Act of 2002 (Public Law 107-118, Subtitle B – Ref. 3). The purpose of a Phase I Environmental Site Assessment is to identify, to the extent feasible, recognized environmental conditions in connection with the target property through a systematic review of readily available information sources and a site reconnaissance.

The DEQ is providing technical assistance to the project by evaluating the environmental condition of the property prior to the City acquiring the property. Funding for this assessment has been provided by the U.S. Environmental Protection Agency (EPA).

2.2 *Detailed Scope-of-Services*

The DEQ examined the current use of the property and then identified the historical uses of the property to determine if recognized environmental conditions exist. The DEQ examined historical documents, governmental databases, deed records, aerial photographs, governmental environmental files, Sanborn Fire Insurance Maps, conducted interviews with past unit members, and performed a site reconnaissance of the area. A good faith effort was made to identify possible environmental conditions that might affect the development of the property.

2.3 *Significant Assumptions*

Significant assumptions and past studies of the Oklahoma Army National Guard Armories suggest there is suspect lead and asbestos contamination at the Cushing Armory. Most of the State armories, such as the Cushing Armory, have indoor firing ranges. These ranges usually contain concentrations of lead from past shooting activity. Other assumptions of lead contamination may be prevalent in the paint used throughout the building. The Cushing Armory was built in 1935, during that time; lead-based paint was not regulated. In 1978, paint containing more than 0.06% lead was banned for residential use by the U.S. Consumer Product Safety Commission (Code of Federal Regulations CFR 1303).

Since the Cushing Armory was built before the 1970s, there is a high potential of finding asbestos containing materials (ACM) inside. The U.S. began banning the use of asbestos in most building products in the 1970s due to studies confirming the harmful health effects caused by exposure to airborne asbestos. ACM may be found in the insulation wrapping of the heating pipes and/or heaters and nine-inch floor tiles, which were prevalent during the time the Armory was built.

The Oklahoma Military Department verbally informed the DEQ that a significant asbestos abatement of the pipe was conducted in the 1990s, but that asbestos remains on the elbow joints. Visual inspection by the DEQ of the Cushing Armory indicated that asbestos containing elbow joints are not present.

2.4 *Limitations and Exceptions*

The purpose of an environmental site assessment is to identify actual or potential "recognized environmental conditions" that may result in liability, land use restrictions, or cause delays in redevelopment. The ASTM Phase I Environmental Site Assessment E 1527 – 05 (Ref. 4) is the minimum standard for environmental due diligence in the commercial real estate industry and meets the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfields Revitalization Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practices was undertaken to identify the "recognized environmental conditions" that might affect the redevelopment project. However, the identification of

old hazardous waste sites is an evolving process; therefore, DEQ cannot state with absolute certainty that no other potential hazardous waste sites are located in the area. This assessment was conducted under constraints of time, cost, and scope and reflects a limited investigation and evaluation. It reflects the normal degree of care and skill that is ordinarily exercised by environmental professionals conducting business in this or similar localities. In no event shall the DEQ or its employees be liable for any damages, injury, loss, cost or expense whatsoever arising in connection with the use or reliance on the information contained in this report, except as otherwise provided by law.

The information in this report is based on a review of governmental records, interviews with knowledgeable occupants of the property, information provided by the Oklahoma Military Department and observations of the environmental professional. The result of this assessment, as written in this report, is valid as of the date of report. The assessment does not include sampling of soil, rock, groundwater, surface water, or air. One water sample was taken from the flooded indoor firing range for disposal purposes of lead contamination.

2.5 Special Terms and Conditions

This assessment report has been prepared for the City of Cushing by the DEQ using EPA funding. Information about this report will be provided to the EPA for its files. This report and the working file are public record and subject to the Oklahoma Open Records Act and the federal Freedom of Information Act.

3.0 Site Description

3.1 Location and Legal Description

The subject property is located in Lots 5, 6, 7, 8, 9, 10, 11, and 12 in Block 2 of the City of Cushing. The legal description of the property is in the Southwest ¼ of the Northwest ¼ of Section 3, Township 17 North, and Range 5 East Indian Meridian in Payne County, Oklahoma (Appendix A). The site address is 218 South Little Avenue.

3.2 Site and Vicinity General Characteristics

Environmental Setting

The general topography of the area is shown in Figure 6 of Appendix B. Payne County is in north-central Oklahoma and has an area of about 448,000 acres, or 700 square miles. Stillwater, the county seat, is located in the central part of the county. Payne County has rolling hills with small, nearly level upland plains. Average elevation is just below 1,000 feet.

Payne County is hot in summer and cool in winter with occasional surges of cold air causing sharp drops in otherwise mild temperatures. Rainfall is uniform throughout the

year, reaching a slight peak in spring. Snowfall is infrequent. Annual precipitation is normally adequate for alfalfa, feed grains, and small grains.

In winter the average temperature is 39 degrees Fahrenheit (F), and the average daily minimum temperature is 27 degrees F. In summer the average temperature is 80 degrees F, and the daily maximum average temperature is 92 degrees F.

The total annual precipitation is 32 inches. Of this, 22 inches, or 70 percent, usually falls in April through September. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through September is less than 16 inches. Thunderstorms occur on about 50 days each year, and most occur in summer (Ref. 5).

Groundwater

Underground water can be withdrawn in sufficient quantity for irrigation along the Cimarron River. However, the salt content, with few exceptions, is too high for agricultural use. The area east of Cushing has very productive water sand. The city of Cushing has several wells in this sand 500 to 600 feet deep. (Ref. 5).

The Vanoss Group underlies the subject property. The Vanoss Group is made up of red-brown to gray shale and orange-brown fine-grained cross bedded sandstone; grades southward into arkosic sandstone and conglomerate. Includes many thin limestone beds and shale units north of the North Canadian River. This group is of the Gearyan stage, which is from the Pennsylvanian Age.

The general yield of water underlying the subject property produces 100 to 300 gallons per minute. A well within a mile east of the subject property yields 90 gallons per minute at a total depth of 697 feet below ground surface (bgs). A well within a mile west of the subject property yields 100 gallons per minute at a total depth of 801 ft. bgs

Chemical quality of water is generally fair or poor in the general area of where the subject property lies. These areas generally yield water containing more than 500 mg/L of dissolved solids, the maximum recommended for drinking water. The presence of an undesirable constituent or excessive hardness may make the water unsuitable for some purposes (Ref. 6).

Soils

The Agra-Coyle soils are the general soils located at the subject property. These soils are very gently sloping to gently sloping, moderately well drained and well drained, loamy soils that formed in material weathered primarily from shale or sandstone under prairie vegetation. These soils are on upland ridge tops and side slopes in the eastern part of the county (Ref. 5).

The Agra-Urban land complex (1 to 5 percent slopes) underlies the subject property. This complex consists of very gently sloping to gently sloping, loamy Agra soil and urban land on uplands in the eastern part of Payne County. The Agra soil is deep and

moderately well drained. This complex is 40 percent Agra soil, 30 percent urban land, and 30 percent included soils.

The Agra soil typically has a surface layer of grayish brown silt loam about 6 inches thick. The subsoil extends to a depth of about 60 inches. The upper 4 inches is dark grayish brown silty clay loam, the next 8 inches is dark grayish brown silty clay, the next 27 inches is brown silty clay, and the lower 15 inches is brown clay loam with coarse yellowish red mottles.

This soil is high in natural fertility and organic matter content. Reaction of the surface layer ranges from slightly acid to mildly alkaline. A perched water table is at a depth of 3 to 4 feet in winter and spring. Available water capacity is high. Permeability is very slow, and surface runoff is medium to rapid. The root zone is deep, but roots have difficulty penetrating the dense clayey subsoil (Ref 5).

Air

The prevailing wind is from the southwest. Average wind speed is highest, at 14 miles per hour, in spring (Ref. 5). There is no history of any air emissions from the subject property. No odors were noticed during the site reconnaissance.

Surface water

The major part of the county drains to the east-southeast into the Cimarron River, and a small area drains northeast to the Arkansas River. The bottom lands along the Cimarron River and Stillwater, Wildhorse, Long Branch, and Council Creeks are subject to floods during heavy rainfall. Flood-control projects have been completed on Long Branch Creek and are being implemented on Stillwater Creek (Ref. 5).

According to the Federal Emergency Management Association, the armory lies in an area of minimal flooding (Ref. 7). No surface water bodies are on the property or adjacent properties.

Utilities

Utility information was obtained from the Oklahoma Corporation Commission Utility Directory. Natural gas is supplied by Center Point Energy and electricity is supplied by the Public Service Company (PSO). Telephone service is supplied by Southwestern Bell.

Underground features

An underground storage tank (UST) was once located southwest of the Armory building. According to the Oklahoma Corporation Commission's (OCC) Notification for Underground Storage Tanks for the Cushing Armory, an estimated 1,000 gallon UST was removed on June 1, 1995. This UST was installed in 1957 and had been out of service since 1978.

After the UST was removed, two soil samples were collected from the pit. One sample was collected from the side and the other sample was collected from the center of the pit.

The samples were analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX), and total petroleum hydrocarbons (TPH). The center sample of the pit had nondetect levels of benzene, ethylbenzene, and toluene. An estimated concentration of 0.6 ug/kg of total xylenes was found in the center sample. All TPH analysis was nondetect in the center sample except diesel range organics (DRO) C10-C22. The DRO concentration in the center sample was 11.7 mg/kg. The side sample of the pit had nondetect levels of benzene, ethylbenzene, and toluene. An estimated concentration of 0.7 ug/kg total xylenes was found in the side sample. All TPH analysis was nondetect in the side sample. Wheeler Metals Scrapping/Disposal Company issued a Certificate of Destruction. No closure letter was found issued from the OCC. The OCC Notification for Underground Storage Tanks and the UST pit laboratory results of the Armory can be found in Appendix G.

Floor drains inside the building were found in the kitchen and both latrines. According to a floor plan of the Cushing Armory, the Motor Pool Room used to have a drain on the west side. During the site visit on March 29, 2007, the drain was found filled with concrete dated March of 1998. It is unknown where this drain leads to. A floor plan of the Armory can be found in Appendix B.

The IFR was flooded up to the stairs leading up from the Drill Hall. Due to the high water content inside the IFR, it was inaccessible to see if there were any floor drains. According to the floor plan, there is a sump and pump located inside the IFR. No cisterns were discovered during the site visit.

Structures

The Cushing Armory is surrounded by residential homes on the north, east, and west sides. A park, Memorial Park, is the adjacent property to the south. No industrial properties are near the Armory. No schools or churches are located in the vicinity of the armory.

The Cushing Armory is constructed of light brown brick made of sandstone. The east half of the building is composed of the Drill Floor, office rooms, and a classroom. The IFR is located below the classroom and office rooms. The IFR is 2/3 below ground surface. During the site reconnaissance, the IFR was flooded from the intrusion of groundwater. The west half of the building is composed of more office rooms, Supply Room, Vault, Kitchen, latrines, Motor Pool, Bunk Room, and the Storage and POL Room. A concrete drainage alley way is found on the north and east sides of the building where runoff leads into the gutters of Second Street.

Aboveground Storage Tanks (ASTs)

No aboveground storage tanks were observed at the property.

Landfills, Dumping, Disturbed Soil

There are no landfills on the subject property or adjacent properties. The City of Cushing Municipal Landfill is the nearest landfill approximately 2.5 miles northeast of the

Cushing. No dumping of any kind was found on the property or adjacent properties. Disturbed soil was found on the southwest and southeast sides of the Armory property. This disturbed soil did not have any appearance of contamination. These soils did not have much vegetation and appeared to have been recently set there. The area of disturbed soils was likely due to City work on utility lines. No disturbed soil was found on the adjacent properties.

Impoundments

No impoundments were observed at the subject property.

Air Emissions, Wastewater Discharge

No air emissions coming from the subject property or odors were noticed on the property. The property is vacant; therefore, there is no ongoing waste water discharge.

Industrial Activities

No industrial activities are occurring on the Armory property. No industrial activities are on the adjacent properties. Adjacent properties on the north, west, and east sides of the Armory property are all residential. Adjacent property to the south is Memorial Park.

Monitoring Wells

No monitoring wells are present on the property. The Oklahoma Water Resources Board well record database listed three groundwater wells within the same Section as the Armory. Two public water supply wells owned by the City of Cushing are within one mile of the subject property. Both were installed in May of 1955. Each well has a total depth of 700 ft. The first water zone of each well is 70 ft. and 104 ft. Estimated yields are at 230 gallons per minute and 352 gallons per minute. A domestic use well on the NE ¼ of the SW ¼ of the SW ¼ of Section 3 was constructed on July 1, 1998. This well has a total depth of 305 ft. The first water zone is not available in the database. Estimated yield of the well is approximately 25 gallons per minute. This domestic use well is within a 0.30 mile radius of the Armory (Ref. 8).

Stained Soils

No stained soils were observed at the subject property. However, there were stained concrete floors inside the Motor Pool Room. Stains observed appeared to be old oil and grease stains from the servicing of vehicles.

Seeps

Groundwater intrusion inside the IFR is the only observation of what would closely be related to a seep.

Chemical Spills

No chemical spills were observed outside the Armory building. No spills were reported on the property from the Emergency Response Notification System (ERNS) database either (Ref. 9). Minor stains and spills were found inside the building. Inside the Motor Pool a bottle of spray-on detergent containing sodium carbonate had a leak on top of a

file cabinet. The bottle label was corroded from the liquid. Stains left from the leak left corrosion and rust on the file cabinet. Other areas inside the Motor Pool contained absorbent litter on the concrete floor from past vehicle maintenance leaks.

The 9 x 9 inch floor tile inside the Storage & POL Room had several stains. It is unknown what these stains are from. A gas containing weed eater was found on the floor where the stain was located. However, no odors of gasoline were noticed. Cleaning chemicals and other miscellaneous cleaning supplies comprise most of what is stored in this room.

Oil and Gas Exploration

No oil and gas exploration is on the property.

Known Groundwater or Surface Water contamination

There is no known groundwater contamination. The IFR is 2/3 below ground surface (bgs). During the site reconnaissance, it was flooded approximately three feet high up several stairs leading into the Drill Hall. A water sample was collected on May 1, 2007, to analyze the lead concentration that may have dispersed throughout the water from the IFR bullet sand trap. The water sample taken from the IFR had a lead concentration of 0.0303 mg/L. This concentration is not considered to be hazardous waste. Lead concentrations of 5 mg/L are considered to be hazardous waste. The analytical results of the water sample are located in Appendix E. According to the floor plan of the Cushing Armory, a sump and pump is shown being inside the IFR. According to the key site manager of the Cushing Armory, Bruce Clary, the water from the sump was pumped out of the building into the north drainage alley where it then drained south through the east drainage alley into the gutters of Second Street. There is no surface water on the property or adjoining properties. Surface water was only found inside the flooded IFR.

Farm Waste

No farm waste was observed at the subject property.

Known Pesticide Misapplication

No known pesticide misapplications were observed at the site.

Discharges and Runoff from Adjacent Property Affecting the Site

No discharges and/or runoff were observed from any of the adjacent properties that would affect the subject property.

Other known or Suspected Environmental Concerns On the Site

The Indoor Firing Range (IFR) and the majority of rooms in the Armory are contaminated with lead dust. Past sampling has been conducted to characterize the lead concentration of these areas. A statewide sampling event for lead dust was conducted by C.H. Guernsey & Company for the Oklahoma Army National Guard on all armories containing indoor firing ranges. This report is called the "Indoor Firing Range Lead Issues Report." Two wipe samples were collected inside the IFR and three wipe samples

were collected outside of the IFR inside the Drill Floor. The following are the locations and concentrations of lead dust found in the room.

- 187,650.0 ug/ft^2 of lead dust was found near the former bullet trap of the IFR.
- 5,015.0 ug/ft^2 of lead dust was found inside the IFR next to the vent fan.
- 2,607.50 ug/ft^2 of lead dust was found at the stairs leading into the IFR.
- 2,036.00 ug/ft^2 of lead dust was found near a window sill inside the Drill Floor.
- 15,730.00 ug/ft^2 of lead dust was found in the Drill Floor next to the entry door to the IFR.

A copy of the Cushing Armory section of the Indoor Firing Range Lead Issues Report can be found in Appendix E.

Another lead dust analysis of the Cushing Armory was performed by Marshall Environmental on March 29, 2007. Twelve out of eighteen floor wipe samples taken inside the Armory exceeded the Army National Guard (ARNG) and Air National Guard (ANG) action level of 200 micrograms/feet^2 for floor surfaces. The Family Support Group Room, Classroom, Squad Leader/Library Rooms, Drill Floor, Bunk Room, CO Room, Main Latrine, Main hallway, and Supply Room tested positive for lead dust on the floors. The Drill Floor had the highest lead dust concentrations. All four samples from the Drill Floor were above 1000 micrograms/feet^2. The IFR was not tested and was assumed to be over the action level.

Marshall Environmental performed an asbestos inspection of the Armory. Fifteen of thirty-one asbestos samples collected from the armory were identified containing ACM. The black asphalt mastics and 9 x 9 inch floor tiles found inside the Family Support Group Room, Classroom, Squad Leader Room, Storage/POL Room, and the ORD/CO Offices contained more than 1 % of chrysotile asbestos. EPA's regulated concentration of asbestos in a material is 1 % or more. A green POL portable storage safe was found outside the building south of the Motor Pool Room. This safe supposedly was used to store hazardous chemicals. During the site visit, a white friable material was found inside one of the doors of the safe. Marshall environmental took a sample of the material and found it to have 55 % chrysotile Asbestos. The Marshall inspection results showed no presence of asbestos in the surfacing materials (blown on, textured or troweled onto building components e.g. ceilings and beams) or the thermal system insulation (TSI) (e.g. plumbing lines, HVAC equipment, boilers and steam lines) inside the Armory.

Marshall Environmental also performed a lead-based paint analysis of the Armory. Loose paint chips were found on the walls of the Squad Leader Room, Family Support Group Room, and the latrine south of the Commander's Office (CO) Room. Entry doors of the CO Room and the west Orderly Room have large sections of peeling paint. The floor in

the closet of the Family Support Group Room has chipped paint. Rail guards from each staircase leading up from the Drill Floor to the offices and classroom have chipped and peeling paint. An XRF testing device for lead-based paint was used by Marshall Environmental inside the Armory. XRF readings greater than the EPA standard of 1.0 mg/cm^2 were located on the door and door frames of the Family Support Group Room, Library, Squad Leader Room, Bunk Room, Storage Room, CO Office, Main Latrine, and the Vault. The Drill Floor's door frames, stair handrails, overhead door frames, downspouts, windows, and portable safe outside tested positive for lead-based paint. Lead-based paint was also found from the following: CO Office Latrine door; ORD Room door frame; Recruiter's Office window; Hallway door frame; Main Hallway door and cabinets. The lead-based paint in these areas constitutes a REC. All Marshall Environmental reports on the Cushing Armory are located in Appendix F.

Historical Recognized Environmental Conditions on the Site

There is a finding on the subject property that constitutes and historical recognized environmental condition (HREC). The Oklahoma Army National Guard once had a 1000-gallon diesel containing UST (DET 1 Co B 1/179 INF) on the subject property. The UST was closed on June 30, 1978, and removed on June 1, 1995. Soil samples were collected after the removal at the center and side of the pit where the UST was buried.

Soils were tested for Benzene/toluene/ethylbenzene/xylenes (BTEX) and TPH Gasoline Range Organics (GRO)/Diesel Range Organics (DRO). Concentrations were all below the detection limits for TPH GRO/DRO for the sample collected from the side of the pit. There was an estimated concentration of 0.7 ug/kg total xylenes detected from the BTEX analysis. This concentration is well below the DEQ residential screening level for total xylenes at 210 mg/kg. The sample collected from the center of the pit had an estimated concentration of total xylenes at 0.6 ug/kg and a TPH DRO concentration of 11.7 mg/kg. The total xylene concentration is below its respective DEQ screening level. The TPH DRO concentration is well below its respective DEQ residential screening level of 50 mg/kg. The ground surface has since been restored. No closure letter from the OCC was found.

Pipelines

All water supplies and sewage are connected to the City of Cushing. Several PVC pipes were found leading outside of the stone walls on the north side of the building. A small PVC pipe, six inches away from the building and approximately ten feet above the alley way surface was found. Another PVC pipe two feet from the alley way surface was found as well. This particular pipe was used for drainage purposes and may have been the pipe used to pump water out from the sump of the IFR. A one inch diameter metal pipe was found above the Drill Hall floor on the southwest side. It is unknown what this pipe was used for.

Roof drain piping can be found around the outside of the building. Locations of the roof drains are marked by the word "drain" in the Floor Plan labeled "Outside of Building" located in Appendix C.

Transformers/PCB Equipment

No pole-mounted transformers were on the Armory property. Two pole-mounted transformers are located on the south side of Second Street next to the fence line of Memorial Park. Both transformers appear to be in good condition with no apparent leaks. Another pole-mounted transformer is located northeast of the Armory on the north adjacent property. This transformer is weathered with rust, but in fair to good condition. No apparent leaks were found from this transformer.

3.3 Operational History

The Cushing Armory was built in 1938 and was managed and maintained by the Oklahoma Military Department to support the military mission of the Oklahoma Army National Guard (OKARNG). The OKARNG is a component of the United States Army and fulfills the military mission of national security (Ref. 10).

The subject property served as an armory to further the mission of the OKARNG. The Cushing Armory operated as a center of operations for a military component of the OKARNG. It served as a training site for the component and stored those materials required by the component (Ref. 10).

According to Bruce Clary, unit member of the Armory, the Armory closed its operation in 2004. Infantry occupied the facility from 1938 till 1996. From 1996 till 2004, field artillery moved in along with engineers. Since the close of operations the Armory has been vacant.

3.4 Current Use of the Property

There is no current use of the property. This property has been vacant since approximately 2004. The building is kept locked by the Oklahoma Military Department to inhibit entry by the public.

3.5 Descriptions of Structures, Roads, Other Improvements on the Site

No improvements have been made on the site since the Armory closed operations in 2004. Little Avenue on the west side and Second Street on the south side are constructed of asphalt and in good condition. The drainage alleys north and east of the Armory are also constructed of asphalt and in good condition.

3.6 Adjacent Properties

Adjacent properties to the north include an alley followed by private homes. To the east is a private home also. On the south edge of the facility is 2nd Street and beyond that is a park (Memorial Park) with a baseball field and tennis courts. The west edge of the facility is South Little Avenue. Across South Little Avenue is a private home.

3.7 Site Inspection

A site reconnaissance was performed by Jon Reid of the DEQ on March 29, 2007. Major Joe Stover of the Oklahoma Military Department and Brice Semrod of Marshall Environmental were present as well. Major Stover unlocked the door to the Armory while Mr. Semrod conducted lead and asbestos inspections of the Armory building. The site visit is explained in detail in Section 6.0.

4.0 User Provided Information

4.1 Title and Judicial Records

Title and judicial records were researched on March 29, 2007. Records were searched at the Payne County Clerk's Office for Lots 5, 6, 7, 8, 9, 10, 11, and 12 of Block 2. Records were also searched for the Armory property's legal location: SW ¼ of the NW ¼ of Section 3, Township 17N, and Range 5E Indian Meridian. No records of the Armory or the Oklahoma Military Department were found in any of these locations. A Quitclaim Deed was presented to the DEQ on March 14, 2007, to have access to the Armory for their environmental investigation.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

No environmental liens or use limitations were found on the subject property at the Payne County Clerk's Office.

4.3 Specialized Knowledge or Experience of User

During the site visit the IFR was flooded up to the staircase leading up to the Drill Floor. The DEQ spoke with Mr. Clary in regard to the flooded IFR and if they ever pumped water out. He mentioned that they used the pump from the sump of the IFR. Water was pumped outside the north side of the building into the concrete alley way. He said it then would drain down the east alley way flowing south into Second Street where it then drained into the street gutters.

4.4 Actual Knowledge of User

There was no actual knowledge from Mr. Clary or other individuals spoken with of any environmental liens or Activity Use Limitations (AULs) encumbering the property or in connection with the property.

4.5 Commonly Known or Reasonably Ascertainable Information

The Oklahoma Military Department (OMD) did not mention any commonly known or reasonably ascertainable information within the local community about possible

environmental conditions on the property. However, OMD did provide the DEQ the results of the Statewide IFR study, Cushing environmental files, and access to their facility.

4.6 Valuation Reduction for Environmental Issues

Valuation of the property is outside the scope of this assessment. A professional appraiser should be consulted to place a value on the property.

4.7 Owner, Property Manager, and Occupant Information

The subject property is vacant. The DEQ owns the property. Lead contact for the Cushing Armory is Andrew Katz, the City Manager of Cushing.

4.8 Reason for Performing Phase I

The DEQ performed a Phase I Targeted Brownfield Assessment (TBA) to analyze if there are any recognized environmental conditions and to conduct all appropriate inquiry so the City can acquire the property as a Bonafide Prospective Purchaser. Remedial actions will be taken if necessary for occupancy of the property.

5.0 *Records Review*

5.1 Standard Environmental Record Sources

A regulatory database search was conducted by the DEQ. This search included, at a minimum, those records and distances from the site dictated as appropriate in the ASTM standard. The DEQ performed a review of available federal and state databases to assess whether the subject property or proximate properties were listed as having environmental concerns, which could have an adverse impact on the subject property. The following provides a summary of the databases reviewed.

Federal National Priorities List (NPL) Sites within One Mile

The subject property is not listed on the NPL. However, there is one NPL site reported within a one-mile radius of the subject property (Ref. 11). The Hudson Oil Refinery, an NPL site located approximately 0.65 mile northwest of the subject property, has been abandoned since 1982 when it stopped operations. This refinery historically included aboveground storage tanks, wastewater treatment impoundments, separators, stained soils, a land treatment unit, and loose and friable asbestos containing material. Runoff from the site enters on-site wetlands and storm water collection ponds. The tanks, piping, and most of the refinery superstructure were removed from the site during the EPA Removal Actions (Ref. 11).

Federal Delisted NPL site list within one-half mile
The subject property does not have any Delisted NPL sites within one-half mile (Ref. 11).

Federal Active Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Sites within one-half mile
The subject property does not have any listed CERCLIS sites. An unidentified oil site, approximately 0.47 mile west of Highway 18 on East 9th Street, is reported in the Active CERCLIS database. This site may be just within the one-half mile distance of the subject property. The Hudson Oil Refinery is on the Active CERCLIS database as well. However, the refinery is outside the 0.50-mile radius of the subject property (Ref. 12).

Federal Archived CERCLIS (NFRAP) Sites within one-half mile
The subject property does not have any listed Archived CERCLIS sites. There were several Archived CERCLIS sites listed in the EPA database for Cushing. However, there are no Archived CERCLIS sites reported within a 0.50-mile radius of the subject property. (Ref. 12).

Federal RCRA CORRACTS Facilities List within one mile
The subject property does not have any federal RCRA CORRACTS facilities within one mile (Ref. 13).

RCRA non-CORRACTS TSD Facilities List within one-half mile
The subject property does not have any RCRA non-CORRACTS TSD facilities within one-half mile (Ref. 13).

Federal RCRA Generators List (property and adjoining properties)
The subject property does not have any listed RCRIS-Large Quantity Generator (LQG) or RCRIS-Small Quantity Generator (SQG) sites. There is no RCRIS LQG or SQG sites reported at the adjoining properties either. There is one site listed located on Little Street in the Industrial Park. No address was given. The site, Lako Manufacturing Company, is no longer generating, but is still in business (Ref. 14).

Federal Institutional Control/Engineering control registries (property only)
No Institutional Control/Engineering controls were found for the property during the record search at the Payne County Clerk's Office.

Federal ERNS list (property only)
The subject property and adjoining properties are not listed as ERNS sites (Ref. 9).

State lists of hazardous waste sites identified for investigation or Remediation (property only)
The subject property does not have any hazardous waste sites identified for investigation or remediation.

State Landfill and/or Solid Waste Disposal Sites within one-half mile

The subject property does not have any listed state landfills within one-half mile (Ref. 15).

State Leaking Underground Storage Tank (LUST) List within one-half mile

The UST Notification Database maintained by the Oklahoma Corporation Commission was searched for LUST sites listed within one-half mile of the Cushing Armory. There were four LUST sites recorded within one-half mile of the subject site. The table below lists the LUST sites, their addresses, and status.

Facility Name	Address	Date Opened	Date Closed
Maverick Mini-Mart #28	609 E. Main Street	February 7, 2006	April 3, 2006
Fargo Mini Mart	502 N. Cleveland	June 21, 1996	February 19, 1998
Cushing Public Schools	400 N. Seay Street	January 7, 2000	May 19, 2000
Hudson Refinery	401 W. Maple Street	January 28, 2002	Still Active

State Registered Storage Tank Lists (property and adjoining properties)

There is one UST site recorded within the property boundary and two USTs in close proximity of the site. The UST found onsite (DET 1 CO B 1/179 INF) was installed on December 31, 1947, and last used on October 1, 1978. This 1,000 gallon gasoline tank is permanently out of use and closure status is not listed. This UST site and the two UST sites in close proximity of the armory are listed in the table below. This information was obtained from the UST Notification Database maintained by the Oklahoma Corporation Commission.

Facility Name	Address
DET 1 CO B 1/179 INF	218 S. Little Avenue
Maverick Mini-Mart #25	224 E. Cherry Street
SWBT-R64113 Cushing Co.	401 E. Broadway

State Institutional Control/Engineering Control Registries (property only)

There are no institutional/Engineering controls according to the Payne County Land Records.

State Voluntary Cleanup Sites and Brownfield Sites within one-half mile

There is one Voluntary Cleanup (VCP) site listed in DEQ's database within one-half mile north-northwest of the subject property. This site, the Hudson Refinery, is no longer active and was closed on December 1, 1997. A previous owner initiated discussions about entering the refinery into the VCP/Brownfield Program; however, the company did not have adequate funding for a cleanup and the site was referred to EPA for a CERCLA investigation. No Brownfield sites were listed within a one-half mile of the subject property.

5.2 Additional Environmental Record Sources

No other environmental record sources were searched during this investigation other than what is provided in this Phase I Targeted Brownfield Assessment.

5.3 Physical Setting Sources

Physical Setting sources were obtained from the U.S. Geological Survey, Federal Emergency Management Association, United States Department of Agriculture Soil Conservation Service Soil Survey of Payne County, Oklahoma, and a site visit conducted on March 29, 2007.

5.4 Historical Use Information on the Property

The subject property is currently vacant. The Cushing Armory was built in 1936 by the Works Progress Administration (WPA). From 1936 to approximately 2004, the property served as an armory to further the mission of the OKARNG. The Cushing Armory operated as a center of operations for a military component of the OKARNG. It served as a training site for the component and stored those materials required by the component (Ref. 10). The facility was placed on the National Register of Historic Places on May 20, 1994, by the U.S. Department of the Interior.

The Cushing Armory housed infantry, field artillery, and engineers during its time of operation. According to Bruce Clary of the Oklahoma Military Department, the Army National Guard discontinued their operations at the Armory in 2004. Since then, the Cushing Armory has been vacant.

5.5 Historical Use Information on Adjoining Properties

Aerial Photo Review

Archived aerial photographs of the subject property were reviewed at the Oklahoma Department of Libraries. One aerial photograph from April 2, 1938 was viewed at the Library. The view of the Armory is the same then as it is today. Not much has changed from the adjacent properties in 1938 compared to the property of today. Residential homes surround the property on the north, east, and west sides of the Armory. The

adjacent property to the south of the Armory appears to be undeveloped and open farmland in 1938.

Aerial photographs from 1995 and 2003 were also viewed in comparison to the 1938 photograph. Both photographs are practically identical. There are no differences between the 1995 and 2003 photographs. The only change from 1938 is the addition of a park south of Second Street where it was once open farmland. All aerial photographs can be found in Appendix B.

Zoning/Land Use Records Review
No zoning/land use records were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Cushing Armory.

Fire Insurance Maps
Fire Insurance Maps were reviewed from the University of Oklahoma library. In a January 1931 Cushing map, the subject property appears to be vacant with a couple of open lots. The Adjoining area directly south of the property is the city limit boundary. As discussed earlier the armory was built in 1938, seven years after this Sanborn map was made. This map can be viewed in Appendix B (Ref. 16).

Property Tax files
No property tax files were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Cushing Armory.

City Directories
No city directories were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Cushing Armory.

Building Department Records
No building department records were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Cushing Armory.

Interviews
Bruce Clary of the Army was interviewed on May 1, 2007, at the Cushing Armory. Information on the interview is located in Section 7.2, "Interviews with Key Site Manager."

6.0 Site Reconnaissance

6.1 Methodology and Limiting Conditions

A site reconnaissance at the Cushing Armory was performed on March 29, 2007. Jon Reid of the DEQ, Major Joe Stover of the OMD, and Brice Semrod of Marshall Environmental were present. The site reconnaissance consisted of an inspection of the

Armory building and its surrounding property. All rooms inside the building were inspected except for the IFR. The IFR was flooded up to the stairs leading down from the Drill Floor. The following observations were made from the site visit.

6.2 General Site conditions

The general condition of the Armory building is fair to poor. Windows throughout the building are broken. Inside the Drill Floor birds were congregating leaving droppings everywhere. The day of the site visit, it was raining. The Squad Leader Room was fairly wet and the IFR was flooded up to the staircase leading into the Drill Floor. There was a musty odor due to the age of the building and from no ventilation. No wells were observed on the site. Drainage at the site is towards the south into Second Street.

6.3 External observations

Stressed vegetation was found on the southwest and southeast sides of the Armory property. It is unknown why there is sparse vegetation in these areas. No odor was noticed and the areas of stress vegetation do not appear to be harm to the public. Located south of the Motor Pool is a green POL Storage Safe where supposedly all the hazardous chemicals were stored. It was locked during the site visit. A white friable material was found exposed from the insides of one of the safe doors. From observing the material, it is most likely suspect asbestos. A manhole was discovered south of the Bunk Room wall. This manhole was not located on the Floor Plan provided by the Oklahoma Military Department in Appendix B.

The north and east sides of the Armory building contain a concrete drainage alley approximately 2.5 feet below ground surface. Water drains down this alleyway into the gutters of Second Street. The IFR vent is located on the north side of the building above the drainage alley. It is open from the inside of the IFR and has a fan. The IFR vent has a steel wired cage around it for safety purposes.

Several PVC pipes were found leading outside of the stone walls on the north side of the building. A small PVC pipe, six inches out and approximately ten feet above the drainage alley surface was found. Another PVC pipe two feet from the drainage alley surface was found as well. This particular pipe was used for drainage purposes and may have been the pipe used to pump water out from the sump of the IFR.

6.4 Internal observations

The Drill Floor was fairly empty. Lockers were found throughout the room. A locked locker found on the northwest corner was labeled "Flammable Storage." The key site manager of the Armory, Bruce Clary, mentioned that nothing hazardous is contained inside. He noted that cleaning chemicals such as bleach were stored inside the locker. Lockers beside the "Flammable Storage" locker contained bottles of M-95 mild acid cleaner. Along the north side of the Drill Floor were wooden cabinets that contained

packaged and unpackaged batteries of non-rechargeable lithium/sulfur/dioxide. Two heating units are located on the northeast and southwest corners. Staircase rails from the Drill Floor to the offices and classroom to the north contained peeling paint, which may contain lead. A demolition kit with what looked like a missile was found next to the east wall. Bruce Clary of the National Guard was called the day of the site visit to pick it up and did. Last thing noticed in the IFR was a one inch diameter metal pipe found above the Drill Hall floor on the southwest side. It is unknown what this pipe was used for.

North of the Drill Floor is the IFR located 2/3 below ground surface, the Family Support Group Room, Classroom, Library, and the Squad Leader Room upstairs. The IFR was flooded during the site visit. Therefore, the IFR was not accessible. The Family Support Group Room located on the northwest corner had peeling paint on the west wall and 9 x 9 inch floor tiles intact. The closet to the east of the room had chipped paint on the bare concrete floor. A classroom north center of the Drill Floor contained approximately 20 fluorescent light bulbs. Floors had been stripped where tile used to be. The Library and Squad Leader Room are located on the north east corner. The Library's floors were stripped out where tile used to be. Inside the Squad Leader Room, eight fluorescent light bulbs were found. A wall heater is located on the northeast corner of the room. The room contained a stained ceiling from water seepage and peeling painted walls on the north and south sides.

The Recruiter Office, Supply Room, and Vault next to the Drill Floor on northwest side did not have any significant environmental concerns. The hallway near these rooms contained two fluorescent light bulbs. Nothing environmentally significant was found in the latrines in this area. A wall heater and a container of chlorine bleach was all that was found inside the latrines.

The hallway separating the north and south sections of the west portion of the building contained four fluorescent light bulbs. On the floors are canisters containing chlorine bleach and all-purpose cleaner. The Kitchen contained two fluorescent light bulbs. Half of the Kitchen contains 12 x 12 inch floor tiles. The rest of the tile in the room has been stripped out. Missing ceiling tiles were also noticed in the Kitchen. The Bunk Room south of the Kitchen had water stains throughout the walls.

The Motor Pool west of the Kitchen and Bunk Room contained four fluorescent light bulbs, a cemented-in drain, stained floors from vehicle maintenance, buckets of latex enamel white and pastel base, motorcycle power sport batteries, lubricating oil for engines and weapons, and a leaking bottle of detergent (containing sodium carbonate). The leaking bottle of detergent was corroding on top of a filing cabinet on the north side of the room.

The Storage & POL Room contained 9 x 9 inch floor tiles. Several stains were found on the floor tile. It is unknown what these stains are from. A gas containing weed eater was found on the floor where the stain was located. However, no odors of gasoline were

noticed. Cleaning chemicals and other miscellaneous cleaning supplies comprise most of what is stored in this room.

North of the Storage & POL Room are the Latrine, CO Room, and the two Orderly Rooms. The Latrine has peeling paint on the wall surrounding the toilet. The CO Room contains two fluorescent light bulbs and a door to the north with chipping and peeling paint suspect of lead contamination. The Orderly Room directly north of the CO Room also has a door to the north with chipped and peeling paint suspect of lead contamination. The Orderly Room to the east has 9 x 9 inch floor tiles in good condition. An air conditioning unit and two fluorescent light bulbs are found inside. The Styrofoam ceiling is dipping down inside this room.

7.0 Interviews

7.1 Interviews with Past and Present Owners of the property

No interviews were conducted with past and/or present owners of the property. The property is currently vacant and is owned by the DEQ. The DEQ has had several conversations regarding environmental and safety issues at the armories, with various employees of the military department. Major Merkle, Colonel Peck, and Richard Brooks were among the individuals that the DEQ has spoken with. The Oklahoma Military Department (OMD) provided a Baseline Assessment of the property to the DEQ, and the DEQ was able to review the OMD files on the IFR.

7.2 Interviews with Key Site Manager

The Key site manager of the property was Bruce Clary. Mr. Clary was a unit member of the Cushing Armory. On May 1, 2007, Mr. Clary was asked a few questions regarding his recollection of activities conducted at the Cushing Armory. The following information was attained.

- Infantry occupied the Cushing Armory from when it was built until 1996. Field artillery and engineers moved in afterwards until 2004 when the Armory closed operations.

- During the site visit, a drain that used to be in the Motor Pool Room was cemented in by Mr. Clary in March of 1998. Mr. Clary noted that the drain was thoroughly cleaned out before it was plugged.

- A demolition kit that was found during the site reconnaissance (March 29, 2007) was picked up later that day by the National Guard.

- Mr. Clary mentioned there was a sump and pump inside the IFR.

- The IFR sump was pumped several times out of the building on the north side into the drainage alley. The water then drained south down the east drainage alley into Second Street. All water pumped eventually drained down the gutters of Second Street.

- The locked locker labeled "Flammable Storage" contained nothing hazardous. Mr. Clary noted that cleaning chemicals such as bleach were stored inside the locker.

7.3 Interviews with Operators and Occupants of the property

The Cushing Armory is currently vacant and not being used for anything. Therefore, no interviews were conducted.

7.4 Interviews with State and/or Local Government Officials

Local governmental officials did not have any information on the Armory. No State officials were found that would have any information on the Armory.

7.5 Interviews with Others

No interviews were conducted with anyone else except for the key site manager of the Cushing Armory, Bruce Clary.

8.0 Findings

This Phase I Targeted Brownfield Assessment of the Cushing Armory was performed in accordance with the ASTM E 1527-05, a guide for conducting Environmental Site Assessments. Jonathan Reid performed the site reconnaissance on March 29, 2007.

The site is located in Lots 5, 6, 7, 8, 9, 10, 11, and 12 in Block 2 of the City of Cushing. The legal description of the property is in the Southwest ¼ of the Northwest ¼ of Section 3, Township 17 North, and Range 5 East Indian Meridian in Payne County, Oklahoma (Appendix A). The property address is 218 South Little Avenue.

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- The IFR was flooded up to the staircase of the Drill Floor. A water sample was taken from the IFR and results showed lead concentrations of 30.3 ug/L total lead. In the past, water from the IFR was pumped outside on the north side drainage alley. Waste water would drain across the alley and south along the building's east side alley where it eventually entered the gutters of Second Street. Constant flooding would have dispersed lead contaminated sand from the bullet trap throughout the IFR and may have impacted

the groundwater. The results from the water sample and observations suggest that additional investigation and potential remediation of lead inside the IFR be conducted. The IFR constitutes a REC based on the lead concentrations and its leachability.

- A UST was once located south of the Storage & POL Room. It was removed in 1995. The ground surface of its past location is now vegetated. Based on the past environmental conditions of this area, the UST constitutes an HREC.

- Fifteen of thirty-one asbestos samples collected from the armory were identified as having more than 1 % asbestos, which is the EPA's regulated amount. The 9 x 9 inch floor tiles and black asphalt mastics inside the Family Support Group Room, Classroom, Squad Leader Room, Storage/POL Room, and the ORD/CO Offices were tested positive for chrysotile asbestos. The fireproofing inside the portable safe, which is outside the Motor Pool had the remaining ACM at the Armory. There was no presence of asbestos surfacing materials or TSI inside the Armory. Based on the test results of asbestos found inside the Armory, the suspect ACM constitutes a REC.

- A locked green portable POL storage safe located outside of the Motor Pool to the south contains ACM. It was mentioned this safe contained hazardous chemicals. A white friable substance was found inside the fireproofing of one of the safe doors. The suspect ACM was tested and results showed the material as having 55 % chrysotile asbestos. Based on this information, the safe constitutes a REC.

- Loose paint chips were found on the walls of the Squad Leader Room, Family Support Group Room, and the latrine south of the CO Room. Entry doors of the CO Room and the west Orderly Room have large sections of peeling paint. The floor in the closet of the Family Support Group Room has chipped paint. Rail guards from each staircase leading up from the Drill Floor to the offices and classroom have chipped and peeling paint. An XRF testing device for lead-based paint was used by Marshall Environmental inside the Armory. XRF readings greater than the EPA standard of 1.0 mg/cm squared were located on the door and door frames of the Family Support Group Room, Library, Squad Leader Room, Bunk Room, Storage Room, CO Office, Main Latrine, and the Vault. The Drill Floor's door frames, stair handrails, overhead door frames, downspouts, windows, and portable safe outside tested positive for the lead-based paint. Lead-based paint was also found from the following: CO Office Latrine door; ORD Room door frame; Recruiter's Office window; Hallway door frame; Main Hallway door and cabinets. The lead-based paint in these areas constitutes a REC.

- Twelve out of eighteen floor wipe samples taken inside the Armory exceeded the ARNG and ANG action level of 200 micrograms/feet^2 for floor surfaces. The Family Support Group Room, Classroom, Squad Leader/Library Rooms, Drill Floor, Bunk Room, CO Room, Main Latrine, Main hallway, and Supply Room tested positive for lead dust on the floors. The Firing Range was not tested and is assumed to be over the action level.

- Approximately 44 fluorescent light bulbs were found throughout the building. The Squad Leader Room, Classroom, Hallway (next to Recruiter Office), Main Hallway, Orderly Room, CO Room, Motor Pool, and the Kitchen contained fluorescent light bulbs. There is a potential these bulbs may contain mercury.

- Various cleaning supplies were found in the Storage & POL Room, latrine (west of the Supply Room), Main Hallway floor, lockers inside the Drill Floor, and the Motor Pool. A corroded detergent bottle containing sodium carbonate was found leaking on top of a filing cabinet inside the Motor Pool.

- Motorcycle power sport batteries were found in the Motor Pool. A packaged battery containing non-rechargeable lithium/sulfur/dioxide was found on the north side of the Drill Floor. No corrosion or leaks were found from these batteries.

- Five HVAC systems were found inside the armory. The Squad Leader Room, Latrine west of the Supply Room, Orderly Room, and the Drill Floor contain HVAC systems. There may be a potential for these HVAC systems to have CFCs.

9.0 Opinion

Based on the findings of this assessment, The DEQ recommends that additional investigation be conducted to evaluate areas of the property that may need future clean-up and remediation.

Areas of additional evaluation consist of the following:

- Evaluation of lead contaminated water inside the flooded IFR. The IFR vent and drainage alleys outside of the building may need to be analyzed for lead.
- A lead-based paint and lead dust abatement should be conducted at the Armory.
- The green POL portable storage safe should be disposed of in a landfill suitable for what is and was contained in the safe.
- The 9 x 9 inch floor tile and mastic found to have ACM should be removed.
- POLs, batteries, cleaning supplies, and detergent at the facility should be removed and/or properly disposed of by the OKARNG component of the Cushing Armory.
- Nonworking bulbs out of the approximate count of 44 fluorescent light bulbs in the Armory should be disposed of properly.

10.0 Data Gaps

No data gaps were discovered during the process of this Targeted Brownfield Assessment.

11.0 Conclusions

The DEQ has performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E 1527-05 of [218 South Little Avenue], the *property*. Any exceptions to, or deletions from, this practice are described in Section [13] of this *report*. This Assessment has revealed no evidence of *recognized environmental conditions* in connection with the *property* except for the following: IFR, ACM in the 9 x 9 inch floor tile and mastics , green POL storage safe, and reported lead-based paint and lead dust.

The information provided in this assessment is to assist the City of Cushing in its revitalization planning as well as meet the All Appropriate Inquiry requirement of the landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund – Ref. 2), as provided in the Small Business Relief and Brownfields Revitalization Act of 2002 (Public Law 107-118, Subtitle B – Ref. 3).

12.0 Additional Services

Additional services in this Phase I Targeted Brownfield Assessment include the Marshall Environmental asbestos, lead-based paint, and lead dust wipe reports and the IFR water sample collected by the DEQ. In addition to the Phase I Targeted Brownfield Assessment, the DEQ will assist the city with removal of the environmental contaminants and ensure that the property is ready for revitalization.

13.0 Deviations

No deviations and deletions from E 1527-05 were made for this Phase I site investigation.

14.0 References

1. U.S. Environmental Protection Agency. (2006). Oklahoma *Brownfields Assistance Agreement (RP976412010)*. Unpublished Document. State of Oklahoma: Oklahoma City, Oklahoma.

2. U.S. Environmental Protection Agency. (1980). *Comprehensive Environmental Response, Compensation, and Liability Act.* (Public Law 96-510). Washington, DC: U.S. Government Printing Office.

3. U.S. Environmental Protection Agency. (2002). *Small Business Liability Relief and Brownfields Revitalization Act.* (Public Law 107-118, Subtitle B). Washington, DC: U.S. Government Printing Office.

4. ASTM International. (2005). Water and Environmental Technology: Phase I Environmental Site Assessment E 1527 – 05. Baltimore, Maryland.

5. United States Department of Agriculture, Soil Conservation Service (1987). Henley Jim, Gelnar R.D., Mayhugh R.E., Bartolina, D.G. *Soil Survey of Payne County, Oklahoma. April 1987.* U.S. Government Printing Office: Washington, D.C.

6. U.S. Geological Survey. *Reconnaissance of the Water Resources of the Oklahoma City Quadrangle, Central Oklahoma*, Hydrological Atlas 4. The University of Oklahoma, Norman, OK. (1975).

7. Federal Emergency Management Association (FEMA). https://msc.fema.gov.

8. Oklahoma Water Resources board. http://www.owrb.state.ok.us/wd/search/search.php.

9. Emergency Response Notification System: http://www.nrc.uscg.mil/foia.html.

10. Oklahoma Military Department Environmental Office (OKDE-ENV). Limited Environmental Baseline Assessment, Cushing Armory. March 22, 2006.

11. EPA NPL list: http://www.epa.gov/superfund/sites/npl/status.htm.

12. CERCLIS current and archived sites: http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.

13. RCRA database: http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.

14. RCRA NOTIFIERS sorted by county and then city: http://www.deq.state.ok.us/LPDnew/HW/Notifiers/notifiersbycountycity.pdf.

15. State Landfill site list: http://www.deq.state.ok.us/LpDnew/swindex.html.

16. The University of Oklahoma Libraries. Digital Sanborn Maps. Last accessed (September 18, 2006). (Cherokee Sanborn Maps, January 1931 and 1929 – September 1948). http://www.libraries.ou.edu/eresources/LORA/LORA.asp?type=index&list=0&value=S

17. Oklahoma Army National Guard. *Indoor Firing Range Lead Issues Report.* C.H. Guernsey & Company. (2004).

18. DEQ Dataviewer: http://maps.scigis.com/deq%5Fwq/.

15.0 Appendices

Appendix A Site (Vicinity) Maps
Appendix B Historical Research Documentations
Aerial Photographs

	Topographical Map
	Sanborn Fire Insurance Map
	Floor Plan
Appendix C	Field Notes
Appendix D	Site Photographs
Appendix E	Indoor Firing Range Lead Results • DEQ Analytical Results of Indoor Firing Range and Chain of Custody • C.H. Guernsey & Company Indoor Firing Range Lead Issues Report
Appendix F	Marshall Environmental Management, Inc. Reports • Cushing Armory Asbestos Inspection Report • Cushing Armory Lead-Based Paint Inspection Report • Cushing Armory Surface Wipe Sampling for Lead in Dust
Appendix G	Notification for Underground Storage Tanks (OCC & OMD Records)
Appendix H	City of Cushing Letter (March 14, 2006)
Appendix I	DEQ Quitclaim Deed
Appendix J	Qualification(s) of Environmental Professionals

Appendix A

Site (Vicinity) Maps

Figure 1: Site (Vicinity) Map

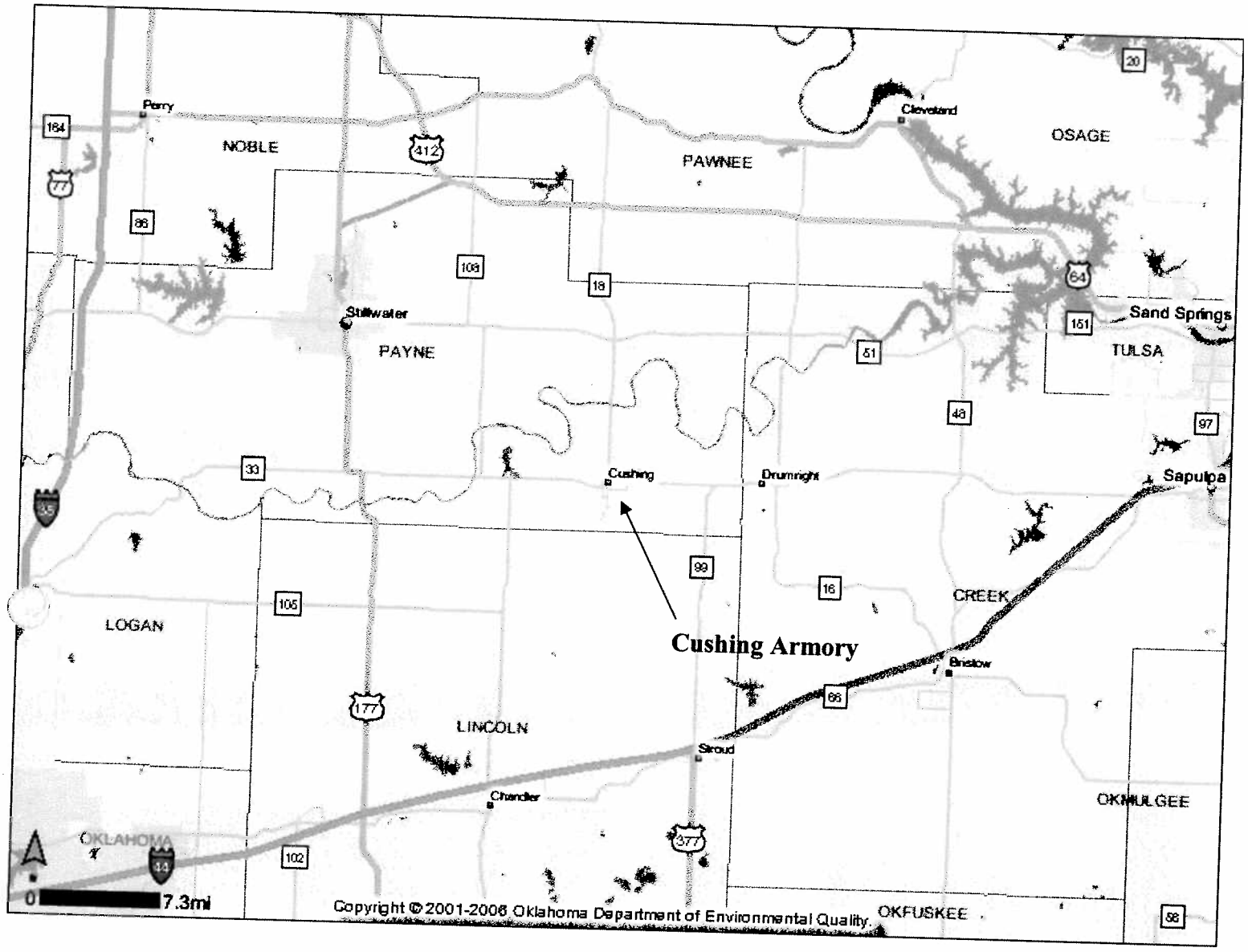


Figure 2: Site (Vicinity) Map

Appendix B

Historical Research Documentations

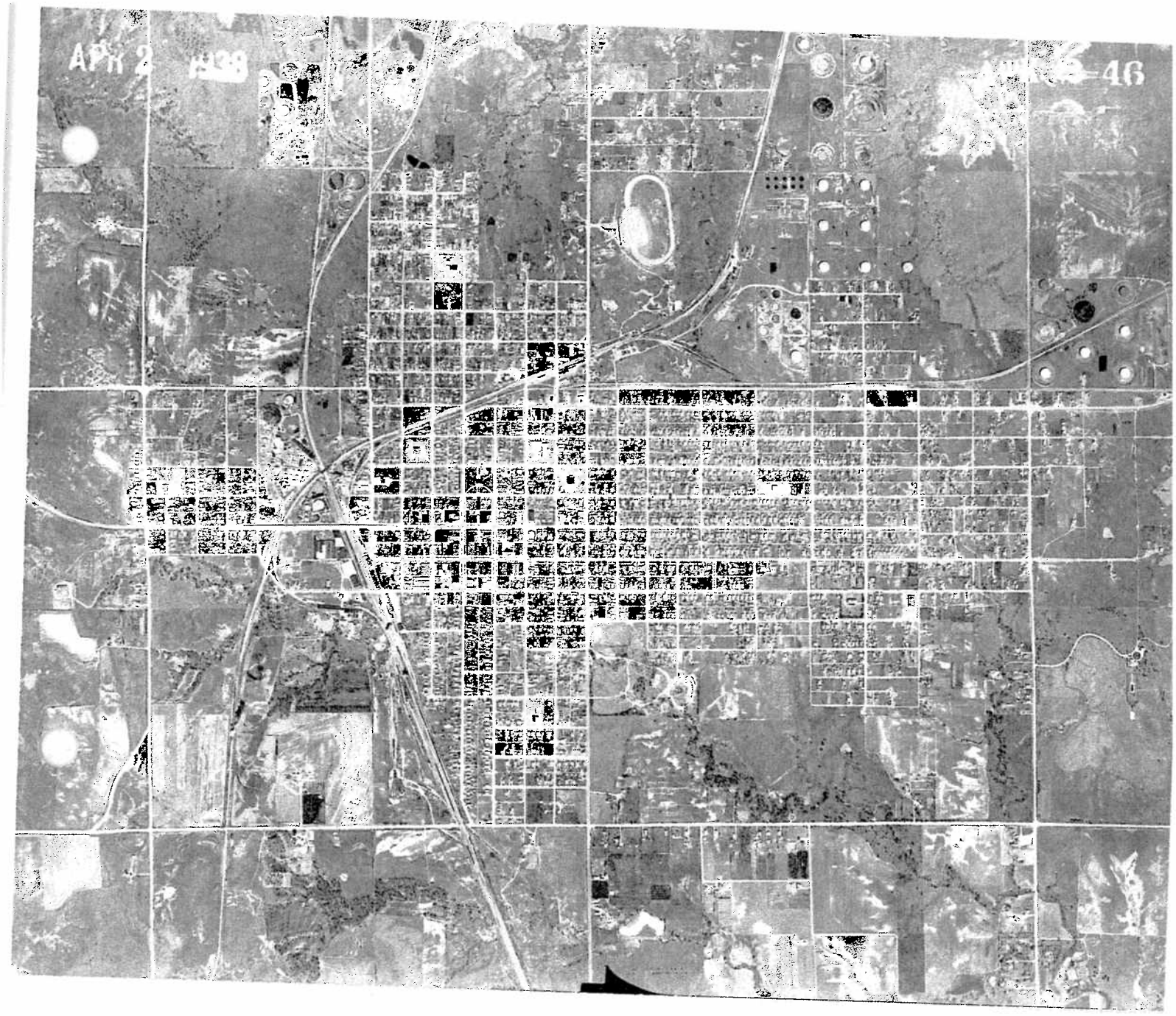


Figure 3: 1938 Aerial Photograph

Figure 4: 1995 Aerial Photograph

Figure 5: 2003 Aerial Photograph

Figure 6: Topographical Map

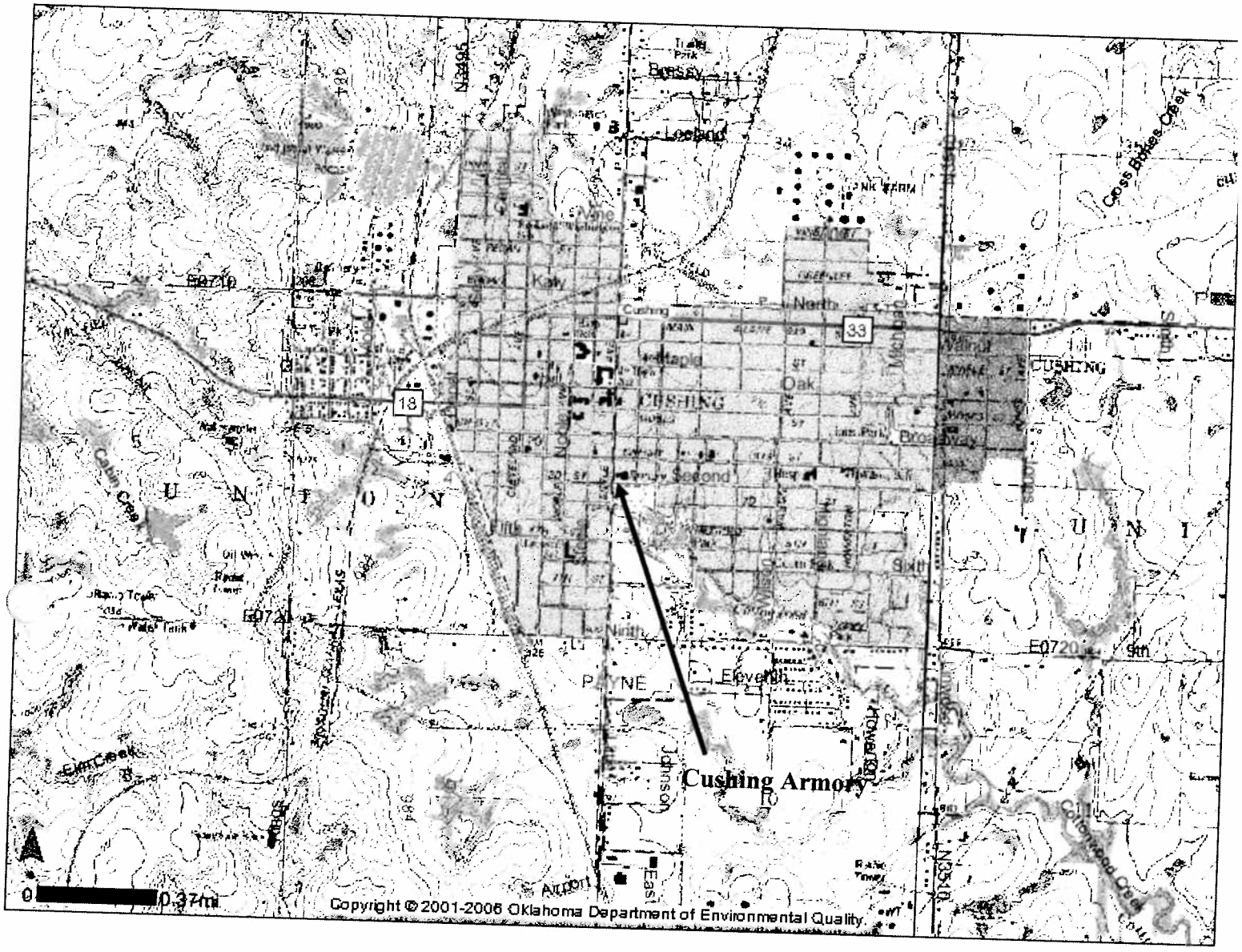


Figure 7: Cushing 1931 Sanborn Fire Insurance Map

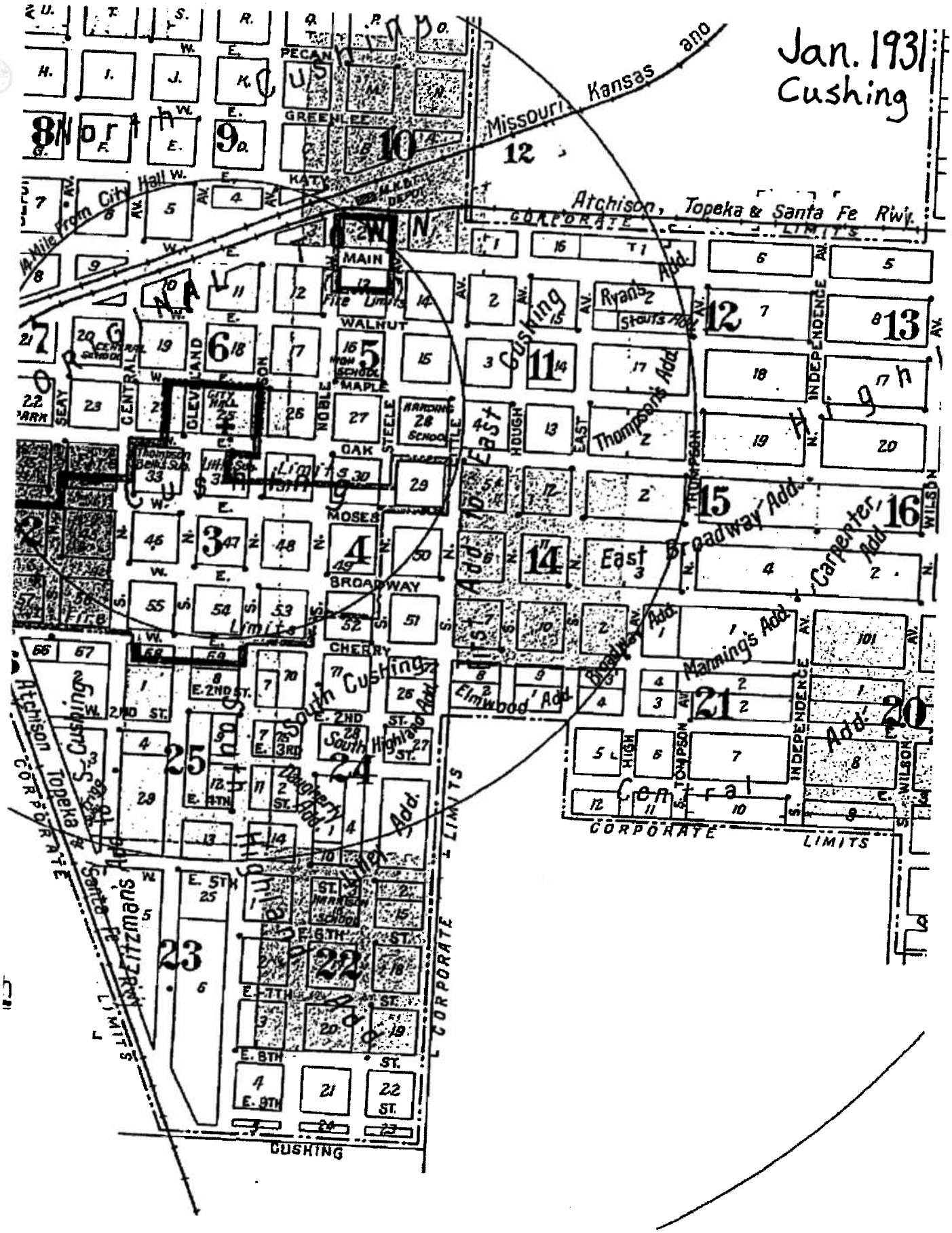
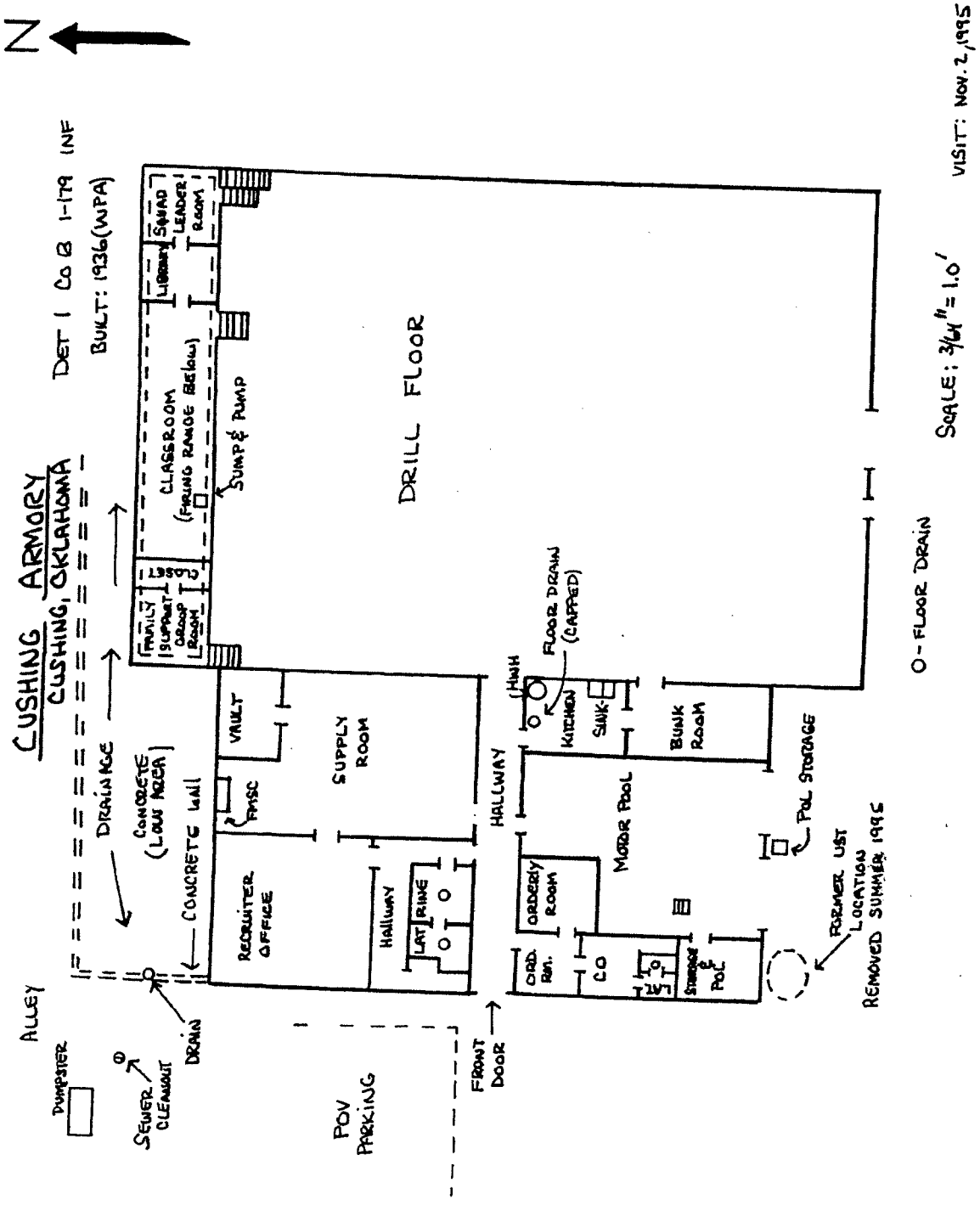


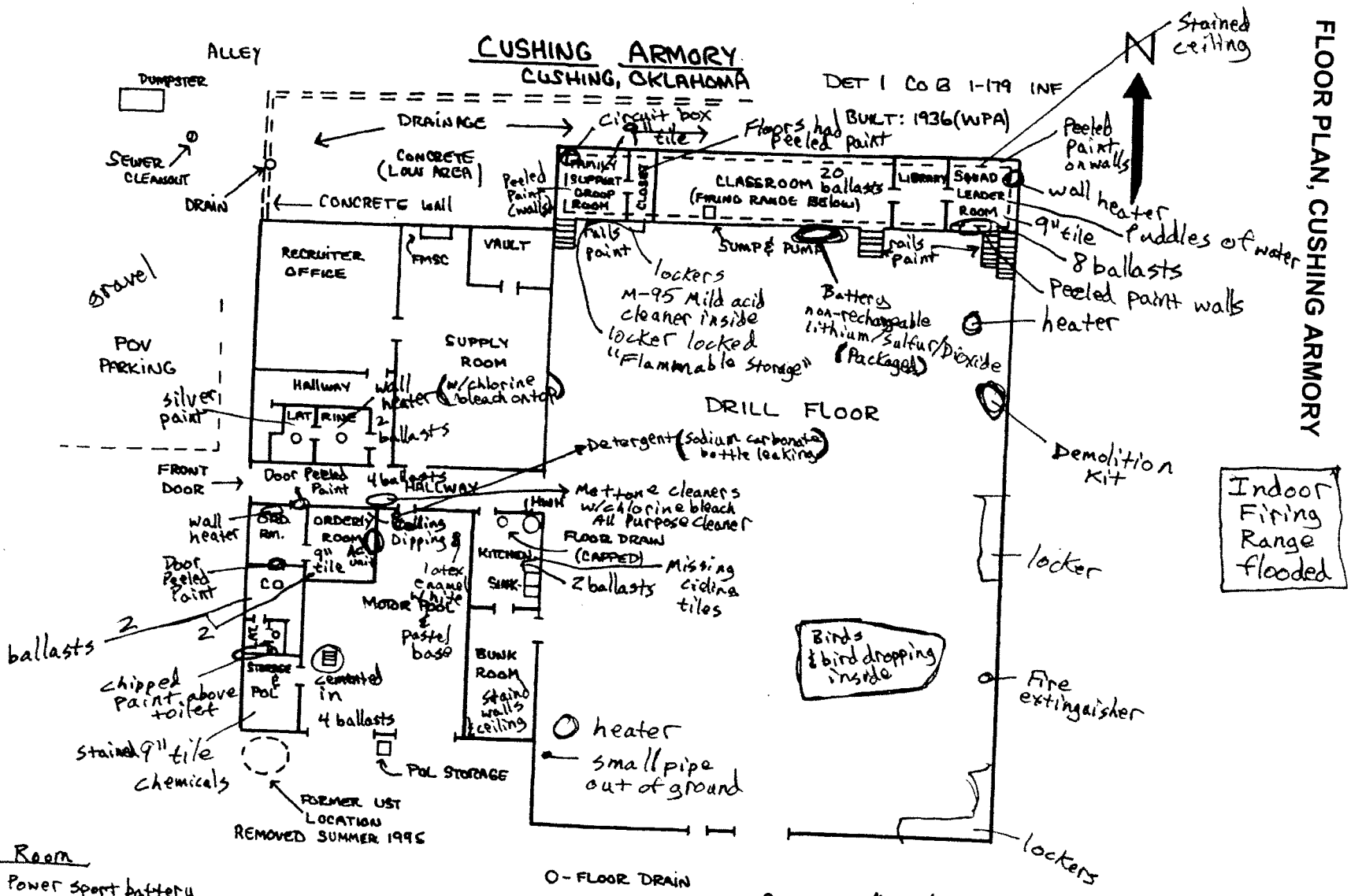
Figure 8: Cushing Armory Floor Plan



Appendix C

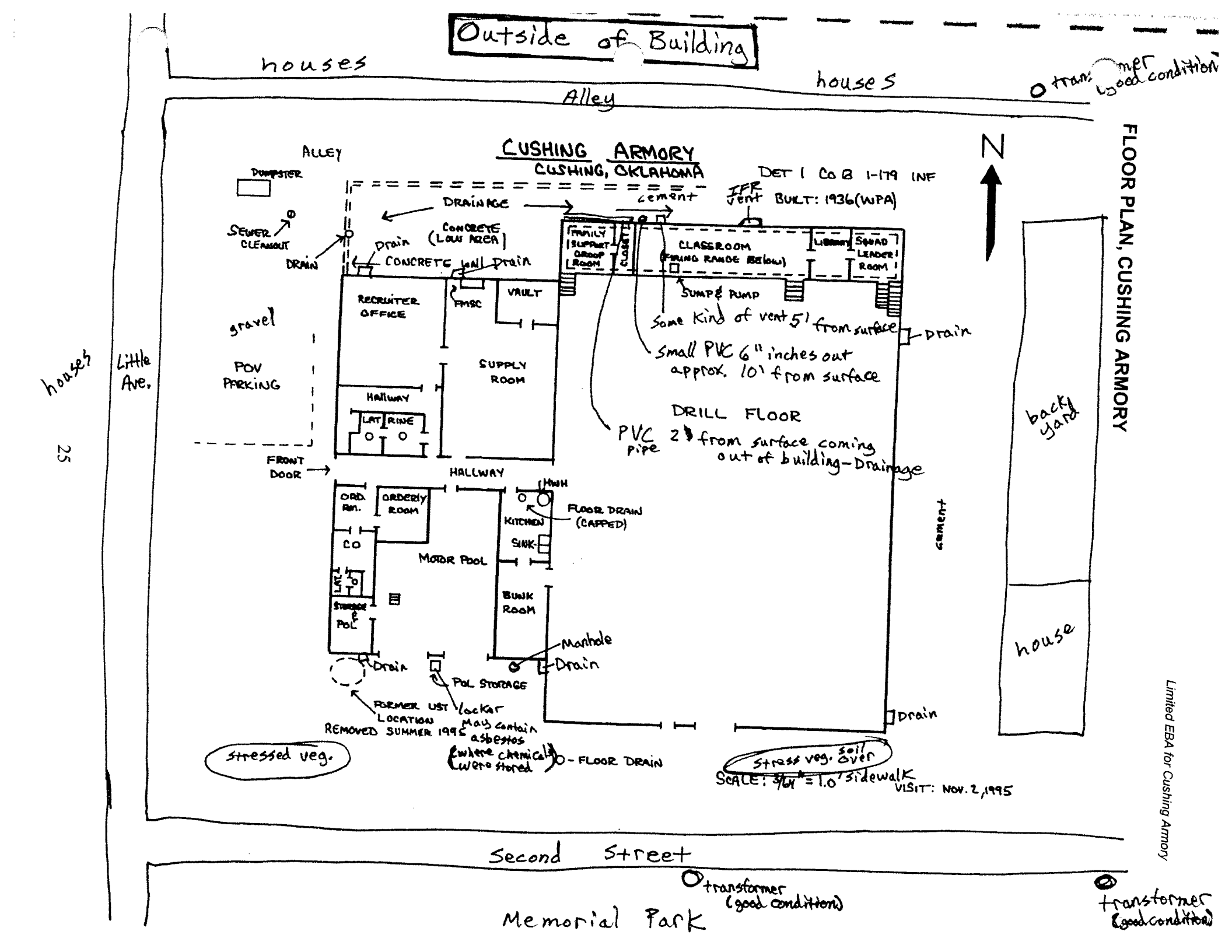
Field Notes

Inside of Building



Motor Pool Room
- Motorcycle Power Sport battery
- lubricating oil for engines & weapons
- stained floors.

- Met with Brice Semrod of Marshall Env. & Joe Stover of OMD.
- windows broken everywhere
- puddy on windows may be suspect for asbestos.
- shut down 2.5-3 years ago


Outside of Building
houses
Alley
houses
transformer good condition
houses
25
Little Ave.
Second Street
Memorial Park
transformer (good condition)
transformer (good condition)
CUSHING ARMORY
CUSHING, OKLAHOMA
DET 1 CO B 1-179 INF
BUILT: 1936(WPA)
FLOOR PLAN, CUSHING ARMORY
N
ALLEY
DUMPSTER
SEWER CLEANOUT
DRAIN
DRAINAGE
CONCRETE (LOW AREA)
Drain
CONCRETE
Drain
cement
IFR vent
FAMILY SUPPORT GROUP ROOM
CLOSET
CLASSROOM
FIRING RANGE Below
LIBRARY
SQUAD LEADER ROOM
SUMP & PUMP
Some kind of vent 5' from surface
Drain
Small PVC 6" inches out approx. 10' from surface
DRILL FLOOR
PVC pipe
2" from surface coming out of building - Drainage
RECRUITER OFFICE
FMSC
VAULT
SUPPLY ROOM
gravel
POV PARKING
Hallway
LAT
RINSE
FRONT DOOR
HALLWAY
ORD Rm.
ORDERLY ROOM
HWH
KITCHEN
FLOOR DRAIN (CAPPED)
SINK
CO
MOTOR POOL
LAT
STORAGE
POL
BUNK ROOM
Manhole
Drain
Drain
POL STORAGE
locker
FORMER UST LOCATION REMOVED SUMMER 1995
May contain asbestos
(where chemicals were stored)
FLOOR DRAIN
Drain
cement
back yard
house
stressed veg.
stress veg. soil over sidewalk
SCALE: 3/64" = 1.0'
VISIT: NOV. 2, 1995
Limited EBA for Cushing Armory

Appendix D

Site Photographs

Date Photos Taken: March 29, 2007

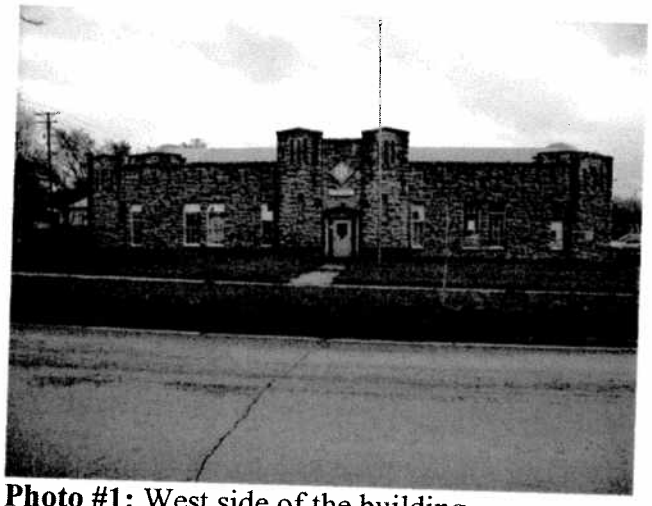


Photo #1: West side of the building.

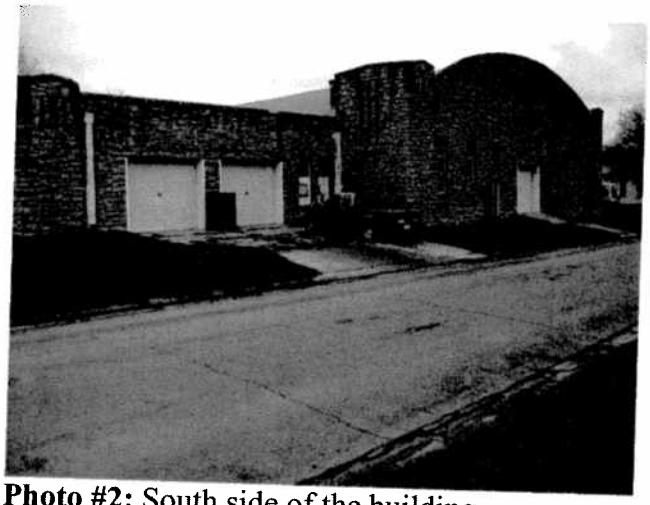


Photo #2: South side of the building.

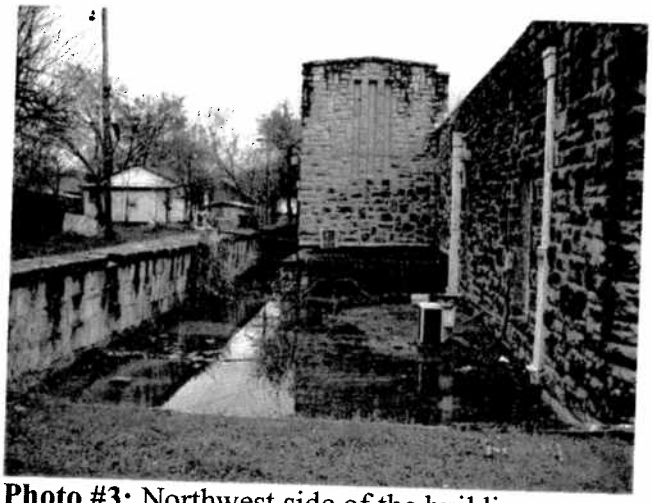


Photo #3: Northwest side of the building.

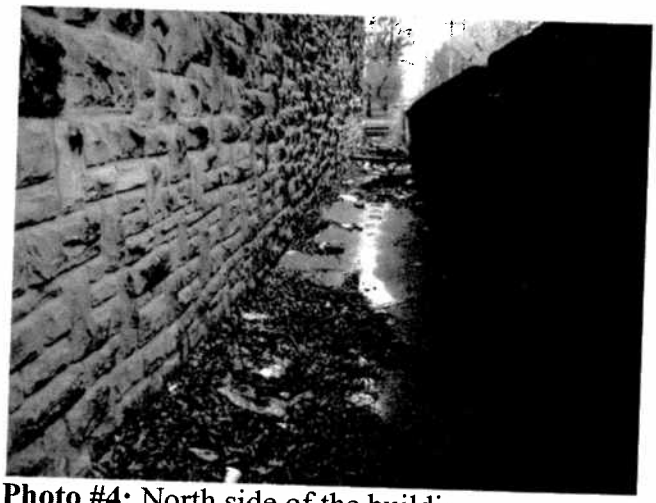


Photo #4: North side of the building.

Photo #5: IFR vent.

Photo #6: Portable chemical storage locker with asbestos located on the south side of the building.

Date Photos Taken: March 29, 2007

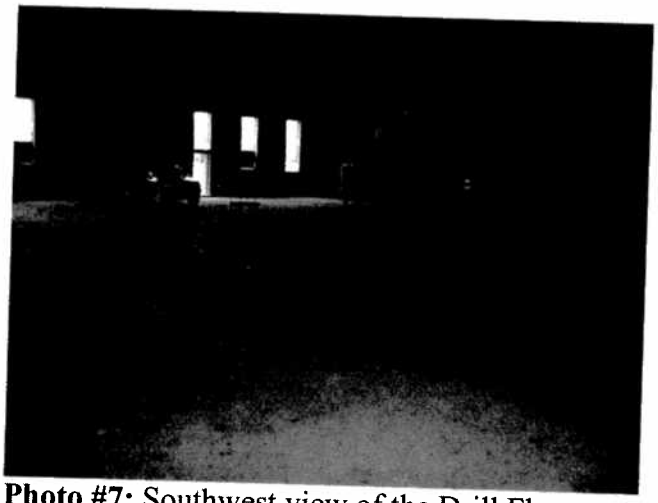


Photo #7: Southwest view of the Drill Floor.

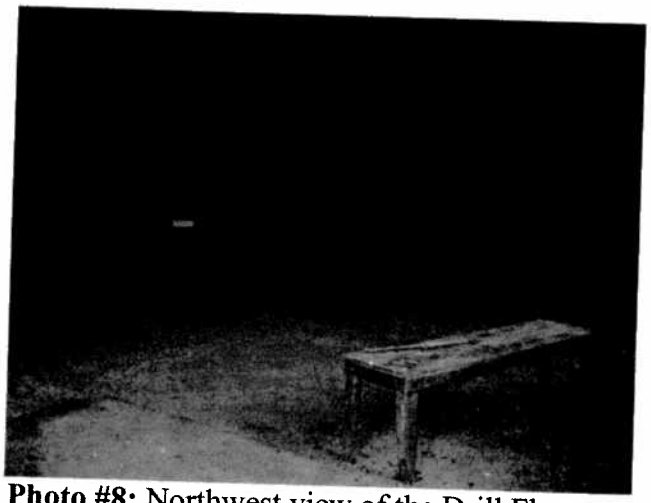


Photo #8: Northwest view of the Drill Floor.

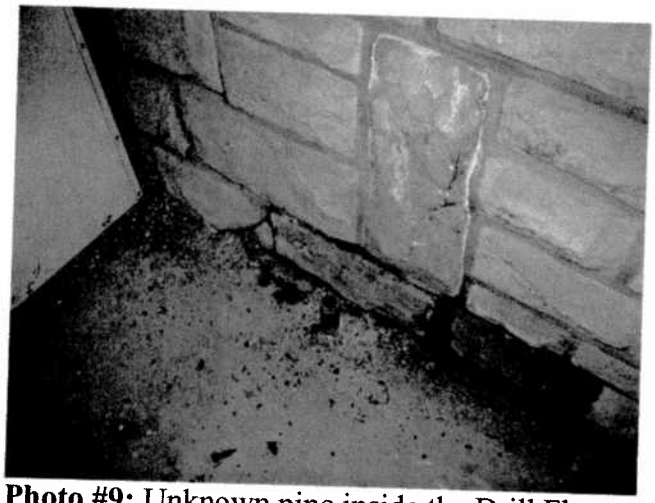


Photo #9: Unknown pipe inside the Drill Floor.

Photo #10: Mild Acid Cleaner inside one of the lockers in the Drill Floor.

Photo #11: Entrance to the flooded IFR.

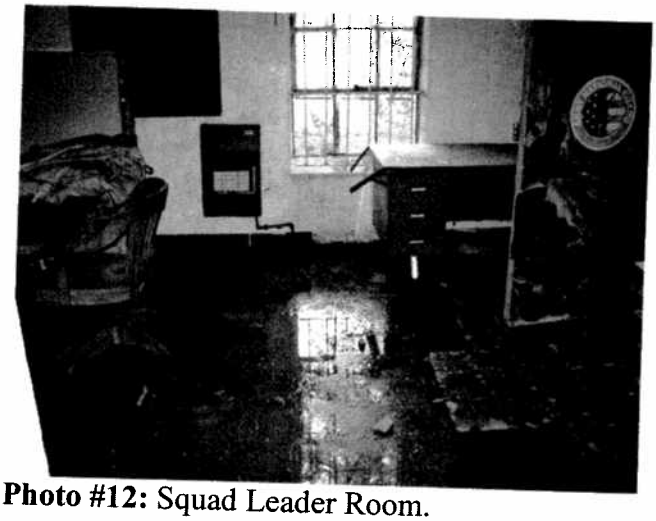


Photo #12: Squad Leader Room.

Date Photos Taken: March 29, 2007

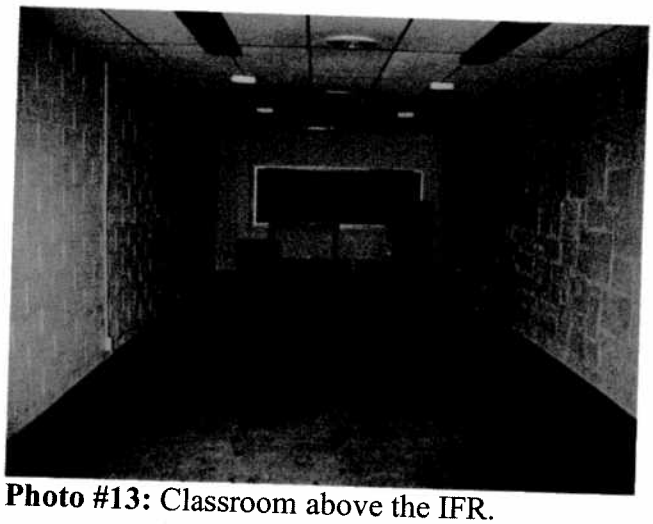


Photo #13: Classroom above the IFR.

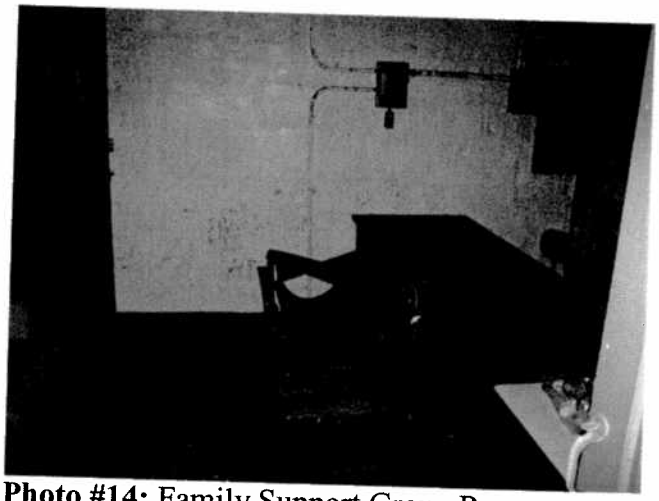


Photo #14: Family Support Group Room.

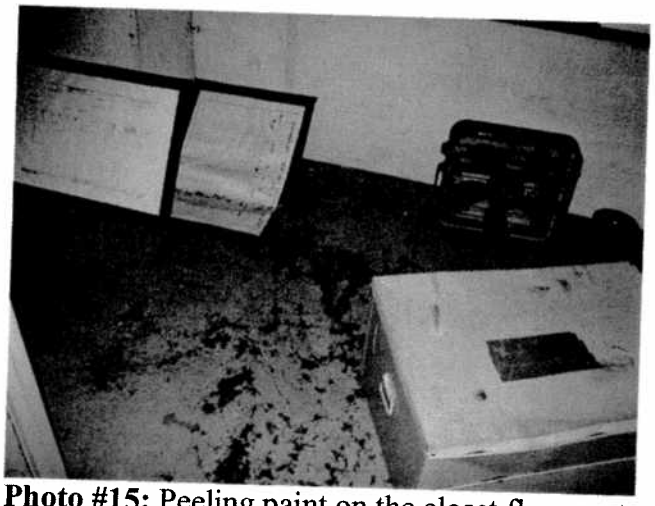


Photo #15: Peeling paint on the closet floor east of the Family Support Group Room.

Photo #16: Heating unit inside closet east of Family Support Group Room.

Photo # 17: Stained 9 x 9 inch floor tile inside the Storage and POL Room.

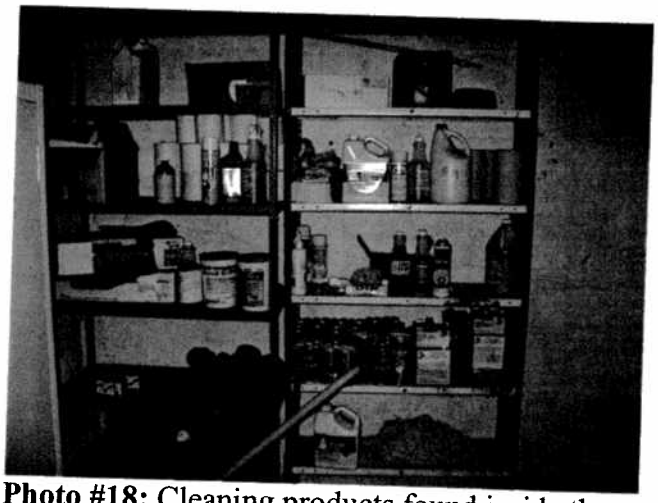


Photo #18: Cleaning products found inside the Storage and POL Room.

Date Photos Taken: March 29, 2007

Photo #19: Another view of the Storage and POL Room.

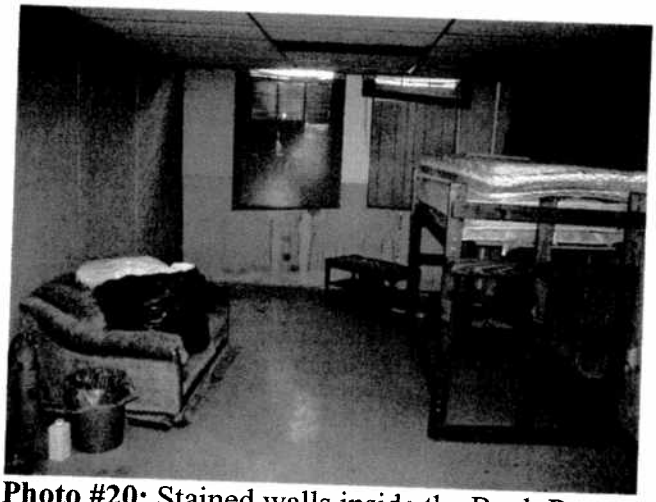


Photo #20: Stained walls inside the Bunk Room.

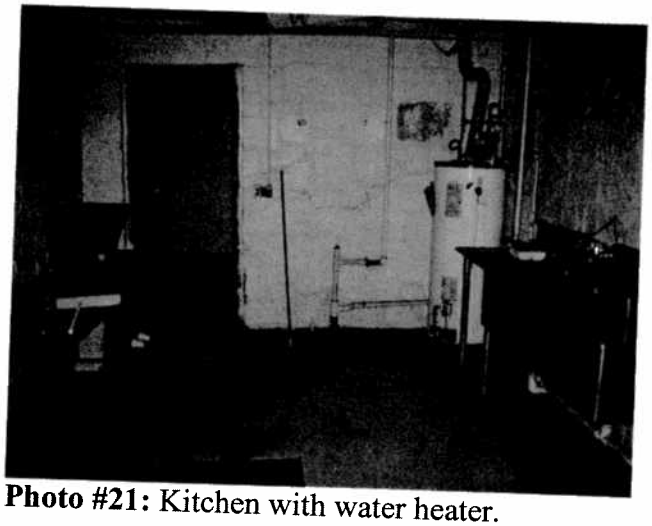


Photo #21: Kitchen with water heater.

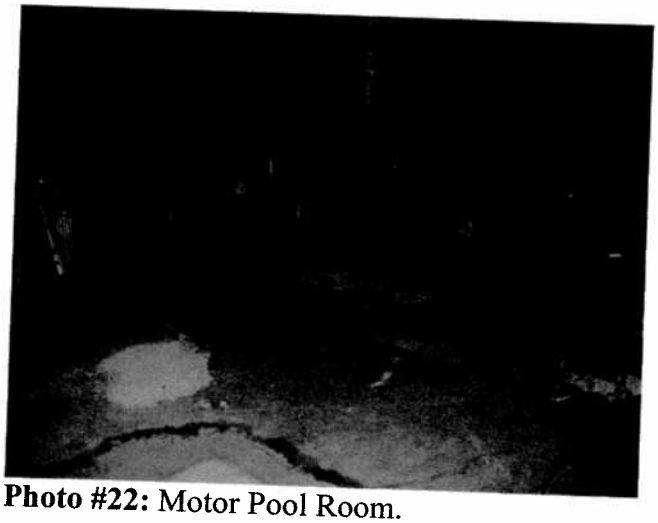


Photo #22: Motor Pool Room.

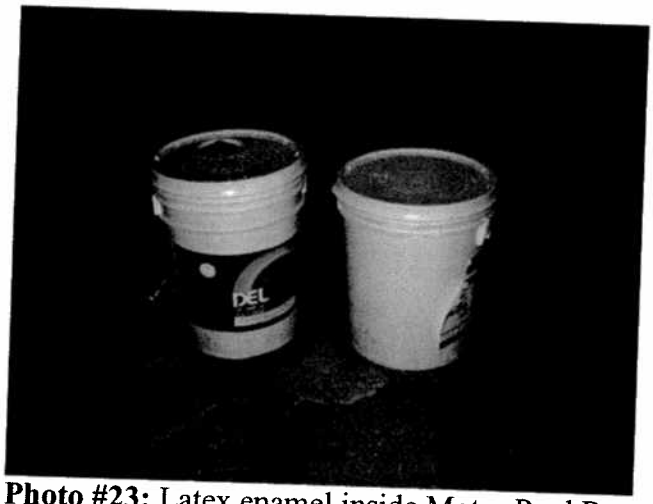


Photo #23: Latex enamel inside Motor Pool Room.

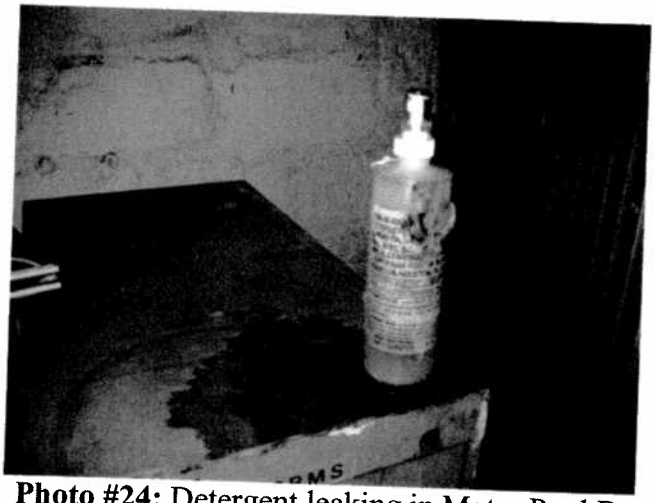


Photo #24: Detergent leaking in Motor Pool Roor

Date Photos Taken: March 29, 2007

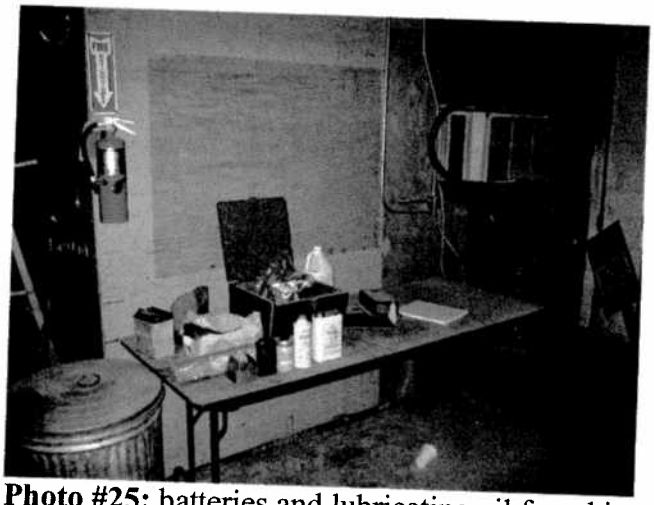


Photo #25: batteries and lubricating oil found in the Motor Pool Room.

Photo #26: Vehicle maintenance waste and water tank found in the Motor Pool Room.

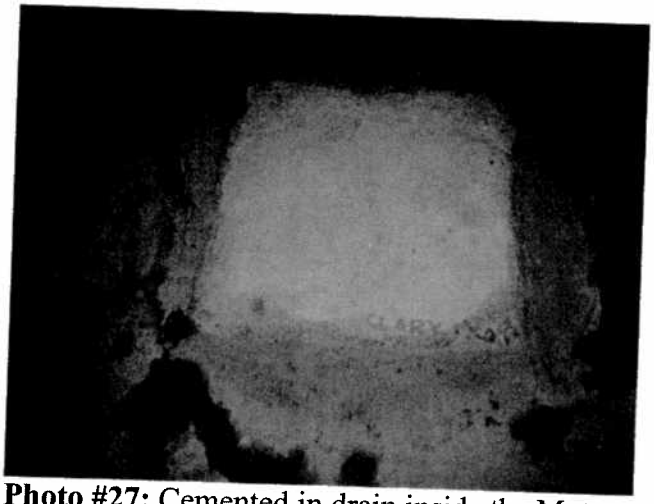


Photo #27: Cemented in drain inside the Motor Pool Room.

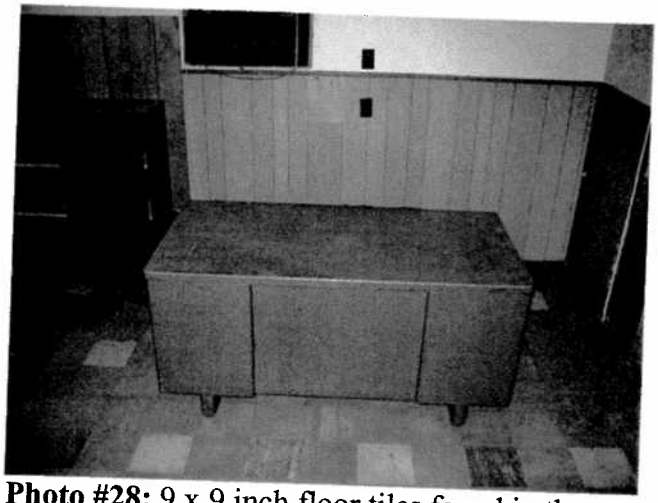


Photo #28: 9 x 9 inch floor tiles found in the Orderly Room.

Photo #29: Peeling paint in the Latrine.

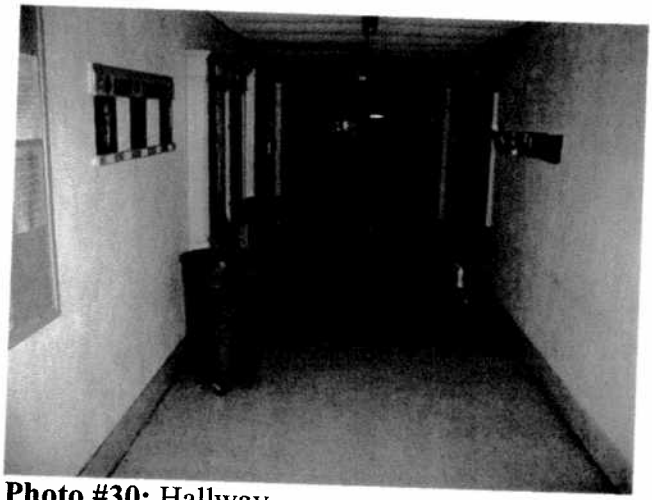


Photo #30: Hallway

Date Photos Taken: March 29, 2007

Photo #31: Drain in one of the latrines.

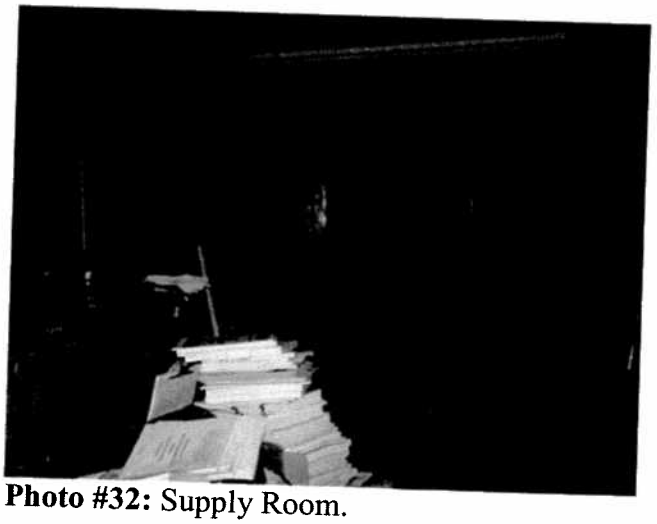


Photo #32: Supply Room.

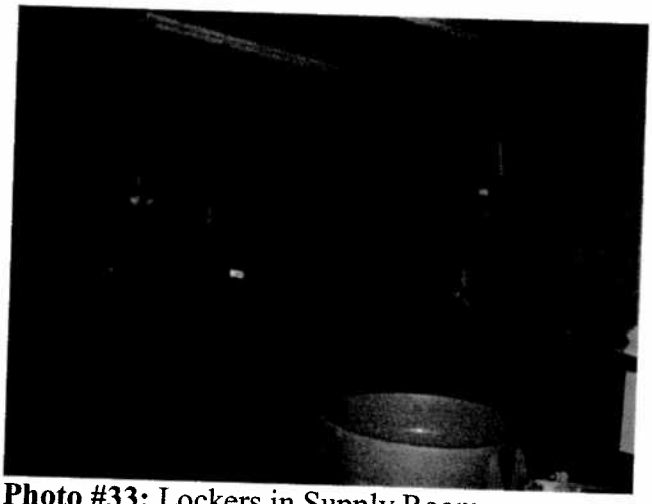


Photo #33: Lockers in Supply Room.

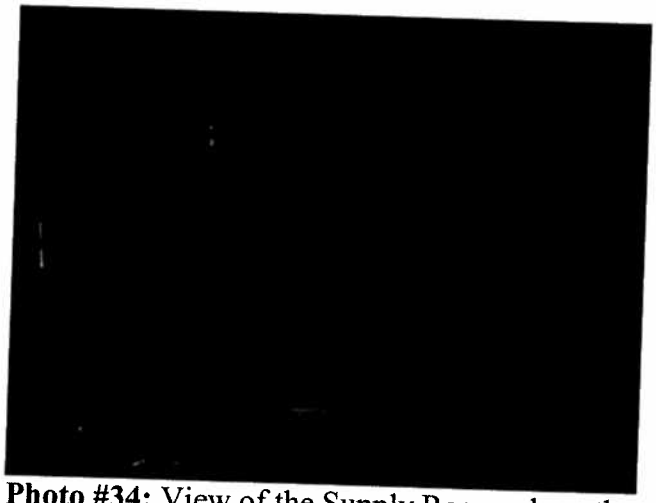


Photo #34: View of the Supply Room where the Vault is located.

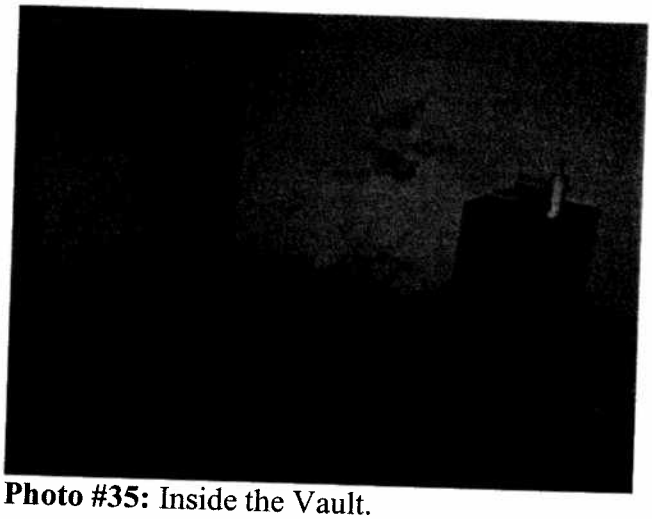


Photo #35: Inside the Vault.

Appendix E

Indoor Firing Range Lead Results

Sample Number: 416984
Project Code: LP-ARM
Agency Number:
Date Collected: 05/01/2007
Time Collected: 0920
Date Received: 05/02/2007
Date Completed: 05/29/2007
Collected By: JR
PWS Id:
Location Code:
Station:
Facility:
Report Date: 05/29/2007

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
General Inquiries: 1-800-869-1400
Sample Receiving: (405) 702-1113

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

To: LAND PROTECTION DIVISION
HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method
Lead, Total		30.3	UG/L	05/17/07	200.7

Labs performing analysis on this Sample:
Metals

SOURCE: CUSHING ARMORY

SAMPLERS COMMENTS:
WATER FROM FLOODED INDOOR FIRING RANGE;CUSHIFR-1

ANALYST`S COMMENTS:

* ANALYST

DEPARTMENT OF ENVIRONMENTAL QUALITY

Chain of Custody Record

Site Name:	Site Location:	Code:
Cushing Armory	Cushing, OK 218 S. Little Ave.	493

Sample Location	Date	Time	*GCMS Extractables	GCMS Purgeables	Metals (Lead)	General Chemistry			S.E.L. Numbers
CUSHIFR-1	5-1-07	9:20			✓				416984

Sampler's Signature (Relinquished by): [redacted]	5-2-07	9:00	Received by: Tammy Mays
Relinquished by:			Received by:
Relinquished by:			Received by:

Remarks:

*Indicate the number of containers for each analysis in the proper column.

16.0 CUSHING ARMORY

C.H. Guernsey & Company (GUERNSEY) surveyed the indoor firing range (IFR) at the Cushing Armory on March 15, 2005 (Photographs 16-1 through 16-36). The IFR is approximately 100 feet long, approximately 15 feet wide, and the ceiling is approximately 15 feet high. The ventilation in the IFR consists of a fan vent in the exterior wall that discharges directly outside. The IFR is situated subgrade. The IFR was flooded whenever GUERNSEY performed the site visit.

Based upon information supplied to GUERNSEY, Oklahoma Military Department (OMD) personnel collected wipe samples from the IFR on May 7, 2004. Concentrations within the IFR ranged from 187,650 µg/ft² near the former bullet trap and 2,607 µg/ft² near the entry to the IFR. A window sill was sample indicated a concentration of 2036 µg/ft². Table 16-1 summarizes the laboratory results for the wipe samples.

Table 16-1
Laboratory Analysis

Sample ID #	Sample Date	Result (µg/sq. Ft.)	Lab Report ID #
416A	5/07/2004	187,650.0	Quantem 111990
417A	5/07/2004	15,730.0	Quantem 111990
418A	5/07/2004	5,015.0	Quantem 111990
419A	5/07/2004	2,607.50	Quantem 111990
420A	5/07/2004	2,036.0	Quantem 111990

No equipment was identified for cleaning by OMD and armory personnel:

Table 16-2 provides a preliminary cost estimate to clean the equipment and/or remediate the lead contamination in the IFR. Figure 16-1 shows the approximate locations of the OMD samples.

16.1 OTHER ENVIRONMENTAL CONSIDERATIONS

Beyond the issues related to the IFR, the following environmental related issues potentially exist at the Armory:

- Asbestos containing material (ACM) is material that contains 1% or more asbestos fibers. Because of the Armory's age, there is a potential for ACM in building materials (roofing materials, floor tiles, mastic, ceiling tiles, window putty, natural gas-fired heating systems, etc);
- Lead has been used as a color carrier in paints for hundreds of years. In 1978, its use in residential paints was restricted in the United States. Because of its age, there is a potential for lead containing paints at the Armory;
- Polychlorinated biphenyls (PCB) are oils that were used in electrical equipment until their regulation in 1977. There is a potential for PCB in fluorescent lighting ballasts, capacitors, transformers and other dielectric fluid filled electrical equipment at the Armory;
- The potential for mold exists within the Armory due to a compromise of the building envelope and the presence of standing water and visible water damage;

- Chlorofluorocarbons (CFCs) are compounds used in heating, ventilation, and cooling (HVAC) systems and in fire suppression (i.e., halon) systems. The use, release and recycling of these compounds are regulated by EPA. There is a potential for CFCs to be present in the HVAC equipment and fire suppression system of the Armory;
- Mercury is a heavy metal used in thermostats, pressure gauges, and other building and process related equipment. There is a potential for mercury containing thermostats at the Armory;
- Lead, nickel, and cadmium are heavy metals used in batteries. There is a potential for heavy metal containing batteries in the emergency lighting and exit signage at the Armory; and
- Other issues may be present that were not visually evident to GUERNSEY.

Table 16-2
Preliminary Cost Estimate

Equipment Cleaning Costs (a)

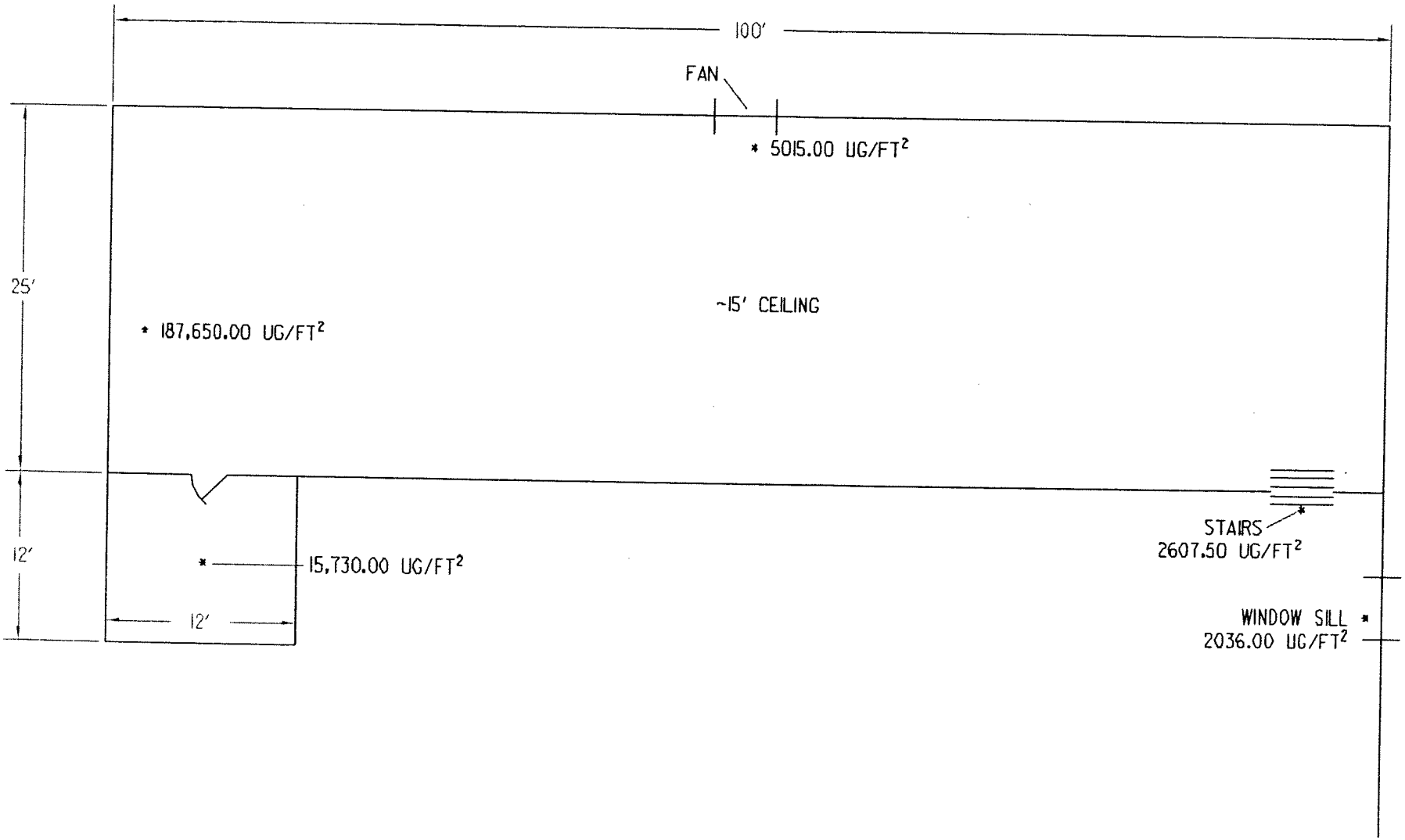
Item Description	Number	Unit	Cost Per Unit	Total Cost
Total				**$0**

Remediation Costs (b)

Item Description	Number	Unit	Cost Per Unit	Total Cost
Mob/DeMob	1	Each	$1,500	$1,500
Stage/Clean Equipment/Components for Disposal	1	Each	$2,500	$2,500
Cleaning of Army Equipment (a)	N/A	N/A	N/A	$0
Clean/Seal Firing Range surfaces	9374	ft^2	$5	$42,183
Clean Drill Floor	10000	ft^2	$0.10	$1,000
Solidify/Stabilize Material in Bullet Trap	400	ft^3	$15	$6,000
Waste Disposal (non-hazardous)	2	Ton	$1,000	$2,000
Total (+/- 25%)				**$55,183**

Notes:
(a) Includes the cleaning of equipment identified by OMD personnel during site visit. Please reference photographs for each item.
(b) Includes cleaning of firing range space, drill floor, and other surfaces to <40 ug/ft^2.

CUSHING FIRING RANGE NOTES:
1. ALL MEASUREMENTS ARE APPROX.
2. SAMPLE LOCATIONS ARE APPROX. & IDENTIFIED BY '*'
3. SAMPLE CONCENTRATIONS ARE IN MICROGRAMS PER SQUARE FOOT
4. SAMPLES COLLECTED BY OMD PERSONNEL 07-MAY-04
5. SEE PHOTOGRAPHS FOR REFERENCE
6. SEE INVENTORY LIST FOR DESCRIPTION OF EQUIPMENT TO BE CLEA



Appendix F

Marshall Environmental Management, Inc. Reports

ASBESTOS INSPECTION REPORT

CUSHING ARMORY

Cushing, Oklahoma

March 29, 2007

Services Provided For:
Oklahoma Department of Environmental Quality
Land Protection Division
707 North Robinson
Oklahoma City, Oklahoma 73102

Asbestos Inspection Services Provided By:
Marshall Environmental Management, Inc.
1145 Southwest 74th Street, Building E, Suite 300
Oklahoma City, Ok 73139
(405) 616-0401

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1. CERTIFICATION

This is to certify that an Asbestos Inspection was performed at the Cushing Armory located in Cushing, Oklahoma for the Land Protection Division of the Oklahoma Department of Environmental Quality on March 29, 2007. The inspection was performed in an attempt to identify non-friable and friable suspect asbestos containing building materials (ACBM). This Inspection was performed by an Oklahoma State Department of Labor Licensed AHERA Management Planner, Charles L. Marshall, Ph.D., C.I.H. The contents, conclusions and recommendations made in this report are believed to accurately depict the site conditions as noted on the date the inspection work was performed.

Charles L. Marshall, Ph.D., C.I.H., C.S.P

4-27-07
Date

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
Oklahoma Department of Labor License - #OKMP-0028 Project Designer
#OKMP-0246 Management Planner
#OK-150343 Inspector
AIHA/NIOSH PAT Lab ID #201334

Laboratory Analysis Performed by:
Marshall Environmental Management, Inc. (AIHA PAT ID# 102334)
1145 SW 74th Street, E-300
Oklahoma City, OK. 73139

II. LIMITATIONS OF SURVEY

This Inspection was conducted within the limitations of budgetary constraints, cost, time and scope of work and reflects a limited investigation and evaluation. Physical limitations of facility construction may have, in some cases, prevented the complete inspection of hidden or inaccessible building materials and substrates. Inaccessible Asbestos Containing Building Materials (ACBM) were not inspected. Locations with high potential for disturbance or locations presenting a hazard to the inspectors or the Armory staff and visitors were also not inspected at this time. Additional inspections should be conducted whenever the owner anticipates demolishing or renovating the facility. Plans for the abatement of friable asbestos should only be developed by an Oklahoma State Department of Labor (ODOL) Licensed Asbestos Project Designer. Additional sampling may be required to support the planning for asbestos abatement work.

Our Investigation was performed using the degree of care and skill ordinarily exercised under similar circumstances by professional consultants practicing in this or similar localities. The findings of this Report are valid as of the date of the investigation. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, the broadening of knowledge or from other reasons. Professional services have been performed, results 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 based on field inspections and other data presented in this report.

III. EXECUTIVE SUMMARY

The Oklahoma Department of Environmental Quality (ODEQ) Land Protection Division (LPD) requested that the Oklahoma Department of Central Services (DCS) provide a Licensed Asbestos Inspection Firm to evaluate the locations and conditions of Asbestos Containing Materials (ACM) in the Cushing Armory located in Cushing, Oklahoma.

Marshall Environmental Management, Inc. (MEM) was contracted by DCS to conduct an Asbestos Inspection for the ODEQ at the Cushing Armory. The Asbestos Inspection was conducted on March 29, 2007. A total of thirty-one (31) asbestos samples were analyzed in accordance with the EPA authorized Method 600 49 CFR Part 61 Subpart M, Asbestos NESHAPS Rules.

The Asbestos Inspection did not identify the presence of asbestos Surfacing Materials or for the Armory's plumbing system's Thermal System Insulation (TSI). Asbestos was found in some miscellaneous materials such as older 9 inch by 9 inch floor tiles and black asphalt mastics associated with the floor tiles within the Armory.

The principal recommendations of the Asbestos Inspection Report consist of developing plans for a response action in order to remove the asbestos containing floor tile and associated black asphalt asbestos containing mastics located in and the fireproofing found inside the portable safe left in the Armory vault.

REGULATORY REVIEW

The Cushing Armory was constructed prior to 1980 and construction was completed in approximately 1938. The Armory was constructed in the era when asbestos was used in construction and installed in certain building components. In 1994, the Occupational Safety and Health Administration (OSHA) required employers to identify asbestos containing building materials (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 identification surveys, owners and/or operators must treat suspected ACM as an asbestos containing material. In such cases, this is referred to as presumed ACM or PACM. One of the purposes of the Asbestos Survey was to identify the types of ACM present in the various building components.

The Oklahoma Department of Labor (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 for in OAC 380 Chapter 45. http://www.state.ok.us/~okdol/peosh/PEOSHTitle%20380-45%20(8-06).pdf

Specific provisions of the Standard (OAC: 45-15-1) addresses an Asbestos Notice and Labeling requirement. The Labeling requirements specify that various equipment, such as pipe insulation and equipment with asbestos insulation (e.g. HVAC equipment), as well as room locations where asbestos is present, such as mechanical rooms, 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 is used in acoustical materials on ceilings and walls. This type of ACM is referred to as Surfacing Material.

The U.S. Environmental Protection Agency (EPA) requires inspections in schools grades K through 12, as part of the Asbestos Hazard and Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. These AHERA requirements would only be applicable to the Armory in the case that the future use of the Armory Facility would include any use by a Local Educational Authority (LEA), such as a school grades K through 12. The AHERA inspection protocol requires a thorough sampling of all forms of asbestos. The types of ACM to be assessed as part of an AHERA Inspection include:

Thermal System Insulation (TSI) – found on plumbing lines, HVAC equipment, boilers and steam lines

Surfacing Materials (SM) – blown on, textured or troweled onto building components (e.g. ceilings and beams)

Miscellaneous Materials (Misc.) – floor tile, mastics, ceiling tile, wallboard, cement asbestos boards, etc.

The AHERA sampling protocol addresses the systematic sampling of each of these forms of ACM and the identification of both friable ACM (i.e. that which can be rendered to a powder by hand pressure) and non-friable ACM, such as floor tiles and mastic. This Inspection also evaluated the condition of the ACM identified as good, damaged or significantly damaged. No significantly damaged ACM was identified in this Inspection. The potential for disturbance of the ACM identified was indicated on the field inspection forms in accordance with the AHERA inspection protocol in order to assist with future Asbestos Management Planning efforts.

In addition to AHERA, the EPA regulates asbestos removal and land disposal requirements. These efforts are now administered by the Oklahoma Department of Environmental Quality (DEQ). Air quality regulations require the filing of advance notices of any demolition or renovation activities. These notices are referred to as a National Emission Standard for Hazard Air Pollutants (NESHAPS) Notice. Both historical and future asbestos abatement response actions track asbestos removal from the Armory to the DEQ approved landfill on a project by project basis as part of this NESHAP notification process.

The ODOL Asbestos Division regulates the abatement of asbestos in Oklahoma. 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 Oklahoma State Department of Labor. It should be noted that the ODOL Asbestos Rules are currently undergoing a Rule Change process regarding the current ODOL Asbestos Rules.

One of the goals of the Asbestos Inspection was to identify the presence, types and quantity of ACM within the Armory so that plans can be made to abate the asbestos and therefore eliminate the need for any long term asbestos management requirements, such as those required by ODOL or the EPA AHERA regulations.

IV. HISTORICAL OVERVIEW OF ASBESTSOS ACTIVITIES

This Asbestos Inspection did not identify any evidence of prior asbestos inspection work or previous abatement of friable ACM. No historical inspection records were available. As a result, this Asbestos Inspection took the approach of a thorough initial sampling of the Armory, as opposed to a re-inspection and confirmation sampling approach.

V. RESULTS OF THE ASBESTOS INSPECTION

The DEQ LPD requested that the DCS provide a Licensed Asbestos Inspection Firm to perform an initial Asbestos Inspection of the Armory. Marshall Environmental Management, Inc. began a systematic inspection of the Armory on March 29, 2007 to locate and assess the condition of the suspected Asbestos Containing Materials in the facility. Each room was visually inspected by a Licensed AHERA Asbestos Inspector. All accessible locations throughout the Armory were visually inspected for suspected ACM.

Sampling consisted of taking bulk asbestos samples from each category of suspected ACM consisting of the following typical examples:

Surfacing Materials (SM)

Blown on or troweled on ACM, typically observed on ceilings, structural steel and concrete ceils or metal pan decks.

Thermal System Insulation (TSI)

Typically located on plumbing, HVAC equipment, boilers, steam lines and heated thermal processes.

Miscellaneous Materials (Misc.)

Typically consists of floor tiles, mastics, ceiling tiles, sheet vinyl flooring, and wallboard bedding tapes, joint compounds, and other suspect ACM not typically included in Surfacing Materials or TSI designations.

A total of thirty-one (31) samples were collected and fifteen (15) were identified by laboratory analysis to be "Positive" for asbestos content, which is defined by EPA regulations to consist of any material with more than 1% asbestos as determined by the EPA approved Test Method 0600 or Polarized Light Microscopy (PLM).

The following Table is a summary of the samples collected, sorted by: location and type of building component. Locations where ACM was identified can be referenced by the facility floor plan diagram provided in the Appendix of this Inspection Report. A summary of the estimated quantities of ACM located during the Asbestos Inspection are provided in the following Appendix.

Location	Sample ID	Type of ACM	Asbestos Content Type (%)	Condition - Item
Support Room	L-1a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Support Room	L-1b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-1a
Classroom	L-4a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Classroom	L-4b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-4a
Storage/ POL Room	L-10a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Storage/ POL Room	L-10b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-10a
Storage/ POL Room	L-11a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Storage/ POL Room	L-11b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-11a
Storage/ POL Room	L-12a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Storage/ POL Room	L-12b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-12a
Storage/ POL Room	L-13a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
Storage/ POL Room	L-13b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-13a
ORD/CO Office	L-18a	Misc. Floor Tile	Chrysotile 3%	Good – 9-in. x 9-in. Brown Floor Tile
ORD/CO Office	L-18b	Misc. Mastic	Chrysotile 5%	Good – Black Mastic from back of L-18a
Outside Chem. Safe	L-23	Fire Proofing	Chrysotile 55%	Damaged - Do to improper entry

Table 1 - Summary of Sampling Data for Samples that were Positive for Asbestos Content

Copies of the individual asbestos analytical results, provided by the accredited testing lab, along with the chain of custody forms are provided for review in the Appendix of this Asbestos Inspection Report.

ASBESTOS INSPECTION – CONCLUSIONS AND FINDINGS

The results for this initial Asbestos Inspection did identify that ACM was present in the Cushing Armory in the form of non-friable asbestos containing Floor Tile and the associated black asphalt asbestos containing mastic.

The following are some of the conclusions and findings related to the results of this initial Asbestos Inspection Report.

1. **Surfacing Materials** – No surfacing materials in the form of blown on fireproofing or acoustical insulation were observed for sampling at any of the accessible locations selected for sampling as a part of this initial Asbestos Inspection.

2. **Thermal System Insulation** – No Thermal System Insulation (TSI) was found to contain asbestos as part of the Asbestos Inspection of the Cushing Armory.

   Plumbing – No ACM was found on TSI within the Cushing Armory.

   HVAC – No Friable ACM was identified on HVAC equipment or components.

Miscellaneous Materials – The miscellaneous ACM located within the Cushing Armory is older 9-inch by 9-inch Floor Tile and the associated black asphalt containing mastic that containing approximately 3-5% Chrysotile asbestos and the fireproofing found inside the portable safe left that store chemicals outside of the Motor Pool.

CONDITION OF MISCELLANEOUS ACM –

Asbestos Containing Floor Tiles - Good

Black Asphalt Mastic – Good

Portable Safe - Damaged

VI. RECOMMENDATIONS

This Asbestos Inspection Report should be considered as the initial step in a process to develop plans for asbestos abatement or an Armory Asbestos Management Plan.

The principal recommendations of the Asbestos Inspection Report consist of developing plans for a response action to remove the asbestos containing floor tile and associated black asphalt asbestos containing mastic located in and the fireproofing found inside the portable safe left outside of the Motor Pool.

The following specific recommendations help address the future goals for facility asbestos management and abatement:

1. The Scope of work should include the recommended methods for floor tile and mastic removal along with a Bid Form to assist obtaining a bid from a qualified Licensed Asbestos Contractor.
2. The Licensed Abatement Contractor should seal the portable safe located in the vault in two layers of 6-mil polyethylene and dispose of the item as part of the anticipated asbestos abatement action.

APPENDIX

ASBESTOS SAMPLING ANALYTICAL RESULTS

CHAIN OF CUSTODY FORMS

SUMMARY OF ESTIMATED QUANTITIES OF ACM

ARMORY FLOOR PLAN

DIGITAL PHOTOS

Marshall Environmental Management, Inc.
1145 Southwest 74th Street, E-300
Oklahoma City, Oklahoma 73139
Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality	**Lab Accreditation:**	AIHA PAT ID #102334
	Cushing Armory	**Job Identification:**	2202
		Project Location:	Cushing Armory
			Cushing, Oklahoma
Date Sampled:	March 29, 2007	**Date Analyzed:**	April 12, 2007
Collected By:	Brice Semrad		
Analyst:	Brice Semrad		

Sample Identification	Sample Description		Results
L-01a Support Room 9"x9" Floor Tile (13'x13')	**Material:** **Color:** **Type:** **Condition:** **Note:**	Floor Tile Brown	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-01b Support Room Mastic	**Material:** **Color:** **Type:** **Condition:** **Note:**	Mastic Black	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**
L-02 Support Room 2'x4" Ceiling Tile	**Material:** **Color:** **Type:** **Condition:** **Note:**	Ceiling Tile White	Asbestos Not Detected 100% Fibrous Glass Total Asbestos: None Detected
L-03 Support Room Window Caulking	**Material:** **Color:** **Type:** **Condition:** **Note:**	Window Caulking White	Asbestos Not Detected 100% Calcareous Material Total Asbestos: None Detected

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

Marshall Environmental Management, Inc.
1145 Southwest 74th Street, E-300
Oklahoma City, Oklahoma 73139
Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality Cushing Armory	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
		Project Location:	Cushing Armory Cushing, Oklahoma
Date Sampled:	March 29, 2007		
Collected By:	Brice Semrad		
Analyst:	Brice Semrad	**Date Analyzed:**	April 12, 2007

Sample Identification	Sample Description	Results
L-04 Classroom Floor Tile 9"x9" (13'x41')	**Material:** Floor Tile **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-05 Classroom Mastic (13'x41')	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**
L-06a Squad Room Floor Tile 9"x9" 9"x9" (13'x13')	**Material:** Floor Tile **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-06b Squad Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

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Project:	Oklahoma Department of Environmental Quality	**Lab Accreditation:**	AIHA PAT ID #102334
	Cushing Armory	**Job Identification:**	2202
		Project Location:	Cushing Armory
			Cushing, Oklahoma
Date Sampled:	March 29, 2007	**Date Analyzed:**	April 12, 2007
Collected By:	Brice Semrad		
Analyst:	Brice Semrad		

Sample Identification	Sample Description	Results
L-07a Bunk Room/ Kitchen 12"x12" Floor Tile	**Material:** Floor Tile **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 30% Aggregate 70% Calcareous Material Total Asbestos: None Detected
L-07b Bunk Room/ Kitchen Mastic	**Material:** Mastic **Color:** Yellow **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Vinyl Aggregate Total Asbestos: None Detected
L-08 Bunk Room Drywall (no texture/mud)	**Material:** Drywall **Color:** White **Type:** **Condition:** **Note:**	Asbestos Not Detected 75% Calcareous Material 15% Cellulose 10% Fibrous Glass Total Asbestos: None Detected
L-09 Motor Pool Ceiling Material	**Material:** Ceiling Material **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Cellulose Total Asbestos: None Detected

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

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Oklahoma City, Oklahoma 73139
Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality Cushing Armory	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
		Project Location:	Cushing Armory Cushing, Oklahoma
Date Sampled:	March 29, 2007		
Collected By:	Brice Semrad		
Analyst:	Brice Semrad	**Date Analyzed:**	April 12, 2007

Sample Identification	Sample Description	Results
L-10a Storage Room 9"x9" Floor Tile	**Material:** Floor Tile **Color:** Red **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-10b Storage Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**
L-11a Storage Room 9"x9" Floor Tile Wall Texture	**Material:** Floor Tile **Color:** White **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-11b Storage Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**

Brice Semrad, Environmental / Industrial Hygiene Tech.

4/12/07
DATE:

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

Marshall Environmental Management, Inc.
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Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
	Cushing Armory	**Project Location:**	Cushing Armory
			Cushing, Oklahoma
Date Sampled:	March 29, 2007	**Date Analyzed:**	April 12, 2007
Collected By:	Brice Semrad		
Analyst:	Brice Semrad		

Sample Identification	Sample Description	Results
L-12a Storage Room 9"x9" Floor Tile	**Material:** Floor Tile **Color:** Green **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-12b Storage Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**
L-13a Storage Room 9"x9" Floor Tile	**Material:** Floor Tile **Color:** Gray **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-13b Storage Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/17/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

Marshall Environmental Management, Inc.
1145 Southwest 74th Street, E-300
Oklahoma City, Oklahoma 73139
Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality Cushing Armory	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
		Project Location:	Cushing Armory Cushing, Oklahoma
Date Sampled:	March 29, 2007		
Collected By:	Brice Semrad		
Analyst:	Brice Semrad	**Date Analyzed:**	April 12, 2007

Sample Identification	Sample Description	Results
L-14a Orderly Room 9"x9" Rubber Floor Tile	**Material:** Rubber Floor Tile **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Vinyl Aggregate Total Asbestos: None Detected
L-14b Orderly Room Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Vinyl Adhesive Total Asbestos: None Detected
L-15 Orderly Room Drywall	**Material:** Drywall **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 75% Calcareous Material 15% Cellulose 10% Fibrous Glass Total Asbestos: None Detected
L-16 Orderly Room Wall Insulation	**Material:** Wall Insulation **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Fibrous Glass Total Asbestos: None Detected

Brice Semrad, Environmental / Industrial Hygiene Tech.

4/12/07
DATE:

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

Marshall Environmental Management, Inc.
1145 Southwest 74th Street, E-300
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Project:	Oklahoma Department of Environmental Quality Cushing Armory	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
		Project Location:	Cushing Armory Cushing, Oklahoma
Date Sampled:	March 29, 2007	**Date Analyzed:**	April 12, 2007
Collected By:	Brice Semrad		
Analyst:	Brice Semrad		

Sample Identification	Sample Description	Results
L-17a ORD Room & CO Office 12"x12" Floor Tile	**Material:** Floor Tile **Color:** White **Type:** **Condition:** **Note:**	Asbestos Not Detected 30% Aggregate 70% Calcareous Material Total Asbestos: None Detected
L17b ORD Room & CO Office Mastic (10'x19')	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Vinyl Aggregate Total Asbestos: None Detected
L-18a ORD Room & CO Office Floor Tile	**Material:** Floor Tile **Color:** Brown **Type:** **Condition:** **Note:**	**Asbestos Detected** 97% Calcareous Material **3% Chrysotile** **Total Asbestos: 3%**
L-18b ORD Room & CO Office Mastic	**Material:** Mastic **Color:** **Type:** **Condition:** **Note:**	**Asbestos Detected** **5% Chrysotile** 95% Tar **Total Asbestos: 5%**

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

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Project:	Oklahoma Department of Environmental Quality Cushing Armory	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
		Project Location:	Cushing Armory Cushing, Oklahoma
Date Sampled:	March 29, 2007		
Collected By:	Brice Semrad		
Analyst:	Brice Semrad	**Date Analyzed:**	April 12, 2007

Sample Identification	Sample Description	Results
L-19 CO Office Ceiling Tile	**Material:** Ceiling Tile **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Cellulose Total Asbestos: None Detected
L-20 ORD Room Ceiling Tile	**Material:** Ceiling Tile **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Styrofoam Total Asbestos: None Detected
L-21 Recruiter Office Window Caulking	**Material:** Window Caulking **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 100% Calcareous Material Total Asbestos: None Detected
L-22 Main Hallway Ceiling Tile	**Material:** Ceiling Tile **Color:** **Type:** **Condition:** **Note:**	Asbestos Not Detected 25% Calcareous Material 52% Cellulose 15% Fibrous Glass 8% Polyethylene Foam Total Asbestos: None Detected

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

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Oklahoma City, Oklahoma 73139
Phone: (405) 616-0401 Fax: (405) 972-0525

Project:	Oklahoma Department of Environmental Quality	**Lab Accreditation:**	AIHA PAT ID #102334
		Job Identification:	2202
	Cushing Armory	**Project Location:**	Cushing Armory
			Cushing, Oklahoma
Date Sampled:	March 29, 2007	**Date Analyzed:**	April 12, 2007
Collected By:	Brice Semrad		
Analyst:	Brice Semrad		

Sample Identification	Sample Description	Results
L-233 Outside Safe Chemical Storage	**Material:**	**Asbestos Detected**
	Color:	45% Calcareous Material
	Type:	**55% Chrysotile**
	Condition:	
	Note:	**Total Asbestos: 55%**

Brice Semrad, Environmental / Industrial Hygiene Tech.

DATE: 4/12/07

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A Interim Method for Determination of Asbestos in Bulk Insulation Samples and/or Current EPA Method for the Analysis of Asbestos in Building Materials by Polarized Light Microscopy.

Marshall Environmental Management, Inc. 1145 SW 74th Street Suite E-300 Oklahoma City, OK 73139 email: marshenv@swbell.net	Turn Around Time: Phone: (405) 616-0401 Fax: (405) 972-0525	Job Identification:	2202
		Project Name:	Cushing Armory

Project Location:

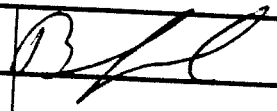
Address:	Cushing Armory
	Cushing, Oklahoma
Contact:	
Phone No:	Fax No.:

Invoice To:

Address:	Oklahoma Department of Environmental Quality
	707 North Robinson
	Oklahoma City, Oklahoma 73102
Attention:	Attention: Land Protection Division
Phone No:	Fax No.:

Date	Sample Number	Location/Description	Sample Type/ Media	Time/ Volume	Analysis Requested
3/29/2007	L-01	Support Room - 9"x9" Floor Tile/ Mastic (13'x13')	Bulk	N/A	Asbestos
3/29/2007	L-02	Support Room - 2'x4' Ceiling Tile	Bulk	N/A	Asbestos
3/29/2007	L-03	Support Room - Window Caulking	Bulk	N/A	Asbestos
3/29/2007	L-04	Classroom - Floor Tile 9"x9" (13'x41')	Bulk	N/A	Asbestos
3/29/2007	L-05	Classroom - Mastic (13'x41')	Bulk	N/A	Asbestos
3/29/2007	L-06	Squad Room - Floor Tile 9"x9"/ Mastic (13'x13')	Bulk	N/A	Asbestos
3/29/2007	L-07	Bunk Room/Kitchen 12"x12" Floor Tile/ Mastic	Bulk	N/A	Asbestos
3/29/2007	L-08	Bunk Room Drywall (No texture/ mud)	Bulk	N/A	Asbestos
3/29/2007	L-09	Motor Pool - Ceiling Material	Bulk	N/A	Asbestos
3/29/2007	L-10	Storage Room - Red 9"x9" Floor Tile/ Mastic (8'x8')	Bulk	N/A	Asbestos
3/29/2007	L-11	Storage Room - White 9"x9" Floor Tile/ Mastic ~~(8'x8')~~	Bulk	N/A	Asbestos
3/29/2007	L-12	Storage Room - Green 9"x9" Floor Tile/ Mastic (6'x8')	Bulk	N/A	Asbestos
3/29/2007	L-13	Storage Room - Gray 9"x9" Floor Tile/ Mastic ~~(6'x8')~~	Bulk	N/A	Asbestos
3/29/2007	L-14	Orderly Room - 9"x9" Rubber Floor Tile/ Mastic	Bulk	N/A	Asbestos
3/29/2007	L-15	Orderly Room - Drywall	Bulk	N/A	Asbestos

Instructions/Special Requirements:

Collected By (print):	Brice Semrad	Date:	3/29/2007	Collector's Signature:		Date:	3/29/07
		Time:	1700			Time:	17:00
Relinquished By:		Date:		Receive By:		Date:	
		Time:				Time:	
Relinquished By:		Date:		Receive By:		Date:	
		Time:				Time:	
Method of Shipment:		Condition Upon Reception:					

Marshall Environmental Management, Inc.	**Turn Around Time:**	**Job Identification:**	2202
1145 SW 74th Street Suite E-300		**Project Name:**	Cushing Armory
Oklahoma City, OK 73139	**Phone:** (405) 616-0401		
email: marshenv@swbell.net	**Fax:** (405) 972-0525		

Project Location:		**Invoice To:**	
Address:	Cushing Armory	Address:	Oklahoma Department of Environmental Quality
	Cushing, Oklahoma		707 North Robinson
			Oklahoma City, Oklahoma 73102
Contact:		Attention:	Attention: Land Protection Division
Phone No:	Fax No.:	Phone No:	Fax No.:

Date	Sample Number	Location/Description	Sample Type/ Media	Time/ Volume	Analysis Requested
3/29/2007	L-16	Orderly Room - Wall Insulation	Bulk	N/A	Asbestos
3/29/2007	L-17	ORD Rm. & CO Office - White 12"x12" Floor Tile/ Mastic (10'x19')	Bulk	N/A	Asbestos
3/29/2007	L-18	ORD Rm. & CO Office - Brown 12"x12" Floor Tile/ Mastic (10'x19')	Bulk	N/A	Asbestos
3/29/2007	L-19	CO Office - 2'x4' Ceiling Tile (8'x10')	Bulk	N/A	Asbestos
3/29/2007	L-20	ORD Rm. - 2'x4' Ceiling Tile	Bulk	N/A	Asbestos
3/29/2007	L-21	Recruiter Office - Window Caulking	Bulk	N/A	Asbestos
3/29/2007	L-22	Main Hallway - 2'x4' Ceiling Tile (8'x51')	Bulk	N/A	Asbestos
3/29/2007	L-23	Outside Safe/ Chemical Storage - (6'x4'x4')			

Instructions/Special Requirements:

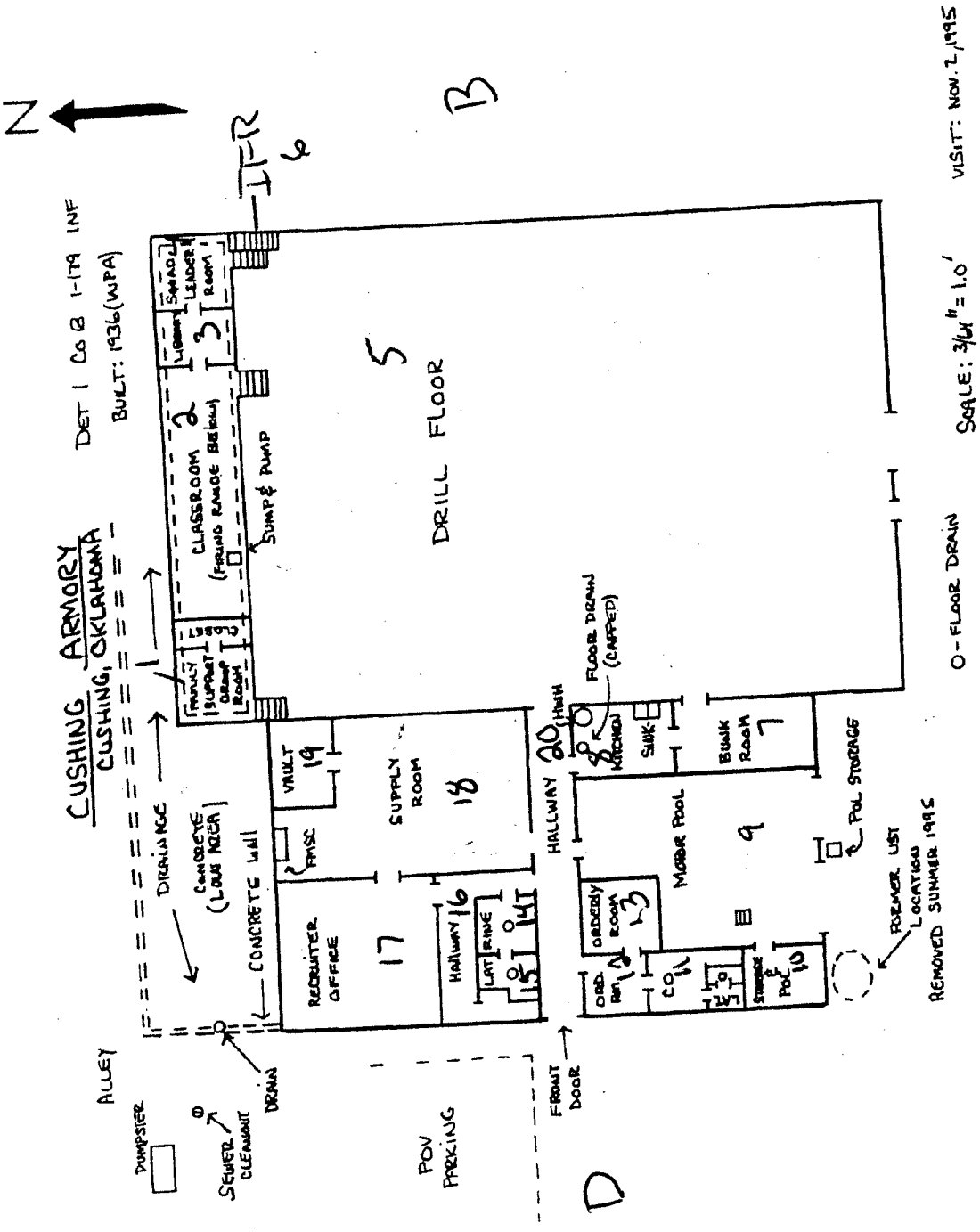
Collected By (print):	**Sarah Marshall**	**Date:**	**3/29/2007**	**Collector's Signature:**	B Marshall	**Date:**	3/29/07
		Time:	**1700**			**Time:**	17:00
Relinquished By:		**Date:**		**Receive By:**		**Date:**	
		Time:				**Time:**	
Relinquished By:		**Date:**		**Receive By:**		**Date:**	
		Time:				**Time:**	
Method of Shipment:		**Condition Upon Reception:**					

Oklahoma Department of Environmental Quality
Land Protection Division
CUSHING ARMORY

Asbestos Inspection by:
Marshall Environmental Management, Inc.
Summary of Estimated Quantities of ACM
Date of Inspection: 3-29-07

Location	Type of ACM	Category	Estimated Quantity	Units	Comments
Inside Armory					
Floor Tiles & Mastic					
Support Room	Misc.	Floor Tile/Mastic	169	Square Feet	Asbestos Floor Tile & Asbestos Mastic
Classroom/Squad Room	Misc.	Floor Tile/Mastic	702	Square Feet	Asbestos Floor Tile & Asbestos Mastic
Storage/POL Room	Misc.	Floor Tile/Mastic	130	Square Feet	Asbestos Floor Tile & Asbestos Mastic
ORD/CO Office	Misc.	Floor Tile/Mastic	270	Square Feet	Asbestos Floor Tile & Asbestos Mastic
Outside Chem. Safe	Misc.	Door Fire-Proofing	6Hx4Wx4H Estamate 250 lbs.		Damage do to improper entry to safe

FLOOR PLAN, CUSHING ARMORY



Support Room 9x9 Floor Tile

Classroom 9x9 Floor Tile

Storage/POL Room 9x9 Floor Tile

Outside of Motor Pool Damage Safe

LEAD-BASED PAINT INSPECTION REPORT
FOR

Cushing Armory

Cushing, Oklahoma

March 29, 2007

Services Provided for:
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73102

Certified Industrial Hygiene Services Provided By:
Marshall Environmental Management, Inc.
1145 SW 74th Street, E-300
Oklahoma City, OK 73139
(405) 616-0401

CERTIFICATION

This is to certify that the Lead-Based Paint Inspection conducted at the Cushing Armory Located in Cushing Oklahoma (Year of Construction: 1936) on March 29, 2007 was conducted in accordance with *"Good Industrial Hygiene Practice."* The results of the testing accurately reflect the condition of the property at the time the sampling was performed.

Current Owner Information
State of Oklahoma

Certified Lead Based Paint Risk Assessor/Inspector

Brice Semrad, Sr. Industrial Hygienist
Certified Lead-Based Paint Inspector/Risk Assessor OKRASR13046

Certified Lead-Based Paint Firm #OKFIRM11160
Marshall Environmental Management, Inc.
1145 SW 74th E-300
Oklahoma City, Oklahoma 73139
(405) 616-0401

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

Executive Summary:

Sampling Methodology:

Lead based paint (LBP) testing was done to determine lead levels on painted structural building components at the Cushing Armory. Each room of the Building was numbered on a floor plan that is provided in the Appendix. The front side of the Armory Building was marked "Side A" and going in a clockwise motion the remaining sides were categorized as Sides B, C, and D, respectively.

The building is a one-story structure constructed on a concrete slab foundation with an asphalt composite flat roof over the Office/Supply Areas and a metal pitched roof over the Drill Floor. Rock covers the sides of the Building. All of the windows are metal. Throughout the Building were concrete floors and windowsills. The roof was constructed with steel rafters and concrete decking with asphalt roof / metal.

The findings from the XRF testing indicated that there is lead-based paint in amounts greater than the EPA Standard for XRF readings or equal to 1.0 mg/cm^2 located on the Building components.

The following locations contain lead-based paint:

1. Interior and Exterior Doors and Door Frames
2. Overhead Doors and Frames the Building
3. Hand Rails in the Drill Floor to the Stage
4. Window frames through the building
5. Main Hallway wood display cabinet
6. Outside Chemical Storage Safe
7. Outside Down Spouts

Please note that the following items were not tested in this inspection:

1. Structural Steel in the Drill Floor do to inaccessibility
2. Non-painted floors
3. Non-painted wood panels
4. Non-fixed Items on the property

ROOM LEGEND

Site	Current Use
1	Support Group Room on Stage
2	Classroom #2 on Stage
3	Library on Stage
4	Squad Leader Room on Stage
5	Drill Floor
6	Indoor Firing Range (IFR)
7	Bunk Room
8	Kitchen
9	Motor Pool
10	Storage Room of Motor Pool
11	CO Room
12	ORD Room
13	Orderly Room
14	Shower Room
15	Latrine
16	Small Hallway
17	Recruiter Office
18	Supply Room
19	Vault
20	Main Hallway
Blank	Outside of Building

CERTIFICATES

Department of Environmental Quality

This is to Certify That

BRICE SEMRAD

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

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR13046

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

Issued on: 4/1/2007 Expires on: 3/31/2008

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

MARSHALL ENVIRONMENTAL MANAGEMENT

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

FIRM

Certification # OKFIRM11160

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

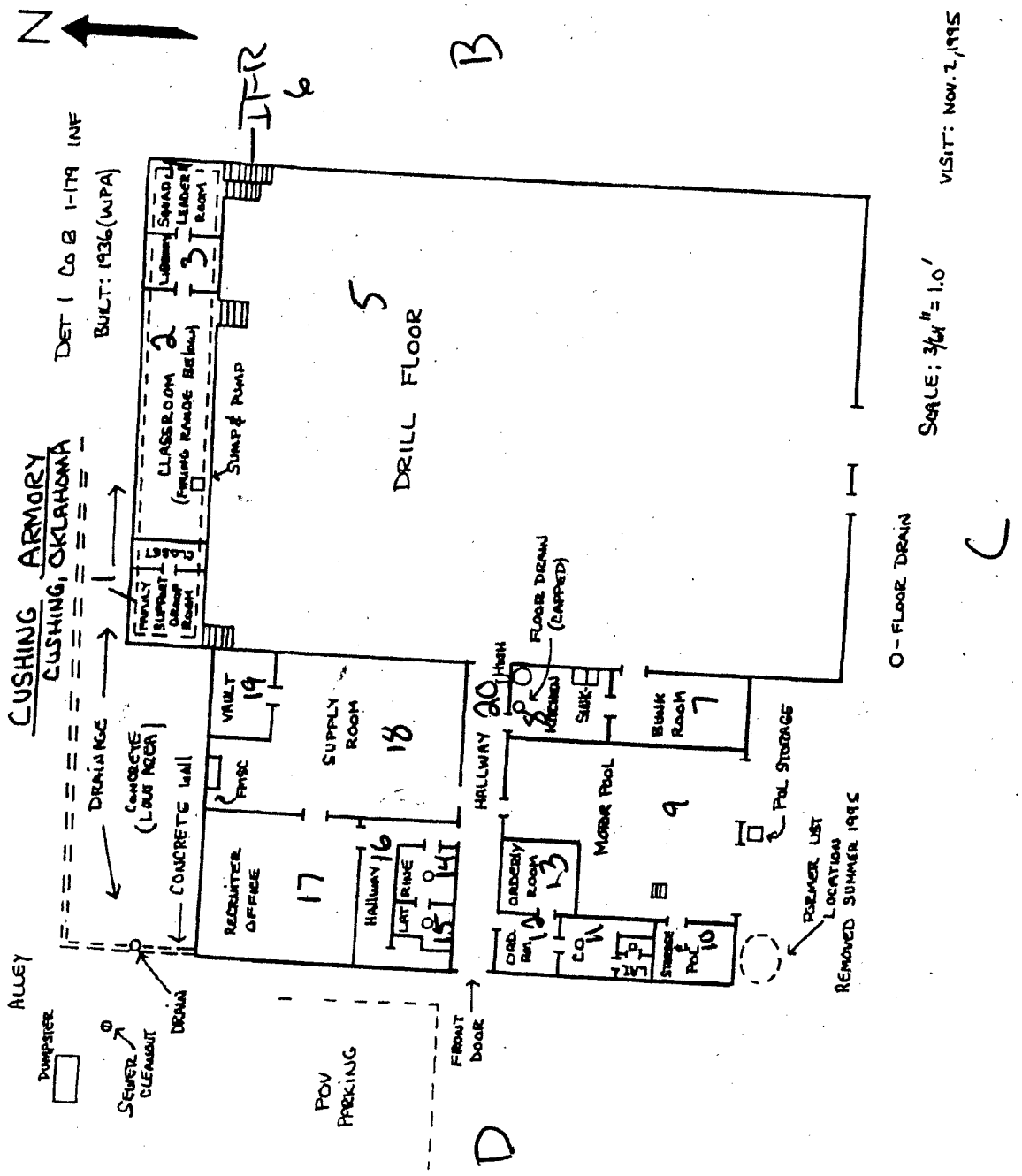
Issued on: 4/1/2007 Expires on 3/31/2008

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

SITE MAP

FLOOR PLAN, CUSHING ARMORY



XRF READINGS

Marshall Environmental Management Inc.
1145 SW 74th Street E-300
Oklahoma City, OK 73139

Cushing Armory

Index	Component	Substrate	Side	Condition	Color	Site	Room	Results	Pb	PbL	PbK
1									9.53 ± 0.00	1.56 ± 0.00	0.02 ± 0.00
2			CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 6.90
3			CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.90
4			CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.90
5	WALL	BRICK	A	PEELING	WHITE	1	SUPPORT ROOM	Negative	0.07 ± 0.04	0.07 ± 0.04	< LOD : 1.15
6	WALL	BRICK	B	PEELING	WHITE	1	SUPPORT ROOM	Negative	0.07 ± 0.04	0.07 ± 0.04	< LOD : 1.93
7	WALL	BRICK	C	PEELING	WHITE	1	SUPPORT ROOM	Negative	0.20 ± 0.12	0.20 ± 0.12	< LOD : 2.06
8	WALL	BRICK	D	PEELING	WHITE	1	SUPPORT ROOM	Negative	0.09 ± 0.06	0.09 ± 0.06	< LOD : 1.98
9	DOOR	WOOD	D	INTACT	BEIGE	1	SUPPORT ROOM	Positive	5.50 ± 3.50	5.50 ± 3.50	< LOD : 6.30
10	DOOR FRAME	METAL	D	INTACT	BEIGE	1	SUPPORT ROOM	Positive	3.00 ± 1.70	3.00 ± 1.70	< LOD : 7.80
11	DOOR FRAME	METAL	D	INTACT	BROWN	2	CLASSROOM	Negative	< LOD : 0.07	< LOD : 0.07	< LOD : 3.15
12	DOOR	METAL	D	INTACT	BROWN	2	CLASSROOM	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 2.46
13	WALL	BRICK	A	INTACT	WHITE	2	CLASSROOM	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 2.19
14	WALL	BRICK	B	INTACT	WHITE	2	CLASSROOM	Negative	0.08 ± 0.04	0.08 ± 0.04	< LOD : 1.16
15	WALL	BRICK	C	INTACT	WHITE	2	CLASSROOM	Negative	< LOD : 0.12	< LOD : 0.12	< LOD : 2.25
16	WALL	BRICK	D	INTACT	WHITE	2	CLASSROOM	Negative	< LOD : 0.25	< LOD : 0.25	< LOD : 2.67
17	WALL	BRICK	A	INTACT	BEIGE	3	LIBRARY	Negative	< LOD : 0.08	< LOD : 0.08	< LOD : 1.98
18	WALL	BRICK	B	INTACT	BEIGE	3	LIBRARY	Negative	0.08 ± 0.04	0.08 ± 0.04	< LOD : 1.18
19	WALL	BRICK	C	INTACT	BEIGE	3	LIBRARY	Negative	< LOD : 0.28	< LOD : 0.28	< LOD : 2.29
20	WALL	BRICK	D	INTACT	BEIGE	3	LIBRARY	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.76
21	DOOR	METAL	C	INTACT	BROWN	3	LIBRARY	Positive	1.70 ± 0.60	1.70 ± 0.60	< LOD : 2.85
22	DOOR FRAME	METAL	C	INTACT	BROWN	3	LIBRARY	Positive	< LOD : 5.10	< LOD : 5.10	< LOD : 12.30
23	DOOR FRAME	METAL	D	INTACT	BROWN	4	SQUAD LDR ROOM	Positive	3.30 ± 2.00	3.30 ± 2.00	< LOD : 7.50
24	DOOR	WOOD	D	INTACT	WHITE	4	SQUAD LDR ROOM	Positive	< LOD : 3.75	< LOD : 3.75	< LOD : 8.25
25	WALL	CONCRETE	A	INTACT	WHITE	4	SQUAD LDR ROOM	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 2.00
26	WALL	CONCRETE	B	INTACT	WHITE	4	SQUAD LDR ROOM	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.80
27	WALL	CONCRETE	C	INTACT	WHITE	4	SQUAD LDR ROOM	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.05
28	WALL	CONCRETE	D	INTACT	WHITE	4	SQUAD LDR ROOM	Negative	< LOD : 0.13	< LOD : 0.13	< LOD : 2.46
29	FLOOR HZD MARK	CONCRETE	LOWER	FAIR	YELLOW	5	DRILL FLOOR	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.81
30	WALL	CONCRETE	B	INTACT	BEIGE	5	DRILL FLOOR	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.99
31	DOOR	METAL	D	INTACT	GREY	5	DRILL FLOOR	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.78
32	DOOR FRAME	METAL	D	INTACT	BROWN	5	DRILL FLOOR	Positive	2.80 ± 1.30	2.80 ± 1.30	< LOD : 4.65
33	DOOR FRAME	METAL	C	INTACT	BROWN	5	DRILL FLOOR	Positive	4.10 ± 2.60	4.10 ± 2.60	< LOD : 7.95
34	DOOR FRAME	METAL	C	INTACT	BROWN	7	BUNK ROOM	Positive	2.80 ± 1.50	2.80 ± 1.50	< LOD : 7.95
35	DOOR	WOOD	C	INTACT	BROWN	7	BUNK ROOM	Positive	2.30 ± 0.90	2.30 ± 0.90	< LOD : 3.00
36	WALL	ROCK	C	INTACT	WHITE	7	BUNK ROOM	Negative	0.14 ± 0.05	0.14 ± 0.05	< LOD : 1.16
37	WALL	ROCK	C	INTACT	WHITE	8	KITCHEN	Negative	< LOD : 0.09	< LOD : 0.09	< LOD : 1.20
38	WALL	ROCK	A	INTACT	WHITE	8	KITCHEN	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.19
39	WALL	ROCK	B	INTACT	WHITE	8	KITCHEN	Negative	< LOD : 0.14	< LOD : 0.14	< LOD : 1.80
40	WALL	ROCK	D	INTACT	WHITE	8	KITCHEN	Negative	< LOD : 0.15	< LOD : 0.15	< LOD : 2.16

Marshall Environmental Management Inc
1145 SW 74th Street E-300
Oklahoma City, OK 73139

Cushing Armory

Index	Component	Substrate	Side	Condition	Color	Site	Room	Results	PbC	PbI	PbK
41	WALL	ROCK	A	INTACT	BEIGE	9	MOTOR POOL	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 2.94
42	WALL	ROCK	B	INTACT	BEIGE	9	MOTOR POOL	Negative	< LOD : 0.18	< LOD : 0.18	< LOD : 1.80
43	WALL	ROCK	C	INTACT	BEIGE	9	MOTOR POOL	Negative	< LOD : 0.07	< LOD : 0.07	< LOD : 3.05
44	WALL	ROCK	D	INTACT	BEIGE	9	MOTOR POOL	Negative	< LOD : 0.10	< LOD : 0.10	< LOD : 2.54
45	WALL	ROCK	A	INTACT	WHITE	10	STORAGE	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.17
46	WALL	ROCK	B	INTACT	WHITE	10	STORAGE	Negative	< LOD : 0.22	< LOD : 0.22	< LOD : 2.84
47	WALL	ROCK	C	INTACT	WHITE	10	STORAGE	Null	< LOD : 0.13	< LOD : 0.13	< LOD : 2.33
48	WALL	ROCK	C	INTACT	WHITE	10	STORAGE	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 1.96
49	WALL	ROCK	D	INTACT	WHITE	10	STORAGE	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.97
50	DOOR	WOOD	C	INTACT	BLUE	10	STORAGE	Positive	2.80 ± 1.40	2.80 ± 1.40	< LOD : 4.95
51	DOOR FRAME	METAL	C	INTACT	BLUE	10	STORAGE	Positive	< LOD : 4.65	< LOD : 4.65	< LOD : 12.60
52	DOOR FRAME	METAL	B	FAIR	WHITE	11	CO OFFICE	Positive	3.70 ± 2.20	3.70 ± 2.20	< LOD : 3.90
53	DOOR	WOOD	B	FAIR	WHITE	11	CO OFFICE	Positive	2.40 ± 1.40	1.70 ± 0.80	2.40 ± 1.40
54	DOOR	WOOD	B	FAIR	WHITE	11	CO OFFICE LATRINE	Positive	2.20 ± 0.80	2.20 ± 0.80	< LOD : 2.85
55	WALL	CONCRETE	A	POOR	WHITE	11	CO OFFICE LATRINE	Negative	< LOD : 0.14	< LOD : 0.14	< LOD : 1.95
56	WALL	CONCRETE	B	POOR	WHITE	11	CO OFFICE LATRINE	Null	0.60 ± 0.10	0.60 ± 0.10	1.20 ± 0.30
57	WALL	CONCRETE	C	POOR	WHITE	11	CO OFFICE LATRINE	Negative	0.50 ± 0.10	0.50 ± 0.10	< LOD : 1.35
58	WALL	CONCRETE	D	POOR	WHITE	11	CO OFFICE LATRINE	Negative	0.15 ± 0.07	0.15 ± 0.07	< LOD : 1.05
59	DOOR	WOOD	B	POOR	WHITE	12	ORD ROOM	Negative	0.80 ± 0.10	0.80 ± 0.10	1.20 ± 0.30
60	DOOR	WOOD	B	POOR	WHITE	12	ORD ROOM	Negative	0.50 ± 0.30	0.50 ± 0.30	< LOD : 1.05
61	DOOR FRAME	METAL	B	POOR	WHITE	12	ORD ROOM	Positive	3.90 ± 2.50	< LOD : 4.20	3.90 ± 2.50
62	DOOR FRAME	METAL	C	POOR	WHITE	14	RINE ROOM	Positive	< LOD : 4.65	5.20 ± 2.90	< LOD : 4.65
63	DOOR	METAL	C	POOR	WHITE	14	RINE ROOM	Positive	3.10 ± 1.30	3.10 ± 1.30	4.10 ± 2.70
64	DOOR	CONCRETE	B	INTACT	WHITE	15	LATRINE	Negative	< LOD : 0.07	< LOD : 0.07	< LOD : 1.35
65	DOOR	CONCRETE	D	INTACT	WHITE	15	LATRINE	Negative	< LOD : 0.17	< LOD : 0.17	< LOD : 1.98
66	FLOOR	CONCRETE	LOWER	POOR	BLUE	15	LATRINE	Negative	< LOD : 0.08	< LOD : 0.08	< LOD : 1.97
67	FLOOR	CONCRETE	LOWER	POOR	BLUE	15	LATRINE	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 2.43
68	WINDOW	METAL	A	POOR	WHITE	17	RECRUTERS OFFICE	Positive	2.70 ± 1.40	2.70 ± 1.40	< LOD : 6.90
69	WALL	STONE	A	POOR	WHITE	16	HALLWAY	Negative	< LOD : 0.09	< LOD : 0.09	< LOD : 1.84
70	WALL	STONE	C	POOR	WHITE	16	HALLWAY	Negative	< LOD : 0.07	< LOD : 0.07	< LOD : 1.89
71	DOOR FRAME	METAL	D	INTACT	BEIGE	16	HALLWAY	Positive	< LOD : 3.75	3.10 ± 1.90	< LOD : 3.75
72	DOOR FRAME	METAL	C	INTACT	BEIGE	20	MAIN HALLWAY	Null	< LOD : 4.35	< LOD : 4.35	< LOD : 12.00
73	DOOR	WOOD	C	INTACT	BROWN	20	MAIN HALLWAY	Positive	< LOD : 4.80	< LOD : 4.80	< LOD : 5.55
74	WALL	CONCRETE	C	INTACT	WHITE	20	MAIN HALLWAY	Negative	< LOD : 0.21	< LOD : 0.21	< LOD : 2.01
75	WALL	CONCRETE	B	INTACT	WHITE	20	MAIN HALLWAY	Negative	0.20 ± 0.11	0.20 ± 0.11	< LOD : 1.20
76	WALL	CONCRETE	C	INTACT	WHITE	20	MAIN HALLWAY	Negative	0.21 ± 0.12	0.21 ± 0.12	< LOD : 1.20
77	WALL	CONCRETE	A	INTACT	WHITE	20	MAIN HALLWAY	Negative	0.15 ± 0.09	0.15 ± 0.09	< LOD : 1.20
78	CABINET	WOOD	B	INTACT	BEIGE	20	MAIN HALLWAY	Positive	9.50 ± 5.80	< LOD : 5.40	9.50 ± 5.80
79	CABINET	WOOD	B	INTACT	BEIGE	20	MAIN HALLWAY	Positive	< LOD : 15.45	< LOD : 9.15	< LOD : 15.45
80	STAIR HANDRAIL	METAL	B	INTACT	GREY	5	DRILL FLOOR	Positive	3.50 ± 1.80	3.50 ± 1.80	< LOD : 7.35

Marshall Environmental Management Inc
1145 SW 74th Street E-5040
Oklahoma City, OK 73139

Index	Component	Substrate	Side	Condition	Color	Site	Room	Results	PbC	PbL	PbK
81	OVERHEAD DOOR	METAL	D	INTACT	WHITE	5	DRILL FLOOR	Negative	< LOD : 0.04	< LOD : 0.04	< LOD : 1.79
82	OVERHEAD DR FRAME	METAL	D	POOR	WHITE	5	DRILL FLOOR	Positive	3.20 ± 2.10	< LOD : 1.50	3.20 ± 2.10
83	OVERHEAD DR FRAME	METAL	D	POOR	WHITE	5	DRILL FLOOR	Positive	6.20 ± 3.40	< LOD : 2.55	6.20 ± 3.40
84	DOWNSPOUT	METAL	D	POOR	WHITE	5	DRILL FLOOR	Positive	7.00 ± 3.60	< LOD : 1.80	7.00 ± 3.60
85	WINDOW	METAL	D	POOR	WHITE	5	DRILL FLOOR	Positive	3.10 ± 1.90	1.30 ± 0.70	3.10 ± 1.90
86	SAFE OUTSIDE	METAL	D	POOR	GREEN	5	DRILL FLOOR	Positive	3.80 ± 2.20	3.80 ± 2.20	< LOD : 16.95
87	FLAG POLE	METAL	A	POOR	SILVER	5	DRILL FLOOR	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 3.38
88	DOWNSPOUT	METAL	C	POOR	WHITE	5	DRILL FLOOR	Positive	3.00 ± 1.80	3.00 ± 1.80	7.30 ± 3.80
89	WINDOW	METAL	C	POOR	WHITE	5	DRILL FLOOR	Null	< LOD : 1.95	< LOD : 1.95	< LOD : 6.30
90	WINDOW	METAL	C	POOR	WHITE	5	DRILL FLOOR	Positive	1.70 ± 0.70	1.70 ± 0.70	< LOD : 2.85
91	WALL	STONE	A	INTACT	BLUE	18	SUPPLY ROOM	Negative	0.16 ± 0.09	0.16 ± 0.09	< LOD : 2.03
92	WALL	STONE	B	INTACT	BLUE	18	SUPPLY ROOM	Negative	0.40 ± 0.10	0.40 ± 0.10	0.90 ± 0.30
93	WALL	STONE	C	INTACT	BLUE	18	SUPPLY ROOM	Negative	0.24 ± 0.08	0.24 ± 0.08	< LOD : 1.20
94	WALL	STONE	D	INTACT	BLUE	18	SUPPLY ROOM	Negative	0.19 ± 0.06	0.19 ± 0.06	< LOD : 1.05
95	WALL	CONCRETE	A	INTACT	WHITE	19	VAULT	Negative	< LOD : 0.11	< LOD : 0.11	< LOD : 2.18
96	WALL	CONCRETE	B	INTACT	WHITE	19	VAULT	Negative	< LOD : 0.18	< LOD : 0.18	< LOD : 2.83
97	WALL	CONCRETE	C	INTACT	WHITE	19	VAULT	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.80
98	WALL	CONCRETE	D	INTACT	WHITE	19	VAULT	Negative	< LOD : 0.07	< LOD : 0.07	< LOD : 2.10
99	DOOR	METAL	D	INTACT	RED	19	VAULT	Positive	2.30 ± 1.00	2.30 ± 1.00	< LOD : 6.45
100	DOOR FRAME	METAL	D	INTACT	RED	19	VAULT	Positive	2.00 ± 0.90	2.00 ± 0.90	< LOD : 6.30
101			CALIBRATE					Positive	1.20 ± 0.20	1.20 ± 0.20	< LOD : 1.28
102			CALIBRATE					Positive	1.20 ± 0.20	1.20 ± 0.20	< LOD : 1.35
103			CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.75

Marshall Environmental Management, Inc.

Charles L. Marshall, Ph.D., C.I.H.
President

Established 1987

- Certified Industrial Hygiene
- Environmental Science
- Occupational Health & Safety
- Asbestos Management
- Toxic & Hazardous Waste
- Medical Hazards Management
- Research & Consultation

April 20, 2007

Ms. Angela Brunsman
Land Protection Division
Oklahoma Department of Environmental Quality
707 N. Robinson
Oklahoma City, OK 73102

RE: Cushing Armory Surface Wipe Sampling for Lead in Dust.

Dear Angela:

As part of the Inspection at the Cushing, Oklahoma Armory on March 29, 2007, Marshall Environmental Management, Inc. was requested to collect surface wipe samples for lead in dust at various locations in the Armory. Attachments to this correspondence include the Certified Lab Analysis for the surface wipe samples conducted by the EPA Accredited Environmental Lead Lab and the associated Chain of Custody form.

The results of the testing for floor wipes identified twelve (12) out of the eight-teen samples taken on the floor of the Armory as exceeding the Army National Guard (ARNG) and Air National Guard (ANG) action level of 200 micrograms/ft^2 for floor surfaces. However the Firing Range was not tested and is assumed to be over the action level. The QC Blank was below detection limits.

The ARNG and ARG Guidelines for Converting Indoor Firing Ranges to Other Use advise that floor surfaces exceeding 200 micrograms/ft^2 be cleaned, so that post cleaning lead wipe testing is below this action level or that, at least, a 75% reduction is obtained between the pre-and post-cleanup levels. Appendix C of the guidelines provides recommendations for interpretation of these results.

If we can be of further assistance in this regard, please don't hesitate to give us a call.

Sincerely,
Marshall Environmental Management, Inc.

Charles L. Marshall, CIH
President

Attachments

1145 S.W. 74th Street, Bldg. E, Suite 300 Oklahoma City, OK 73139 (405) 616-0401 Fax (405) 972-0525

QUANTEM® LABORATORIES

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

Environmental Chemistry Analysis Report

QuanTEM Set ID: 148199
Date Received: 04/03/07
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: HS
Date of Report: 4/6/07

Client: Marshall Environmental Management, Inc.
1145 S.W. 74th Street, Ste. E-300
Oklahoma City, OK 73139

Acct. No.: A331

Project: Cushing Armory
Location: N/A
Project No.: 2202

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	L-GR-01	Wipe	Lead	672.22	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
002	L-CR-02	Wipe	Lead	242.87	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
003	L-SL-03	Wipe	Lead	766.73	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
004	L-DF-04	Wipe	Lead	1076.96	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
005	L-DF-05	Wipe	Lead	1103.51	144.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
006	L-DF-06	Wipe	Lead	1304.68	144.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
007	L-DF-07	Wipe	Lead	1813.23	144.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
008	L-BR-08	Wipe	Lead	468.05	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
009	L-KR-09	Wipe	Lead	172.67	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
010	L-MP-10	Wipe	Lead	100.66	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
011	L-DR-11	Wipe	Lead	58.21	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
012	L-CO-12	Wipe	Lead	317.58	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
013	L-ST-13	Wipe	Lead	193.67	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
014	L-BR-14	Wipe	Lead	214.67	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
015	L-HL-15	Wipe	Lead	207.62	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
016	L-RO-16	Wipe	Lead	<48.00	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
017	L-SR-17	Wipe	Lead	665.32	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
018	L-VT-18	Wipe	Lead	71.11	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100
019	L-BB-19	Wipe	Lead	<48.00	48.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100

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

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

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

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

Environmental Chemistry Analysis Report

QuanTEM Set ID: 148199
Date Received: 04/03/07
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: HS
Date of Report: 4/6/07

AIHA ID: 101352

Client: Marshall Environmental Management, Inc.
1145 S.W. 74th Street, Ste. E-300
Oklahoma City, OK 73139

Acct. No.: A331

Project: Cushing Armory
Location: N/A
Project No.: 2202

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
020	L-BB-20	Wipe	Lead	<144.00	144.00	ug/sq. Ft.	04/05/07 12:28	NIOSH 9100

Authorized Signature: Heather C Seal
Heather C. Seal, 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 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.

QAQC Results

QA ID: 4919
Test: Lead

Date: 4/5/2007
Matrix: Wipe

Lab Number: 148199
Approved By: Heather C. Seal
Date Approved 4/5/2007

Notes:

Blank Data:

Type of Blank	Blank Value
Initial	0
Continuing	0
Final	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
FCV	225	247	275
CCV	225	248	275
ICV	22.5	22.5	27.5
RLVS	12.8	16.2	19.2

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MSW 7	0.000	5369.000	5380.000	100.2	5760.000	107.3	6.8
MSW 9	0.000	5369.000	5463.000	101.8	5517.000	102.8	1.0
MSW 8	0.000	5369.000	5578.000	103.9	5185.000	96.6	7.3

Authorized Signature: Heather C. Seal
Heather C. Seal, Analyst

14 8199

Page 1 of 2

1145 SW 74th Street Suite E-300 Oklahoma City, OK 73139 Email marshenv@swbell.net	TAT: Standard X / Rush Phone: (405) 616-0401 Fax: (405) 972-0525

JOB ID: 2202

Project Name: Cushing Armory

Location Address:

Name: Cushing Armory
Company: N/A
Mailing Address: Cushing Oklahoma
Contact Name: N/A
PO Number: N/A
Department: N/A

Invoce To:

Company: MEM
Contact Name: Brice Semrad
Mailing Adress:
Phone No:
Fax No:
Email: Same as above

Phone Results
Fax Results
Email Results

Date	Sample Number	Location/Description	Sample Type	Volume Area	Analysis Requested
3/25/07	L-GR-01	Support Group Room C	Wipe	48	Pb
"	L-CR-02	Classroom #2 C	Wipe	48	Pb
"	L-SL-03	Scud/Library Room C	Wipe	48	Pb
"	L-DF-04	Drill Floor C	Wipe	48	Pb
"	L-DF-05	Drill Floor 10ft away from Exit to outside	Wipe	48	Pb
"	L-DF-06	Drill floor Middle of Room	Wipe	16	Pb
"	L-DF-07	Drill floor 10ft away from IFR Stairs	Wipe	16	Pb
"	L-BR-08	Break Room C	Wipe	16	Pb
"	L-KR-09	Kitchen Room C	Wipe	48	Pb
"	L-MP-10	Motor Pool Room C	Wipe	48	Pb
"	L-DR-11	Orderly Room C	Wipe	48	Pb
"	L-CO-12	CO Room C	Wipe	48	Pb
"	L-ST-13	Storage Room C	Wipe	48	Pb
"	L-BR-14	Latrine C	Wipe	48	Pb
3/25/07	L-HL-15	Small Hallway C	Wipe	48	Pb

Instrictions/Special Requirements:

Collected By (print): Brice Semrad	Date: 3/25/07 Time: 11:00	Collector's Signature:		
Relinquished By:	Date: 4/3/07 Time: 16:15	Receive By:		Date: 4/3/07 Time: 16:15
Relinquished By:	Date: Time:	Receive By:		Date: Time:
Relinquished By:	Date: Time:	Receive By:		Date: Time:

Method of Shipment:

Condition Upon Receiption: __ Acceptable __ Unacceptable

Marshall Environmental Management, Inc. 1145 74th Street Suite E-300 Oklahoma City, OK 73139 Email marshenv@swbell.net	TAT Standard X Rush Phone: (405) 616-0401 Fax: (405) 972-0525	JOB ID: 2202 Project Name: Cushing Armory

Location Address:

Name: Cushing Armory
Company: N/A
Mailing Address: Cushing, Oklahoma
Contact Name: N/A
PO Number: N/A Department: N/A

Invoce To:

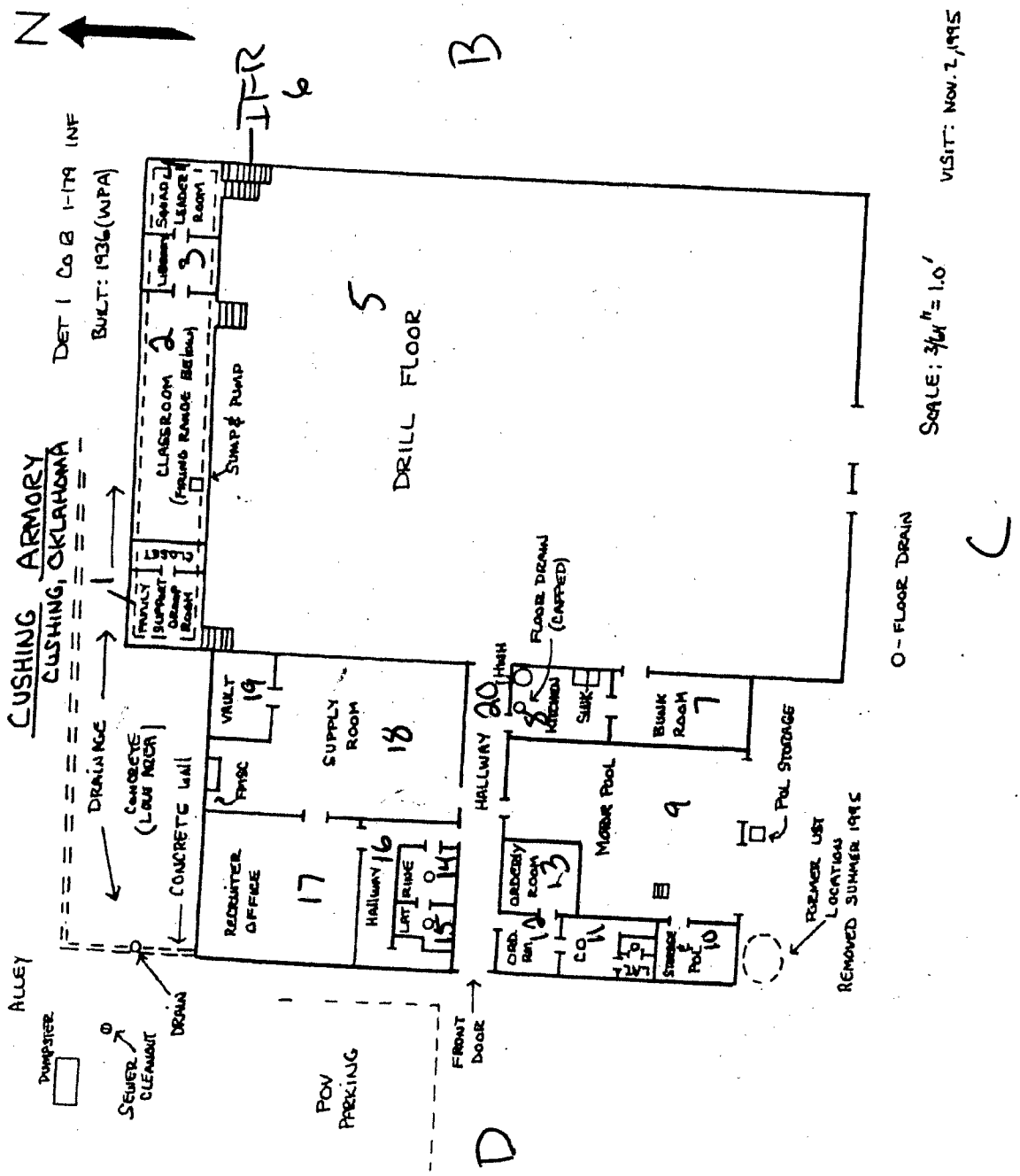
Company: Contact Name:
Mailing Adress:
Phone No: ___ Phone Results
Fax No: ___ Fax Results
Email: ___ Email Results

Date	Sample Number	Location/Description	Sample Type	Volume Area	Analysis Requested
3/26/07	L-RO-16	Recruiters Office C	Wipe	48 sq in	Pb
"	L-SR-17	Supply Room C	Wipe	48 sq in	Pb
"	L-VT-18	Vault C	Wipe	48 sq in	Pb
"	L-BB-19	Blank	Wipe	48 sq in	Pb
3/26/07	L-BB-20	Blank	Wipe	16 sq in	Pb

Instrictions/Special Requirements:

Collected By (print): Brice Semrad	Date: 3/26/07 Time: 17:00	Collector's Signature:		Date: 4/3/07 Time: 4:10 PM
Relinquished By:	Date: 4/3/07 Time: 1615	Receive By:		Date: Time:
Relinquished By:	Date: Time:	Receive By:		Date: Time:
Relinquished By:	Date: Time:	Receive By:		
Method of Shipment:		Condition Upon Receiption: ___ Acceptable ___ Unacceptable		

FLOOR PLAN, CUSHING ARMORY



Appendix G

Notification for Underground Storage Tanks (OCC & OMD) Records

Notification for Underground Storage Tanks

STATE USE ONLY

ID NUMBER 6-005818

DATE RECEIVED

A. Date Entered into Computer

B. Data Entry Clerk Initials

C. Owner Was Contacted to Clarify Responses, Comments

Oklahoma Military Department
3501 Military Circle, OKC, OK 73111

TYPE OF NOTIFICATION

☐ A. NEW FACILITY ☐ B. AMENDED ☒ C. CLOSURE

____ No. of tanks at facility ____ No. of continuation sheets attached

INSTRUCTIONS

Please type or print in ink all items except "signature" in section V. This form must be completed for each location containing underground storage tanks. If more than five (5) tanks are owned at this location, photocopy the following sheets, and staple continuation sheets to the form.

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

c) If the State agency so requires, any facility that has undergone any changes to facility information or tank system status (any amended tank information needs to be reported).

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. Gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,
2. tanks used for storing heating oil for consumptive use on the premises where stored,
3. septic tanks,
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws,
5. surface impoundments, pits, ponds, or lagoons,
6. storm water or wastewater collection systems,
7. flow-through process tanks,
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations,
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. The regulated substances include any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances/requirements as hazardous waste under Subtitle C of RCRA. It also includes petroleum; e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Send completed forms to:

Oklahoma Corporation Commission
Underground Storage Tank Program
Jim Thorpe Building
Room 960
Oklahoma City, OK 73105

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tank into use. 3. The State requires notification of any amendments to facility and ownership to State agency immediately.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
OKLAHOMA MILITARY DEPARTMENT

Street Address
3501 MILITARY CIRCLE

City
OKLAHOMA CITY

State
OK

ZIP Code
73111-1398

County
OKLAHOMA

Phone Number (Include Area Code)
405/425-8334

II. LOCATION OF TANK(S)

If Required by State, give Geographical Position Data by Degrees, Minutes and Seconds (i.e. 42, 34, 12 N Long 46, 34, 17 W)

Latitude ____ Longitude ____

(If same as Section I, check this box ☐)

Facility Name or Company Site Identifier, as Appropriate
Cushing National Guard Armory

Street Address (P.O. Box not acceptable)
218 S. Little

City
Cushing

State
OK

ZIP Code
74023-3819

County
Payne

Municipality

III. TYPE OF OWNER

- ☐ Federal Government
- ☒ State Government
- ☐ Local Government
- ☐ Commercial
- ☐ Private

IV. INDIAN LANDS

Tanks are located on land within an Indian Reservation or on other trust lands. ☐ Tribe or Nation: _____

Tanks are owned by native American nation, tribe, or individual. ☐

V. TYPE OF FACILITY

Select the Appropriate Facility Description

- ____ Gas Station
- ____ Petroleum Distributor
- ____ Air Taxi (Airline)
- ____ Aircraft Owner
- ____ Auto Dealership
- ____ Railroad
- ____ Federal - Non-Military
- ____ Federal - Military
- ____ Industrial
- ____ Contractor
- ____ Trucking/Transport
- ____ Utilities
- ____ Residential
- ____ Farm
- X Other (Explain) NATIONAL GUARD ARMORY

VI. CONTACT PERSON IN CHARGE OF TANKS

Name	Job Title	Address	Phone Number (Include Area Code)
ALTON ENGLEBRETSON	Deputy Dir of Engineering	ATTN OKDE-D 3501 Military Circle, OKC 73111-4398	(405) 425-8334

VII. FINANCIAL RESPONSIBILITY

I have met the financial responsibility requirements in accordance with 40 CFR Subpart H ☐

Check All that Apply

- ☐ Self Insurance
- ☐ Commercial Insurance
- ☐ Risk Retention Group
- ☐ Guarantee
- ☐ Surety Bond
- ☐ Letter of Credit
- ☐ State Funds
- ☐ Trust Fund
- ☐ Other Method Allowed Specify _____

VIII. CERTIFICATION (Read and sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative (Print)	Signature	Date Signed
ALTON L. ENGLEBRETSON Deputy Dir of Engineering Oklahoma Military Department	Alton L Englebretson	6-1-95

EPA estimates public reporting burden for this form to average 30 minutes per response including time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch PM-223, U.S. Environmental Protection Agency, 401 M Street, Washington D.C. 20460, marked "Attention Clerk Officer for EPA." This form amends the previous notification form as proposed in 40 CFR Part 280, Appendix I. Previous editions of this notification form may be used while supplies last.

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification Number: 6005818	Tank No 1	Tank No. ___	Tank No. ___	Tank No. ___	Tank No. ___
1. Status of Tank (mark only one)					
Currently in Use					
Temporarily Out of Use (Remains in Use)					
Permanently Out of Use (Removed from Use)	X				
Amendment of Information					
2. Date of Installation (mo./year)	1957				
3. Estimated Total Capacity (gallons)	1,000				
4. Material of Construction (Mark all that apply)					
Asphalt Coated or Bare Steel	X				
Cathodically Protected Steel					
Epoxy Coated Steel					
Composite (Steel with Fiberglass)					
Fiberglass Reinforced Plastic					
Lined Interior					
Double Walled					
Polyethylene Tank Jacket					
Concrete					
Excavation Liner					
Unknown					
Other, Please specify					
Has tank been repaired?	NO				
5. Piping (Material) (Mark all that apply)					
Bare Steel	X				
Galvanized Steel	—				
Fiberglass Reinforced Plastic					
Copper					
Cathodically Protected					
Double Walled					
Secondary Containment					
Unknown					
Other, Please specify					
6. Piping (Type) (Mark all that apply)					
Suction: no valve at tank					
Suction: valve at tank	X				
Pressure					
Gravity Feed					
Has piping been repaired?	NO				

Tank Identification Number 6-005815	Tank No. 1	Tank No. ____	Tank No. ____	Tank No. ____	Tank No. ____
7. Substance Currently or Last Stored In Greatest Quantity by Volume					
Gasoline					
Diesel					
Gasohol					
Kerosene					
Heating Oil					
Used Oil					
Other, Please specify					
Hazardous Substance CERCLA name and/or, CAS number					
Mixture of Substances Please specify					

X. TANKS OUT OF USE, OR CHANGE IN SERVICE

1. Closing of Tank					
A. Estimated date last used (mo./day/year)	6/78				
B. Estimate date tank closed (mo./day/year)	6/30/78				
C. Tank was removed from ground	6/21/95				
D. Tank was closed in ground					
E. Tank filled with inert material Describe					
F. Change in service					
2. Site Assessment Completed	X				
Evidence of a leak detected					

Notification for Underground Storage Tanks

FOR TANKS IN **OK**

RETURN COMPLETED FORM TO: Underground Storage Tank Program, Oklahoma Corporation Commission, Jim Thorpe Building, Oklahoma City, OK 73105

I.D. Number 600538

Date Received APR 28 1986

GENERAL INFORMATION

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2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must by completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: 31 of 146

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
Oklahoma Military Department

Street Address
3501 Military Circle, N.E.

County
Oklahoma City, Oklahoma 73111

City / State / ZIP Code

405 427-8371
Area Code / Phone Number

Type of Owner (Mark all that apply ☒)

- ☐ Current
- ☐ Former
- ☐ State or Local Gov't
- ☒ Federal Gov't (GSA facility I.D. no. _____)
- ☐ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☐)

Facility Name or Company Site Identifier, as applicable
DET 1 Co B 1/179 Inf

Street Address or State Road, as applicable
218 S Little

County

City (nearest) / State / ZIP Code
Cushing OK 74023-1189

Indicate number of tanks at this location: 1

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐)
CPT Richard L. Harwell

Job Title
Environmental Engr

Area Code / Phone Number
(405) 427-8371 X333

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

Signature

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank
1. Status of Tank (Mark all that apply ☒) — Currently in Use					
Temporarily Out of Use	X				
Permanently Out of Use					
Brought into Use after 5/8/86					
2. Estimated Age (Years)	20				
3. Estimated Total Capacity (Gallons)	1000				
4. Material of Construction (Mark one ☒) — Steel	X				
Concrete					
Fiberglass Reinforced Plastic					
Unknown					
Other, Please Specify					
5. Internal Protection (Mark all that apply ☒) — Cathodic Protection					
Interior Lining (e.g., epoxy resins)					
None					
Unknown	X				
Other, Please Specify					
6. External Protection (Mark all that apply ☒) — Cathodic Protection					
Painted (e.g., asphaltic)					
Fiberglass Reinforced Plastic Coated					
None					
Unknown	X				
Other, Please Specify					
7. Piping (Mark all that apply ☒) — Bare Steel					
Galvanized Steel	X				
Fiberglass Reinforced Plastic					
Cathodically Protected					
Unknown					
Other, Please Specify					
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒) — a. Empty	X				
b. Petroleum					
Diesel					
Kerosene					
Gasoline (including alcohol blends)	X				
Used Oil					
Other, Please Specify					
c. Hazardous Substance					
Please Indicate Name of Principal CERCLA Substance					
OR					
Chemical Abstract Service (CAS) No.					
Mark box ☒ if tank stores a mixture of substances					
d. Unknown					
Additional Information (for tanks permanently taken out of service) — a. Estimated date last used (mo/yr)	6/78	/	/	/	/
b. Estimated quantity of substance remaining (gal.)	0				
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)					

Cushing/RCRA

HEADQUARTERS 1ST BATTALION 179TH INFANTRY
Oklahoma Army National Guard
1207 West Airport Road, Stillwater, OK 74075

S-3 (350)

24 October 1990

MEMORANDUM FOR Enviromental Officer, Oklahoma Military Dept., ATTN: MAJ Harwell, Oklahoma City, OK 73111-4398

SUBJECT: Underground Storage Fuel Tank

1. The underground fuel storage tank at the National Guard Armory, located at Cushing, Oklahoma has been out of service since October 1978.

2. No fuel has been purchased or pumped since the above date.

FOR THE COMMANDER:

GERALD R WELLS
CSM, OKARNG
OT&R Specialist

CF:
Cdr, Det 1 Co B
S-4, 1-179 IN

AMERICAN ANALYTICAL & TECHNICAL SERVICES

10926 E. 55th PLACE TULSA, OK 74146 918 664-0387

Client Name:	OKLAHOMA MILITARY DEPARTMENT, ATTN:OKSA 3501 MILTARY CIRCLE OKLAHOMA CITY , OK 73111-4398		
Client ID:	CUSHING CENTER	Project ID:	
AATS ID:	10990.01	Report:	10990.01
Received:	06/06/95	Analyzed:	06/10/95
Report Date:	06/12/95	Matrix:	Soil

Sample Amount: 5.0 **RESULTS REPORTED IN ug/Kg**

COMPOUND	RESULTS	REPORTING LIMIT	COMPOUND	RESULTS		REPORTING LIMIT
BENZENE	ND	1.0	TOLUENE	ND		1.0
ETHYLBENZENE	ND	1.0	TOTAL XYLENES	0.6	J	1.0

QA Sequence No: 6B061095

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate Recoveries

BFB (65-135%)
86 %

** - Outside of QC Limits on both Original and Rerun
B - Compound Also Found in Blank
J - Estimated Value Below Reporting Limit
ND - Not Determined

Approved by: David Hunter

Method: SW 8020

270

AMERICAN ANALYTICAL & TECHNICAL SERVICES

10926 E. 55th PLACE TULSA, OK 74146 918 664-0387

Client Name:	OKLAHOMA MILITARY DEPARTMENT, ATTN:OKSA 3501 MILTARY CIRCLE OKLAHOMA CITY , OK 73111-4398		
Client ID:	CUSHING SIDE	Project ID:	
AATS ID:	10990.02	Report:	10990.02
Received:	06/06/95	Analyzed:	06/10/95
Report Date:	06/12/95	Matrix:	Soil

Sample Amount: 5.0 **RESULTS REPORTED IN ug/Kg**

COMPOUND	RESULTS	REPORTING LIMIT	COMPOUND	RESULTS	REPORTING LIMIT
BENZENE	ND	1.0	TOLUENE	ND	1.0
ETHYLBENZENE	ND	1.0	TOTAL XYLENES	0.7 J	1.0

QA Sequence No: 6B061095

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate Recoveries

BFB (65-135%)
54 % **

** - Outside of QC Limits on both Original and Rerun
B - Compound Also Found in Blank
J - Estimated Value Below Reporting Limit
ND - Not Determined

Method: SW 8020

Approved by: David Hunter

AMERICAN ANALYTICAL & TECHNICAL SERVICES

10926 E. 55th PLACE TULSA, OK 74146 918 664-0387

LABORATORY QUALITY CONTROL SEQUENCE

METHOD : SW 8020
SEQUENCE DATE : 06/10/95
INSTRUMENT ID : 6B

QA Sequence: 6B061095
Page: 1

LABORATORY BLANK

MATRIX : W
SAMPLE ID : BLANK
SAMPLE AMOUNT : 5.0 g
ANALYSIS DATE : 06/10/95
ANALYSIS TIME : 10:19

AATS NO : BLANK
FILENAME : 006R0601.D
DILUTION FACTOR: 1.00

COMPOUND	QUANTITATION LIMIT (ug/L)	AMOUNT FOUND (ug/L)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	1.0	ND
TOTAL XYLENES	1.0	ND
SURROGATE RECOVERY (BFB):		91 %

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

SPIKE COMPOUND	SPIKE CONC(ug/L)	10990.01 SAMPLE CONC. (ug/Kg)	10990.01MS MATRIX SPIKE CONC. (ug/Kg)	MS PERCENT RECOVERY	10990.01MD SPIKE DUPLICATE CONC. (ug/Kg)	MSD PERCENT RECOVERY	RECOVERY PERCENT DIFFERENCE
BENZENE	20.0	0.0	19.4	97.0	18.5	92.5	4.75 %
TOLUENE	20.0	0.2	19.4	96.0	18.4	91.0	5.35 %
ETHYLBENZENE	20.0	0.2	19.6	97.0	18.5	91.5	5.84 %
TOTAL XYLENES	60.0	0.6	60.2	99.3	55.8	92.0	7.66 %

AMERICAN ANALYTICAL AND TECHNICAL SERVICES
GAS CHROMATOGRAPHY LABORATORY

METHOD	: MODIFIED 8015
CLIENT	: OKMILDPT
CLIENT SAMPLE ID	: CUSHING CENTER
AATS SAMPLE ID	: 10990.01
FILENAME	: 5060895\064F1801
SAMPLE MATRIX	: SOIL
AMT. EXTRACTED	: 20.0 g
EXTRACTION SOL.	: METHYLENE CHLORIDE
SOLVENT AMT	: 5.0 ml
DILUTION FACTOR	: 1
DATE SAMP. REC.	: 06/06/95
DATE EXTRACTED	: 06/07/95
DATE ANALYZED	: 06/11/95
REPORT DATE	: 06/12/95

QUANTITATION REPORT

TOTAL EXTRACTABLE HYDROCARBONS	QUANTITATION LIMIT (mg/Kg)	AMOUNT FOUND (mg/Kg)	FLAG
GASOLINE C6-C10	2.0	2.0	ND
DIESEL C10-C22	2.0	11.7	
KEROSENE C9-C18	2.0	2.0	ND
JP-4 C6-C14	2.0	2.0	ND
NAPHTHA C6-C12	2.0	2.0	ND
#6 FUEL OIL C12-C24	2.0	2.0	ND
MISCELLANEOUS C12-C16 (1)	2.0		

SURROGATE RECOVERY: (NAPHTHALENE 48-164%) * 74.8 %

* SURROGATE LEVEL 50.0 mg/L
** Outside of QC limits on both original and rerun.
(1) Analysis shows miscellaneous peaks which cannot be identified as any specific hydrocarbon pattern. The response factor for the nearest eluting hydrocarbon standard was used to calculate the concentration of the miscellaneous peaks. Numbers indicate the approximate carbon chain length.
(2) Pattern is similar to, but not identical to standard.

FLAG DEFINITIONS:
ND -- NOT DETECTED ABOVE QUANTITATION LIMIT
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
B -- COMPOUND FOUND IN BLANK
D -- SURROGATE OR MATRIX SPIKE DILUTED OUT-SAMPLE RUN AT SECONDARY DILUTION
E -- ESTIMATED VALUE (ABOVE LINEAR RANGE)
I -- NOT QUANTIFIABLE DUE TO MATRIX INTERFERENCE

APPROVED BY: David Hunter

AMERICAN ANALYTICAL AND TECHNICAL SERVICES
GAS CHROMATOGRAPHY LABORATORY

METHOD	: MODIFIED 8015
CLIENT	: OKMILDPT
CLIENT SAMPLE ID	: CUSHING SIDE
AATS SAMPLE ID	: 10990.02
FILENAME	: 5060895\065F1801
SAMPLE MATRIX	: SOIL
AMT. EXTRACTED	: 20.0 g
EXTRACTION SOL.	: METHYLENE CHLORIDE
SOLVENT AMT	: 5.0 ml
DILUTION FACTOR	: 1
DATE SAMP. REC.	: 06/06/95
DATE EXTRACTED	: 06/07/95
DATE ANALYZED	: 06/11/95
REPORT DATE	: 06/12/95

QUANTITATION REPORT

TOTAL EXTRACTABLE HYDROCARBONS	QUANTITATION LIMIT (mg/Kg)	AMOUNT FOUND (mg/Kg)	FLAG
GASOLINE C6-C10	2.0	2.0	ND
DIESEL C10-C22	2.0	2.0	ND
KEROSENE C9-C18	2.0	2.0	ND
JP-4 C6-C14	2.0	2.0	ND
NAPHTHA C6-C12	2.0	2.0	ND
#6 FUEL OIL C12-C24	2.0	2.0	ND
MISCELLANEOUS C12-C16 (1)	2.0	2.0	ND

SURROGATE RECOVERY: (NAPHTHALENE 48-164%) * 76.9 %

* SURROGATE LEVEL 50.0 mg/L
** Outside of QC limits on both original and rerun.
(1) Analysis shows miscellaneous peaks which cannot be identified as any specific hydrocarbon pattern. The response factor for the nearest eluting hydrocarbon standard was used to calculate the concentration of the miscellaneous peaks. Numbers indicate the approximate carbon chain length.
(2) Pattern is similar to, but not identical to standard.

FLAG DEFINITIONS:
ND -- NOT DETECTED ABOVE QUANTITATION LIMIT
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
B -- COMPOUND FOUND IN BLANK
D -- SURROGATE OR MATRIX SPIKE DILUTED OUT-SAMPLE RUN AT SECONDARY DILUTION
E -- ESTIMATED VALUE (ABOVE LINEAR RANGE)
I -- NOT QUANTIFIABLE DUE TO MATRIX INTERFERENCE

APPROVED BY

AMERICAN ANALYTICAL AND TECHNICAL SERVICES
LABORATORY QUALITY CONTROL SEQUENCE

METHOD : MODIFIED 8015
SEQUENCE DATE : 06/08/95
INSTRUMENT ID. : 5

LABORATORY BLANK

MATRIX : Soil
SAMPLE ID. : Laboratory Blank
SAMPLE AMOUNT : 20.0 g
ANALYSIS DATE : 06/08/95
ANALYSIS TIME : 14:21

AATS NO. : SB060795-01
FILENAME : 5060895\009F0801
DILUTION FACTOR: 1

COMPOUND	QUANTITATION LIMIT (mg/kg)	AMOUNT FOUND (mg/kg)
GASOLINE	2.0	2.0 ND
JP-4	2.0	2.0 ND
NAPHTHA	2.0	2.0 ND
KEROSENE	2.0	2.0 ND
DIESEL	2.0	2.0 ND
#6 FUEL OIL	2.0	2.0 ND
SURROGATE RECOVERY (NAPHTHALENE 48-164%) :		73.7 %

CONTROL SPIKE/CONTROL SPIKE DUPLICATE RESULTS

COMPOUND	SPIKE CONC. (mg/kg)	SB060795-01 SAMPLE CONC. (mg/kg)*	LCS060795-01 CONTROL SPIKE CONC. (mg/kg)*	PERCENT RECOVERY
DIESEL	125	0	106	85
SURROGATE RECOVERY		74%	77%	

	LCS060795-02 CONTROL SPIKE DUPLICATE CONC. (mg/kg)*	PERCENT RECOVERY	RECOVERY PERCENT DIFFERENCE
DIESEL	115	92	8
SURROGATE REC.	80%		

* Dilution factors not applied to these concentrations
** Outside of QC limits on both original and rerun.
(SPIKE RECOVERIES 50-137%, RPD <40%)
APPROVED BY

Sheet 1 Of 1

Job No. Cushing

Date 6-5-95

Completed by T. Wheeler

CERTIFICATE OF DESTRUCTION

Scrapping/Disposal Company:

Wheeler Metals
5500 Border
Muskogee, OK 74401

Site of Destruction:

Same

Tank Removal Contractor:

Okla. Military Dept.
OKDE-D

Tank Identification:

Tank No.: _____

Size: 1000 gal.

Location: Company Cushing

Address NG Armory

City/State Cushing

Destruction Date: _____

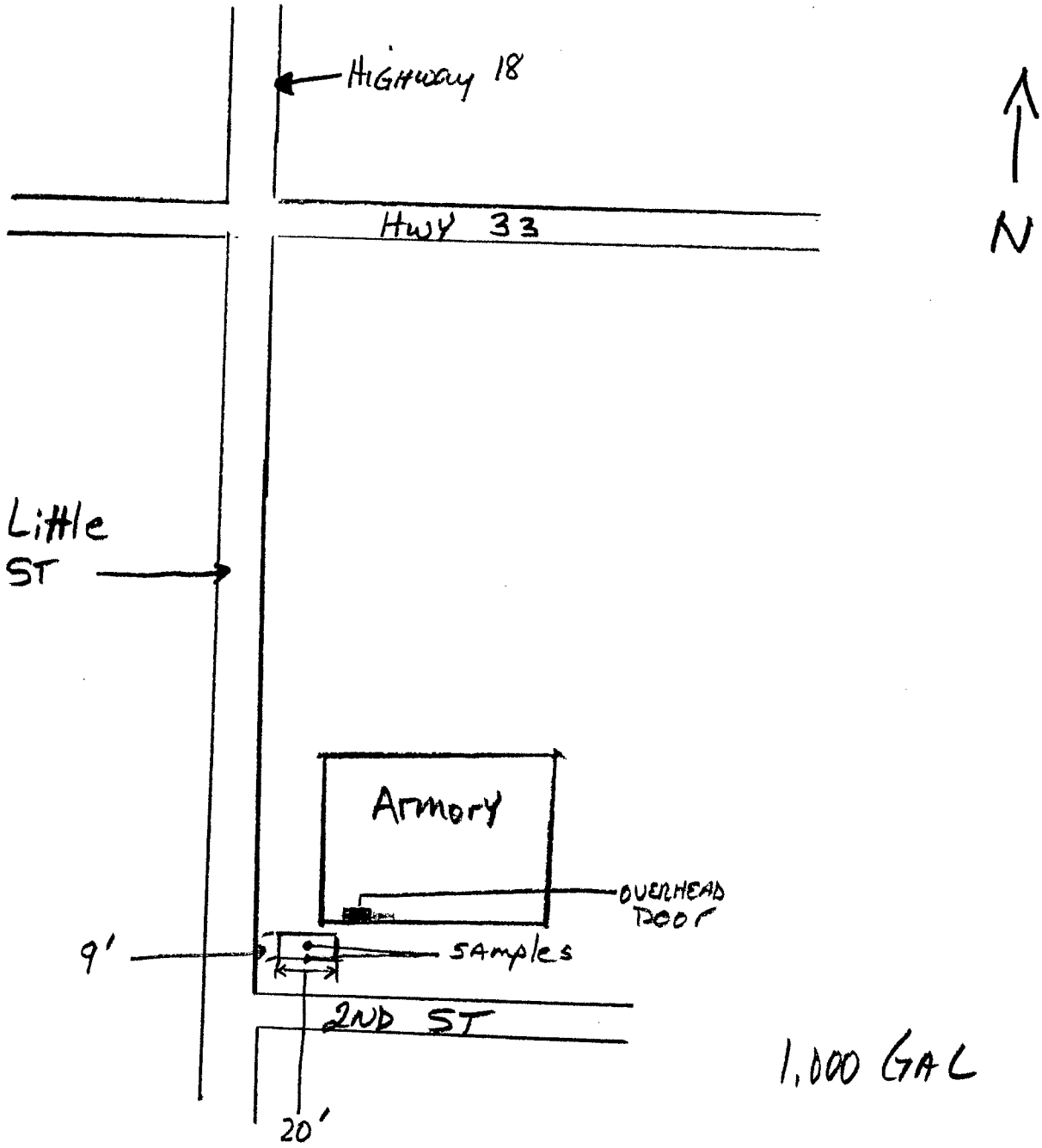
I certify that the above described tank has been rendered unusable for the storage of any fluids, and all removed fluids, sludges and the tanks were disposed of in accordance with all applicable local, state, and federal regulations.

By Tammy Wheeler

Title Sec.

Subscribed & Sworn to before me this 5th day of June, in the year 1995.

Notary Public Pamela M. Doak My Commission Expires: 1-4-98


Highway 18
Hwy 33
N
Little
ST
Armory
OVERHEAD
DOOR
9'
samples
2ND ST
20'
1,000 GAL

CUSHING

Southwest Laboratory of Oklahoma

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME

SAMPLERS: (Signature)

LTC Bob Englebretson

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX	TPH	REMARKS
	6/1/95	0930		✓	[redacted] CENTER	1	✓	✓	
	6/1/95	0930		✓	[redacted] Side	1	✓	✓	
	6/1/95	1330		✓	Hominy CENTER	1	✓	✓	
	6/1/95	1330		✓	Hominy Side	1	✓	✓	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
Bob Englebretson	6-6-95 1210	[signature]	06-9-95 12:40		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Appendix H

City of Cushing Letter (March 14, 2006)

CITY OF CUSHING OKLAHOMA

P. O. BOX 311 • CUSHING, OKLAHOMA 74023-0311 • (918) 225-2394

March 14, 2006

Faxed and mailed via Express
Overnight Mail on March 14, 2006

John S. Richard, Director
Department of Central Services
P.O. Box 53448
Oklahoma City, OK 73152-3218

Re: Armory Building

Dear Mr. Richard:

The City of Cushing is prepared to accept the Armory Building, contingent on development of an acceptable environmental remediation plan. The City proposes to use the building as the headquarters for local and area Emergency Management services and associated City activities. The City of Cushing has been identified by the Office of Homeland Security as a Critical Node, and as such our emergency operations are substantial.

If you have any questions, please contact me at 918.225.2394

Sincerely,

Andrew S. Katz
City Manager

ASK:bdb

Appendix I

DEQ Quitclaim Deed

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 Harry M. Wyatt, III, 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 situated in Payne County, to-wit:

A tract of land in the Southeast quarter (SE/4) of Section Nine (9), Township Seventeen North (T-17-N) Range Five East (R-5-E) Indian Meridian, more particularly described as beginning 915 Feet West and 1132.67 feet North of the Southeast corner of Section 9; thence North 145 feet; thence West 803.44 feet; thence South 824.75 feet; thence East 316.76; thence North 254 feet; thence Northeasterly 647 feet to point of beginning containing 10 acres more or less, Payne County, State of Oklahoma.

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 Payne County, the described real property shall transfer to City of Cushing, together with any and all improvements thereon and appurtenances thereunto belonging.

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 City of Cushing herein and any easements of record.

EXECUTED AND DELIVERED this 14th day of March 2007.

STATE OF OKLAHOMA

By: _____

Major General Harry M. Wyatt, III,
Adjutant General of the State of Oklahoma

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

STATE OF OKLAHOMA)
) SS:
COUNTY OF OKLAHOMA)

This instrument was acknowledged before me this 14 day of March, 2007, by Major General Harry M. Wyatt, III, as Adjutant General of the State of Oklahoma, on behalf of the State of Oklahoma.

(SEAL)

_____
Notary Public No. 04001005
My Commission Expires: 1/23/08

WARRANTY DEED

Corporation Form

This Space Reserved for Filing Stamp

Know All Men by These Presents:

That The City of Cushing, a municipal of the State of Oklahoma in Payne County, State of Oklahoma

party of the first part, in consideration of the sum of Ten and more/100---------- DOLLARS ($10.00) and other valuable considerations, in hand paid, the receipt of which is hereby acknowledged, does hereby Grant, Bargain, Sell and Convey unto The State of Oklahoma as trustee for the Oklahoma National Guard in the State of Oklahoma

party of the second part, the following described real property and premises situate in Payne County, State of Oklahoma, to-wit:

A tract of land in the Southeast Quarter (SE/4) of Section Nine (9), Township Seventeen North (T-17-N), Range Five East (R-5-E) Indian Meridian, more particularly described as beginning 915 feet West and 1132.67 feet North of the Southeast Corner of said Section 9; thence North 145 feet; thence West 803.44 feet; thence South 824.75 feet; thence East 316.76 feet; thence North 254 feet; thence Northeasterly 647 feet to point of beginning, containing 10 acres more or less, Payne County, State of Oklahoma,

such property to be used by the Grantee for construction of an Oklahoma National Guard Armory.

together with all the improvements thereon and appurtenances thereunto belonging and warrant the title to the same. TO HAVE AND TO HOLD said described premises unto the said party of the second part, its successors and assigns forever free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and encumbrances of whatsoever nature EXCEPT: If an armory is not constructed within five (5) years from this date said property shall revert to the grantor and any consideration paid be returned to the grantee; and FURTHER PROVIDED, THAT IN THE EVENT SUCH PROPERTY CEASES TO BE USED FOR MILITARY PURPOSES THE PROPERTY AND ALL IMPROVEMENTS THEREON AND APPURTENANCES THEREUNTO BELONGING SHALL REVERT TO THE GRANTOR

IN WITNESS WHEREOF, the said party of the first part hereto has caused these presents to be signed in its name by its Chairman, Board of Commissioners

this 18th day of SEPTEMBER, 19 78

The City of Cushing, a municipal corporation of the State of Oklahoma

By Roy L. Kemp, Chairman

Attest: Ramona Cantrell
Deputy City Clerk

STATE OF OKLAHOMA
COUNTY OF Payne } SS:

CORPORATION ACKNOWLEDGMENT
Oklahoma Form

Before me, the undersigned, a Notary Public, in and for said County and State on this 18 day of September, 19 78, personally appeared Roy L. Kemp to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its Chairman Board of Commissioners and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such city corporation, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires 10-25-80

Notary Public

CORRECTION WARRANTY DEED

This indenture made this 21st day of MAY, 1979, by and between the City of Cushing, a municipal corporation of the State of Oklahoma, party of the first part, and the State of Oklahoma as trustee for the Oklahoma National Guard in the State of Oklahoma, party of the second part.

WHEREAS the said City of Cushing, party of the first part, did on or about the 18th day of September, 1978, execute to the party of the second part for the consideration therein mentioned a conveyance of the certain lands situated in Payne County, State of Oklahoma and hereinafter more particularly described, which said conveyance was recorded in the office of the County Clerk of Payne County, in Book 406 Page 179 of the records of said County; and,

WHEREAS in said conveyance there was omitted certain reservations to the City of Cushing; and,

WHEREAS to prevent difficulties hereafter, it is expedient to include such reservations in such warranty deed and to correct such warranty deed to provide as follows:

NOW THEREFORE this indenture witnesseth that the said party of the first part, in consideration of the premises and of One Dollar ($1.00) and other good and valuable consideration paid by the party of the second part, said City of Cushing does hereby grant, convey, release, and confirm unto the second party, its successors and assigns forever all the following tract of land situated in the County of Payne, State of Oklahoma, to-wit:

> A tract of land in the Southeast Quarter (SE/4) of Section Nine (9), Township Seventeen North (T-17-N), Range Five East (R-5-E) Indian Meridian, more particularly described as beginning 915 feet West and 1132.67 feet North of the Southeast Corner of said Section 9; thence North 145 feet; thence West 803.44 feet; thence South 824.75 feet; thence East 316.76 feet; thence North 254 feet; thence Northeasterly 647 feet to point of beginning, containing 10 acres more or less, Payne County, State of Oklahoma

such property to be used by the Grantee for construction of an

Oklahoma National Guard Armory, together with all the improvements thereon and appurtenances thereunto belonging and warrant the title to the same.

TO HAVE AND TO HOLD said described premises unto the said party of the second part, its successors and assigns forever free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and encumbrances of whatsoever nature. EXCEPT: If an armory is not constructed within five (5) years from the 18th day of September, 1978 said property shall revert to the grantor and any consideration paid be returned to the grantee; and FURTHER PROVIDED, THAT IN THE EVENT SUCH PROPERTY CEASES TO BE USED FOR MILITARY PURPOSES THE PROPERTY AND ALL IMPROVEMENTS THEREON AND APPURTENANCES THEREUNTO BELONGING SHALL REVERT TO THE GRANTOR.

The City of Cushing reserves for itself for the use and benefit of the public, a right of flight for the passage of aircraft in the airspace above the surface of the land conveyed, and the right to cause in said airspace any noise inherent in the operation of aircraft, now known or hereafter used, for navigation or flight in the air, using said airspace for landing at, taking off from, or operating on the Cushing Municipal Airport.

The City of Cushing further reserves for itself, its successors and assigns a continuing right and easement over the land conveyed to take any action necessary to prevent the construction, erection, alteration or growth of any structure, tree, or other object in the vicinity of the runway of the Cushing Municipal Airport, which would constitute an obstruction to air navigation according to the criteria or standards prescribed in Section 77.23, as applied to Section 77.25, parts 77 of the Federal Aviation Regulations.

The City of Cushing reserves for itself, its successors and assigns the right to prevent any use of the conveyed land which would interfere with the landing or taking off of aircraft

at the Cushing Municipal Airport or otherwise consitute an airport hazard.

IN WITNESS WHEREOF, the said party of the first part hereto has caused these presents to be signed in its name by its Chairman, Board of Commissioners this 21st day of May, 1979, and the party of the second part has caused these presents to be signed in its name this ____ day of May, 1979.

The City of Cushing, a municipal corporation of the State of Oklahoma

By: Roy L. Kemp
Roy L. Kemp, Chairman
Board of Commissioners

(SEAL)

ATTEST:

Maxine Kurtz
CITY CLERK

State of Oklahoma, as trustee for the Oklahoma National Guard in the State of Oklahoma

By: Robert M Morgan

STATE OF OKLHAOMA,)
) ss.
COUNTY OF PAYNE.)

Before me, the undersigned, a Notary Public, in and for said County and State on this 21st day of May, 1979, personally appeared Roy L. Kemp, to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its Chairman, Board of Commissioners and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such City, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

Paula L. Evans
Notary Public

My Commission Expires:

10-25-80

STATE OF OKLAHOMA,)
) ss.
COUNTY OF)

Before me, the undersigned, a Notary Public, in and for said County and State on this 19th day of October, 1979, personall appeared Robert M. Morgan, to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its Trustee for the Oklahoma National Guard in the State of Oklahoma and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such State, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

Charlotte J. Young
Notary Public

My Commission Expires:

Oct 15, 1980

Appendix J

Qualification(s) of Environmental Professionals

Environmental Professional Qualifications

Jonathan Reid holds a Bachelor Degree in Environmental Science with an emphasis in Natural Resources and a Minor in Soil Science from Oklahoma State University. Mr. Reid has 4 years experience in environmental sampling and technical studies. He is an Environmental Programs Specialist II with the Land Protection Division of the Oklahoma Department of Environmental Quality. His responsibilities include: project management of Brownfield/Voluntary Cleanup Project (VCP) sites, conducting Targeted Brownfield Assessments, and assisting other project managers on technical activities at other Brownfield/VCP and National Priorities List sites as needed.

Rita R. Kottke, Ph.D., holds a Doctorate in Environmental Science from Oklahoma State University. She is an Environmental Programs Manager with the Land Protection Division of the Oklahoma Department of Environmental Quality. She functions as the DEQ's Brownfield Coordinator, Brownfield Cleanup Revolving Loan Fund Contact, Superfund Site Redevelopment Contact, Superfund Emergency Response Contact, Land Revitalization/Reuse Contact, and as a liaison between the state, EPA, and local communities. Her responsibilities also include acting as technical project manager at various Voluntary Cleanup and Superfund sites within the state. She has been with the agency for thirteen years, working in the Superfund and Brownfields Programs. She has 15 years experience performing site assessments of real property. She was heavily involved in the formulation of the Brownfields Program's implementing rules, the negotiation of DEQ's Brownfields Memorandum of Agreement (MOA) with EPA, and the development of the Brownfield Cleanup Revolving Loan Fund Grant Proposal.

Angela Brunsman holds a Bachelors Degree in Environmental Science and a Masters Degree in Construction Science from the University of Oklahoma. Ms. Brunsman has 12 years experience working for the state of Oklahoma in the environmental remediation field. Duties have included managing Superfund sites, coordinating with local, state, and federal agencies, and currently managing the state Site Cleanup Assistance Program.