

TARGETED BROWNFIELD ASSESSMENT

For



**State Capitol Complex
State of Oklahoma**

**Former Oklahoma City Armory
23rd Street**

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

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January 24, 2012

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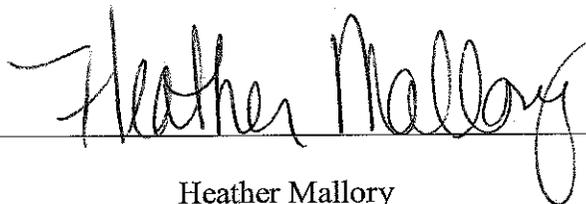
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I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of this part. I have specific qualifications based on education training, and experience to assess 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 American Society for Testing and Materials (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, the Oklahoma Department of Environmental Quality (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.

Table of Contents

1.0	EXECUTIVE SUMMARY	6
2.0	INTRODUCTION	8
2.1	Purpose.....	8
2.2	Detailed Scope-of-Services.....	9
2.3	Significant Assumptions	9
2.4	Limitations and Exceptions.....	9
2.5	Special Terms and Conditions	10
3.0	SITE CHARACTERIZATION AND HISTORY.....	10
3.1	Location and Legal Description.....	10
3.2	Site and Vicinity Characterization	10
3.3	Owner, Property Manager, and Occupant Information	10
3.4	Information Reported by User Regarding Environmental..... Lien or Specialized Knowledge or Experience	11
3.5	Commonly Known or Reasonably Ascertainable Information.....	11
3.6	Valuation Reduction for Environmental Issues	11
3.7	Current Use of the Property	11
3.8	Past Use of the Property.....	11
	3.8.1 Review of Aerial Photographs	11
	3.8.2 Fire Insurance Maps.....	12
3.9	Current and Past Uses of Adjoining Properties	13
3.10	Environmental (Physical) Setting	14
	3.10.1 Surface Water Characteristics.....	14
	3.10.2 Subsurface Geological Characterization.....	15
	3.10.3 Groundwater Characteristics.....	15
	3.10.4 Air Characteristics	15
4.0	RECORDS REVIEW.....	15
4.1	Federal National Priorities List (NPL).....	16
4.2	Federal CERCLIS List.....	16
4.3	Federal RCRA CORRACTS List	16
4.4	Federal RCRA non-CORRACTS TSD List	16
4.5	Federal RCRA Generators List.....	16
4.6	Federal ERNS List	17
4.7	Federal Institutional Control/Engineering Control Registries	17
4.8	State-Equivalent NPL	17
4.9	State-Equivalent CERCLIS	17
4.10	State Landfill and/or Solid Waste Disposal Sites	17
4.11	State Leaking UST List.....	17
4.12	State Registered UST Sites	18
4.13	State Institutional Control/Engineering Control Registries	19
4.14	State Voluntary Cleanup Sites	19
4.15	State Brownfield Sites.....	19

4.16	Oil and Gas Records	19
5.0	SITE RECONNAISSANCE AND INTERVIEWS	20
5.1	Methodology and Limiting Conditions.....	20
5.2	General Site Conditions	20
5.3	External Observations	22
5.4	Internal Observations	24
5.5	Interviews.....	25
6.0	FINDINGS	25
7.0	OPINION AND RECOMMENDATIONS	27
8.0	DATA GAPS	28
9.0	CONCLUSIONS.....	28
10.0	ADDITIONAL SERVICES.....	29
11.0	DEVIATIONS	29
12.0	REFERENCES	29
13.0	APPENDICIES	31
	Appendix A Property Records	
	Appendix B Aerial Photographs & Topographic Map	
	Appendix C Sanborn Fire Insurance Maps	
	Appendix D Flood Insurance Rate Map	
	Appendix E Oil and Gas Records	
	Appendix F DEQ’s Battery Acid Neutralization Pit Closure Record	
	Appendix G API Oil-Water Separator Soil Sample Analytical Results and Locations	
	Appendix H DEQ Air Quality Emission Inventory	
	Appendix I Site Photographs	
	Appendix J OKC 23 rd Street National Guard Armory Floor Plan & Site Visit Notes	
	Appendix K RCRA Notifiers	
	Appendix L Qualification(s) of Environmental Professionals	

1.0 Executive Summary

On October 14 and 29, 2010, Jon Reid of the DEQ performed a site reconnaissance for a Phase I Targeted Brownfield Assessment (TBA) of the Oklahoma City 23rd Street Armory located at 200 Northeast 23rd Street. The ownership of the Armory is being transferred to the State of Oklahoma from the Army National Guard. The purpose of the TBA was to identify potential environmental concerns by reviewing historical data, regulatory information, and by performing a visual inspection of the site and surrounding area. The following is an executive summary of the environmental site assessment results:

- The subject property consists of five buildings. The main building consists of offices, classrooms, drill floor, and several garages. The 700th Battalion Building and a band rehearsal building are directly south of the National Guard Armory building. The Troop Command Building and vehicle maintenance shop are located southeast of the National Guard Armory. All National Guard items were removed from the subject property and all buildings were vacant during the site walk-through on October 29, 2010.
- Suspect asbestos containing materials (ACM) were observed in all buildings of the subject property. ACM observed included: thermal insulation, caulking/putty inside the window frames, 9-inch floor tile, exposed mastic, elevator doors, safe doors, storage room doors, cement roofing material, and probable duct insulation within the heating, ventilating, and air conditioning (HVAC) units. A rustic ceiling insulation material in the vehicle maintenance shop appeared suspicious and may contain ACM as well. Based on the age of the buildings and what has been tested positive for asbestos in other armories, the suspect ACM constitutes a recognized environmental condition (REC).
- Based on the age of the buildings, the paint inside and outside may contain lead-based paint. Numerous rooms in the different buildings were observed with paint chipped or peeled away from the walls. Floor surfaces in the hallways, latrines, and several rooms had paint, which appeared to be very old. Yellow and white painted lines located on the floor of the National Guard Armory Drill Hall and the vehicle maintenance building appeared to be suspect for lead-based paint. Staircase rails inside the Armory were suspect for lead-based paint. Some of the garage doors contained peeled paint, which should be tested for lead. The lead-based paint at the subject property constitutes a REC.
- There is an API oil-water separator located behind the vehicle maintenance building. Two soil samples were collected on November 22, 2010 next to the separator with one taken on the west side and the other sample taken from the east side. Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and priority pollutant metals. No VOCs were above laboratory detection limits. Sample results revealed several SVOC detections in both samples. Results for metals were above detection limits, but below concentrations indicative of an environmental impact. Metals were slightly above EPA Residential screening levels for cadmium, lead, and antimony for soil sample API-SEP2. Soil sample API-SEP1 did not have any metals above EPA Residential screening levels. The API separator is considered a REC.

- The indoor firing range (IFR) was remediated in the early 1980s according to Major Terry Hale of the Oklahoma Military Department (OMD). The Military Department, however, had no record of the IFR cleanup. Currently the IFR has a large steel storage unit inside and piping above with thermal insulation suspect of ACM. There were no signs of a sand pit or lead contamination inside the IFR. The IFR appeared to be in good condition. The former IFR is considered a historically recognized environmental condition (HREC).
- The battery room located on the north side of the vehicle maintenance building was a former battery acid neutralization pit. Electrolytes, acids, and bases of batteries were stored inside. According to Major Hale, this room was remediated to DEQ acceptable cleanup levels. A DEQ letter of no further investigation was written on September 5, 2000 on the remediation (Appendix F). After remediation, batteries were no longer stored in the room and were taken care of through a contractor. The battery room and battery acid neutralization pit are HRECs.
- There were seven transformers observed at the subject property. Three transformers are located on the southwest corner of the Troop Command Building. Two transformers are located on the south edge of the property behind the Vehicle Maintenance building. Two more transformers are located on the west end of the property. All four transformers appeared to be in good condition and had no damage. No polychlorinated biphenyl (PCB) contamination or other PCB-containing equipment was found at the site.
- Eight Leaking Underground Storage Tank (LUST) cases were reported in the Oklahoma Corporation Commission's (OCC) UST database within ½ mile of the subject property. No LUST cases were reported on the subject property.
- Three Underground Storage Tank (UST) sites were reported in the OCC's UST database located within the ASTM's minimum search distance of the subject property and its adjoining properties. Two of the registered UST sites were found on the subject property. The UST sites are located at 200 NE 23rd Street, 2207 N. Central Avenue, and 2208 N. Central Avenue. All three USTs were removed with no reportable leaks. The two USTs that were formerly on the subject property are considered a HREC.
- Oil and gas records obtained from the OCC's Oil and Gas Well database indicated two wells that were on the subject property. There is an active well and a plugged and abandoned well. The active well is State well #9 and the plugged and abandoned well is State well #10. It is unknown if State well #9 is oil or gas. State well #10 produced oil. The database indicated a total of 452 active/archived wells that are located with a mile radius of the subject property. The majority of the wells are plugged and abandoned. State well #9 is considered a REC and State well #10 is considered a HREC.
- Water damage and mold is apparent on the building structures. The outside walls, composed of brick of all five buildings, appear to be affected by rainwater over the years. Areas of brick wall have a brownish color, which may be contributed to water damage. The inside of the Band Rehearsal Building had mold along the lower portions of the

walls. Ragged, stained, and torn-up carpet was a result of past water damage. Significant water seepage caused the roof to cave inside the latrine. Ceiling tiles were missing, which appeared to be due to water damage. The mold in the band rehearsal building is considered a REC.

- The Armory is listed as a conditionally exempt small quantity Resource Conservation and Recovery Act (RCRA) generator.
- The Armory was built in 1938 with concrete floors, steel joist, and fire proof construction. According to Sanborn maps from 1922 through 1955, there were several State laboratories, gas engines, and oil wells. A Fuel Oil Laboratory was approximately 100 feet northeast of the Armory, east of the Fuel Oil Laboratory was the State Testing Laboratory, and the State Agricultural Laboratory was once located approximately 100 feet northwest of the Armory. A gas engine and an oil well were directly east of the Armory approximately 175 feet and another gas engine and oil well was located south of the Troop Command Building.
- No National Priorities List (NPL) or delisted NPL sites, active and archived Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site listings, RCRA Corrective Action (CORRACTS) and non-CORRACTS Treatment, Storage, or Disposal (TSD) listings, Emergency Response Notification System (ERNS) list, State-equivalent NPL or CERCLIS lists, or State landfills and/or solid waste disposal sites were found on the subject property or within the ASTM recommended search radii. No Voluntary Cleanup Program (VCP) sites were found on the subject property. No Brownfield sites were found on the subject property either.
- The DEQ Site Cleanup Assistance Program (SCAP) will clean up the asbestos, lead-based paint, and lead dust in the armory and associated buildings.
- The site is not on any Federal or State Institutional Control (IC)/Engineering Control (EC) Registries. The representatives of the property were also not aware of any ICs or ECs on the property.

2.0 INTRODUCTION

The State of Oklahoma Department of Environmental Quality under a Brownfield Assistance Agreement (No. RP96681001-0) (Ref. 1) with the U.S. Environmental Protection Agency (EPA) conducted a Targeted Brownfield Assessment of the 23rd Street Oklahoma City National Guard Armory located on 200 Northeast 23rd Street.

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 State of Oklahoma 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 Brownfield’s 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.

DEQ is providing technical assistance to the project by evaluating the environmental condition of the property prior to the State acquiring the property. Funding for this assessment has been provided by the EPA.

2.2 Detailed Scope-of-Services

DEQ examined the current use of the property and then identified the historical uses of the property to determine if recognized environmental conditions exist. DEQ examined historical documents, governmental databases, oil and gas records, aerial photographs, Sanborn Fire Insurance Maps, and conducted interviews and 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 National Guard Armories suggest there is a possibility of lead and asbestos contamination at the 23rd Street Armory. The majority of State armories have IFRs. These ranges usually contain concentrations of lead from past shooting activity. Other known areas for lead contamination can be found in the paint. Staircase railings, window frames, doors, ceilings, and walls could potentially contain lead-based paint.

The 23rd Street Armory was built before the 1970s, which makes it highly likely to have asbestos containing materials in its construction. 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 floor tile, floor tile mastic, wallboard, thermal insulation, wall plaster, ceiling plaster, acoustic ceiling tile, roofing material debris, interior window glazing, and exterior window caulking materials.

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 revitalization. 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 revitalization 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.

2.5 Special Terms and Conditions

This assessment report has been prepared for the State of Oklahoma 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 CHARACTERIZATION AND HISTORY

3.1 Location and Legal Description

The subject property is located at 200 Northeast 23rd Street in Oklahoma City, 73105 in the Northeast ¼ of the Northwest ¼ of the Northwest ¼ of Section 27, Township 12 N, and Range 3 W Indian Meridian. The subject property consists of five buildings. The National Guard Armory (main 3-story building) is south of 23rd Street followed by the 700th Battalion Building and a band rehearsal building to the south. An auto repair shop is southeast of the National Guard Armory followed by the Troop Command Building southeast of it. A site map and topographical map of the property is provided in Appendix B of this report.

3.2 Site and Vicinity Characterization

The site is located approximately 1365 feet west of the State Capital. 23rd Street is to the north and 21st Street is bound to the south. Walnut Avenue is bound to the east and no roads adjoin the property to the west. A review of the topographical map indicated that the surface elevation of the site is approximately 1230 feet above mean sea level. The topographical gradient is to the west.

3.3 Owner, Property Manager, and Occupant Information

The State of Oklahoma has always owned the armory and associated buildings. OMD leased the buildings from the State of Oklahoma for use as an armory. During the site visit on November 14, 2010, the OMD was in the last stages of removing the rest of their

items off site. By November 29, 2010, all OMD items were off the site. See Appendix A for property records.

3.4 Information Reported by User Regarding Environmental Lien or Specialized Knowledge or Experience

There are no known environmental liens for the subject property or specialized knowledge from the National Guard on the subject property.

3.5 Commonly Known or Reasonably Ascertainable Information

The National Guard Armory, 700th Battalion, Troop Command Building, and the Auto Maintenance buildings are in fair to good condition. The Band Rehearsal building is in bad condition as a result of water damage and mold inside. The IFR is in good condition inside the National Guard Armory. A cleanup of the IFR was conducted in the 1980's. The IFR currently contains empty steel storage units, which previously housed weapons and ammunition. ACM and potential lead-based paint issues were observed during the evaluation of the site.

3.6 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.

3.7 Current Use of the Property

There is no use of the subject property at the present time. All Army National Guard items have been removed from each building on site.

3.8 Past Use of the Property

3.8.1 Review of Aerial Photographs

Historic aerial photographs were searched to view the changes to the property over time. Aerial photographs from 1941, 1995, and 2008 were obtained. The 1941 aerial was obtained from the Oklahoma Department of Libraries and is the only aerial on file. The 1995 and 2008 aerials were obtained from the DEQ database of archived and present-day photographs. DEQ did not have any aerial photographs before the year 1995. All these photographs are located in Appendix B. The following represents a summary of what was found at the subject property in each photograph.

1941 aerial photograph

The earliest historical aerial photograph found on record of the subject property was taken on July 17, 1941. The National Guard Armory was approximately 3 years old at the time. Also shown is the present-day vehicle maintenance building

located southeast of the Armory. There does not appear to be any adjacent buildings except to the northwest. According to the 1955 Sanborn map, the building to the northwest is the State Agricultural Laboratory. The surrounding areas of the National Guard Armory were either open lots or newly developed buildings and streets.

1995 aerial photograph

All five buildings of the National Guard Armory are depicted in this aerial. The buildings include: the National Guard Armory, vehicle maintenance building, 700th Battalion, band rehearsal building, and the Troop Command Building. There does not appear to be anything different than what appears at the present time.

2003 aerial photograph

No changes or developments are depicted in this aerial in relation to the 1995 aerial photograph. The 2003 aerial depicts the property as it appears currently.

2008 aerial photograph

No changes or developments are depicted in this aerial in relation to the 1995 aerial photograph. The 2008 aerial depicts the property as it appears currently.

2010 aerial photograph

No changes or developments are depicted in this aerial in relation to the 1995 aerial photograph. The 2010 aerial depicts the property as it appears currently.

3.8.2 Fire Insurance Maps

Sanborn Fire Insurance maps were viewed and downloaded from the Oklahoma Department of Libraries website. Sanborn maps of the subject property and adjoining properties were found for 1922, 1949, 1950, and 1955. All the Sanborn maps are located in Appendix C and in Reference 5. The following represents a summary of what was found at the subject property and adjoining properties in each Sanborn map.

1922 Sanborn map

The 23rd Street Armory was not present in 1922. According to the Sanborn key sheet, the subject property was either vacant or was part of the State Capitol addition as described in the key sheet map. Lot 7, south of 23rd Street and west of N. Walnut Avenue, is the location where the Armory would have been if present.

It is unknown what the adjoining properties were. To the west where the Armory parking lot and NE 21st encircles around to 23rd Street is open and not designated as a lot. West of it is the Atchison Topeka & Santa Fe Railroad. The 1922 map # 209, which would have had a closer view if the Armory was present, showed the newly developed State Capitol and properties adjoining it.

1922 – Republished in 1949 (Vol. 2) Sanborn map

In 1949 the 1922 Sanborn map was republished. By this period of time the 23rd Street Armory was present. According to the map, the Armory was built in 1938 with concrete floors, steel joist, and fire proof construction. The Fuel, Oil Laboratory was approximately 100 feet to the northeast. East of the Fuel, Oil Laboratory was the State Testing Laboratory. A gas engine and an oil well were directly east of the Armory approximately 175 feet. The State Highway Department Garage was east of the gas engine and oil well. South of the oil well and the garage was the State Arsenal Building. Approximately 50 feet south and southeast were two auto repair shops and across 23rd Street to the north was what appears to be Lincoln Municipal Park.

1922 – May 1950 (Vol. 2) Sanborn map

An updated version of the 1922 Sanborn map was created in May 1950. According to the map there were no changes from the 1949 republished version.

1922; Republished in 1955 (Vol. 2) Sanborn map

By 1955 several adjoining properties had either been developed or changed. The 23rd Street Armory had expanded in property by obtaining the two auto repair shops and development of the National Guard Service Center for truck maintenance south of the former repair shops.

A newly developed State Game & Fish Commission Building was located approximately 50 feet to the east. The State Military Department Offices, which is currently the Troop Command Building, was built southeast of the former auto repair shops. Additional lots and 22nd Street were developed west of the National Guard Armory building. Approximately 100 feet northwest of the National Guard Armory was the newly developed State Agricultural Laboratory. Changes recognized between 1950 and 1955 were found in the adjoining properties to the north and to the southwest. The 10,000 gallon oil tank located adjacently north of the storage building was no longer in existence in 1955. The west adjoining property in this map is practically the same as in the 1949 and 1950 Sanborn maps. One small building structure located northwest of the turn table unit in the 1955 Sanborn map, is missing.

3.9 Current and Past Uses of Adjoining Properties

The National Guard Armory is bound by 23rd Street to the north and Walnut Avenue to the east. The 700th Battalion Building bounds the Armory to the south and the Oklahoma Data Services Division Project Management Office bounds the Armory to the west. According to a 1955 Sanborn map, the Data Services location used to be the State Agriculture Laboratory. Adjacently east of Walnut Avenue are two buildings. The southern-most building to the east is operated by the Oklahoma Department of Central Services. It is unknown what the building to the north is associated with. All HVAC units and fans on the roof were covered with taped up garbage bags. A “Danger/Flammable Liquids” sign was next to one of the doors of the unknown building.

The Oklahoma Department of Veterans Affairs is adjacent to the unknown building to the east. It appears that the Central Services Building is the same building that housed the State Game and Fish Commission. The unknown building used to be the State Fuel Oil Laboratory and the Department of Veterans Affairs used to be the State Testing Laboratory.

Directly north of 23rd Street across the Armory is a Ricky's Mexican Cafe. Adjacent west of the café is Ocean Dental. Adjacent buildings to the east of the café are Burger King followed by Morris Career Center for nurse-aid training. It is unknown what the area north of 23rd Street was historically.

South of the Oklahoma Department of Central Services building is 22nd Street. South of 22nd Street lies the vehicle maintenance building and the Troop Command Building to the southeast. The Oklahoma Office of State Finance is east of the vehicle maintenance building and north of the Troop Command Building. This building was once used for truck storage, State arsenal, and a cot and clothing wing. It appears the Finance building was owned by the National Guard in the 1955 Sanborn map.

South of the Troop Command Building and the rest of the Armory property is 21st Street. South of 21st Street is an open field followed by the Oklahoma Department of Transportation. The area where the Department of Transportation is at was open land in the 1955 Sanborn map. A vacant building, which used to be the State Records Center, is located south of the 700th Battalion building and west of the Band Rehearsal Building. The State Records Center was not present in the 1955 Sanborn map. West of the former records center and subject property lies Santa Fe Avenue and highway I-235.

3.10 Environmental (Physical) Setting

DEQ reviewed several sources to obtain information on the physical setting of the subject property and its surrounding areas. These sources included: The United States Department of Agriculture Oklahoma County Soil Survey, U.S. Geological Survey, and the Federal Emergency Management Association. Review of the physical setting of the area is to evaluate the sensitivity of the hydrogeology to potential contamination from sources either on or near the site.

3.10.1 Surface Water Characteristics

No surface water bodies are on the subject property or the adjoining properties. According to the Federal Emergency Management Association, the subject property and adjoining properties are in an area determined to be outside the 0.2 % annual chance floodplain (Ref. 6). A map of this information is located in Appendix D.

3.10.2 Subsurface Geological Characterization

The Oklahoma County Soil Survey did not have a soil description for the subject property. Urban development during the time the Survey was issued in 1969 greatly influenced the area to the point that it may have been difficult to characterize. A general soil map in the Survey lists the area as part of the Renfrow-Vernon-Bethany association. The association is deep and shallow, nearly level to sloping, loamy and clayey soils on prairie uplands (Ref. 7).

According to the U.S. Geological Survey, the site's geology is of the Kingman Siltstone. It is an orange-brown to greenish-gray, even-bedded siltstone, with some fine-grained sandstone and red-brown shale; grades southward into Purcell Sandstone. Thickness is approximately 30 feet (Ref. 8).

3.10.3 Ground Water Characteristics

Major sources of groundwater beneath the subject property are of alluvium and terrace deposits and the Garber Sandstone and Wellington Formation. Chemical quality of water is generally good and yield is approximately 150 - 300 gallons per minute. The area generally yields ground water containing 500 mg/l or less of dissolved solids, which is satisfactory for most uses. The presence of an undesirable constituent or excessive hardness may make the water unsuitable for some purposes (Ref. 8).

The direction of the hydraulic gradient is unknown. The direction of shallow groundwater flow is often related to the surface topography. Therefore, the expected shallow groundwater flow direction would be to the west.

3.10.4 Air Characteristics

No air emissions were noticed at the subject property or the adjoining properties. No odors were noticed at the subject property either during the site visit. One operational air permitted facility is located 0.27 miles southwest of the subject property. The facility is the Earthgrains Rainbo Baking Companies, Inc. Oklahoma City Bakery located at 1916 N Broadway in Oklahoma City, OK. The facility primarily emits flour particles and ethanol (Ref. 17). Information from the DEQ Air Quality Division is located in Appendix H.

4.0 RECORDS REVIEW

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.

4.1 Federal National Priorities List (NPL)

The EPA database was searched for NPL sites near the subject property within the ASTM's recommended search radius of one mile (Ref. 9). The subject property is not a listed NPL site. There are no NPL sites reported within a one-mile radius of the subject property.

There is also an EPA database for delisted and proposed NPL sites, which ASTM requires to be reported within ½ mile of the subject property. No delisted or proposed NPL sites are within the ½ mile search radius.

4.2 Federal CERCLIS List

The EPA database for CERCLA Information Service (CERCLIS) was searched for active and archived CERCLIS sites on and near the subject property (Ref. 10). The ASTM's recommended search radius of the subject property for both active and archived CERCLIS sites is ½ mile. No active or archived CERCLIS sites were found within ½ mile of the subject property.

4.3 Federal RCRA CORRACTs List

The EPA database for Resource Conservation and Recovery Act (RCRA) facilities subject to corrective action was searched within the ASTM's required minimum distance of one mile of the subject property (Ref. 11). No RCRA CORRACT facilities are within the one-mile radius of the subject property.

4.4 Federal RCRA non-CORRACTS TSD List

The EPA database for RCRA facilities not subject to corrective action was searched within the ASTM's required minimum distance of ½ mile of the subject property (Ref. 11). No RCRA non-CORRACT Treatment, Storage and Disposal (TSD) sites are within the ½ mile radius of the subject property.

4.5 Federal RCRA Generators List

The EPA RCRA Notifiers database was searched for RCRA generators within the ASTM's required minimum search distance of the subject property and adjoining properties (Ref. 12). The subject property is listed as a RCRA notifier. The Oklahoma Army National Guard #1 is listed as a Conditionally Exempt Small Quantity Generator. No large quantity generators were reported within the subject property and its adjoining properties. See Appendix K for a list of RCRA generators.

4.6 Federal ERNS List

Emergency Response Notification system (ERNS) maintained by the National Response Center was searched for any hazardous substance releases or spills within the subject property (Ref. 13). ASTM requires a minimum search distance of property only when identifying ERNS cases. No ERNS sites were reported within the property or the adjoining properties.

4.7 Federal Institutional Control/Engineering Control Registries

There are no known Institutional Controls/Engineering Controls on the subject property from speaking to the owner and representatives of the subject property. This information was not found while searching the Oklahoma County deed record search.

4.8 State-Equivalent NPL

DEQ does not have a State-equivalent NPL database. Oklahoma does not have a State Superfund law to establish a State-equivalent NPL database. NPL status is referred to EPA Region 6 NPL listings.

4.9 State-Equivalent CERCLIS

DEQ does not have a State-equivalent CERCLIS database. CERCLIS status is referred to EPA Region 6 CERCLIS listings.

4.10 State Landfill and / or Solid Waste Disposal Sites

DEQ regulates landfills and solid waste disposal sites across the State of Oklahoma. State landfills and solid waste disposal facilities were searched in the DEQ database within the ASTM required minimum distance ½ mile from the subject property (Ref. 14). No permitted landfills or solid waste disposal facilities are located within the search distance of the subject property.

4.11 State Leaking UST List

The Oklahoma Corporation Commission UST Notification Database was searched to locate any known leaking underground storage tank (LUST) sites located within the ASTM's minimum search distance of a ½ mile of the subject property. Eight LUST sites were found within the ½ mile radius. The following sites are listed and described below.

- The former Crawford Service, located on 2922 N. Lincoln, is just over ½ mile northeast of the subject property. The LUST case number is 064-2551 and the Facility ID number is 5500173. The site is archived and inactive.

- The JW Skaggs Construction Company, located on 17 NE 27th Street, is north-northeast of the subject property. The LUST case number is 6N-648 and the Facility ID number is 5500942. The case is closed and archived.
- The State Motor Pool, located on 2307 N. Central, is east of the subject property. The LUST case number is 064-Y3 and the Facility ID number is 5502260. The site has been actively owned since December 28, 1998.
- The Vantage Construction of Oklahoma, Inc., located on 2800 N. Santa Fe, is south of the subject property. The LUST case number is 6N-1013 and the Facility ID number is 5502765. The case has been closed and inactive since August 22, 1996.
- The Central Garage, located on 2100 N. Walnut, is south of the subject property. The LUST case number is 064-2760 and the Facility ID number is 5510874. The case has been active since September 27, 2004.
- The Oklahoma Civil Emergency Management, located on 2401 N. Lincoln, is northeast of the subject property. The LUST case number is 6C-43 and the Facility ID number is 5513125. The site is currently inactive.
- The Husted's Dx Service, located on 135 NE 23rd Street, is north of the subject property. The LUST case number is 064-2191 and Facility ID number is 5514010. The site was closed on April 7, 1999.
- The Veterans Affairs Building, located on 2311 N. Central, is east of the subject property. The LUST case number is 064-Y2 and the Facility ID number is 5521813. The site is inactive.

4.12 State Registered UST Sites

The Oklahoma Corporation Commission UST Notification Database was searched to locate registered underground storage tanks (UST) located within the ASTM's minimum search distance of the subject property and its adjoining properties. The database listed two USTs on the property and one registered UST located on adjacent properties. None of the three USTs were listed as LUST sites. The following USTs are listed and described below.

- The Co C 700 Th Spt. Bn UST was located on the subject property at 200 NE 23rd Street. The UST was installed on December 31, 1947. One 10,000 gallon single-walled steel tank contained gasoline. The UST was removed on November 18, 1991. No releases were reported. The coordinates of the former UST are latitude: 35.4933 N and longitude -97.5080 W. The Facility ID number is 5505793.
- The Oklahoma Military Service, located on 2207 N. Central Avenue, owned a 10,000 gallon gasoline UST. This UST was also part of the subject property and

listed as inactive. The UST was removed on November 18, 1991. No releases were reported. The coordinates of the former UST are 35.4913 N and -97.5084 W. The Facility ID number is 5512862.

- The former power plant, located on 2208 N. Central Avenue, is to the southeast. One 90,000 gallon UST contained diesel. The UST is now inactive. The UST was removed on November 2, 2004. No releases were reported. The coordinates of the former UST are latitude: 35.4922 N and longitude -97.5069 W. The Facility ID number is 5521322.

4.13 State Institutional Control/Engineering Control Registries

The DEQ Brownfield Institutional Control database was searched and there are no known Institutional Control/Engineering Controls in effect for this property.

4.14 State Voluntary Cleanup Sites

The DEQ VCP database was searched for VCP sites within the required ASTM search distance of ½ mile of the Armory. No VCP sites are located on or within ½ mile of the subject property.

4.15 State Brownfield Sites

The DEQ Brownfield database was searched for Brownfield sites within the required ASTM search distance of ½ mile of the subject property. No Brownfield sites are located on or within ½ mile of the subject property.

4.16 Oil and Gas Records

DEQ determined that the subject property is located in the NE ¼ of the NW ¼ of the NW ¼ of Section 27 Township 12N Range 03W. DEQ performed a search of oil and gas records from the OCC's oil and gas records database (Ref. 15). The subject property is in an area where there is a history of oil and gas development. Oil and gas records were searched to record the known history of well development on this site. A search area consisted of the property as described from the legal location above and a one-mile radius around the subject property. The following describes the well records found on the subject property and surrounding properties. A complete list of all the oil and gas wells is provided in Appendix E.

Section 27 is where the Armory is located. There are a total of 77 oil and gas wells listed for Section 27. There are 60 active and 17 plugged and abandoned wells of the listed 77. According to the OCC database, active wells either produce or are shut-ins. Some old wells may be designated active when they are actually plugged. This is due to the status of the well or wells being unknown.

One active well is located on the subject property. It is a State well and listed as well #9. The American Petroleum Institute (API) number is 3510936069 and located in the NE ¼ of the NW ¼ of the NW ¼ of Section 27 Township 12 N and 03W. It is unknown if the well is oil or gas. One plugged and abandoned well is located on the subject property. It is a State well and listed as well #10. The API number is 3510936068 and located in the NE ¼ of the NW ¼ of the NW ¼ of Section 27 Township 12N and 03W. It is an oil well.

Sections 21, 22, 23, 26, 28, 33, and 35 are the adjacent sections of the subject property's Section 27. Section 21, 28, and 33 did not have any oil and gas wells listed in the OCC database. Section 22 has 16 active wells, 81 plugged and abandoned wells, and one well unknown listed for a total of 98 wells. Unknown wells listed in the database may be producing, plugged, or is a shut-in.

Section 23 has 6 active wells, 34 plugged and abandoned wells, and 3 spud wells for a total of 43. A well listed as spud implies that a spud or drilling report has been received for a new well. There are a total of 40 oil and gas wells in Section 26. There are 12 active wells and 28 of the wells are plugged and abandoned. Section 34 has 129 oil and gas wells listed with 37 active, 91 plugged and abandoned, and one unknown. Section 35 has 65 oil and gas wells listed with 29 active, 35 plugged and abandoned, and one unknown.

5.0 SITE RECONNAISSANCE AND INTERVIEWS

5.1 Methodology and Limiting Conditions

A site reconnaissance of the 23rd Street Armory was performed on October 14 and 29, 2010. Jon Reid of the DEQ met with the base realignment and closure (BRAC) staff at the facility to tour the five buildings and surrounding area of the subject property. All areas of the buildings and outside areas were observed noting any environmental conditions that might need additional investigation.

5.2 General Site conditions

The five buildings and outside of the subject property is vacant. The property contains a three-story armory building with a drill hall, Troop Command Building, vehicle maintenance building, band rehearsal building, and the 700th Battalion Building consisting of classrooms. The parking and outside areas are covered with gravel and asphalt. A covered API oil-water separator is located behind the vehicle maintenance building. The following are general site conditions that were investigated on the subject property.

Aboveground Storage Tanks (ASTs)

The subject property does not have any ASTs.

Landfills and/or Dumping

No landfills, dumping, or disturbed soil was found on the property.

Impoundments

No impoundments were observed at the subject property.

Monitoring Wells

No monitoring wells are present on the property.

Disturbed and Stained Soils

No disturbed and/or stained soils were observed at the subject property. There was no stressed vegetation of concern either.

Seeps

No seeps of any kind were observed at the subject property.

Chemical Spills

No chemical spills were observed at the subject property. In the vehicle maintenance building there was once a room on the north side, which contained used batteries. Batteries were stored inside as an acid neutralization pit. Electrolytes, acids, and bases of batteries were stored inside. The room was remediated according to OMD officials and a letter from DEQ is provided in Appendix F.

Farm Waste

No farm waste was observed at the subject property.

Known Pesticide Misapplication

No known pesticide misapplications were detected during the site visit.

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.

Petroleum Products

No petroleum products were observed during the site visit.

Asbestos

The subject property is suspect to contain ACM. It is particularly evident on the first floor of the National Guard Armory where there is thermal insulation on the boilers and piping. Suspect ACM was also observed from 9-inch floor tile and mastic, elevator doors, overhang doors, caulking/putty material in the window frames, roofing material, and cement piping. A detailed observation of ACM is provided in the Internal Observations of Section 5.4.

Lead

The subject property may contain lead-based paint due to its age. Lead-based paint is commonly found in armories on wooden doors, overhead doors, bump guards, downspouts, molding, striping on the drill floor, hand rails, older windows, and red painted items.

Since the armory contained an indoor firing range, it is possible that lead dust contamination may have been tracked outside of the IFR.

Transformers/PCB Equipment

There were seven transformers observed at the subject property. Three transformers are located on the southwest corner of the Troop Command Building. Two transformers are located on the south edge of the property behind the Vehicle Maintenance building. Two more transformers are located on the west end of the property. All four transformers appeared to be in good condition and had no damage. No polychlorinated biphenyl (PCB) contamination or other PCB-containing equipment was found at the site.

5.3 External Observations

The external surface area of the subject property is mainly composed of gravel/asphalt parking and driving areas. Areas of vegetation are located to the north (front) of the National Guard Armory and sporadic areas throughout the subject property. No stressed vegetation from environmental impact was observed.

The outside walls of the four buildings, which are composed of bricks, appear to be affected by rainwater over the years. Areas of brick wall have a brownish color, which may be contributed to water damage. The damage, however, is not significant. Based on the age of the buildings on the subject property, the paint on the outside could contain lead-based paint. The caulking/putty located in the outside window frames is highly suspect for ACM.

The most significant observation, which may need additional investigation, is the API oil-water separator located behind the vehicle maintenance building. There was a dark oily fluid inside the API separator during the site visit on October 14, 2010. A flat heavy piece of steel covers the API separator.

Two surface soil samples were collected on November 22, 2010 next to the separator with one taken on the west side (API-SEP1) and the other sample taken from the east side (API-SEP2). The samples were collected 0-6 inches below ground surface. Samples were analyzed for VOCs, SVOCs, and priority pollutant metals.

Both samples were below laboratory detection limits and DEQ screening levels for VOCs. For SVOCs, API-SEP1 had higher laboratory detection limits as compared to API-SEP2. For instance, API-SEP1 had a detection of benzo (a) pyrene at 380 ug/kg. The value that API-SEP2 had for benzo (a) pyrene was < 1200 ug/kg. Ten SVOCs were above laboratory detection limits in API-SEP1 and one was above laboratory detection

limits in API-SEP2. Nine tentatively identified SVOCs were found in API-SEP1 as compared to two tentatively identified SVOCs in API-SEP2.

Metals were slightly above EPA Residential screening levels for cadmium, lead, and antimony for soil sample API-SEP2. Soil sample API-SEP1 did not have any metals above EPA Residential screening levels. Analytical results and the photograph locations of the soil samples are provided in Appendix G. Photographs of the external view of the site can be found in Appendix I.

5.4 Internal Observations

The National Guard Armory consists of three floors (see Appendix J for floor plan). Wooden doors were observed throughout the building. The first floor contains several garages, drill hall, kitchen, former indoor firing range, boiler room, several offices, latrines, and two elevators. The second and third floors contain classrooms, offices, latrines, and two elevators. A floor plan for the National Guard Armory is provided in Appendix I. The vehicle maintenance shop is located southeast of the National Guard Armory. The shop contains a dock, tool room, battery room, break room, latrine, offices, parts storage area and an open area to work on vehicles. The 700th Battalion building is located directly south of the National Guard Armory. This building along with the Troop Command Building, which is located southeast of the vehicle maintenance building, both contains classrooms and a few offices. A garage is located in the 700th Battalion facility as well. The fifth building, the band rehearsal building, is located behind the 700th Battalion to the south. The rehearsal building contains a garage, stage room, latrine, and another large room for rehearsal or other purposes.

Asbestos and lead-based paint were apparent while performing the site reconnaissance inside the National Guard Armory. The hallway floor surfaces on the second and third floors and staircase hand rails on all floors may be suspect for lead-based paint based on the age of the building. A reddish content of paint was observed on the latrine shower floors located on the second and third floors. This paint as well as some of the wall paint in a few rooms was suspect for lead-based paint. Painted lines of yellow and white located on the floor of the Drill Hall are suspect for lead-based paint as well. Some of the garage doors contained areas of peeled paint, which should be tested for lead.

Suspect ACM observed inside the National Guard Armory included: thermal insulation, 9-inch floor tile, exposed mastic, window putty/caulking, and the elevator doors. There are a few HVAC units that may contain asbestos in the duct insulation.

All thermal insulation observed was located on the first floor. Garages C through H, IFR, and room 113 had thermal insulation around the piping. Boilers located in Garage G and room 103 contained thermal insulation as well. Several areas of observed thermal insulation had exposed friable ACM in areas. Nine-inch floor tile was observed on the third floor and a north side room of the first floor in the National Guard Armory. The northwest corner of the third floor near the staircase had 9-inch tile. Room 325 and the latrine on the west end of the third floor had 9-inch floor tile as well. Floor tile on the

third floor was in fair to good condition. The room with 9-inch tile on the first floor was in fair to bad condition with exposed mastic and missing tile. The second floor contained 12-inch floor tile in room 226. The floor tile was in fair to good condition.

The putty/caulking between each window are located throughout the building on each floor. Due to the age of the building, the putty/caulking is becoming friable. A picture of this is shown in Appendix I. There are elevators on the northwest and the southeast corners of the National Guard Armory. The elevator doors on each floor may contain ACM within the door panels. From previous investigations elsewhere, these kinds of doors have tested positive for ACM.

The Vehicle Maintenance Building contains paint on the wall and on the cement surface floor that is suspect for lead-based paint. Paint was peeling badly in a few areas of the wall. The ceiling contained an insulation material that was rustic in color. It is unusual and may need additional investigation for analysis of asbestos. A storage room door, which is similar to the elevator doors in the National Guard armory, was observed that may contain ACM. The last observation noticed inside the vehicle maintenance building was the battery storage room. The room is now empty, but at one time batteries were discarded here and stored until a contractor picked it up. The room appeared clean inside with no observations of environmental impact.

Observations inside the 700th Battalion were exposed mastic on floors and missing floor tile, water damage, peeling paint, and a safe door that is suspect for ACM. Water damage inside the building is most likely the cause of the missing floor tile. There were ceiling panels missing and wallboard damaged from past water seepage. The suspect ACM, which would be located inside the safe door, is located in the garage area of the facility.

The Troop Command Building contained nine-inch floor tile throughout the facility. Some area tiles were missing with mastic being exposed. Several rooms were observed having paint that was peeling badly. There was some water damage and was apparent with missing ceiling panels and mold observed.

Mold appeared to be the main problem inside the band rehearsal building. Out of all five buildings this building had the most water damage and mold was apparent along the lower portions of the walls and torn-up carpet. Significant water seepage caused the roof to cave inside the latrine. Ceiling tiles were missing, which appeared to be due to water damage. Missing floor tile and exposed mastic was observed on the concrete in some areas. There appeared to be some suspect ACM in what looked like cement roofing material upstairs in the attic. Other items observed were HVAC units and a water heater. The HVAC duct insulation may contain ACM. Photographs of the internal view of all buildings on the subject property can be found in Appendix I.

5.5 Interviews

Major Terry Hale, Environmental Branch Manager of OMD, was asked a few questions about the history and environmental concerns of the subject property. He had said that the

IFR had been tested and remediated in the early 1980s prior to 1986. There were no records on file at OMD of the IFR Cleanup. The IFR appeared to have been remediated. A huge steel storage unit occupies most of the IFR room space.

Hale commented that one of the rooms inside the vehicle maintenance building was a former battery acid neutralization pit. Electrolytes, acids, and bases of batteries were stored inside. Hale said this room was remediated to DEQ acceptable cleanup levels. A DEQ letter of no further investigation was written on September 5, 2000 on the remediation of the battery pit. After remediation, batteries were no longer stored in the room used as the neutralization pit. The batteries were taken care of through a contractor.

It was unclear where the two formerly used USTs were located. Major Hale was unsure about the UST locations and whether or not they had been excavated. There were no UST records filed at OMD for the 23rd Street Armory. Major Hale was not aware of any other environmental conditions that would have been of concern (Ref. 16). **See Appendix J for site visit notes.**

6.0 FINDINGS

Summarized below are the major findings from this Targeted Brownfield Assessment and DEQ's recommendations. The major findings of the highest environmental concern are presented first.

- Suspect ACM were observed in all buildings of the subject property. ACM observed included: thermal insulation, caulking/putty inside the window frames, 9-inch floor tile, exposed mastic, elevator doors, safe doors, storage room doors, cement roofing material, and probable duct insulation within the HVAC units. A rustic ceiling insulation material in the vehicle maintenance shop appeared suspicious and may contain ACM as well. Based on the age of the buildings and what has been tested positive for asbestos in other armories, the suspect ACM constitutes a REC.
- Based on the age of the buildings, the paint inside and outside may contain lead-based paint. Numerous rooms in the different buildings were observed with paint chipped or peeled away from the walls. Floor surfaces in the hallways, latrines, and several rooms had paint, which appeared to be very old. Yellow and white painted lines located on the floor of the National Guard Armory Drill Hall and the vehicle maintenance building appeared to be suspect for lead-based paint. Staircase rails inside the Armory were suspect for lead-based paint. Some of the garage doors contained peeled paint, which should be tested for lead. The possible lead-based paint at the subject property constitutes a REC.
- There is an API oil-water separator located behind the vehicle maintenance building. Two soil samples were collected on November 22, 2010 next to the separator with one taken on the west side and the other sample taken from the east side. Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and priority pollutant metals. No VOCs were above laboratory detection limits. Sample results revealed several SVOC detections in both samples. Results for

metals were above detection limits, but below concentrations indicative of an environmental impact. Metals were slightly above EPA Residential screening levels for cadmium, lead, and antimony for soil sample API-SEP2. Soil sample API-SEP1 did not have any metals above EPA Residential screening levels. The API separator is considered a REC.

- The IFR was remediated in the early 1980s according to Major Terry Hale of OMD. OMD, however, had no record of the IFR cleanup. Currently the IFR has a large steel storage unit inside and piping above with thermal insulation suspect of ACM. There were no signs of a sand pit or lead contamination inside the IFR. The IFR appeared to be in good condition.
- The battery room located on the north side of the vehicle maintenance building was a former battery acid neutralization pit. Electrolytes, acids, and bases of batteries were stored inside. According to Major Hale, this room was remediated to DEQ acceptable cleanup levels. A DEQ letter of no further investigation was written on September 5, 2000 on the remediation (Appendix F). After remediation, batteries were no longer stored in the room and were taken care of through a contractor. The battery neutralization pit and battery room is considered an HREC.
- There were seven transformers observed at the subject property. Three transformers are located on the southwest corner of the Troop Command Building. Two transformers are located on the south edge of the property behind the Vehicle Maintenance building. Two more transformers are located on the west end of the property. All four transformers appeared to be in good condition and had no damage. No polychlorinated biphenyl (PCB) contamination or other PCB-containing equipment was found at the site.
- Eight LUST cases were reported in the Oklahoma Corporation Commission's OCC UST database within ½ mile of the subject property. No LUST cases were reported on the subject property.
- Three UST sites were reported in the OCC's UST database located within the ASTM's minimum search distance of the subject property and its adjoining properties. Two of the registered UST sites were found on the subject property. The UST sites are located at 200 NE 23rd Street, 2207 N. Central Avenue and 2208 N. Central Avenue. All three USTs were removed with no reportable leaks. The two USTs that were located on the subject property are considered HRECs.
- Oil and gas records obtained from the OCC's Oil and Gas Well database indicated two wells that were on the subject property. There is an active well and a plugged and abandoned well. The active well is State well #9 and the plugged and abandoned well is State well #10. It is unknown if State well #9 is oil or gas. State well #10 produced oil. The database indicated a total of 452 active/archived wells that are located with a mile radius of the subject property. The majority of the wells are plugged and abandoned. State well #9 is considered a REC and State well #10 is considered a HREC.

- Water damage and mold is apparent on the building structures. The outside walls, composed of brick, of the all five buildings, appear to be affected by rainwater over the years. Areas of brick wall have a brownish color, which may be contributed to water damage. The inside of the Band Rehearsal building had mold along the lower portions of the walls. Ragged, stained, and torn-up carpet was a result of past water damage. Significant water seepage caused the roof to cave inside the latrine. Ceiling tiles were missing, which appeared to be due to water damage.
- The Oklahoma armory National Guard is listed as a conditionally exempt small quantity RCRA generator.
- The Armory was built in 1938 with concrete floors, steel joist, and fire proof construction. According to Sanborn maps from 1922 through 1955, there were several State laboratories, gas engines, and oil wells. A Fuel Oil Laboratory was approximately 100 feet northeast of the Armory. East of the Fuel Oil Laboratory was the State Testing Laboratory. The State Agricultural Laboratory was once located approximately 100 feet northwest of the Armory. A gas engine and an oil well were directly east of the Armory approximately 175 feet. Another gas engine and oil well were south of the Classroom building.
- No NPL or delisted NPL sites, active and archived CERCLIS site listings, RCRA CORRACTS and non-CORRACTS TSD listings, ERNS list, State-equivalent NPL or CERCLIS lists, or State landfills and/or solid waste disposal sites were found on the subject property or within the ASTM recommended search radii. No VCP sites were found on the subject property. No Brownfield sites were found on the subject property either. The DEQ Site Cleanup Assistance Program will clean up the asbestos, lead dust, and lead-based paint in the armory and associated buildings.
- The site is not on any Federal or State Institutional Control/Engineering Control Registries. The representatives of the property were also not aware of any ICs or ECs on the property.

7.0 OPINION AND 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 consist of the following:

- After an asbestos inspection has been conducted to confirm the presence and location of ACM in the buildings, an asbestos abatement should be performed at all five buildings on the subject property. ACM of the most concern is located on the first floor of the National Guard Armory. All visible thermal insulation was observed in this area of the property. There are several areas on the first floor where the thermal insulation has

exposed ACM that is friable. The thermal insulation is the most significant environmental concern at the subject property.

- After a lead survey has been conducted to identify lead-based paint and lead dust locations and presence, a lead-based paint and lead dust abatement should be conducted at the subject property. Based on the age of the facility it is highly probable that lead is contained within the paint as described in our findings.
- Pending the future use of the property and its occupancy, the liquid inside the API separator may need to be removed and a soil remediation conducted.
- Without a closure report on file for the IFR, it is unknown whether or not the IFR still contains lead contamination. We suggest that lead wipe samples be collected on the floor and walls of the IFR and in the floor of the rooms nearby.
- DEQ and the Oklahoma Military Department did not have any record of the Investigation Report for the Former Battery Acid Neutralization Pits. Based on DEQ's no further investigation letter in Appendix F, samples were collected from the soils and groundwater. The battery room has a cement floor. Samples may have been collected from a drain, but it is unknown without the report. Therefore, we suggest collecting lead wipe samples inside the battery room of the vehicle maintenance building.

8.0 DATA GAPS

There are a couple of data gaps that should be addressed in this report. Data gaps include the missing report information for the remediation of the IFR and the battery room inside the vehicle maintenance shop. As mentioned in this report both rooms were supposedly remediated, however, there is no record or proof of the cleanup. No city directories, tax records, zoning records, or tribal records were consulted for this report.

9.0 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 200 NE 23rd Street Oklahoma City, Oklahoma, the *property*. Any exceptions to, or deletions from, this practice are described in Section [11.0] of this *report*. This assessment has revealed evidence of *recognized environmental conditions* in connection with the *property* for the following: ACM, lead-based paint, lead dust, State well #9, API oil-water separator, and mold in the Band Rehearsal Building. This assessment has revealed evidence of *historical recognized environmental conditions* in connection with the *property* for the following: State well #10, the battery room and battery acid neutralization pit, the indoor firing range, and the two onsite underground storage tanks.

The information provided in this assessment is to assist the State of Oklahoma 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 Brownfield Revitalization Act of 2002 (Public Law 107-118, Subtitle B – Ref. 3).

10.0 ADDITIONAL SERVICES

Additional services in this Phase I Targeted Brownfield Assessment include the soil sampling analysis next to the API oil water separator. Analysis included VOCs, SVOCs, and priority pollutant metals. In addition to the Phase I Targeted Brownfield Assessment, the DEQ will assist the State with removal of the environmental contaminants and ensure that the property is ready for revitalization.

11.0 DEVIATIONS

No deviations and deletions from E 1527-05 were made for this Phase I site investigation. Soil samples were collected at the API separator.

12.0 REFERENCES

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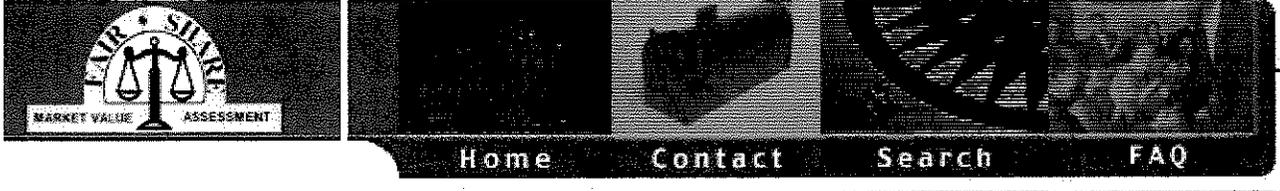
13.0 APPENDICIES

- Appendix A Property Records
- Appendix B Aerial Photographs & Topographic Map
- Appendix C Sanborn Fire Insurance Maps
- Appendix D Flood Insurance Rate Map
- Appendix E Oil and Gas Records
- Appendix F DEQ's Battery Acid Neutralization Pit Closure Record
- Appendix G API Oil-Water Separator Soil Sample Analytical Results and Locations
- Appendix H DEQ Air Quality Emission Inventory
- Appendix I Site Photographs
- Appendix J OKC 23rd Street National Guard Armory Floor Plan & Site Visit Notes
- Appendix K RCRA Notifiers
- Appendix L Qualification(s) of Environmental Professionals

APPENDIX A
PROPERTY RECORDS

Thursday, October 7, 2010

Leonard Sullivan-Oklahoma County Assessor Public Access System (Live Records)



[Guest Book](#)
 [TXD Levies](#)
 [Glossary](#)
 [Map/GIS Search](#)
 [New Search](#)

Oklahoma County Assessor Property Display Screen Produced 10/7/2010 2:32:37 PM
Account #: R034352050 **Type:** Exempt **Physical Address:** 300 BLK NE 21 ST ST
Business Name: ATTORNEY GENERAL / VA / NATL GUARD / OTHER ST BLD **Auto Map Parcel:** [Map Parcel](#)
Owner Name1: STATE OF OKLAHOMA **1/4 Section #:** 2708
Owner Name2: **Parent Account:**
Mailing Address: **Taxing District:** [TXD 200](#)
City, St. & Zip: **School System:** Oklahoma City #89
of Bldgs: 0 **Acres:** 15.7105

Personal Property	Property Value Information		Value History	Lot Width: 0	Depth: 0	
Cross reference for Personal Property	2009	2010		Sketch	Photo	
Market Value	0	0				
Taxable Market	0	0			2010 2009 2008 2007	
Gross Assessed	0	0				
Exemptions	-0	-0			2006 2005 2004 2003>	
Net Assessed	0	0			<i>*All Photos may not be Available</i>	
Tax Rate	113.44	November 2010			If Available	
Land Value		0				
2009 Tax Savings	See details	\$0		Click to View taxes on this property		

Section: 27 Township: 12N Range: 3W QTR: NW QTR QTR:

Subdivision/Legal Description: STATE CAPITOL AMEND Block: 000 Lot: 000 [Subdivision Sales](#)
 BLKS 5 THRU 10

No Comparative Sales records returned.

Last Mailed Notice of Value (N.O.V.) Information

Notice Date	Market Value	Taxable Market	Adjustments/Exemptions	Net Assessed Value
-------------	--------------	----------------	------------------------	--------------------

No N.O.V. record returned.

Sales Documents/Deed History (Deeds recorded prior to 1999 will not link to Clerk's image) [Search Clerk's site here](#)

Date	View	Type	Book-Page	Price	Grantor	Grantee
------	------	------	-----------	-------	---------	---------

No Sales Documents returned.

Non Sales Documents/Deed History (Deeds recorded prior to 1999 will not link to Clerk's image) [Search Clerk's site here](#)

Date	View	Type	Book-Page	Grantor	Grantee
11/11/1911		HIST DOC	0004-0000		STATE OF OKLAHOMA

Account Status/Adjustments/Exemptions

Status/Adjustment/Exemption Type	Effective Year	Assessed Amount
Capped Account	2000	

Click on building number to access detailed information:

Bldg #	Built As	Type	Year Built	SQFT	Stories
--------	----------	------	------------	------	---------

No Building Detail record returned.



Parcel Owner's Detail

PIN: 2708034352050	
ACCOUNTNO:	R034352050
ACCTTYPE:	Exempt
MAPNUMBER:	2708
TAXDISTRICT:	200
BUSINESSNAME:	ATTORNEY GENERAL / VA / NAT'L GUARD / OTHER ST BLD
PARCELNUMBER:	2708034352050
TAXDISTRICTNAME:	Oklahoma City #89
NAME1:	STATE OF OKLAHOMA
NAME2:	null
ADDRESS1:	null
ADDRESS2:	null
CITY:	null
STATE:	null
ZIPCODE:	null
TOTALBUILDINGS:	0
PARENTACCOUNT:	
CURRENTMARKET:	0
CURRENTACCOUNTADJUSTMENTS:	0
CURRENTASSESSED:	0
CURRENTTAXABLE:	0
CURRENTNETASSESSED:	0
CURRENTMILLEVY:	Available November 2010
PREVIOUSMARKET:	0
PREVIOUSACCOUNTADJUSTMENTS:	0
TAXSAVINGS:	\$0
PREVIOUSASSESSED:	0
PREVIoustAXABLE:	0
PREVIOUSNETASSESSED:	0
PREVIOUSMILLEVY:	113.44
LANDVALUE:	0
SUBNAME:	STATE CAPITOL AMEND
SUBNO:	03435
BLOCK:	000
LOT:	000
LEGAL:	BLKS 5 THRU 10
SECTION:	27
TOWNSHIP:	12N
RANGE:	3W
QTR:	NW
QTRQTR:	null
LOCATION:	300 BLK NE 21 ST ST
ACRES:	15.7105
WIDTH:	0
DEPTH:	0
TRLINK:	034352050



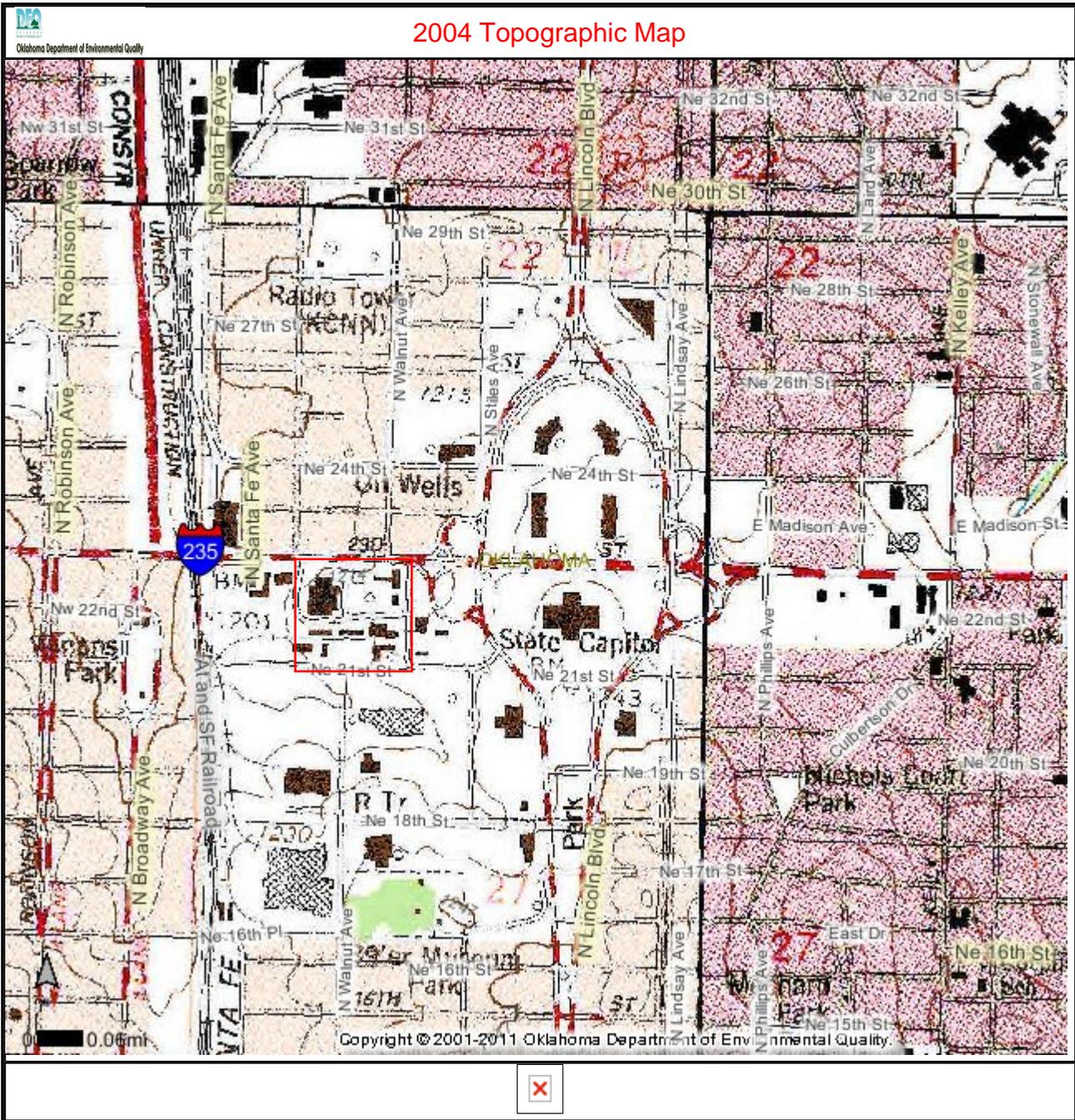
Parcel Owner's Detail

PIN: 2708034352050	
ACCOUNTNO:	R034352050
ACCTTYPE:	Exempt
MAPNUMBER:	2708
TAXDISTRICT:	200
BUSINESSNAME:	ATTORNEY GENERAL / VA / NAT'L GUARD / OTHER ST BLD
PARCELNUMBER:	2708034352050
TAXDISTRICTNAME:	Oklahoma City #89
NAME1:	STATE OF OKLAHOMA
NAME2:	null
ADDRESS1:	null
ADDRESS2:	null
CITY:	null
STATE:	null
ZIPCODE:	null
TOTALBUILDINGS:	0
PARENTACCOUNT:	
CURRENTMARKET:	0
CURRENTACCOUNTADJUSTMENTS:	0
CURRENTASSESSED:	0
CURRENTTAXABLE:	0
CURRENTNETASSESSED:	0
CURRENTMILLLEVY:	Available November 2010
PREVIOUSMARKET:	0
PREVIOUSACCOUNTADJUSTMENTS:	0
TAXSAVINGS:	\$0
PREVIOUSASSESSED:	0
PREVIoustAXABLE:	0
PREVIOUSNETASSESSED:	0
PREVIOUSMILLLEVY:	113.44
LANDVALUE:	0
SUBNAME:	STATE CAPITOL AMEND
SUBNO:	03435
BLOCK:	000
LOT:	000
LEGAL:	BLKS 5 THRU 10
SECTION:	27
TOWNSHIP:	12N
RANGE:	3W
QTR:	NW
QTRQTR:	null
LOCATION:	300 BLK NE 21 ST ST
ACRES:	15.7105
WIDTH:	0
DEPTH:	0
TRLINK:	034352050

APPENDIX B

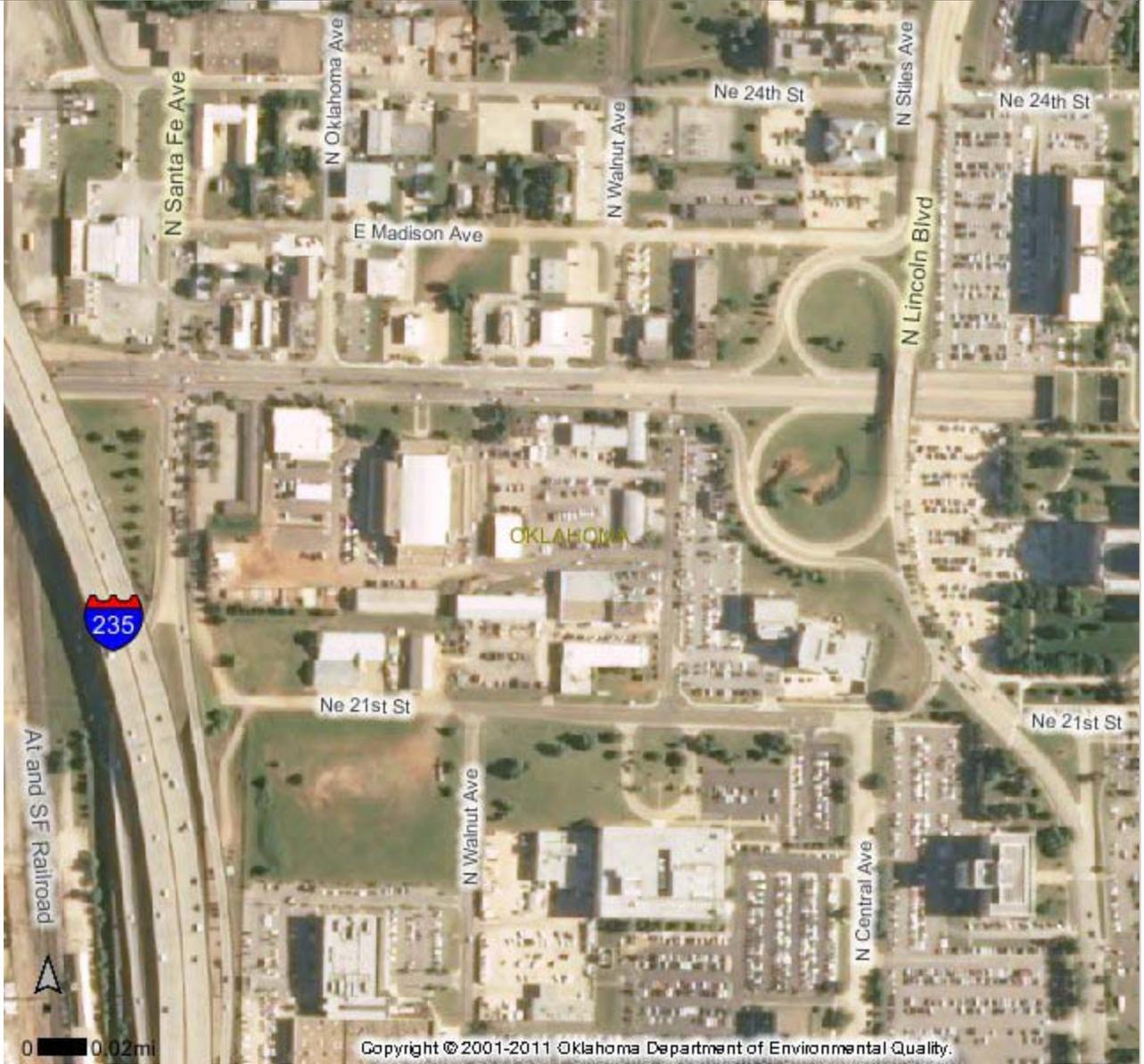
AERIAL PHOTOGRAPHS & TOPOGRAPHIC MAP

2004 Topographic Map





Oklahoma Department of Environmental Quality



2010 Aerial



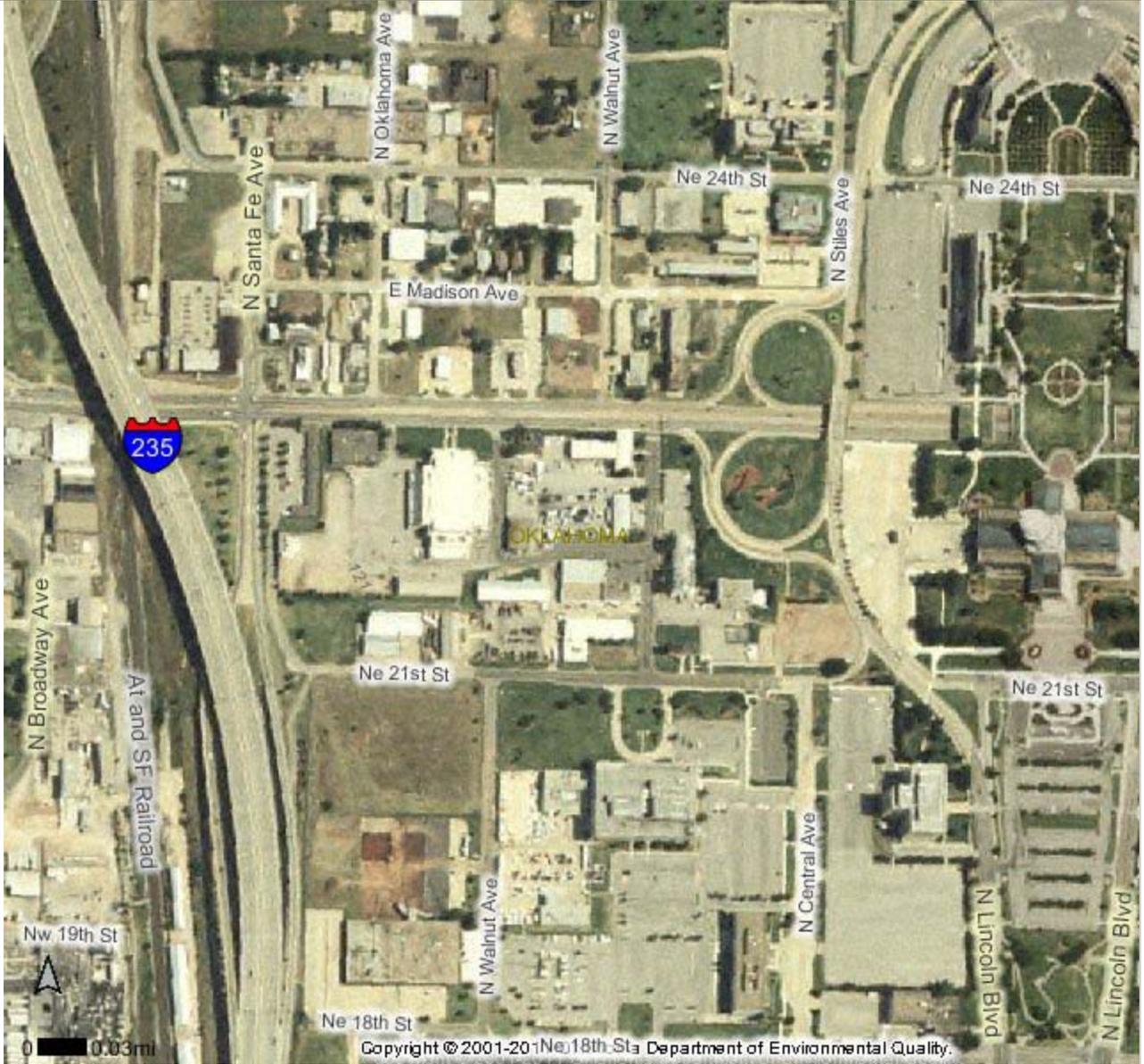
Oklahoma Department of Environmental Quality



2008 Aerial Photo



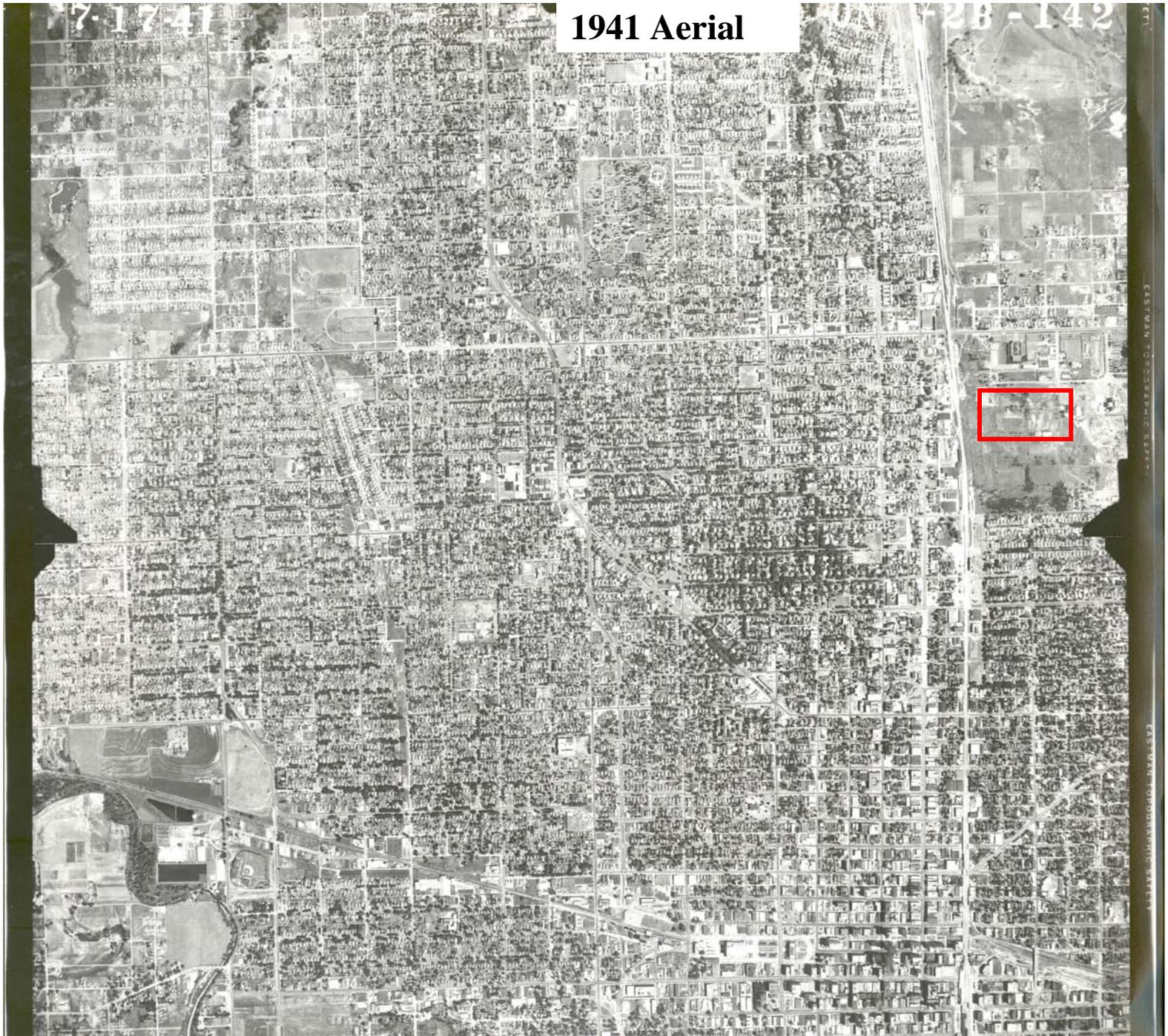
Oklahoma Department of Environmental Quality



2003 Aerial



1995 Aerial Photo



1941 Aerial

7-17-41

28-142



EASTMAN TOPOGRAFIC SERVICE
EASTMAN TOPOGRAFIC SERVICE

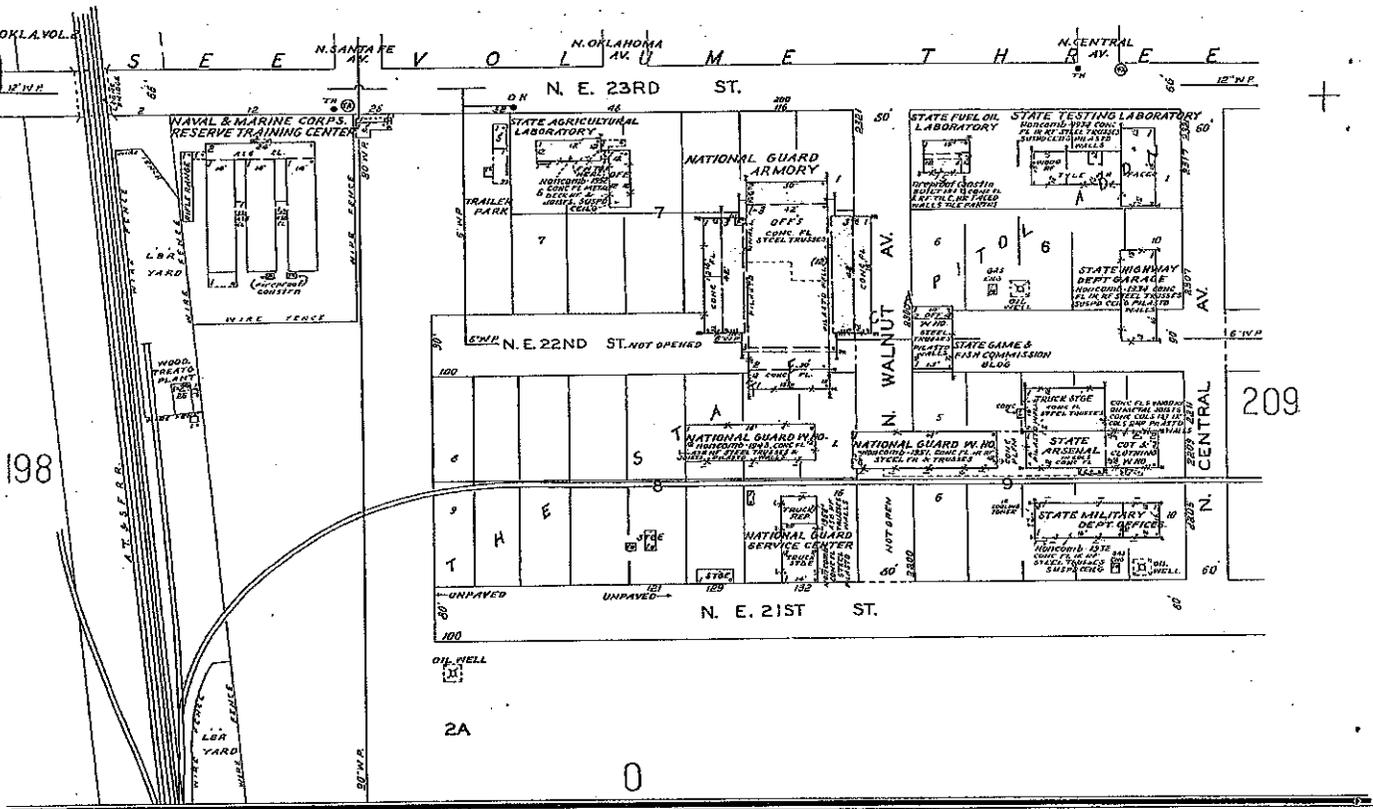
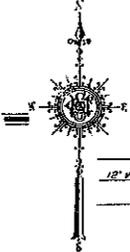
APPENDIX C
SANBORN FIRE INSURANCE MAPS

OKLAHOMA CITY, OKLA. VOL. 209 (246)

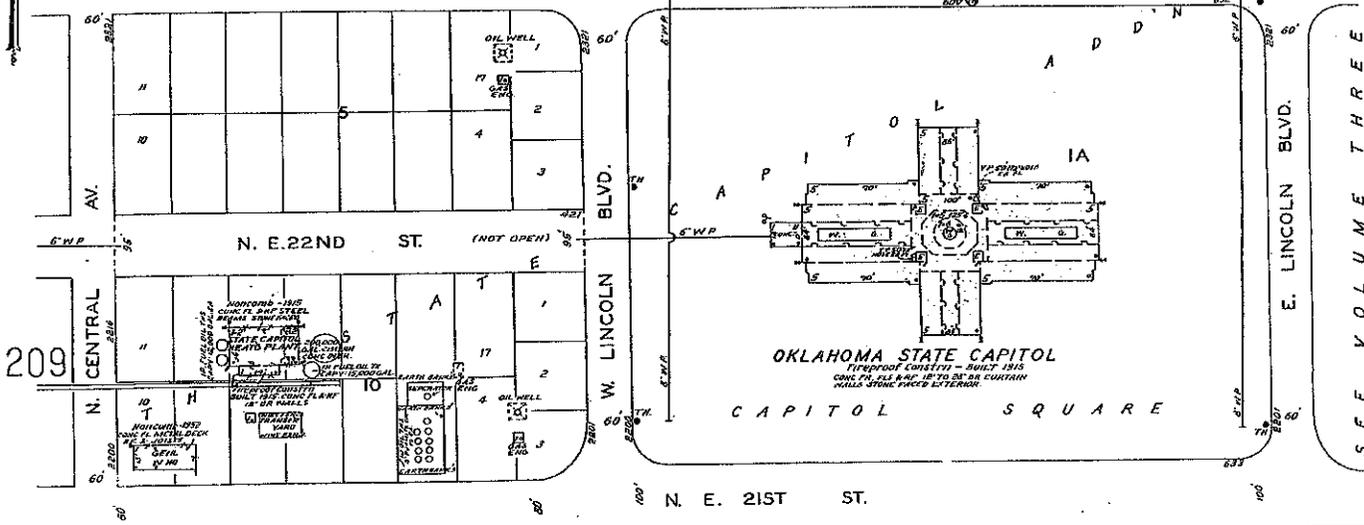
"N" OCT. 1954

198

209



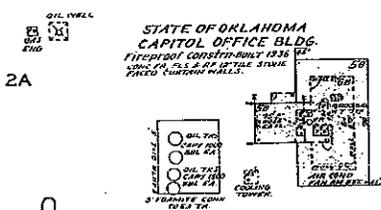
S E E V N. STILES AV. O L U M E H L I N C O L N H R E E



SEE VOLUME THREE

209

199



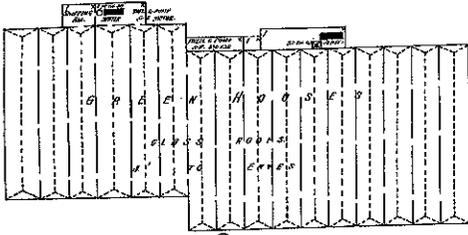
1922

1922
OKLAHOMA CITY, OKLA., VOL. 2.

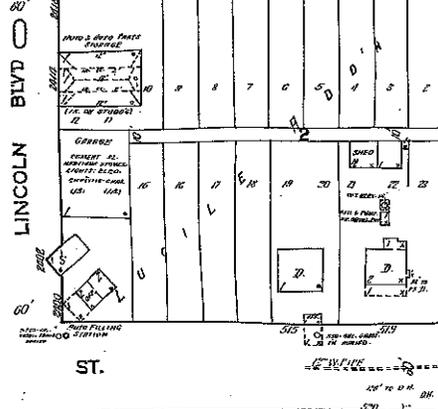
209

NO WATER MAIN - FAMILY LIVES ON PREMISES - NEAR STERN -
LIGHTS & POWER - SEWER - PNEUMATIC - WATER FROM WELLS.
NO EXPOSURE ANY SIDE

DAWSON PRODUCE CO. GREEN HOUSES.



BARRORS FIRST ADDITION



E. 23RD ST.

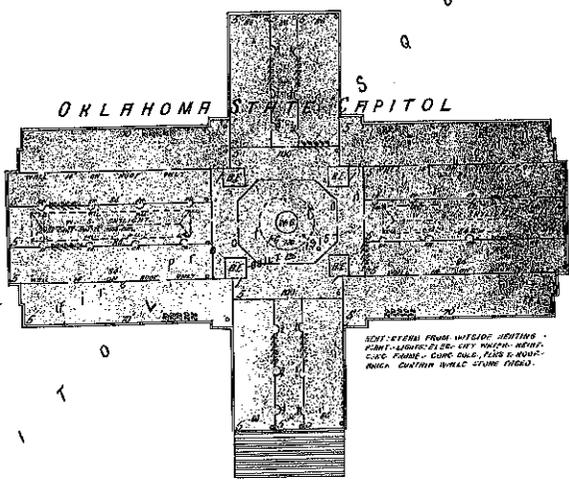


LINCOLN PARK (MUNICIPAL)

AREA OF DIRT CONTAMINATED DURING BURNING
OF DIRT, & SHOULD BE REMOVED. DIRT MUST BE
REMOVED - SITE WITH DIRT AS IS
SHOULD BE FILLED BY QUANTITY TRUCK, SEEN
AS PUBLIC GOOD OF CITY.

Located 4 Miles N.E. of City Hall

OKLAHOMA STATE CAPITOL



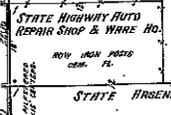
W. 17TH ST.

223

LINWOOD PLACE PUBLIC SCHOOL #21

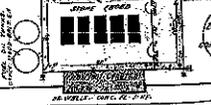
W. 16TH ST.

N. CENTRAL AV.



STATE ARSENAL

STATE CAPITOL HEARING PLANT



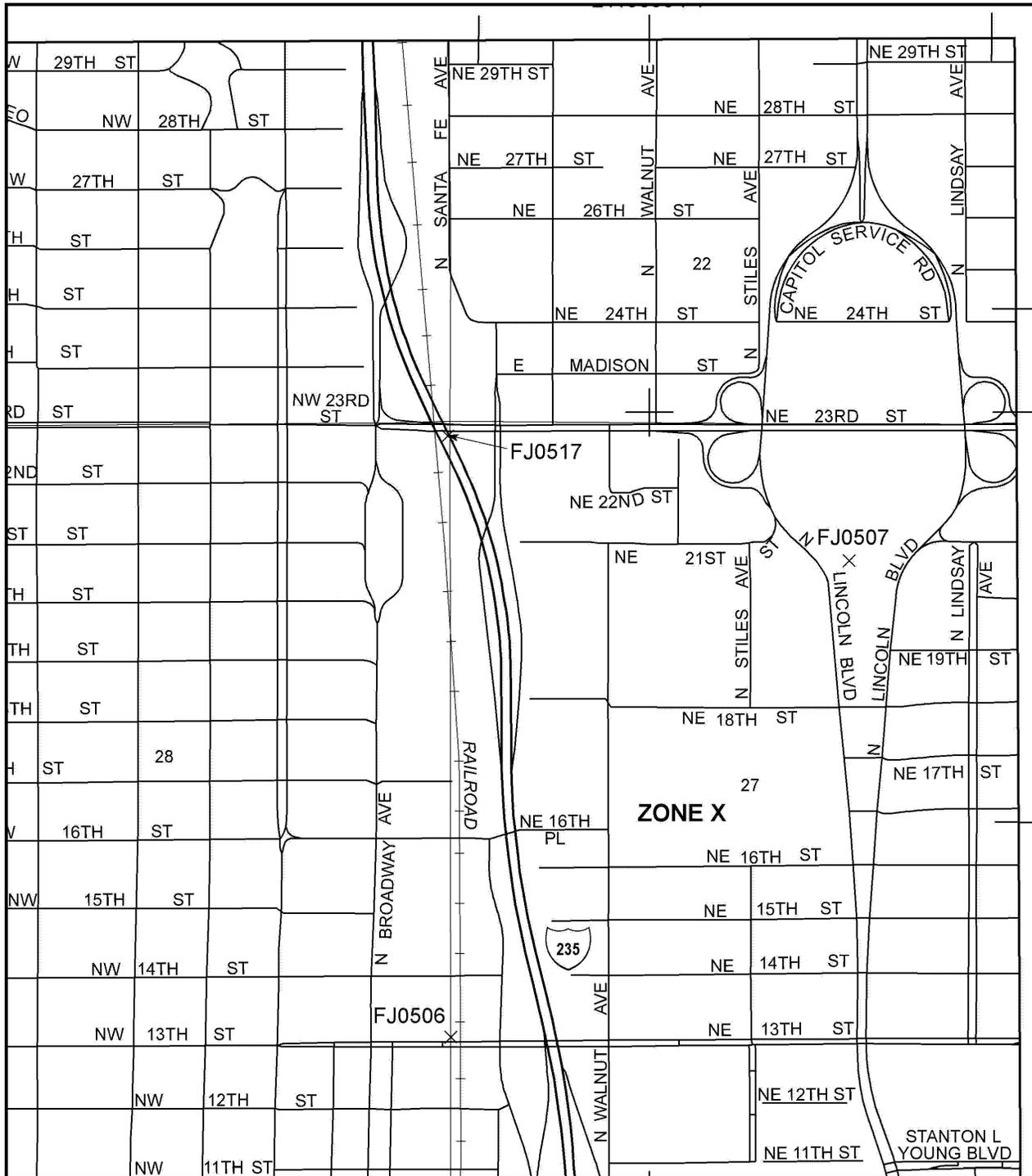
Scale of Feet



E. 21ST ST. (NOT OPEN)

Copyright 1922 by the Oklahoma City Co.

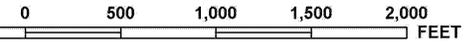
APPENDIX D
FLOOD INSURANCE RATE MAP



Program at 1-800-638-6620.



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0285H

FIRM
FLOOD INSURANCE RATE MAP
OKLAHOMA COUNTY
OKLAHOMA
AND INCORPORATED AREAS

PANEL 285 OF 370

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
OKLAHOMA CITY, CITY OF	405378	0285	H
OKLAHOMA COUNTY, UNINCORPORATED AREAS	400466	0285	H

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
40109C0285H



REVISED DATE
DECEMBER 18, 2009
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX E
OIL AND GAS RECORDS

AC – Active. The well is producing or shut-in, however, old wells for which the database does not know the status of the well may be designated Active when they are actually plugged.

PA – Plugged and abandoned. The well has been plugged. Sometimes a plugged well that has been re-entered and is producing will still be mistakenly identified as PA. Look for a permit-to-drill or completion date after the plugging date.

SP – Spud. A spud report has been received for a new well.

UN – Unknown. The database does not know the well status. It may be producing, plugged, or shut-in.

Section 22

16 active and 81 pa 1 unknown = 98 total

Section 23

6 active, 34 PA, 3 SP = 43

Section 26

12 active, 28 PA = 40

Section 27

60 active, 17 PA = 77

3510936046-Frazier- SE NE NW - 1

3510936047-Johnson-SE NW NW - 1

3510936069-State-NE NW NW - 9

3510936071-State-NE NE NW - 7

3510936104-Westgate Graig-SE NW NW - 1

3510936044-Fee-SE NW NW – 1

3510936076-State Land-NE NE NW - 2

3510900710-Harn-NW NWNW – 5

Section 34

37 active, 91 PA, 1 unknown = 129

Section 35

29 active, 35 PA, 1 unknown = 65

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M				
3510900631	9998	POWELL	1	OIL	AC	22	12N	3W	Indian	SE4			
3510900632	9998	WILSON BL2	1	GAS	PA	22	12N	3W	Indian	SW4	NE4	NE4	SE4
3510900633	9998	MARY FRANCIS	1	OIL	PA	22	12N	3W	Indian	SW4	SE4	SE4	
3510921442	14006	OEXCO	22S-4	DRY	PA	22	12N	3W	Indian	NW4	SW4	NW4	
3510935863	1701	A SAWYER	5	OIL	PA	22	12N	3W	Indian	NE4	NE4	NW4	
3510935865	1701	D F SAWYER	2	OIL	PA	22	12N	3W	Indian	NE4	NE4	NE4	
3510935873	9998	FITZHUGH	2	OIL	PA	22	12N	3W	Indian	SE4	NW4	NW4	
3510935875	6990	SAWYER	2	OIL	PA	22	12N	3W	Indian	NE4	SW4	SW4	
3510935885	9998	VILLA PARKS	1	OIL	PA	22	12N	3W	Indian	SW4	NE4	SE4	
3510935887	9998	DEWEY SCHOOL	1		AC	22	12N	3W	Indian	NE4	NW4	SE4	
3510935895	9998	MCNABB PARK	5	GAS	PA	22	12N	3W	Indian	NE4	SE4	SW4	
3510935897	9998	LEVY	1-A	OIL	PA	22	12N	3W	Indian	NW4	SE4	SE4	
3510935903	9998	PIERSOL	1	DRY	PA	22	12N	3W	Indian	SE4	SE4	SE4	
3510935908	9998	ROANOKE PLACE	1	OIL	PA	22	12N	3W	Indian	SE4	NE4	NE4	
3510900772	1701	D HARRELL	1	OIL	PA	22	12N	3W	Indian	SE4	SW4	NE4	
3510935860	1701	SAWYER	8	OIL	PA	22	12N	3W	Indian	NE4	NE4	SW4	
3510935861	1701	A SAWYER	7	OIL	PA	22	12N	3W	Indian	NE4	NE4	SW4	
3510935876	15628	HAGEN	1	GAS	AC	22	12N	3W	Indian	SE4	NE4	SE4	
3510935877	9998	VAUGHT-HICKAM	1	OIL	PA	22	12N	3W	Indian	SW4	SE4	NE4	
3510935879	9998	COOK-SMITH	1		AC	22	12N	3W	Indian	SW4	SE4	NW4	
3510935911	9998	HARE	1	DRY	PA	22	12N	3W	Indian	NE4	NW4	NE4	
3510935913	1701	C B WARR	1	OIL	PA	22	12N	3W	Indian	SE4	SE4	NW4	
3510935919	8891	S HARRELL	1	OIL	AC	22	12N	3W	Indian	SE4	SW4	NE4	
3510935925	9998	HOPPS	1	OIL	PA	22	12N	3W	Indian	NE4	SW4	NW4	
3510935928	9998	MCNABB PARK	4	OIL	PA	22	12N	3W	Indian	NE4	NE4	SE4	
3510935935	1701	A SAWYER	1	OIL	PA	22	12N	3W	Indian	NE4	SE4	NW4	
3510935939	9998	ESTES	1	OIL	PA	22	12N	3W	Indian	SW4	NW4	SE4	
3510935943	9998	MCNABB PARK	6	OIL	PA	22	12N	3W	Indian	NE4	SE4	NW4	
3510935945	1701	BELLA CASA	1	OIL	PA	22	12N	3W	Indian	SE4	SE4	SW4	
3510935953	9998	FRANCIS	1	OIL	PA	22	12N	3W	Indian	SW4	SE4	SW4	
3.51092E+13	14006	OEXCO	21 A-3	OIL	PA	22	12N	3W	Indian	NW4	SW4	NW4	

3510935862	1701 A SAWYER	6 OIL	PA	22 12N	3W	Indian	NE4	NE4	NW4
3510935864	8891 D F SAWYER	3	AC	22 12N	3W	Indian	NE4	NE4	NE4
3510935872	9998 FITZHUGH	1 OIL	PA	22 12N	3W	Indian	SE4	NW4	NW4
3510935878	9998 CAPITOL PARK	1 OIL	PA	22 12N	3W	Indian	SW4	NE4	SE4
3510935880	9998 COOK-SMITH	2	AC	22 12N	3W	Indian	SW4	SW4	NE4
3510935881	1796 HANNA	1	AC	22 12N	3W	Indian	SW4	SW4	NE4
3510935882	9998 MCMANUS	1 OIL	PA	22 12N	3W	Indian	SW4	SW4	SE4
3510935883	1701 MAYO	1 OIL	PA	22 12N	3W	Indian	SE4	SW4	NW4
3510935884	9998 MARION	1 OIL	PA	22 12N	3W	Indian	SE4	SW4	SE4
3510935894	9998 LEVY	2-A OIL	PA	22 12N	3W	Indian	NW4	NE4	NE4
3510935896	1701 COOPER	1 OIL	PA	22 12N	3W	Indian	SE4	NE4	NW4
3510935898	9998 PIERSOL	3 DRY	PA	22 12N	3W	Indian	SE4	SE4	NE4
3510935902	9998 PIERSOL	4 DRY	PA	22 12N	3W	Indian	SE4	SE4	NE4
3510935904	9998 PIERSOL	2 DRY	PA	22 12N	3W	Indian	SE4	SE4	SE4
3510935905	9998 POWELL	1 OIL	PA	22 12N	3W	Indian	SE4	NE4	NE4
3510935909	6990 SAWYER	1	AC	22 12N	3W	Indian	NE4	NW4	SE4
3510935910	9998 WELCH	1 OIL	PA	22 12N	3W	Indian	NE4	NW4	NW4
3510935912	9998 PARK-O-TEL	1	AC	22 12N	3W	Indian	SW4	SE4	NE4
3510935923	7775 TRAUB C.J.	1	AC	22 12N	3W	Indian	SE4	SW4	SW4
3510935924	9998 REBSTEIN	1 OIL	PA	22 12N	3W	Indian	NE4	NW4	SW4
3510935926	9998 QUOIN	1 OIL	PA	22 12N	3W	Indian	SE4	NW4	SW4
3510935927	9998 HARE	1 OIL	PA	22 12N	3W	Indian	NE4	NW4	NW4
3510935929	1701 A SAWYER	4 OIL	PA	22 12N	3W	Indian	NE4	SW4	SE4
3510935931	9998 COOKE	1 DRY	PA	22 12N	3W	Indian	NE4	NW4	NE4
3510935932	9998 DAWSON	1 OIL	PA	22 12N	3W	Indian	NE4	SW4	NE4
3510935947	1701 R DILLEY	1 OIL	PA	22 12N	3W	Indian	SE4	SW4	SW4
3510935948	1701 F RECKARD	1 OIL	PA	22 12N	3W	Indian	SE4	NW4	NE4
3510935950	9998 LEVY	1 OIL	PA	22 12N	3W	Indian	NW4	SW4	SE4
3510935951	3186 DONLY	1 DRY	PA	22 12N	3W	Indian	SW4	NE4	SW4
3510935952	1796 ETHREDGE	1 GAS	AC	22 12N	3W	Indian	SW4	NW4	NE4
3510935957	9998 FRANCIS	1 OIL	PA	22 12N	3W	Indian	SW4	SE4	SE4
3510935866	1701 SAWYER D F	1 OIL	PA	22 12N	3W	Indian	NE4	NE4	SE4

3510935868	8891 LEVY-B		2 OIL	AC	22 12N	3W	INDIAN	NW4	SE4	SW4	SE
3510935871	6990 SAWYER		3 OIL	PA	22 12N	3W	Indian	NE4	SW4	SW4	
3510935874	9998 JACKSON		1 GAS	PA	22 12N	3W	Indian	NE4	SW4	NW4	
3510935886	9998 AVEY		1 DRY	PA	22 12N	3W	Indian	SE4	NW4	SE4	
3510935888	1701 E HOWELL		1 OIL	PA	22 12N	3W	Indian	SE4	NE4	NW4	
3510935889	9998 MCNABB		2 OIL	PA	22 12N	3W	Indian	NE4	SE4	SE4	N2
3510935890	1701 MURBLANCH		1	AC	22 12N	3W	Indian	SW4	SW4	SE4	
3510935891	9998 MCNABB		3 OIL	PA	22 12N	3W	Indian	NE4	SE4	NE4	
3510935893	9998 LEVY	3-A	DRY	PA	22 12N	3W	Indian	NW4	NE4	SE4	
3510935914	1701 C BEAM		1 OIL	PA	22 12N	3W	Indian	SE4	SW4	NW4	
3510935915	1701 NEFF		1 OIL	PA	22 12N	3W	Indian	SE4	NE4	NW4	
3510935917	1701 LIBERTY		1 OIL	PA	22 12N	3W	Indian	SE4	SE4	NW4	
3510935918	1701 HOAGLAND		1 OIL	PA	22 12N	3W	Indian	SE4	NE4	SW4	
3510935920	1701 VISTA		1 OIL	PA	22 12N	3W	Indian	SE4	NW4	SW4	
3510935921	9998 FRANCIS		1 OIL	PA	22 12N	3W	Indian	SE4	SW4	SE4	
3510935922	9998 BOEDECKER		1	AC	22 12N	3W	Indian	SW4	SE4	NE4	
3510935930	1701 A SAWYER		3 OIL	PA	22 12N	3W	Indian	NE4	SW4	SE4	
3510935933	9998 LYONS		1 OIL	PA	22 12N	3W	Indian	NE4	NW4	SW4	
3510935934	1701 A SAWYER		2 OIL	PA	22 12N	3W	Indian	NE4	SE4	SW4	
3510935936	1701 MURRAY		1 OIL	PA	22 12N	3W	Indian	NE4	SW4	NE4	
3510935937	9998 MCNABB		1 OIL	PA	22 12N	3W	Indian	NE4	SE4	SE4	
3510935940	9998 HAYES-HIGHLAND		1 OIL	PA	22 12N	3W	Indian	SE4	NE4	SE4	
3510935941	9998 STONE RUSSELL		1 OIL	PA	22 12N	3W	Indian	SE4	NE4	SE4	
3510935942	9998 BOOTH		1 OIL	PA	22 12N	3W	Indian	SW4	SW4	NW4	
3510935944	913 WARR C B	1-A	OIL	PA	22 12N	3W	Indian	SE4	NW4	SE4	
3510935946	1701 BELLA CASA		2 OIL	PA	22 12N	3W	Indian	SE4	SE4	SW4	
3510935949	9998 DOLORES		1 OIL	PA	22 12N	3W	Indian	SW4	SW4	SW4	
3510935954	7775 A-2)		2 OIL	PA	22 12N	3W	Indian	SW4	SE4	SW4	
3510935956	9998 FRANCIS		1		22 12N	3W	Indian	SW4	SE4	SE4	
3510970006	9998 UNKNOWN		3 DRY	PA	22 12N	3W	Indian	NW4	SE4	SE4	CNW4
3510997009	10919 WARR "A"		1 OIL	PA	22 12N	3W	Indian	SE4	NW4	SE4	
3510900630	11642 FAULKNER		1 OIL	PA	22 12N	3W	Indian	SW4	SE4	SW4	

3510935869	11642 DUKE	1 DRY	PA	22 12N	3W	Indian	SW4	NW4	NW4
3510935938	11642 WILSON	1 DRY	PA	22 12N	3W	Indian	SW4	NE4	NE4
3510900747	9998 HAMILTON	1	AC	22 12N	3W	IM	SW	SE	NW

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M				
3510935962	9998	HAMPTON PLACE	3		AC	23	12N	3W	Indian	SW4	NW4	NE4	
3510935966	5934	HIGHLEY	1	OIL	PA	23	12N	3W	Indian	SE4	NW4	SW4	
3510935958	9998	BRACHT	2		AC	23	12N	3W	Indian	SW4	SW4	NE4	
3510935995	9998	HARDING	1		AC	23	12N	3W	Indian	NE4	SW4	SW4	
3510935998	20111	N.E. WASTE (BRADY-TELLIER #1)	SWD	SWD	SP	23	12N	3W	Indian	NW4	SE4	SW4	
3.51094E+13	20111	N.E. WASTE (BRADY-TELLIER #1)	SWD	SWD	SP	23	12N	3W	Indian	NW4	SE4	SW4	
3510935970	9998	NOFFSINGER	1		AC	23	12N	3W	Indian	NW4	NW4	SW4	
3510935993	9998	CAPITOL COURTS	1		AC	23	12N	3W	Indian	SW4	SE4	NE4	
3510935994	19863	DINWIDDIE	1	OIL	PA	23	12N	3W	Indian	SE4	NW4	SE4	SW4
3.51094E+13	20111	N.E. WASTE (BRADY-TELLIER #1)	SWD	DRY	SP	23	12N	3W	Indian	NW4	SE4	SW4	
3510900748	9998	GREAT NORTHERN	1	DRY	PA	23	12N	3W	Indian	SW4	SE4	N2	
3510935959	9998	HAMPTON	1	DRY	PA	23	12N	3W	Indian	SW4	NW4	NW4	
3510935960	9998	BRACHT	5	OIL	PA	23	12N	3W	Indian	SW4	SW4	SE4	
3510935961	9998	BRACHT	6	OIL	PA	23	12N	3W	Indian	SW4	SE4	SW4	
3510935963	9998	SIBLEY	1	DRY	PA	23	12N	3W	Indian	SW4	SW4	NW4	
3510935964	9998	BRACHT	7	OIL	PA	23	12N	3W	Indian	SW4	NW4	SE4	
3510935965	9998	TISBY	1	OIL	PA	23	12N	3W	Indian	NW4	SW4	NE4	
3510935967	9998	BAUM	1	OIL	PA	23	12N	3W	Indian	NW4	NW4	NW4	
3510935968	9998	GODDARD	1	OIL	PA	23	12N	3W	Indian	NW4	SW4	SE4	
3510935969	9998	COOKE	1	OIL	PA	23	12N	3W	Indian	NW4	NW4	NW4	
3510935971	9998	BARCLIFF	1	OIL	PA	23	12N	3W	Indian	NW4			
3510935972	9998	HIGHLEY-COMMUNITY	1	OIL	AC	23	12N	3W	Indian	SE4	NW4	SW4	
3510935973	9998	CLARKS SUB	2	OIL	PA	23	12N	3W	Indian	NE4	SW4	NW4	
3510935974	9998	SIBLEY	2	DRY	PA	23	12N	3W	Indian	SW4	SW4	NW4	
3510935975	9998	GREEN	2	GAS	PA	23	12N	3W	Indian	SW4	SW4	SW4	
3510935976	9998	KIRSCH	1	OIL	PA	23	12N	3W	Indian	SW4	SW4	NE4	
3510935977	9998	WILKINSON	1	OIL	PA	23	12N	3W	Indian	SW4	SW4	SE4	
3510935978	9998	BRACHT	1	OIL	PA	23	12N	3W	Indian	SW4	SW4	SE4	
3510935979	9998	ELLIOTT	1	OIL	PA	23	12N	3W	Indian	NW4	SW4	SW4	
3510935980	9998	CLARK SUB	1	DRY	PA	23	12N	3W	Indian	NW4	SW4	SW4	
3510935981	9998	BRACHT	4	OIL	PA	23	12N	3W	Indian	SW4	NW4	SE4	

3510935982	9998 BRACHT	4-A	OIL	PA	23 12N	3W	Indian	SW4	NW4	SE4
3510935983	9998 BRACHT		3 OIL	PA	23 12N	3W	Indian	SW4	SW4	NE4
3510935984	9998 HAMPTON PLACE		2 OIL	PA	23 12N	3W	Indian	SW4	NW4	NW4
3510935985	9998 BURNHAM		2 DRY	PA	23 12N	3W	Indian	SW4	NW4	SW4
3510935986	9998 ALTA VISTA		2 DRY	PA	23 12N	3W	Indian	SW4	NW4	SW4
3510935988	17268 ALTA VISTA		1 OIL	PA	23 12N	3W	Indian	SW4	NW4	SE4
3510935989	9998 GREEN		1 OIL	PA	23 12N	3W	Indian	SW4	SW4	SW4
3510935990	9998 BURNHAM		1 OIL	PA	23 12N	3W	Indian	SW4	NW4	SE4
3510935991	9998 PIERSOL		5 DRY	PA	23 12N	3W	Indian	SW4	SW4	NW4
3510935992	9998 WINDERS		1 OIL	PA	23 12N	3W	Indian	SW4	SW4	SE4
3510935996	9998 CLARK-SUB		3 OIL	PA	23 12N	3W	Indian	NW4	SW4	NW4
3510935997	9998 TURNER		1 DRY	PA	23 12N	3W	Indian	NW4	SW4	SE4

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M			
3510900634	9998	GLENN ELLEN	1	OIL	AC	26	12N	3W	Indian	NW4		
3510936001	8891	GAST	1		AC	26	12N	3W	Indian	NW4	SW4	NW4
3510936008	9998	SUNRISE	1	OIL	PA	26	12N	3W	Indian	NW4	NW4	NW4
3510936012	1701	GLEN ELLYN	2	OIL	PA	26	12N	3W	Indian	NW4	NW4	NE4
3510936016	18309	MERIPOSA	2	GAS	AC	26	12N	3W	Indian	NW4	NW4	SW4
3510936024	14220	BALL	1	DRY	PA	26	12N	3W	Indian	NW4	SW4	NW4
3510936005	1701	C F MEADORS	1	OIL	PA	26	12N	3W	Indian	NW4	NW4	NE4
3510936006	9998	SHADE	1	OIL	PA	26	12N	3W	Indian	NW4	NW4	NW4
3510936018	21619	MERIPOSA (MARIPOSA)	1	GAS	PA	26	12N	3W	Indian	NW4	NW4	SW4
3.51094E+13	21619	MARIPOSA (MARIPOSA)	1	GAS	PA	26	12N	3W	Indian	NW4	NW4	SW4
3510936019	9998	GAST HTS	1	OIL	PA	26	12N	3W	Indian	NW4	SE4	NW4
3510936031	9998	COOLLEY	1	OIL	PA	26	12N	3W	Indian	SW4	SE4	NW4
3510936033	9998	BANKS	1	OIL	PA	26	12N	3W	Indian	NW4	SE4	SW4
3510936040	9998	COTNER	1	OIL	PA	26	12N	3W	Indian	NW4	SE4	SE4
3510936000	9998	BAIRD	1-A	OIL	PA	26	12N	3W	Indian	NW4	NE4	NW4
3510936007	1701	GLEN ELLYN	1	OIL	PA	26	12N	3W	Indian	NW4	NW4	NE4
3510936009	9998	GAST HGTS	4	DRY	PA	26	12N	3W	Indian	NW4	SW4	NE4
3510936015	8891	GAST HGTS	5		AC	26	12N	3W	Indian	NW4	SW4	SE4
3510936017	9998	GAST HGTS	3	GAS	PA	26	12N	3W	Indian	NW4	SW4	NW4
3510936020	9998	TUXEDO	1	DRY	PA	26	12N	3W	Indian	NW4	NW4	SE4
3510936021	9998	GAST HGTS	2	DRY	PA	26	12N	3W	Indian	NW4	SW4	NE4
3510936022	9998	GAST HGTS	1	OIL	PA	26	12N	3W	Indian	NW4	SW4	SW4
3510936023	9998	FORAKER	1	GAS	PA	26	12N	3W	Indian	NW4	NW4	SW4
3510936026	9998	HIGHLAND	1		AC	26	12N	3W	Indian	SE4	SW4	NW4
3510936027	1701	MOREY	1	DRY	PA	26	12N	3W	Indian	NW4	NE4	SW4
3510936030	1701	TROY	1	DRY	PA	26	12N	3W	Indian	NE4	SW4	SW4
3510936032	8891	HELEN	1	OIL	AC	26	12N	3W	Indian	SW4	NE4	SW4
3.51094E+13	19087	CONNALLY	1	OIL	AC	26	12N	3W	Indian	SE4	NW4	NW4
3510936038	8891	SHELTON	1	OIL	AC	26	12N	3W	Indian	SW4	NE4	NE4
3510936041	9998	CARTER UNIT	1		AC	26	12N	3W	Indian	NW4	NE4	SE4
3510935999	1701	GAST	2		AC	26	12N	3W	Indian	NW4	SW4	SW4

3510936010	9998 SUMMITT	1 OIL	PA	26 12N	3W	Indian	NW4	NW4	SE4
3510936011	9998 COOK	1 OIL	PA	26 12N	3W	Indian	NW4	SW4	SW4
3510936013	9998 GAST HGTS	6 GAS	PA	26 12N	3W	Indian	NW4	SW4	SW4
3510936029	9998 BAIRD	1 OIL	PA	26 12N	3W	Indian	NW4	NE4	NW4
3510936034	9998 EDGEMONT	1 DRY	PA	26 12N	3W	Indian	SE4	SE4	SE4
3510936035	9998 HUBBARD	1 OIL	PA	26 12N	3W	Indian	SE4	SW4	SW4
3510936036	19087 CONNALLY	1 OIL	AC	26 12N	3W	Indian	SE4	NW4	NW4
3510936037	19087 CRUCE	1 OIL	AC	26 12N	3W	Indian	SW4	SE4	NE4
3510936028	1701 SHADWICK LACEY	1 DRY	PA	26 12N	3W	Indian	NW4	NE4	SW4

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M			
3510900708	7775	INLAND HARN	1	OIL	AC	27	12N	3W	Indian	NW4	SE4	SE4
3510936046	9998	FRAZIER	1		AC	27	12N	3W	Indian	SE4	NE4	NW4
3510936047	9998	JOHNSON	1		AC	27	12N	3W	Indian	SE4	NW4	NW4
3510936053	9998	PARKWAY	4		AC	27	12N	3W	Indian	NE4	SW4	SW4
3510936055	9998	PARKWAY	3		AC	27	12N	3W	Indian	NE4	SW4	SW4
3510936065	9998	STATE	13		AC	27	12N	3W	Indian	NE4	NW4	SW4
3510921430	14006	HARN-GARDENS	28-1	DRY	PA	27	12N	3W	Indian	NW4	SW4	SE4
3510936042	9998	COMMUNITY	2		AC	27	12N	3W	Indian	SE4	SW4	NW4
3510936051	9998	HOWES CAPITOL	2		AC	27	12N	3W	Indian	SE4	NW4	NE4
3510936067	9998	STATE	11		AC	27	12N	3W	Indian	NW4	NE4	NE4
3510936069	9998	STATE	9		AC	27	12N	3W	Indian	NE4	NW4	NW4
3510936073	9998	STATE LAND	5		AC	27	12N	3W	Indian	NW4	NE4	NE4
3510936075	9998	STATE LAND	3		AC	27	12N	3W	Indian	NE4	NW4	NE4
3510936077	9998	STATE LAND	1		AC	27	12N	3W	Indian	NE4	NE4	NE4
3510936045	9998	COMMUNITY	1		AC	27	12N	3W	Indian	SE4	SW4	NW4
3510936052	9998	HOWES CAPITAL	1		AC	27	12N	3W	Indian	SE4	NW4	SE4
3.51094E+13	7775	STATE LEASE UNIT	15	OIL	PA	27	12N	3W	Indian	NW4	NE4	SW4
3510936070	9998	STATE	8		AC	27	12N	3W	Indian	NE4	NW4	NE4
3510936071	9998	STATE	7		AC	27	12N	3W	Indian	NE4	NE4	NW4
3510936072	9998	STATE	6		AC	27	12N	3W	Indian	NE4	NE4	NE4
3510936083	6501	MAYWOOD	1		AC	27	12N	3W	Indian	SE4	SW4	NE4
3510936084	4804	SMITH-JOHNSON	1		AC	27	12N	3W	Indian	SE4	SE4	SW4
3510936085	9998	WEBSTER	1		AC	27	12N	3W	Indian	SE4	SW4	SE4
3510936086	7775	STATE	16	OIL	PA	27	12N	3W	Indian	NW4	NW4	NE4
3510936096	1701	HOWE	1		AC	27	12N	3W	Indian	SE4	SE4	SW4
3510936098	7775	HARN	3	OIL	PA	27	12N	3W	Indian	NW4	NW4	SE4
3510936099	9998	HARN	1		AC	27	12N	3W	Indian	NW4	NW4	SW4
3510936104	9998	WESTGATE GRAIG	1		AC	27	12N	3W	Indian	SE4	NW4	NW4
3510936105	9998	BREWER	1		AC	27	12N	3W	Indian	SE4	SW4	NE4
3.51094E+13	19087	FEE	1	OIL	AC	27	12N	3W	Indian	SW4	SE4	NW4
3510936043	7775	INLAND HARN	2		AC	27	12N	3W	Indian	NW4	SE4	SE4

3510936044	9998 FEE	1	AC	27 12N	3W	Indian	SE4	NW4	NW4
3510936048	9998 K DAWSON	1	AC	27 12N	3W	Indian	SE4	NW4	SW4
3510936049	9998 HOWES CAPITOL	1	AC	27 12N	3W	Indian	SE4	NW4	NE4
3510936050	9998 B DAWSON	1	AC	27 12N	3W	Indian	SE4	NW4	SE4
3510936054	9998 STATE CAPITOL	1	AC	27 12N	3W	Indian	SE4	NE4	NW4
3510936056	9998 PARKWAY	1	AC	27 12N	3W	Indian	NE4	SW4	NW4
3510936057	9998 PARKWAY	2	AC	27 12N	3W	Indian	NE4	SW4	NW4
3510936058	9998 UNIVERSITY	1	AC	27 12N	3W	Indian	SE4	NE4	SW4
3510936059	9998 UNIVERSITY	2	AC	27 12N	3W	Indian	SE4	SE4	NW4
3510936061	9998 HARN	3	AC	27 12N	3W	Indian	NW4	SE4	SE4
3510936063	7775 STATES	15 OIL	PA	27 12N	3W	Indian	NW4	NE4	SW4
3510936064	9998 STATE	14	AC	27 12N	3W	Indian	NE4	SW4	NW4
3510936066	9998 STATE	12	AC	27 12N	3W	Indian	NW4	SE4	NE4
3510936068	7775 STATE	10 OIL	PA	27 12N	3W	Indian	NE4	NW4	NW4
3510936074	9998 STATE LAND	4	AC	27 12N	3W	Indian	NE4	NW4	NE4
3510936076	9998 STATE LAND	2	AC	27 12N	3W	Indian	NE4	NE4	NW4
3510936080	9998 BLOCK 20 (LINCOLN)	1	AC	27 12N	3W	Indian	SE4	SW4	SW4
3510936082	9998 CULBERTSON	1	AC	27 12N	3W	Indian	NE4	NE4	NE4
3510936087	1701 GUSS	1	AC	27 12N	3W	Indian	SW4	SE4	NE4
3510936089	1701 ANTHONY	1	AC	27 12N	3W	Indian	SW4	SE4	SE4
3510936094	9998 HARN	4	AC	27 12N	3W	Indian	NW4	NE4	SW4
3510936095	7775 HARN	4 OIL	PA	27 12N	3W	Indian	NW4	SE4	NW4
3510936097	7775 JONES-HARN	4 OIL	PA	27 12N	3W	Indian	NW4	SE4	SW4
3510936100	9998 HARN	3	AC	27 12N	3W	Indian	NW4	SE4	NE4
3510936101	9998 HARN INLAND	2 GAS	PA	27 12N	3W	Indian	NW4	SE4	SE4
3510936106	6990 HAYES	1	AC	27 12N	3W	Indian	SE4	SE4	SW4
3510936107	9998 DALLAS GRAY	1	AC	27 12N	3W	Indian	SE4	SE4	NE4
3510936108	9998 MARIPOSA	1 GAS	PA	27 12N	3W	Indian	SW4	SW4	SE4
3510936109	9998 STREITBERGER	1	AC	27 12N	3W	Indian	SW4	SE4	NW4
3510936110	9998 BLK 7	1	PA	27 12N	3W	Indian	SW4	SW4	SW4
3510936112	19087 FEE	1 OIL	AC	27 12N	3W	Indian	SW4	SE4	NW4
3510900325	9998 HARN	1	AC	27 12N	3W	Indian	NW4	SE4	NE4

3510936078	9998 LINCOLN TERRACE	1	AC	27 12N	3W	Indian	NE4	NE4	
3510936090	8891 ELLISON	2	AC	27 12N	3W	Indian	SW4	NE4	NE4
3510936091	1701 ELLISON	1	AC	27 12N	3W	Indian	SW4	SE4	NE4
3510936092	9998 BRADLEY	1	AC	27 12N	3W	Indian	SW4	SE4	NE4
3510936102	9998 WOODBRIDGE/HOWE COMMUNITY	1 DRY	PA	27 12N	3W	Indian	SE4	SE4	NW4
3510936103	9998 MASON	1	AC	27 12N	3W	Indian	SE4	SE4	SE4
3510936111	9998 STATE	1	AC	27 12N	3W	Indian	SE4	NE4	SW4
3510970003	7775 JONES HARN	1 OIL	PA	27 12N	3W	Indian	NW4	NW4	NW4
3510970004	9998 BESS HAYES	1 GAS	PA	27 12N	3W	Indian	SE4	SE4	SE4
3510936093	1701 FAULKNER	1 GAS	PA	27 12N	3W	Indian	SW4	SE4	SW4
3510950017	9998 INLAND-HARN	3 OIL	PA	27 12N	3W	Indian	NW4	SE4	SW4
3510936079	1731 CAPITAL SITE	1	PA	27 12N	3W	Indian	NE4	NW4	SW4
3510900709	9998 VILLA	1	AC	27 12N	3W	IM	SW	NE	SE
3510900710	9998 HARN	5	AC	27 12N	3W	IM	NW	NW	NW

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M			
3510900635	9998	DUNHAM	1	OIL	PA	34	12N	3W	Indian	NW4	NE4	SW4
3510900712	9998	MILITARY	1	OIL	PA	34	12N	3W	Indian	SW4		
3510900626	9998	CARY	12	OIL	AC	34	12N	3W	Indian	SE4	NW4	NW4 SE4
3510900711	9998	CITY	2	OIL	PA	34	12N	3W	Indian	SW4	SE4	NW4
3510900713	9998	SCHWEINLE	1	OIL	PA	34	12N	3W	Indian	NW4	NW4	SE4
3510920077	8891	WALNUT GROVE SWD	2		AC	34	12N	3W	Indian	SE4	NE4	SW4 SW4
3510936119	9998	WARSASKI	1			34	12N	3W	Indian	SE4	SW4	SE4
3510936122	1701	SHELDON E F	1	OIL	PA	34	12N	3W	Indian	NE4	SW4	NW4
3510936123	9998	GIBBONS	1	OIL	PA	34	12N	3W	Indian	NE4	SE4	SE4
3510936124	1701	KENNEDY	1	OIL	PA	34	12N	3W	Indian	NE4	SE4	SW4
3510936125	1701	G WESTERN	1	GAS	PA	34	12N	3W	Indian	NE4	SW4	SE4
3510936131	9998	SINOPONLO	1	OIL	PA	34	12N	3W	Indian	SE4	NE4	SW4
3510936132	9998	MINNIS	1	OIL	PA	34	12N	3W	Indian	NE4	NE4	SE4
3510936133	15628	MKT-B	2	OIL	PA	34	12N	3W	Indian	SE4	SE4	NE4
3510936134	1701	STILES	7	OIL	PA	34	12N	3W	Indian	NE4	NW4	NW4
3510936140	1701	TURNER	1	OIL	PA	34	12N	3W	Indian	NW4	SE4	SW4
3510936157	1701	VERA LEE	1	OIL	PA	34	12N	3W	Indian	NE4	SW4	NE4
3510936159	1701	WELLAR	1	OIL	PA	34	12N	3W	Indian	NE4	SW4	SE4
3510936160	1701	MCKAY	1	OIL	PA	34	12N	3W	Indian	NE4	SE4	SW4
3510936165	9998	CAREY	3	OIL	PA	34	12N	3W	Indian	SE4	NW4	SE4
3510936166	9998	SIMPSON	1	DRY	PA	34	12N	3W	Indian	SE4	SW4	NW4
3510936177	9998	CAREY	2	OIL	PA	34	12N	3W	Indian	SE4	NW4	SE4
3510936178	1514	STOUT-GIBBONS	1	OIL	PA	34	12N	3W	Indian	SE4	SW4	SE4
3510936186	9998	MILITARY	1	OIL	PA	34	12N	3W	Indian	SW4	NE4	NE4
3510936190	1701	BERTHA HARE	1	OIL	PA	34	12N	3W	Indian	SE4	SW4	NE4
3510936191	9998	TRADERS COMPRESS CO	1		AC	34	12N	3W	Indian	SE4	SE4	NW4
3510936200	1701	SHIRLEY	1	OIL	PA	34	12N	3W	Indian	NW4	SE4	SE4
3510936202	9998	MILITARY	2	OIL	PA	34	12N	3W	Indian	SW4	NE4	NE4
3510936203	8891	STILES	8		AC	34	12N	3W	Indian	NE4	NW4	SW4
3510936223	1701	STILES	4	OIL	PA	34	12N	3W	Indian	NE4	NE4	SW4
3510936118	9998	WHITFIELD	2	OIL	PA	34	12N	3W	Indian	SE4	SE4	SW4

3510936121	9998 KATY-B		5	AC	34 12N	3W	Indian	SE4	SE4	NE4	
3510936126	8891 STILES		5	GAS AC	34 12N	3W	Indian	NE4	NW4	NW4	
3510936128	9998 RIVERSIDE PARK		1	OIL PA	34 12N	3W	Indian	SW4	SE4	SE4	
3510936130	6501 SINOPOULO	1-A		AC	34 12N	3W	Indian	SE4	NE4	SW4	
3510936135	9998 WHITFIELD		1	AC	34 12N	3W	Indian	SE4	SW4	SE4	
3510936137	1701 DUNHAM		1	AC	34 12N	3W	Indian	NW4	N2	CN2	
3510936139	1701 VIVIA		1	OIL PA	34 12N	3W	Indian	NW4	SE4		
3510936142	1701 WADKINS		1	GAS PA	34 12N	3W	Indian	NW4	NE4	NW4	
3510936144	1701 DELTON		1	OIL PA	34 12N	3W	Indian	NW4	NE4	SW4	
3.51094E+13	9998 STILLES COMMUNITY		1	DRY PA	34 12N	3W	Indian	NE4	NE4	NW4	
3510936149	1701 STILES COM		2	OIL PA	34 12N	3W	Indian	NE4	NW4	NW4	
3510936156	8891 MCMULLEN		1	AC	34 12N	3W	INDIAN	NE	SE	NE	SW
3510936158	1701 ETTA		1	AC	34 12N	3W	Indian	NE4	SE4	SW4	
3510936161	1701 INKSTER		1	OIL PA	34 12N	3W	Indian	NE4	SW4	SW4	
3510936164	9998 CAREY		4	OIL PA	34 12N	3W	Indian	SE4	NW4	SW4	
3510936171	9998 CAREY		14	OIL PA	34 12N	3W	Indian	SE4	NW4	NW4	
3510936174	9998 MILITARY		2	OIL PA	34 12N	3W	Indian	SW4	NE4	SE4	
3510936180	9998 BLK 19 WHITFIELD		1	DRY PA	34 12N	3W	Indian	SE4	NE4	SE4	
3510936187	9998 EGBERT		1	OIL PA	34 12N	3W	Indian	SE4	SE4	SE4	
3510936189	9998 FEE		1	AC	34 12N	3W	Indian	SE4	SW4	NW4	
3510936193	9998 DONAVEN		1	OIL PA	34 12N	3W	Indian	SE4	SW4	SW4	
3510936195	9998 CAREY		11	OIL PA	34 12N	3W	Indian	SE4	NW4	NE4	
3510936201	9998 ANGELL		1	AC	34 12N	3W	Indian	SE4	SW4	SE4	
3510936207	9998 MILITARY		3	OIL PA	34 12N	3W	Indian	SW4	NE4	NW4	
3510936208	1701 MERCER		1	OIL PA	34 12N	3W	Indian	NW4	NE4	NE4	
3510936210	9998 MILITARY	A-5		DRY PA	34 12N	3W	Indian	SW4	NE4	SE4	
3510936212	9998 CAREY		6	AC	34 12N	3W	Indian	SE4	NW4	SE4	
3510936219	9998 MARTI		1	AC	34 12N	3W	Indian	NE4	SE4	SE4	
3510936224	1701 STILES		3	OIL PA	34 12N	3W	Indian	NE4	NE4	NW4	
3510936225	9998 HARPER-TURNER		1	OIL PA	34 12N	3W	Indian	NE4	NE4	NE4	
3510936226	9998 BLK 33		1	GAS PA	34 12N	3W	Indian	NW4	SW4	NW4	
3510936114	9998 WHITFIELD	1-A		OIL AC	34 12N	3W	Indian	SE4	NE4	SE4	

3510936115	9998 CAREY	1 OIL	PA	34 12N	3W	Indian	SE4	NE4	SE4
3510936116	11015 ST LOUIS	1 DRY	PA	34 12N	3W	Indian	SE4	SW4	NW4
3510936120	1701 WHITFIELD	3 GAS	PA	34 12N	3W	Indian	SE4	SE4	SW4
3.51094E+13	8891 COMMUNITY)	5 GAS	AC	34 12N	3W	Indian	NE4	NW4	NW4
3510936127	9998 BRYANT SCHOOL	1 OIL	PA	34 12N	3W	Indian	SW4	NE4	NE4
3510936129	9998 RIVERSIDE PARK	2 OIL	PA	34 12N	3W	Indian	SW4	SE4	SW4
3510936136	1701 SCHWINLEY	2	AC	34 12N	3W	Indian	NW4	NW4	SE4
3510936141	1701 MYRTLE	1 OIL	PA	34 12N	3W	Indian	NW4	SE4	NW4
3510936143	9998 MILITARY	5 OIL	PA	34 12N	3W	Indian	SW4	NE4	SW4
3510936145	9998 MILITARY	6	AC	34 12N	3W	Indian	SW4	NE4	SE4
3510936146	9998 CAREY	1 OIL	PA	34 12N	3W	Indian	NW4	SE4	NW4
3510936148	1701 STILES COM	1 OIL	PA	34 12N	3W	Indian	NE4	NE4	NW4
3.51094E+13	9998 STILLES COMMUNITY	1 DRY	PA	34 12N	3W	Indian	NE4	NE4	NW4
3510936150	1701 FREEBERG	2 OIL	PA	34 12N	3W	Indian	NE4	SW4	NE4
3510936151	1701 ICE DOCK	1 OIL	PA	34 12N	3W	Indian	NE4	SE4	SE4
3510936152	1701 FREEBERG	3 OIL	PA	34 12N	3W	Indian	NE4	SW4	SW4
3510936153	997 OKLAHOMA CITY	1 OIL	PA	34 12N	3W	Indian	SW4	SE4	NE4
3510936154	4804 MEE	1 OIL	PA	34 12N	3W	Indian	NE4	NE4	NE4
3510936155	9998 WARSASKI	1	AC	34 12N	3W	Indian	NE4	SE4	SE4
3510936162	1701 PRICHARD	1 OIL	PA	34 12N	3W	Indian	NE4	NW4	NE4
3510936163	9998 CAREY	5	AC	34 12N	3W	Indian	SE4	NE4	SW4
3510936167	9998 KATY	1 OIL	PA	34 12N	3W	Indian	SE4	SE4	NW4
3510936168	9998 TRADERS	2	AC	34 12N	3W	Indian	SE4	SE4	NW4
3510936169	997 LARKIN	1 OIL	PA	34 12N	3W	Indian	SE4	SE4	NW4
3510936170	11015 WAUSESKE	1	AC	34 12N	3W	Indian	SE4	SW4	SE4
3510936172	9998 MILITARY	3 DRY	PA	34 12N	3W	Indian	SW4	NE4	SE4
3510936173	9998 MILITARY	4 OIL	PA	34 12N	3W	Indian	SW4	SE4	NE4
3510936175	9998 MILITARY	1 OIL	PA	34 12N	3W	Indian	SW4	SE4	SE4
3510936176	9998 DONOVAN	2 OIL	PA	34 12N	3W	Indian	SE4	SW4	SW4
3510936179	9998 TURNER	1 OIL	PA	34 12N	3W	Indian	SE4	NW4	SW4
3510936181	9998 MKT	1	AC	34 12N	3W	Indian	SE4	SW4	SE4
3510936183	15628 MKT-B	3 OIL	PA	34 12N	3W	Indian	SE4	SE4	NE4

3510936184	9998 COMMUNITY	1		AC	34 12N	3W	Indian	SW4	SE4	NE4
3510936185	9998 COMMUNITY	2		AC	34 12N	3W	Indian	SW4	SE4	NE4
3510936188	9998 MKT-B	1 OIL		PA	34 12N	3W	Indian	SE4	SE4	SW4
3510936192	9998 WES PACO	1 OIL		PA	34 12N	3W	Indian	SE4	SW4	SE4
3510936194	9998 MEAD ADD	1 DRY		PA	34 12N	3W	Indian	SE4	SE4	SE4
3510936196	9998 CAREY	12		AC	34 12N	3W	Indian	SE4	NW4	NE4
3510936197	9998 CARY	9		AC	34 12N	3W	Indian	SE4	NE4	NE4
3510936198	9998 CAREY	8		AC	34 12N	3W	Indian	SE4	NE4	NW4
3510936199	9998 CAREY	7 OIL		PA	34 12N	3W	Indian	SE4	NW4	NW4
3510936204	1701 ETHEL	1 OIL		PA	34 12N	3W	Indian	NW4	NE4	SE4
3510936205	1701 FULTON	1 OIL		PA	34 12N	3W	Indian	NW4	NE4	SE4
3510936206	8891 SABIN	1		AC	34 12N	3W	Indian	NE4	NW4	SW4
3510936211	8891 HOLTZ	1		AC	34 12N	3W	Indian	NW4	SE4	SE4
3.51094E+13	8891 HOLTZ	1		AC	34 12N	3W	Indian	NW4	SE4	SE4
3510936213	9998 MILITARY	6 DRY		PA	34 12N	3W	Indian	SW4	NW4	SE4
3510936214	9998 MILITARY	4 OIL		PA	34 12N	3W	Indian	SW4	NE4	SW4
3510936215	9998 LYONS	1 OIL		PA	34 12N	3W	Indian	SW4	NE4	NW4
3510936216	9998 MILITARY	1 OIL		PA	34 12N	3W	Indian	SW4	NE4	NE4
3510936217	9998 WEST PACO	2 OIL		PA	34 12N	3W	Indian	SE4	SW4	NW4
3510936218	9998 CAREY	10		AC	34 12N	3W	Indian	SE4	NE4	NE4
3510936220	1701 FREEBERG	1 OIL		PA	34 12N	3W	Indian	NE4	SE4	NW4
3510936221	1701 STILES	6 OIL		PA	34 12N	3W	Indian	NE4	NW4	SE4
3510936222	1701 FREEBERG	4		AC	34 12N	3W	Indian	NE4	NE4	SW4
3510936227	9998 BLK 43	1		PA	34 12N	3W	Indian	NW4	SW4	SE4
3510936228	9998 BLK 44	1 DRY		PA	34 12N	3W	Indian	NW4	SW4	SE4
3510936229	9998 CAREY	12-A		AC	34 12N	3W	Indian	SE4	NW4	SW4
3510936230	9998 KATY-B	1-A	DRY	PA	34 12N	3W	Indian	SE4	SE4	SW4
3.51094E+13	19102 KATY	B-1		PA	34 12N	3W	Indian	SE4	SE4	SW4
3510936231	9998 CAREY-A	2 OIL		PA	34 12N	3W	Indian	SE4	NW4	NW4
3510936232	9998 CAREY	15 OIL		PA	34 12N	3W	Indian	SE4	NW4	NE4
3510936233	20647 BLOCK 8	1 DRY		PA	34 12N	3W	Indian	SW4	NW4	SW4
3510900625	9998 CAREY	6-A	DRY	AC	34 12N	3W	Indian	SE4	NW4	SE4

3510900627	9998 CARY	6-A	DRY	AC	34 12N	3W	Indian	SE4	NW4	SE4	NW4
3510950018	9998 CAREY	4-A	OIL	PA	34 12N	3W	Indian	SE4	NW4	SW4	

API	Operator #	Well Name	Well #	Well Type	Status	SEC	TWP	RNG	M				
3510900714	9998	WASHINGTON PARK	2	DRY	PA	35	12N	3W	Indian	SW4	NW4	SW4	
3510900636	9998	R&F	1	OIL	PA	35	12N	3W	Indian	NE4	NE4	NE4	
3510920056	19087	KATY (M.K.&T. RAILROAD 1)	1		AC	35	12N	3W	Indian	NE4	NE4	NE4	
3510930159	9998	TAYLOR	1		UN	35	12N	3W	Indian	NW4	NE4	NE4	NW4
3510936234	9998	PARK PLACE	1	OIL	PA	35	12N	3W	Indian	NE4	SE4	NE4	
3510936236	9998	JORDAN PLACE	1		AC	35	12N	3W	Indian	NE4	NE4	NE4	
3510936238	9998	JORDAN	1	OIL	PA	35	12N	3W	Indian	NE4	NE4	SW4	
3510936239	9998	REED	1	OIL	PA	35	12N	3W	Indian	NE4	NE4	NW4	
3510936241	1701	BRITTON	1		AC	35	12N	3W	Indian	SE4	NE4	NW4	
3510936242	9998	SCRUGGS	1	OIL	PA	35	12N	3W	Indian	SE4	NE4	SE4	
3510936243	9998	MCFALL	1	OIL	PA	35	12N	3W	Indian	NE4	SE4	NW4	
3510936244	6501	JACKSON	1		AC	35	12N	3W	Indian	NE4	SE4	SE4	
3510936248	9998	WASHINGTON PARK	5		AC	35	12N	3W	Indian	SW4	NW4	NW4	
3510936250	9998	FULLER	1	OIL	PA	35	12N	3W	Indian	NW4	SW4	SW4	
3510936235	9998	NEFF	1		AC	35	12N	3W	Indian	NE4	NE4	NE4	
3510936240	6235	GARR-CAIN	1	OIL	PA	35	12N	3W	Indian	SE4	NW4	SE4	
3510936245	9998	SCHOOL LAND	1		AC	35	12N	3W	Indian	NE4	SE4	SE4	
3510936249	6501	WARD	1	DRY	PA	35	12N	3W	Indian	NE4	NE4	NE4	
3510936251	19087	BUTLER	1	OIL	AC	35	12N	3W	Indian	NW4	SW4	NE4	
3510936252	19087	LATIMER	1		AC	35	12N	3W	Indian	NW4	SW4	NE4	
3510936254	9998	HERROD	1		AC	35	12N	3W	Indian	NW4	SE4	NW4	
3510936256	9998	WILLIAMS	1		AC	35	12N	3W	Indian	NW4	SW4	SE4	
3510936261	9998	PAGE	5		AC	35	12N	3W	Indian	SE4	SE4	SW4	
3510936262	9998	PAGE	3	OIL	PA	35	12N	3W	Indian	SE4	SW4	SE4	
3510936277	19087	HINCHEE	1	OIL	AC	35	12N	3W	Indian	NE4	NE4	SW4	
3510936278	4804	SHELTON	1		AC	35	12N	3W	Indian	NE4	SE4	SW4	
3510936281	9998	PAGE MINNIE	2	OIL	PA	35	12N	3W	Indian	SE4	SE4	SE4	
3510936284	9998	LITTLEPAGE	1	OIL	PA	35	12N	3W	Indian	NW4	NW4	SE4	
3510936290	9998	ROCK ISLAND	1	DRY	AC	35	12N	3W	Indian	SE4	NW4	SW4	
3510936291	9998	KATY	1		AC	35	12N	3W	Indian	SE4	NE4	SE4	
3510936246	9998	CATO	1	OIL	PA	35	12N	3W	Indian	NE4	NE4	SE4	

3510936253	19087 SUTTON BESSIE P	1 OIL	AC	35 12N	3W	Indian	NW4	NW4	SE4
3510936255	9998 PARK PLACE	2	AC	35 12N	3W	Indian	NE4	SE4	NE4
3510936257	9998 WHITESIDE	1 OIL	PA	35 12N	3W	Indian	NW4	SW4	NW4
3510936258	9998 MKT	5 OIL	PA	35 12N	3W	Indian	SW4	SW4	SW4
3510936259	9998 MILLER ADDN	1 OIL	PA	35 12N	3W	Indian	SW4	NW4	SE4
3510936260	9998 PAGE	4 OIL	PA	35 12N	3W	Indian	SE4	SE4	SW4
3510936263	9998 PAGE	2 OIL	PA	35 12N	3W	Indian	SE4	SW4	SW4
3510936264	9998 PAGE-TUCKER	1	AC	35 12N	3W	Indian	SE4	SW4	SW4
3510936265	9998 PAGE	1 OIL	PA	35 12N	3W	Indian	SE4	SE4	SE4
3510936266	9998 M K T	3 OIL	PA	35 12N	3W	Indian	SW4	SW4	SE4
3510936267	9998 MKT	1 OIL	PA	35 12N	3W	Indian	SW4	SE4	SE4
3510936268	9998 WASHINGTON	3	AC	35 12N	3W	Indian	SW4	NW4	NW4
3510936269	9998 WASHNGTN BOOKERT	1	AC	35 12N	3W	Indian	SW4	NW4	SW4
3510936270	9998 MKT	6 OIL	PA	35 12N	3W	Indian	SW4	SW4	NW4
3510936271	1701 ROCK ISLAND	1	AC	35 12N	3W	Indian	SW4	NW4	SW4
3510936272	9998 M K T	4 GAS	PA	35 12N	3W	Indian	SW4	SE4	NE4
3510936273	9998 MKT	8 OIL	PA	35 12N	3W	Indian	SW4	SW4	NW4
3510936274	9998 MKT	7 OIL	PA	35 12N	3W	Indian	SW4	SW4	NW4
3510936275	9998 MKT	2 OIL	PA	35 12N	3W	Indian	SW4	SE4	SW4
3510936276	9998 DUNN	1 OIL	PA	35 12N	3W	Indian	NE4	SE4	NW4
3510936279	9998 MILLER	1 DRY	PA	35 12N	3W	Indian	NE4	SE4	NE4
3510936280	19087 TAYLOR	1	AC	35 12N	3W	Indian	NW4	NE4	NE4
3510936282	9998 PAGE	1	AC	35 12N	3W	Indian	SE4	SE4	NE4
3510936283	19087 MULLIGAN	1 OIL	AC	35 12N	3W	Indian	NW4	NW4	NE4
3510936285	9998 G JOHNSON	1 OIL	PA	35 12N	3W	Indian	NW4	NE4	SE4
3510936286	9998 COMPRESS	1 OIL	PA	35 12N	3W	Indian	SW4	NE4	NW4
3510936287	9998 MILLERS INDUSTRIAL	1 DRY	PA	35 12N	3W	Indian	SW4	NE4	SW4
3510936288	9998 ROCK ISLAND	1 OIL	PA	35 12N	3W	Indian	SW4	NE4	SE4
3510936289	19087 HILDRETH SWD	1 SWD	AC	35 12N	3W	Indian	SE4	NW4	NW4
3510936247	9998 WASHINGTON PK	4 OIL	PA	35 12N	3W	Indian	SW4	NW4	NW4
3510936237	6501 TROSPER	1 DRY	PA	35 12N	3W	Indian	SE4	NE4	NE4
3510900715	9998 SCRUGGS	1	AC	35 12N	3W	IM	SE	NE	NE

3510900777	9998 CATO	1	AC	35 12N	3W	IM	NE	NE	NE
3510900787	9998 RUPLEY & FAIREY	1	AC	35 12N	3W	IM	NE	NE	NE

APPENDIX F
DEQ'S BATTERY ACID NEUTRALIZATION
PIT CLOSURE RECORD



DEPARTMENTS OF THE ARMY AND THE AIR FORCE
OKLAHOMA ARMY AND AIR NATIONAL GUARD

3501 MILITARY CIRCLE
OKLAHOMA CITY, OKLAHOMA 73111-4398
(405) 228-5000 or DSN 940-3210

OKDE-ENV (200)

14 September 2000

MEMORANDUM FOR OMS #1, 200 NE 23RD ST, OKLAHOMA CITY, OK 73105-3102

SUBJECT: Battery Acid Neutralization Pit Closure Record

1. The attached letter reflects the Oklahoma Department of Environmental Quality's acceptance of the results obtained from samples taken during site investigations at each OMS known to formerly have a battery acid neutralization pit. This document is intended to demonstrate compliance and should be maintained on file at your facility indefinitely.

2. The POC for this issue is CPT Robert Huntley at (405) 228-5363 or DSN 940-3363.

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
OKLAHOMA ARMY AND AIR NATIONAL GUARD

3501 MILITARY CIRCLE
OKLAHOMA CITY, OKLAHOMA 73111-4398
(405) 228-5000 or DSN 940-3210

JAMES C. PECK
Environmental Program Manager

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
OKLAHOMA ARMY AND AIR NATIONAL GUARD

3501 MILITARY CIRCLE
OKLAHOMA CITY, OKLAHOMA 73111-4398
(405) 228-5000 or DSN 940-3210

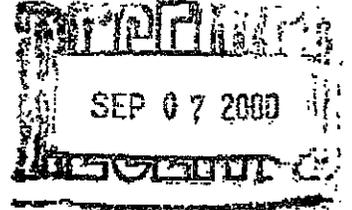
DEPARTMENTS OF THE ARMY AND THE AIR FORCE
OKLAHOMA ARMY AND AIR NATIONAL GUARD



MARK COLEMAN
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

FRANK KEATING
Governor



September 5, 2000

Terry Andrews
Caldwell Environmental Associates
P.O.Box 1608
Norman, OK 73070

Subject: Investigation Report for Former Battery Acid Neutralization Pits
Oklahoma Military Department

Dear Terry:

I have reviewed the above referenced report submitted by your office. The sampling results indicate acceptable levels of metals in the soils and ground water. Based on this report, DEQ recommends that no further investigation is necessary regarding the neutralization pits at these properties.

If you have any questions, please call me at (405) 702-5118.

Sincerely,

Scott Stegmann
Environmental Programs Specialist
Voluntary Cleanup Program

cc: Amil Lyon



APPENDIX G
API OIL-WATER SEPARATOR
SOIL SAMPLE ANALYTICAL RESULTS AND LOCATIONS

Sample Number: 496121
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 11/27/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 11/27/2010

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 GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Purgeable:		1.30		11/24/10	8260BM	
Benzene	<	13.0	UG/KG	11/24/10	8260BM	
Bromoform	<	13.0	UG/KG	11/24/10	8260BM	
Carbon tetrachloride	<	13.0	UG/KG	11/24/10	8260BM	
Chlorobenzene	<	13.0	UG/KG	11/24/10	8260BM	
Dibromochloromethane	<	13.0	UG/KG	11/24/10	8260BM	
Chloroethane	<	13.0	UG/KG	11/24/10	8260BM	
Chloroform	<	13.0	UG/KG	11/24/10	8260BM	
Bromodichloromethane	<	13.0	UG/KG	11/24/10	8260BM	
Ethylbenzene	<	13.0	UG/KG	11/24/10	8260BM	
Methyl chloride	<	13.0	UG/KG	11/24/10	8260BM	
Methylene chloride	<	13.0	UG/KG	11/24/10	8260BM	
Tetrachloroethene	<	13.0	UG/KG	11/24/10	8260BM	
Toluene	<	13.0	UG/KG	11/24/10	8260BM	
Trichloroethene	<	13.0	UG/KG	11/24/10	8260BM	
Vinyl chloride	<	13.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethane	<	13.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethene	<	13.0	UG/KG	11/24/10	8260BM	
1,1,1-Trichloroethane	<	13.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloroethane	<	13.0	UG/KG	11/24/10	8260BM	
1,1,2,2-Tetrachloroethane	<	13.0	UG/KG	11/24/10	8260BM	
1,2-Dichloroethane	<	13.0	UG/KG	11/24/10	8260BM	
1,2-Dichloropropane	<	13.0	UG/KG	11/24/10	8260BM	
trans-1,2-Dichloroethene	<	13.0	UG/KG	11/24/10	8260BM	
trans-1,3-Dichloropropene	<	13.0	UG/KG	11/24/10	8260BM	
cis-1,3-Dichloropropene	<	13.0	UG/KG	11/24/10	8260BM	
Total Xylenes	<	13.0	UG/KG	11/24/10	8260BM	
Acetone	<	13.0	UG/KG	11/24/10	8260BM	
Methylethyl ketone	<	13.0	UG/KG	11/24/10	8260BM	
2-Hexanone	<	13.0	UG/KG	11/24/10	8260BM	
Methylisobutyl ketone	<	13.0	UG/KG	11/24/10	8260BM	
Styrene	<	13.0	UG/KG	11/24/10	8260BM	
Carbon disulfide	<	13.0	UG/KG	11/24/10	8260BM	

Sample Number: 496121
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 11/27/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 11/27/2010

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 GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
% Moisture - GC/MS Lab		7.10	%	11/27/10	1005 M	
Dichlorodifluoromethane	<	13.0	UG/KG	11/24/10	8260BM	
Trichlorofluoromethane	<	13.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloro-1,2,2-trifl	<	13.0	UG/KG	11/24/10	8260BM	
Methyl Acetate	<	13.0	UG/KG	11/24/10	8260BM	
Methyl tert-butyl ether (M	<	13.0	UG/KG	11/24/10	8260BM	
cis-1,2-Dichloroethene	<	13.0	UG/KG	11/24/10	8260BM	
Cyclohexane	<	13.0	UG/KG	11/24/10	8260BM	
Methylcyclohexane	<	13.0	UG/KG	11/24/10	8260BM	
1,2-Dibromoethane	<	13.0	UG/KG	11/24/10	8260BM	
Isopropylbenzene	<	13.0	UG/KG	11/24/10	8260BM	
1,2-Dichlorobenzene	<	13.0	UG/KG	11/24/10	8260BM	
1,3-Dichlorobenzene	<	13.0	UG/KG	11/24/10	8260BM	
1,4-Dichlorobenzene	<	13.0	UG/KG	11/24/10	8260BM	
1,2-Dibromo-3-chloropropan	<	13.0	UG/KG	11/24/10	8260BM	
1,2,4-Trichlorobenzene	<	13.0	UG/KG	11/24/10	8260BM	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
TOLUENE-D8		106
4-BROMOFLUOROBENZENE		84
1,2-DICHLOROETHANE-D4		102

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
NONE FOUND		0	

Summary

Labs performing analysis on this Sample:

GCMS

Sample Number: 496121
Project Code: SW-SP
Agency Number:
Date Collected: 11/22/2010
Time Collected: 1115
Date Received: 11/22/2010
Date Completed: 11/27/2010
Collected By: JR
PWS Id:
Location Code:
Station:
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Report Date: 11/27/2010

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 GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

CC: FILE COPY

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:
API-SEP1

ANALYST'S COMMENTS:

*

* ANALYST



Sample Number: 496122
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 11/27/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 11/27/2010

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 GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Purgeable:		1.40		11/24/10	8260BM	
Benzene	<	14.0	UG/KG	11/24/10	8260BM	
Bromoform	<	14.0	UG/KG	11/24/10	8260BM	
Carbon tetrachloride	<	14.0	UG/KG	11/24/10	8260BM	
Chlorobenzene	<	14.0	UG/KG	11/24/10	8260BM	
Dibromochloromethane	<	14.0	UG/KG	11/24/10	8260BM	
Chloroethane	<	14.0	UG/KG	11/24/10	8260BM	
Chloroform	<	14.0	UG/KG	11/24/10	8260BM	
Bromodichloromethane	<	14.0	UG/KG	11/24/10	8260BM	
Ethylbenzene	<	14.0	UG/KG	11/24/10	8260BM	
Methyl chloride	<	14.0	UG/KG	11/24/10	8260BM	
Methylene chloride	<	14.0	UG/KG	11/24/10	8260BM	
Tetrachloroethene	<	14.0	UG/KG	11/24/10	8260BM	
Toluene	<	14.0	UG/KG	11/24/10	8260BM	
Trichloroethene	<	14.0	UG/KG	11/24/10	8260BM	
Vinyl chloride	<	14.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethane	<	14.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethene	<	14.0	UG/KG	11/24/10	8260BM	
1,1,1-Trichloroethane	<	14.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloroethane	<	14.0	UG/KG	11/24/10	8260BM	
1,1,2,2-Tetrachloroethane	<	14.0	UG/KG	11/24/10	8260BM	
1,2-Dichloroethane	<	14.0	UG/KG	11/24/10	8260BM	
1,2-Dichloropropane	<	14.0	UG/KG	11/24/10	8260BM	
trans-1,2-Dichloroethene	<	14.0	UG/KG	11/24/10	8260BM	
trans-1,3-Dichloropropene	<	14.0	UG/KG	11/24/10	8260BM	
cis-1,3-Dichloropropene	<	14.0	UG/KG	11/24/10	8260BM	
Total Xylenes	<	14.0	UG/KG	11/24/10	8260BM	
Acetone	<	14.0	UG/KG	11/24/10	8260BM	
Methylethyl ketone	<	14.0	UG/KG	11/24/10	8260BM	
2-Hexanone	<	14.0	UG/KG	11/24/10	8260BM	
Methylisobutyl ketone	<	14.0	UG/KG	11/24/10	8260BM	
Styrene	<	14.0	UG/KG	11/24/10	8260BM	
Carbon disulfide	<	14.0	UG/KG	11/24/10	8260BM	

Sample Number: 496122
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
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 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
% Moisture - GC/MS Lab		10.0	%	11/27/10	1005 M	
Dichlorodifluoromethane	<	14.0	UG/KG	11/24/10	8260BM	
Trichlorofluoromethane	<	14.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloro-1,2,2-trifl.	<	14.0	UG/KG	11/24/10	8260BM	
Methyl Acetate	<	14.0	UG/KG	11/24/10	8260BM	
Methyl tert-butyl ether (M.	<	14.0	UG/KG	11/24/10	8260BM	
cis-1,2-Dichloroethene	<	14.0	UG/KG	11/24/10	8260BM	
Cyclohexane	<	14.0	UG/KG	11/24/10	8260BM	
Methylcyclohexane	<	14.0	UG/KG	11/24/10	8260BM	
1,2-Dibromoethane	<	14.0	UG/KG	11/24/10	8260BM	
Isopropylbenzene	<	14.0	UG/KG	11/24/10	8260BM	
1,2-Dichlorobenzene	<	14.0	UG/KG	11/24/10	8260BM	
1,3-Dichlorobenzene	<	14.0	UG/KG	11/24/10	8260BM	
1,4-Dichlorobenzene	<	14.0	UG/KG	11/24/10	8260BM	
1,2-Dibromo-3-chloropropane	<	14.0	UG/KG	11/24/10	8260BM	
1,2,4-Trichlorobenzene	<	14.0	UG/KG	11/24/10	8260BM	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
TOLUENE-D8		110
1,2-DICHLOROETHANE-D4		110
4-BROMOFLUOROBENZENE		83

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
NONE FOUND		0	

Summary

Labs performing analysis on this Sample:

GCMS

Sample Number: 496122
Project Code: SW-SP
Agency Number:
Date Collected: 11/22/2010
Time Collected: 1115
Date Received: 11/22/2010
Date Completed: 11/27/2010
Collected By: JR
PWS Id:
Location Code:
Station:
Facility:
Report Date: 11/27/2010

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 GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

CC: FILE COPY

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:
API-SEP2

ANALYST'S COMMENTS:

*

* ANALYST



Sample Number: 496123
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 11/27/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 11/27/2010

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
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OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-800-869-1400
 Sample Receiving: (405) 702-1113
Report of Analysis by GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Purgeable:		1.00		11/24/10	8260BM	
Benzene	<	10.0	UG/KG	11/24/10	8260BM	
Bromoform	<	10.0	UG/KG	11/24/10	8260BM	
Carbon tetrachloride	<	10.0	UG/KG	11/24/10	8260BM	
Chlorobenzene	<	10.0	UG/KG	11/24/10	8260BM	
Dibromochloromethane	<	10.0	UG/KG	11/24/10	8260BM	
Chloroethane	<	10.0	UG/KG	11/24/10	8260BM	
Chloroform	<	10.0	UG/KG	11/24/10	8260BM	
Bromodichloromethane	<	10.0	UG/KG	11/24/10	8260BM	
Ethylbenzene	<	10.0	UG/KG	11/24/10	8260BM	
Methyl chloride	<	10.0	UG/KG	11/24/10	8260BM	
Methylene chloride	<	10.0	UG/KG	11/24/10	8260BM	
Tetrachloroethene	<	10.0	UG/KG	11/24/10	8260BM	
Toluene	<	10.0	UG/KG	11/24/10	8260BM	
Trichloroethene	<	10.0	UG/KG	11/24/10	8260BM	
Vinyl chloride	<	10.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethane	<	10.0	UG/KG	11/24/10	8260BM	
1,1-Dichloroethene	<	10.0	UG/KG	11/24/10	8260BM	
1,1,1-Trichloroethane	<	10.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloroethane	<	10.0	UG/KG	11/24/10	8260BM	
1,1,2,2-Tetrachloroethane	<	10.0	UG/KG	11/24/10	8260BM	
1,2-Dichloroethane	<	10.0	UG/KG	11/24/10	8260BM	
1,2-Dichloropropane	<	10.0	UG/KG	11/24/10	8260BM	
trans-1,2-Dichloroethene	<	10.0	UG/KG	11/24/10	8260BM	
trans-1,3-Dichloropropene	<	10.0	UG/KG	11/24/10	8260BM	
cis-1,3-Dichloropropene	<	10.0	UG/KG	11/24/10	8260BM	
Total Xylenes	<	10.0	UG/KG	11/24/10	8260BM	
Acetone	<	10.0	UG/KG	11/24/10	8260BM	
Methylethyl ketone	<	10.0	UG/KG	11/24/10	8260BM	
2-Hexanone	<	10.0	UG/KG	11/24/10	8260BM	
Methylisobutyl ketone	<	10.0	UG/KG	11/24/10	8260BM	
Styrene	<	10.0	UG/KG	11/24/10	8260BM	
Carbon disulfide	<	10.0	UG/KG	11/24/10	8260BM	

Sample Number: 496123
 Project Code: SW-SP
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 11/27/2010
 Collected By: JR
 PWS Id:
 Location Code:
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 Report Date: 11/27/2010

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 GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
% Moisture - GC/MS Lab			%		1005 M	
Dichlorodifluoromethane	<	10.0	UG/KG	11/24/10	8260BM	
Trichlorofluoromethane	<	10.0	UG/KG	11/24/10	8260BM	
1,1,2-Trichloro-1,2,2-trifl	<	10.0	UG/KG	11/24/10	8260BM	
Methyl Acetate	<	10.0	UG/KG	11/24/10	8260BM	
Methyl tert-butyl ether (M	<	10.0	UG/KG	11/24/10	8260BM	
cis-1,2-Dichloroethene	<	10.0	UG/KG	11/24/10	8260BM	
Cyclohexane	<	10.0	UG/KG	11/24/10	8260BM	
Methylcyclohexane	<	10.0	UG/KG	11/24/10	8260BM	
1,2-Dibromoethane	<	10.0	UG/KG	11/24/10	8260BM	
Isopropylbenzene	<	10.0	UG/KG	11/24/10	8260BM	
1,2-Dichlorobenzene	<	10.0	UG/KG	11/24/10	8260BM	
1,3-Dichlorobenzene	<	10.0	UG/KG	11/24/10	8260BM	
1,4-Dichlorobenzene	<	10.0	UG/KG	11/24/10	8260BM	
1,2-Dibromo-3-chloropropane	<	10.0	UG/KG	11/24/10	8260BM	
1,2,4-Trichlorobenzene	<	10.0	UG/KG	11/24/10	8260BM	

SURROGATE RECOVERIES

COMPOUND	RECOVERY %
4-BROMOFLUOROBENZENE	95
1,2-DICHLOROETHANE-D4	105
TOLUENE-D8	96

**TENTATIVELY IDENTIFIED BY
NBS LIBRARY SEARCH**

COMPOUND	VALUE	UNITS
NONE FOUND	0	

Summary

Labs performing analysis on this Sample:

GCMS

Sample Number: 496123
Project Code: SW-SP
Agency Number:
Date Collected: 11/22/2010
Time Collected: 1105
Date Received: 11/22/2010
Date Completed: 11/27/2010
Collected By: JR
PWS Id:
Location Code:
Station:
Facility:
Report Date: 11/27/2010

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 GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:
LAB BLANK

ANALYST'S COMMENTS:

*

* ANALYST

Agnes Chen

Sample Number: 496124
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Barium, Sediment		105	MG/KG	11/24/10	6010	3050
Beryllium, Sediment	<	2.00	MG/KG	11/24/10	6010	3050
Cadmium, Sediment		6.60	MG/KG	11/24/10	6010	3050
Chromium, Sediment		29.6	MG/KG	11/24/10	6010	3050
Copper, Sediment		30.7	MG/KG	11/24/10	6010	3050
Lead, Sediment		179	MG/KG	11/24/10	6010	3050
Nickel, Sediment		11.8	MG/KG	11/24/10	6010	3050
Silver, Sediment	<	5.00	MG/KG	11/24/10	6010	3050
Zinc, Sediment		447	MG/KG	11/24/10	6010	3050
Antimony, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Selenium, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Thallium, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Mercury, Sediment	<	0.25	MG/KG	12/07/10	7471	3050
% Solids		93.2	%	11/24/10	CLP 5.4	3050

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:

API-SEP1

ANALYST'S COMMENTS:



* ANALYST _____

Sample Number: 496125
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Barium, Sediment		248	MG/KG	11/24/10	6010	3050
Beryllium, Sediment	<	2.00	MG/KG	11/24/10	6010	3050
Cadmium, Sediment		80.4	MG/KG	11/24/10	6010	3050
Chromium, Sediment		87.9	MG/KG	11/24/10	6010	3050
Copper, Sediment		90.1	MG/KG	11/24/10	6010	3050
Lead, Sediment		411	MG/KG	11/24/10	6010	3050
Nickel, Sediment		20.8	MG/KG	11/24/10	6010	3050
Silver, Sediment	<	5.00	MG/KG	11/24/10	6010	3050
Zinc, Sediment		615	MG/KG	11/24/10	6010	3050
Antimony, Sediment		32.6	MG/KG	11/24/10	6010	3050
Selenium, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Thallium, Sediment	<	10.0	MG/KG	11/24/10	6010	3050
Mercury, Sediment	<	0.25	MG/KG	12/07/10	7471	3050
% Solids		87.2	%	11/24/10	CLP 5.4	3050

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:
API-SEP2

ANALYST'S COMMENTS:



* ANALYST _____

Sample Number: 496126
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
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 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractabl		33.0				
Acenaphthylene	<	330	UG/KG	12/03/10	8270DM	
Acenaphthene	<	330	UG/KG	12/03/10	8270DM	
Anthracene	<	330	UG/KG	12/03/10	8270DM	
Benzo(b)fluoranthene	<	330	UG/KG	12/03/10	8270DM	
Benzo(k)fluoranthene	<	330	UG/KG	12/03/10	8270DM	
Benzo(a)pyrene	<	330	UG/KG	12/03/10	8270DM	
Bis(2-chloroethyl)ether	<	330	UG/KG	12/03/10	8270DM	
Bis(2-chloroethoxy)methane	<	330	UG/KG	12/03/10	8270DM	
Bis(2-chloroisopropyl)ethe	<	330	UG/KG	12/03/10	8270DM	
Butylbenzylphthalate	<	330	UG/KG	12/03/10	8270DM	
Chrysene	<	330	UG/KG	12/03/10	8270DM	
Diethylphthalate	<	330	UG/KG	12/03/10	8270DM	
Dimethylphthalate	<	330	UG/KG	12/03/10	8270DM	
Fluoranthene	<	330	UG/KG	12/03/10	8270DM	
Fluorene	<	330	UG/KG	12/03/10	8270DM	
Hexachlorocyclopentadiene	<	330	UG/KG	12/03/10	8270DM	
Hexachloroethane	<	330	UG/KG	12/03/10	8270DM	
Indeno(123cd)pyrene	<	330	UG/KG	12/03/10	8270DM	
Isophorone	<	330	UG/KG	12/03/10	8270DM	
Nitrosodipropylamine	<	330	UG/KG	12/03/10	8270DM	
Nitrosodiphenylamine	<	330	UG/KG	12/03/10	8270DM	
Naphthalene	<	330	UG/KG	12/03/10	8270DM	
Nitrobenzene	<	330	UG/KG	12/03/10	8270DM	
p-Chloro-m-cresol	<	330	UG/KG	12/03/10	8270DM	
Phenanthrene	<	330	UG/KG	12/03/10	8270DM	
Pyrene	<	330	UG/KG	12/03/10	8270DM	
Benzo(ghi)perylene	<	330	UG/KG	12/03/10	8270DM	
Benzo(a)anthracene	<	330	UG/KG	12/03/10	8270DM	
Dibenzo(ah)anthracene	<	330	UG/KG	12/03/10	8270DM	
2-Chloronaphthalene	<	330	UG/KG	12/03/10	8270DM	
2-Chlorophenol	<	330	UG/KG	12/03/10	8270DM	
2-Nitrophenol	<	330	UG/KG	12/03/10	8270DM	

Sample Number: 496126
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
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OKLAHOMA, 73102-6010
 General Inquiries: 1-800-869-1400
 Sample Receiving: (405) 702-1113
Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Di-n-octylphthalate	<	330	UG/KG	12/03/10	8270DM	
2,4-Dichlorophenol	<	330	UG/KG	12/03/10	8270DM	
2,4-Dimethylphenol	<	330	UG/KG	12/03/10	8270DM	
2,4-Dinitrotoluene	<	330	UG/KG	12/03/10	8270DM	
2,4-Dinitrophenol	<	1700	UG/KG	12/03/10	8270DM	
2,4,6-Trichlorophenol	<	1700	UG/KG	12/03/10	8270DM	
2,6-Dinitrotoluene	<	330	UG/KG	12/03/10	8270DM	
3,3'-Dichlorobenzidine	<	660	UG/KG	12/03/10	8270DM	
4-Bromophenylphenyl ether	<	330	UG/KG	12/03/10	8270DM	
4-Chlorophenyl phenylether	<	330	UG/KG	12/03/10	8270DM	
4-Nitrophenol	<	1700	UG/KG	12/03/10	8270DM	
4,6-Dinitro-o-cresol	<	1700	UG/KG	12/03/10	8270DM	
Phenol	<	330	UG/KG	12/03/10	8270DM	
Pentachlorophenol	<	1700	UG/KG	12/03/10	8270DM	
Bis(2-ethylhexyl)phthalate	<	330	UG/KG	12/03/10	8270DM	
Di-n-butylphthalate	<	330	UG/KG	12/03/10	8270DM	
Hexachlorobenzene	<	330	UG/KG	12/03/10	8270DM	
Hexachlorobutadiene	<	330	UG/KG	12/03/10	8270DM	
Benzyl alcohol	<	330	UG/KG	12/03/10	8270DM	
Dibenzofuran	<	330	UG/KG	12/03/10	8270DM	
2-Methylphenol	<	330	UG/KG	12/03/10	8270DM	
4-Methylphenol	<	330	UG/KG	12/03/10	8270DM	
2,4,5-Trichlorophenol	<	1700	UG/KG	12/03/10	8270DM	
4-Chloroaniline	<	330	UG/KG	12/03/10	8270DM	
2-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
3-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
4-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
2-Methylnaphthalene	<	330	UG/KG	12/03/10	8270DM	
% Moisture - GC/MS Lab			%		1005 M	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
NITROBENZENE-D5		79
2,4,6-TRIBROMOPHENOL		48

Sample Number: 496126
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1115
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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 GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2-FLUOROPHENOL		69
2-FLUOROBIPHENYL		85
P-TERPHENYL-D14		102
PHENOL-D5		76

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
NU			

Summary

Labs performing analysis on this Sample:

GCMS

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:

LAB BLANK

ANALYST'S COMMENTS:

Analyst: Cassandra Kontas

(NU) The analysis indicates no 'tentatively identified' compounds present above the reporting limit for this analysis.

*

* ANALYST

Cassandra Kontas

Sample Number: 496124
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
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 Report Date: 12/7/2010

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To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractabl		34.7				
Acenaphthylene	<	350	UG/KG	12/03/10	8270DM	
Acenaphthene	<	350	UG/KG	12/03/10	8270DM	
Anthracene	<	350	UG/KG	12/03/10	8270DM	
Benzo(b)fluoranthene		520	UG/KG	12/03/10	8270DM	
Benzo(k)fluoranthene	<	350	UG/KG	12/03/10	8270DM	
Benzo(a)pyrene		380	UG/KG	12/03/10	8270DM	
Bis(2-chloroethyl)ether	<	350	UG/KG	12/03/10	8270DM	
Bis(2-chloroethoxy)methane	<	350	UG/KG	12/03/10	8270DM	
Bis(2-chloroisopropyl)ethe	<	350	UG/KG	12/03/10	8270DM	
Butylbenzylphthalate	<	350	UG/KG	12/03/10	8270DM	
Chrysene		1100	UG/KG	12/03/10	8270DM	
Diethylphthalate	<	350	UG/KG	12/03/10	8270DM	
Dimethylphthalate	<	350	UG/KG	12/03/10	8270DM	
Fluoranthene		390	UG/KG	12/03/10	8270DM	
Fluorene	<	350	UG/KG	12/03/10	8270DM	
Hexachlorocyclopentadiene	<	350	UG/KG	12/03/10	8270DM	
Hexachloroethane	<	350	UG/KG	12/03/10	8270DM	
Indeno(123cd)pyrene		390	UG/KG	12/03/10	8270DM	
Isophorone	<	350	UG/KG	12/03/10	8270DM	
Nitrosodipropylamine	<	350	UG/KG	12/03/10	8270DM	
Nitrosodiphenylamine	<	350	UG/KG	12/03/10	8270DM	
Naphthalene	<	350	UG/KG	12/03/10	8270DM	
Nitrobenzene	<	350	UG/KG	12/03/10	8270DM	
p-Chloro-m-cresol	<	350	UG/KG	12/03/10	8270DM	
Phenanthrene		1900	UG/KG	12/03/10	8270DM	
Pyrene		1100	UG/KG	12/03/10	8270DM	
Benzo(ghi)perylene		550	UG/KG	12/03/10	8270DM	
Benzo(a)anthracene		500	UG/KG	12/03/10	8270DM	
Dibenzo(ah)anthracene	<	350	UG/KG	12/03/10	8270DM	
2-Chloronaphthalene	<	350	UG/KG	12/03/10	8270DM	
2-Chlorophenol	<	350	UG/KG	12/03/10	8270DM	
2-Nitrophenol	<	350	UG/KG	12/03/10	8270DM	

Sample Number: 496124
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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OKLAHOMA, 73102-6010
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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Di-n-octylphthalate	<	350	UG/KG	12/03/10	8270DM	
2,4-Dichlorophenol	<	350	UG/KG	12/03/10	8270DM	
2,4-Dimethylphenol	<	350	UG/KG	12/03/10	8270DM	
2,4-Dinitrotoluene	<	350	UG/KG	12/03/10	8270DM	
2,4-Dinitrophenol	<	1700	UG/KG	12/03/10	8270DM	
2,4,6-Trichlorophenol	<	1700	UG/KG	12/03/10	8270DM	
2,6-Dinitrotoluene	<	350	UG/KG	12/03/10	8270DM	
3,3'-Dichlorobenzidine	<	690	UG/KG	12/03/10	8270DM	
4-Bromophenylphenyl ether	<	350	UG/KG	12/03/10	8270DM	
4-Chlorophenyl phenylether	<	350	UG/KG	12/03/10	8270DM	
4-Nitrophenol	<	1700	UG/KG	12/03/10	8270DM	
4,6-Dinitro-o-cresol	<	1700	UG/KG	12/03/10	8270DM	
Phenol	<	350	UG/KG	12/03/10	8270DM	
Pentachlorophenol	<	1700	UG/KG	12/03/10	8270DM	
Bis(2-ethylhexyl)phthalate		820	UG/KG	12/03/10	8270DM	
Di-n-butylphthalate	<	350	UG/KG	12/03/10	8270DM	
Hexachlorobenzene	<	350	UG/KG	12/03/10	8270DM	
Hexachlorobutadiene	<	350	UG/KG	12/03/10	8270DM	
Benzyl alcohol	<	350	UG/KG	12/03/10	8270DM	
Dibenzofuran	<	350	UG/KG	12/03/10	8270DM	
2-Methylphenol	<	350	UG/KG	12/03/10	8270DM	
4-Methylphenol	<	350	UG/KG	12/03/10	8270DM	
2,4,5-Trichlorophenol	<	1700	UG/KG	12/03/10	8270DM	
4-Chloroaniline	<	350	UG/KG	12/03/10	8270DM	
2-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
3-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
4-Nitroaniline	<	1700	UG/KG	12/03/10	8270DM	
2-Methylnaphthalene	<	350	UG/KG	12/03/10	8270DM	
% Moisture - GC/MS Lab		7.1	%	12/03/10	1005 M	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
P-TERPHENYL-D14		90
NITROBENZENE-D5		80

Sample Number: 496124
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
PHENOL-D5		82
2,4,6-TRIBROMOPHENOL		90
2-FLUOROPHENOL		74
2-FLUOROBIPHENYL		79

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
OCTADECANOIC ACID, 2-HYDROXY-1-(1000	µg/kg
Dibenzothiophene		350	µg/kg
Anthracene, 2-methyl-		970	µg/kg
Benz[a]anthracene, 1-methyl-		360	µg/kg
Benzo[e]pyrene		850	µg/kg
Naphthalene, 2-phenyl-		400	µg/kg
oxygen & silicon substituted by		540	µg/kg
Phenanthrene, 2-methyl-		690	µg/kg
Triphenylene, 2-methyl-		400	µg/kg

Summary

Labs performing analysis on this Sample:

Metals GCMS

Sample Number: 496124
Project Code: SW-SE
Agency Number:
Date Collected: 11/22/2010
Time Collected: 1105
Date Received: 11/22/2010
Date Completed: 12/07/2010
Collected By: JR
PWS Id:
Location Code:
Station:
Facility:
Report Date: 12/7/2010

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
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General Inquiries: 1-800-869-1400
Sample Receiving: (405) 702-1113
Report of Analysis by GCMS
EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:
API-SEP1

ANALYST'S COMMENTS:

Analyst: Cassandra Kontas

The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentration. Some compound names were truncated in the "tentatively identified" report table; their complete names are:

Octadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl ester
oxygen & silicon substituted hydrocarbon

* ANALYST

Cassandra Kontas

Sample Number: 496125
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab		121.				
Acenaphthylene	<	1200	UG/KG	12/03/10	8270DM	
Acenaphthene	<	1200	UG/KG	12/03/10	8270DM	
Anthracene	<	1200	UG/KG	12/03/10	8270DM	
Benzo(b)fluoranthene	<	1200	UG/KG	12/03/10	8270DM	
Benzo(k)fluoranthene	<	1200	UG/KG	12/03/10	8270DM	
Benzo(a)pyrene	<	1200	UG/KG	12/03/10	8270DM	
Bis(2-chloroethyl)ether	<	1200	UG/KG	12/03/10	8270DM	
Bis(2-chloroethoxy)methane	<	1200	UG/KG	12/03/10	8270DM	
Bis(2-chloroisopropyl)ether	<	1200	UG/KG	12/03/10	8270DM	
Butylbenzylphthalate	<	1200	UG/KG	12/03/10	8270DM	
Chrysene	<	1200	UG/KG	12/03/10	8270DM	
Diethylphthalate	<	1200	UG/KG	12/03/10	8270DM	
Dimethylphthalate	<	1200	UG/KG	12/03/10	8270DM	
Fluoranthene	<	1200	UG/KG	12/03/10	8270DM	
Fluorene	<	1200	UG/KG	12/03/10	8270DM	
Hexachlorocyclopentadiene	<	1200	UG/KG	12/03/10	8270DM	
Hexachloroethane	<	1200	UG/KG	12/03/10	8270DM	
Indeno(123cd)pyrene	<	1200	UG/KG	12/03/10	8270DM	
Isophorone	<	1200	UG/KG	12/03/10	8270DM	
Nitrosodipropylamine	<	1200	UG/KG	12/03/10	8270DM	
Nitrosodiphenylamine	<	1200	UG/KG	12/03/10	8270DM	
Naphthalene	<	1200	UG/KG	12/03/10	8270DM	
Nitrobenzene	<	1200	UG/KG	12/03/10	8270DM	
p-Chloro-m-cresol	<	1200	UG/KG	12/03/10	8270DM	
Phenanthrene	<	1200	UG/KG	12/03/10	8270DM	
Pyrene	<	1200	UG/KG	12/03/10	8270DM	
Benzo(ghi)perylene	<	1200	UG/KG	12/03/10	8270DM	
Benzo(a)anthracene	<	1200	UG/KG	12/03/10	8270DM	
Dibenzo(ah)anthracene	<	1200	UG/KG	12/03/10	8270DM	
2-Chloronaphthalene	<	1200	UG/KG	12/03/10	8270DM	
2-Chlorophenol	<	1200	UG/KG	12/03/10	8270DM	
2-Nitrophenol	<	1200	UG/KG	12/03/10	8270DM	

Sample Number: 496125
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
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 Report Date: 12/7/2010

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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Di-n-octylphthalate	<	1200	UG/KG	12/03/10	8270DM	
2,4-Dichlorophenol	<	1200	UG/KG	12/03/10	8270DM	
2,4-Dimethylphenol	<	1200	UG/KG	12/03/10	8270DM	
2,4-Dinitrotoluene	<	1200	UG/KG	12/03/10	8270DM	
2,4-Dinitrophenol	<	6100	UG/KG	12/03/10	8270DM	
2,4,6-Trichlorophenol	<	6100	UG/KG	12/03/10	8270DM	
2,6-Dinitrotoluene	<	1200	UG/KG	12/03/10	8270DM	
3,3'-Dichlorobenzidine	<	2400	UG/KG	12/03/10	8270DM	
4-Bromophenylphenyl ether	<	1200	UG/KG	12/03/10	8270DM	
4-Chlorophenyl phenylether	<	1200	UG/KG	12/03/10	8270DM	
4-Nitrophenol	<	6100	UG/KG	12/03/10	8270DM	
4,6-Dinitro-o-cresol	<	6100	UG/KG	12/03/10	8270DM	
Phenol	<	1200	UG/KG	12/03/10	8270DM	
Pentachlorophenol	<	6100	UG/KG	12/03/10	8270DM	
Bis(2-ethylhexyl)phthalate		3700	UG/KG	12/03/10	8270DM	
Di-n-butylphthalate	<	1200	UG/KG	12/03/10	8270DM	
Hexachlorobenzene	<	1200	UG/KG	12/03/10	8270DM	
Hexachlorobutadiene	<	1200	UG/KG	12/03/10	8270DM	
Benzyl alcohol	<	1200	UG/KG	12/03/10	8270DM	
Dibenzofuran	<	1200	UG/KG	12/03/10	8270DM	
2-Methylphenol	<	1200	UG/KG	12/03/10	8270DM	
4-Methylphenol	<	1200	UG/KG	12/03/10	8270DM	
2,4,5-Trichlorophenol	<	6100	UG/KG	12/03/10	8270DM	
4-Chloroaniline	<	1200	UG/KG	12/03/10	8270DM	
2-Nitroaniline	<	6100	UG/KG	12/03/10	8270DM	
3-Nitroaniline	<	6100	UG/KG	12/03/10	8270DM	
4-Nitroaniline	<	6100	UG/KG	12/03/10	8270DM	
2-Methylnaphthalene	<	1200	UG/KG	12/03/10	8270DM	
% Moisture - GC/MS Lab		10.	%	12/03/10	1005 M	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2-FLUOROBIPHENYL		93
P-TERPHENYL-D14		100

Sample Number: 496125
 Project Code: SW-SE
 Agency Number:
 Date Collected: 11/22/2010
 Time Collected: 1105
 Date Received: 11/22/2010
 Date Completed: 12/07/2010
 Collected By: JR
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 12/7/2010

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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: JON REID/LPD

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2, 4, 6-TRIBROMOPHENOL		108
2-FLUOROPHENOL		71
PHENOL-D5		83
NITROBENZENE-D5		90

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
Octadecanoic acid, 2,3-hydroxyp		5300	µg/kg
Hexadecanoic acid, 2-hydroxy-1-		2600	µg/kg

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OKC 23RD ST ARMORY

SAMPLERS COMMENTS:

API-SEP2

ANALYST'S COMMENTS:

Analyst: Cassandra Kontas

The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentration. Compound names were truncated in the "tentatively identified" report table; their complete names are:

Hexadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl ester
 Octadecanoic acid, 2,3-hydroxypropyl ester

* ANALYST Cassandra Kontas

APPENDIX H
DEQ AIR QUALITY EMISSION INVENTORY

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

January 7, 2011

TO: Phillip Fielder, P.E., Permits and Engineering Group Manager

THROUGH: Kendal Stegmann, Sr. Environmental Manager, Compliance & Enforcement

THROUGH: Phil Martin, P.E., Engineering Section

THROUGH: Peer Review

FROM: Iftekhar Hossain, P.E., Engineering Section

SUBJECT: Evaluation of Permit Application No. **2010-332-TVR2**
Earthgrains Baking Companies, Inc.
Oklahoma City Bakery
Latitude 35.495°N, Longitude 97.517°W
Street Address: 1916 North Broadway, Oklahoma City, Oklahoma.

SECTION I. INTRODUCTION

The Earthgrains Rainbo Baking Division has requested renewal of the Part 70 operating permit for their Oklahoma City bakery. The facility is currently operating under Permit No. 2005-160-TV (M-1) issued May 30, 2007. The facility is a commercial bakery (SIC Code 2051). The facility is a major source of VOC; therefore, a Title V operating permit is required.

This renewal also includes the modification done under Permit No. 2005-160-TV (M-1). The facility added a flour storage silo with fabric filters that vents inside the bakery building. The new silo is designated as "Flour Storage Bin No. 7" and has been a part of EUG 5 (Insignificant Activities).

SECTION II. FACILITY DESCRIPTION

Earthgrains Baking Companies, Inc., Oklahoma City Bakery makes bread and buns. There are three operations involved in the facility: flour storage and transfer system, bread making process and bun making process. The flour storage and transfer equipment includes flour storage bins, cyclone receivers, mechanical sifters, and feeders. They are located inside the bakery buildings and do not exhaust outside the bakery building. In addition, each piece of flour storage and transfer equipment is equipped with fabric breath bags which captures almost all (>99% efficiency) of the flour particulates.

The facility has a bread oven with maximum production of 13,398 pounds of bread per hour. Bread is made through two processes, a sponge-dough process and a straight-dough process. For the bread products that use the sponge-dough process, the ingredients are allowed to ferment after being mixed in the bread sponge mixer, and are then mixed with the remaining ingredients in one of the two bread dough mixers. For the bread products that use the straight-dough process, the ingredients are allowed to ferment after being mixed in one of the two bread dough mixers, and are then sent through the mechanical process. The mechanical process divides the dough, rounds the divided portions of dough, and molds the dough into metal pans. Panned dough is transferred to a proof box where the product is exposed to humidified conditions that allow the yeast to ferment and the dough to rise. Humidification of the proof box is provided by steam supplied by one of the two natural gas-fired boilers. Once the panned dough rises, the dough is transferred to the natural gas-fired bread oven for baking. The by-products from the natural gas combustion combined with the constituents created from the yeast fermentation and baking processes are exhausted through two exhaust stacks on the bread oven.

The facility has a bun oven with a maximum production of 5,646 pounds bun per hour. Buns are made by straight-dough process. The procedure is similar to the straight-dough process for making breads. The raised dough is transferred to the natural gas-fired bun oven for baking. The by-products from natural gas combustion combined with the constituents created from the yeast fermentation and baking processes are exhausted through two exhaust stacks on the bun oven.

The major pollutants emitted from bread and bun making are VOC in the form of ethanol as a by-product of the leavening process. Emissions of criteria pollutants arising from combustion are comparatively small from the natural gas-fired ovens.

SECTION III. EQUIPMENT

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) as outlined below:

EUG 1. Baking Ovens

EU ID#	Point ID#	Make/Model	MMBTUH	Serial #	Installed Date
EU-1	EP-01, EP-02	Baker Perkins 970	7.26	56223	1970
EU-2	EP-03, EP-04	Baker Perkins BP 935	5.1	54734	1986

EUG 2. Boilers

EU ID#	Point ID#	Description	Capacity, MMBTUH
5	5	Gas-fired boiler	4.25
6	6	Gas-fired boiler	4.25

EUG 3. Space Heaters

EU ID#	Point ID#	Description	Capacity, MMBTUH
--	--	27 Gas-fired boiler	0.10
--	--	4 Gas-fired heaters	0.55
--	--	5 Gas-fired heaters	1.10
--	--	2 Gas-fired heaters	2.53

EUG 4. Storage Tanks

EU ID#	Point ID#	EU Name/Model	Capacity, Gallons
7	7	Underground diesel storage tank	10,000

EUG 5. Insignificant Activities

EU ID#	Point ID#	EU Name/Model	Process Rates
9	9	Flour handling system	10,330 lb/hr; 45,248 TPY
11	11	Ink jet printers	517 gal/year ink
12	12	Flour Bin No. 7	12,000 lb/hr; 45,248 TPY

SECTION IV. EMISSIONS

Emission estimates reflect continuous operations (8,760 hr/yr) using emission factors as follow:

- The VOC emissions from the yeast fermentation are based on the EPA document “*Alternative Control Technology Document for Bakery Oven Emissions*” (EPA-453/R-92-017). Emission factors are determined by the following equation:

$$\text{VOC E.F.} = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$$

Where VOC E.F is pounds VOC per ton of baked bread (lb VOC/ton bread), Y_i is the initial baker’s percent of yeast, t_i is the total yeast action time in hours, S is the final (spike) baker’s percent of yeast, and t_s the spiking time in hours.

Each type of bread or bun has its emissions factor determined by Y_i , t_i , S or t_s . The VOC emissions from making each type of bread or bun are calculated as follow:

$$\text{VOC} = \text{VOC E.F.} \times \text{BP}$$

Where BP is bread or bun production in tons. The total VOC emissions from the plant are the sum of emissions from the making of each type of bread or bun. To estimate the potential emissions of VOCs, the average VOC emission factor for bread or bun ovens on the yearly basis is used because the average value represents the production pattern of the facility. The potential emissions of VOC are based on the average emission factor (1998) and the maximum design production capacity.

- Estimated emissions from ovens, boilers and space heaters are based on the emission factors from AP-42 (7/98), Tables 1.4-1 and 1.4-2.
- Emissions from the ink jet printing are based on an annual ink usage of 517 gallons and a maximum VOC content of 7.26 lb/gal.

- Emissions from the flour handling operation are based on AP-42 (4/03), Section 9.9.1 (0.025 lb/ton).
- Emissions from the new flour silo are based on manufacturer data of 0.02 lb/ton PM.

Emissions from Yeast Fermentation

Point ID#	VOC		
	lb/ton of baked product	lb/hr	TPY
Bread Oven (EU-1)	5.37	35.97	157.57
Bun Oven (EU-2)	6.63	18.72	81.98
Subtotal	---	54.69	239.55

Emissions from Combustion Process of the Ovens, Boilers and Heaters

Point ID#	NO _x		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Bread Oven (EU-1)	0.66	2.89	0.55	2.43	0.036	0.16
Bun Oven (EU-2)	0.46	2.03	0.39	1.71	0.026	0.11
Boiler 1	0.39	1.69	0.32	1.42	0.021	0.093
Boiler 2	0.39	1.69	0.32	1.42	0.021	0.093
Space Heaters	1.41	6.16	1.18	5.17	0.077	0.34
Subtotal	3.31	14.46	2.76	12.15	0.18	0.80

Emissions from Printing

Point ID#	VOC		
	Process Rates	lb/hr	TPY
Ink Jet Printer (EU-11)	7.26 lb/gal – 517 gal/yr	---	1.88

Emissions from Flour Handling

Point ID#	PM		
	Process Rates	lb/hr	TPY
Flour Handling (EU-9)	10,330 lb/hr; 45,248 TPY	0.13	0.57
Flour Handling (EU-12)	12,000 lb/hr; 45,248 TPY	0.12	0.45
Subtotal		0.25	1.02

Total Emissions

Point ID#	NO _x		CO		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Combustion process	3.31	14.46	2.76	12.15	0.18	0.80	--	--
Yeast Fermentation	--	--	--	--	54.69	239.55	--	--
Flour Handling	--	--	--	--	--	--	0.25	1.02
Printing	--	--	--	--	--	1.88	--	--
Totals	3.31	14.46	2.76	12.15	54.87	241.23	0.25	1.02

The VOCs from the yeast fermentation is in the form of ethanol (CAS# 64175) which is not a Hazardous Air Pollutant (HAP). The primary HAP of concern is formaldehyde. Total natural

gas combustion is 15.43 MMBTUH. AP-42 (7/98), Section 1.4 shows formaldehyde emissions from natural gas fired heaters of 0.075 lb/MMSCF for annual formaldehyde emissions of 0.05 TPY. At this emission level, the facility is a minor source of HAPs.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application and listed in OAC 252:100-8, Appendix I, are listed below. Recordkeeping for activities indicated with “*” is listed in the Specific Conditions.

1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). Twenty seven (27) 0.1 MMBTUH heaters, four (4) 0.55 MMBTUH heaters, five (5) 1.1 MMBTUH heaters, two (2) 2.53 MMBTUH heaters and two (2) 4.25 MMBTUH boilers are on-site.
2. Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. There is one 10,000 gallon diesel storage tank at the site.
3. Cold degreasing operations utilizing Safety-Kleen Premium Solvent that is denser than air. There are two cold solvent cleaners.
4. *Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Potential to emit of flour particulates from the flour storage and transfer system is estimated to be 1.02 tons per year.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. At this time, all of Oklahoma is in “attainment” of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories were submitted and fees paid for previous years as required.

OAC 252:100-8 (Operating Permits (Part 70))

[Applicable]

This facility meets the definition of a major source since it has the potential to emit regulated pollutants in excess of 100 TPY. As such, a Title V (Part 70) operating permit is required. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant,
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emission limitations and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the previous operating permit, the permit application, or developed from the applicable requirement. The bread oven was installed in 1970 and is a grandfathered unit. The bun oven was installed in 1986 and the potential to emit of VOC is 81.98 tons per year. Because the added emissions in 1986 are less than 100 TPY, BACT analysis is not required for the bun oven. No emission control equipment is required. A plant wide emission limit for VOC emissions (TPY) was established for the yeast fermentation process of the bread oven and the bun oven by the initial Title V operating permit.

OAC 252:100-9 (Excess Emission Reporting Requirements)

[Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning)

[Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter)

[Applicable]

This subchapter specifies a particulate matter (PM) emissions limitation of 0.60 lb/MMBTU from fuel-burning equipment with a rated heat input of less than or equal to 10 MMBTUH. AP-42, Table 1.4-2 (7/98), lists the total PM emissions for natural gas fired boilers to be 7.6 lb/MMft³ or about 0.0076 lb/MMBTU. The permit requires the use of natural gas to ensure compliance with Subchapter 19.

This subchapter also specifies the allowable rate of emissions for an industrial process. At the maximum design production capacity, the facility would handle approximately 22,330 pound per hour of flour. The allowable emission rate at this process weight is 20.65 lb/hr. The potential emissions of flour particulates from the flour storage and transfer system are estimated to be 0.25 lb/hr, which is in compliance with this subchapter.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When using natural gas as a fuel for boilers and heaters there is very little possibility of exceeding the opacity standards. The flour storage and transfer equipment are located in the buildings and will not cause visible emissions.

OAC 252:100-29 (Fugitive Dust) [Applicable]

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the use of gaseous fuel with sulfur content less than 343 ppmv to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]

This subchapter limits NO_x emissions from new fuel-burning equipment with a rated heat input greater than 50 MMBTUH. All fuel burning equipment is smaller than the 50 MMBTUH threshold.

OAC 252:100-37 (Volatile Organic Compounds) [Part 7 Applicable]

Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The diesel fuel tank has a vapor pressure of 0.01 psia, therefore these requirements are not applicable.

Part 5 limits the VOC content of coating used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.

Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize emissions. Temperature and available air must be sufficient to provide essentially complete combustion.

OAC 252:100-39 (VOC in Nonattainment and Former Nonattainment Areas) [Not Applicable]
This subchapter imposes additional conditions beyond those of Subchapter 37 on emissions of organic materials from new and existing facilities in Tulsa and Oklahoma Counties. None of the types of operations regulated by Subchapter 39 are conducted at this facility.

Part 3 covers Petroleum Refinery Operations.

Part 5 covers Petroleum Processing and Storage.

Part 7 covers Specific Operations.

Section 42 concerns metal cleaning.

Section 43 covers graphic arts systems, specifically flexographic printing, roll printing, and various types of rotogravure printing.

Section 44 (Pneumatic rubber tires) applies only in Oklahoma County.

Section 45 (Petroleum dry cleaning) applies only in Tulsa County.

Section 46 (Coating of parts and products) applies only in Tulsa County.

Section 47 (Aerospace industries coating operations) applies only in Tulsa County.

Ink jet printing is not among the categories regulated by Section 43.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility:

OAC 252:100-11	Alternative Reduction	not eligible
OAC 252:100-15	Mobile Sources	not in source category
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Feed & Grain Facility	not in source category
OAC 252:100-47	Landfills	not type of emission unit

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
 Final total emissions are less than the threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with an emission threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Not Applicable]
Subpart Dc (Industrial-Commercial-Institutional Steam Generating Unit) is applicable to steam generating units constructed after June 9, 1989, and which have a heat input capacity of 10 MMBTUH or more. All heaters are smaller than the 10 MMBTUH threshold.
Subpart Kb (VOL Storage Vessels) The diesel tank is below the 19,813-gallon threshold for this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]
 There are no emissions of any of the regulated pollutants: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides, or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, concerns only process streams that contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63 [Not Applicable]
Subpart DDDDD (Industrial-Commercial-Institutional Boilers and Process Heaters) Subpart DDDDD was promulgated on September 13, 2004. This subpart affects major sources of HAPs. This facility is a minor source of HAPs.

CAM, 40 CFR Part 64 [Not Applicable]
 Compliance Assurance Monitoring (CAM) as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY

None of the emission units uses an add-on control device to achieve compliance with the applicable emission limits except for the two flour silos, whose filters are intrinsic to operation of the silos, therefore, 40 CFR Part 64 does not apply.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This facility does not store any regulated substance above the applicable threshold limits. More information on this federal program is available at the web site: <http://www.epa.gov/ceppo/>.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations that meet phase out requirements and that maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals that are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

This facility does not utilize any Class I & II substances.

SECTION VIII. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be Tier II based on the request for an operating permit renewal for an existing major source. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the property. Information on all permit actions is available for review by the public on the Air Quality section of the DEQ web page at: www.deq.state.ok.us.

The applicant published the "Notice of Filing a Tier II Application" and the "Notice of Filing a Tier II Draft Permit" in "*The Oklahoman*", a local daily newspaper in the city of Oklahoma City, Oklahoma on September 16, 2010, and September 29, 2010, respectively. The notices stated that a copy of the notice of filing of the application and the draft permit were available for public review at the Oklahoma City Bakery, 1916 North Broadway Avenue, Oklahoma City, OK

73103, and at the Air Quality Division's Main Office in Oklahoma City, Oklahoma, to provide a 30-day public review opportunity. This permit was then sent as "proposed" to the EPA Region VI for a 45-day review. No comments were received from the public or the EPA.

This site is not located within 50 miles of the Oklahoma border with another state. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web Page: www.deq.state.ok.us.

Inspection

A full compliance evaluation (FCE) inspection was conducted on October 20, 2008. The inspection was conducted by Sean Walker, Jeff Dye, Neil Kellogg, and Zachary Crowell, Environmental Programs Specialists of the Air Quality Division. Gene Merz, Engineering Manager/Environmental Coordinator, Earthgrains Baking Company represented the facility. Based on information provided during the evaluation no violations were identified at the facility.

Fees Paid

Part 70 source permit renewal fee of \$1,000.

SECTION IX. SUMMARY

The applicant has demonstrated compliance with all applicable Air Quality rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues. Issuance of the permit is recommended.

**PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

**Earthgrains Rainbo Baking Division
Oklahoma City Bakery**

Permit Number 2010-332-TVR2

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on August 5, 2010. The Evaluation Memorandum dated January 7, 2011, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating permit limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Points of emissions and emissions limitations for each point: [OAC 252:100-8-6(a)]

EUG 1. Baking Ovens

EU ID#	Point ID#	Make/Model	MMBTUH	Serial #	Installed Date
EU-1	EP-01, EP-02	Baker Perkins 970	7.26	56223	1970
EU-2	EP-03, EP-04	Baker Perkins BP 935	5.1	54734	1986

- (a) Combined VOC emissions from the yeast fermentation of bread oven (EU-1) and bun oven (EU-2) shall be no greater than 240 TPY based on a rolling 12-month total.
- (b) The monthly VOC emissions from the yeast fermentation shall be determined using the following equation:

$$\text{VOC (TPY)} = \text{VOC E.F.} \times \text{BP}$$

$$\text{VOC E.F.} = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$$

Where VOC E.F. is pounds of VOC per ton of baked bread, Y_i is initial baker's percent of yeast, t_i is the total yeast action time in hours, S is the final (spike) baker's percent of yeast and t_s is the spiking time in hours. BP is bread or bun production in tons.

Total VOC emissions are the sum of the VOC emissions from each type of bakery product making process.

- (c) An alternative method approved by Air Quality Division may be used.

EUG 2. Boilers The following emissions units are considered insignificant since emissions are less than 5 TPY of any pollutant.

EU ID#	Point ID#	Description	Capacity, MMBTUH
5	5	Gas-fired boiler	4.25
6	6	Gas-fired boiler	4.25

EUG 3. Space Heaters The following emissions units are considered insignificant since emissions are less than 5 TPY of any pollutant.

EU ID#	Point ID#	Description	Capacity, MMBTUH
--	--	27 Gas-fired boiler	0.10
--	--	4 Gas-fired heaters	0.55
--	--	5 Gas-fired heaters	1.1
--	--	2 Gas-fired heaters	2.53

EUG 4. Storage Tanks The following emissions unit is considered insignificant since emissions are less than 5 TPY of any pollutant.

EU ID#	Point ID#	EU Name/Model	Capacity, Gallons
7	7	Underground diesel storage tank	10,000

EUG 5. Insignificant Activities The following emissions units are considered insignificant since emissions are less than 5 TPY of any pollutant.

EU ID#	Point ID#	EU Name/Model	Process Rates
9	9	Flour handling system	10,330 lb/hr; 45,248 TPY
11	11	Ink jet printers	517 gal/year ink
12	12	Flour Bin No. 7	12,000 lb/hr; 45,248 TPY

2. The fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once annually. [OAC 252:100-31]
3. Each oven at the facility shall have a permanent identification plate attached which shows the make, model number, and serial number. [OAC 252:100-43]
4. The permittee shall be authorized to operate the facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
5. The following records shall be maintained on-site to verify insignificant activities. [OAC 252:100-43]
 - (a) For storage tanks containing volatile organic liquids with vapor pressures less than 1.5 psia and having capacities less than 39,894 gallons: capacity of the tanks, and contents.
 - (b) Printing ink usage and solvent content.
 - (c) For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: type of activity and the amount of emissions from that activity (cumulative annual).

6. The permittee shall maintain the following records of operations. These records shall be maintained on-site or at a local field office at least five years after the date of recording and shall be provided to regulatory personal upon request. [OAC 252:100-8-6(a)(3)(B)]

- (a) Type of bakery product (formula number), initial baker's percent of yeast (Yi), total yeast action time in hours (ti), final (spike) baker's percent yeast (S), spiking time in hours (ts),
- (b) VOC emission factor for each type of bakery product,
- (c) Bread or bun production rate (tons) for each type of bakery product,
- (d) VOC emissions from for each type of bakery product (monthly) or each period,
- (e) Total VOC emissions from the plant (tpy) based on a rolling 12-month total, and
- (f) For the fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 2.

7. No later than 30 days after each anniversary date of the issuance of the initial Title V operating permit (February 7, 2001), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]

8. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility.[OAC 252:100-8-6(d)(2)]

- (a) OAC 252:100-11 Alternative Emissions Reduction
- (b) OAC 252:100-15 Mobile Sources
- (c) OAC 252:100-23 Cotton Gins
- (d) OAC 252:100-24 Grain Elevators
- (e) OAC 252:100-47 Landfills

9. This permit supersedes all previously issued Air Quality permits to this facility, which are now null and void.

Earthgrains Rainbo Baking Division
Attn: Mr. Jamie Wellner, EH&S Manager
1916 North Broadway Avenue
Oklahoma City, OK 73103-4408

Re: Permit Application **No. 2010-332-TV2**
Oklahoma City Bakery
Oklahoma County, Oklahoma

Dear Mr. Wellner:

Enclosed is the permit authorizing operation of the referenced facility. Please note that this permit is issued subject to the certain standards and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact the permit writer at (405) 702-4100.

Sincerely,

Phillip Fielder, P.E.
Permits & Engineering Group Manager
AIR QUALITY DIVISION

Enclosure



PART 70 PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON STREET, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2010-332-TVR2

Earthgrains Rainbo Baking Division

having complied with the requirements of the law, is hereby granted permission to operate a commercial bakery at 1916 N. Broadway, Oklahoma City, Oklahoma, subject to standard conditions dated July 21, 2009 and specific conditions, both attached.

This permit shall expire five (5) years from the date below, except as authorized under Section VIII of the Standard Conditions.

Division Director, Air Quality Division

Issuance Date

**MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(July 21, 2009)**

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

- (1) the date, place and time of sampling or measurement;
- (2) the date or dates analyses were performed;
- (3) the company or entity which performed the analyses;
- (4) the analytical techniques or methods used;
- (5) the results of such analyses; and
- (6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report.

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

[OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

[OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants

(“NESHAPs”) under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer’s instructions and in accordance with a protocol meeting the requirements of the “AQD Portable Analyzer Guidance” document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM₁₀). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting

period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification.

[OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit.

[OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit.

[OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.

[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:

[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

- (1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
- (2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
- (4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d).

[OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a “grandfathered source,” as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited.

[OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(18) for confidential information submitted to or obtained by the DEQ under this section):

- (1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that: [OAC 252:100-8-6 (e)(2)]

- (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
- (2) the permitted facility was at the time being properly operated;
- (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

- (1) 5 tons per year of any one criteria pollutant.
- (2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

- (1) result in no net emissions increases,
- (2) are not modifications under any provision of Title I of the federal Clean Air Act, and

- (3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]

- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

- (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
- (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
- (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant

must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]



AIR EMISSIONS INVENTORY TRENDS

Air Quality Division, Dept. of Environmental Quality, PO Box 1677, OKC, OK 73101-1677, (405) 702-4100



Company Name: EARTHGRAINS BAKING CO INC

461 RAINBO BAKING DIV

Inventory Year	Pollutant	Amount (Tons)	CAS
2010			
	* Carbon Monoxide	2.076	630080
	* Nitrogen Oxides - NOx	2.471	
	* PM-10 (All Particulate Matter <10 microns)	0.717	
	* PM-2.5 (All Particulate Matter <2.5 microns)	0.189	
	* Sulfur Oxides - SOx	0.013	
	* Volatile Organics (non-HAP)	161.786	
	Benzene	0	71432
	Ethylene glycol	0.007	107211
	Formaldehyde	0	50000
	Glycol ethers	0.007	
	Hexane	0.045	110543
	Methanol	0.855	67561
	Toluene	0	108883

APPENDIX I
SITE PHOTOGRAPHS



Troop Command Building Hallway



Troop Command Building Heating Units



Troop Command Building Circuit Boards



Troop Command Building Water Damaged Wall



Troop Command Building Ceiling



Broken Nine-Inch Tile in Troop Command Building



Break-Room in Troop Command Building



Water Damage & Mold in Band Rehearsal Building



More Water damage in Band Rehearsal Building



Water-Damaged Carpet in Band Rehearsal Building



Wall Suspect for Asbestos in Band Rehearsal Building



Attic of the Band Rehearsal Building



Suspect Roofing Material in Band Rehearsal Building



Suspect Asbestos in Wall of Band Rehearsal Building



Close-up of Suspect Asbestos Wall



Water Damage Inside the Band Rehearsal Building Restroom



Band Rehearsal Building Restroom



Additional View of Inside the Band Rehearsal Building



Band Rehearsal Room Stage



Damaged Tile in Band Rehearsal Building



Inside of Roof of Band Rehearsal Building



Storm Water Drain South of Auto Maintenance Building



Outside of 700th Battalion Building



Outside View of the Troop Command Building



Outside View of the Troop Command Building



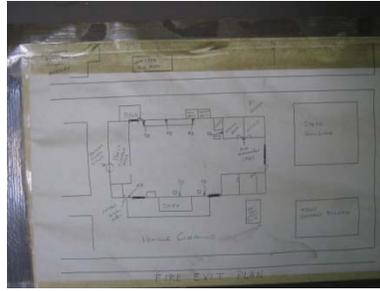
Suspect Asbestos on Inside of Roof of the Band Rehearsal Building



Inside the Auto Maintenance Building



Suspect Lead-based Paint Inside Auto Maintenance Building



Auto Maintenance Building Floor Plan



Suspect Lead-Based Paint Inside Auto Maintenance Building



Ceiling Panels Inside the Auto Maintenance Building



Tool Room Floor of the Auto Maintenance Building



Inside of Tool Room Where Vehicle Batteries Were Stored



Suspect Lead-Based Paint Inside the Auto Maintenance Building



Safe Door Inside Auto Maintenance Building



Damaged Dry Wall and Insulation Inside the Auto Maintenance Building



Suspect Lead-Based Paint in Auto Maintenance Building



Tool Room Safe Door in Auto Maintenance Building



Suspect Lead-Based Paint in Auto Maintenance Building



Outside View of Auto Maintenance Building



Outside View of Auto Maintenance Building



API Oil Water Separator South of Auto Maintenance Building



Outside View of Auto Maintenance Building



Inside of 700th Battalion Building



Bare Floor Inside a Room of the 700th Battalion Building



Damaged Walls Inside the 700th Battalion Building



Water-Damaged Ceiling Inside the 700th Battalion Building



Damaged Tile Inside the 700th Battalion Building



Peeling Paint Inside the 700th Battalion Building



Safe Door Inside the 700th Battalion Building



East View of the Auto Maintenance Building



Outside of the Armory



Ceiling Panel Missing Near Entrance of Armory



Nine-Inch Floor Tile Near the Entrance of the Armory



Door of Armory Room 325



Hallway Surface of Armory



Heating Unit of Armory



Suspect Asbestos in Window Frame of Armory



Elevator Doors in Armory



Safe Door in Armory



Destroyed Tiles Near Latrines of Armory



Nine-Inch Floor Tile Inside the Armory



Ceiling of Armory



Drill Floor of Armory



Drill Floor of Armory



Safe Doors in Armory



Latrine in the Armory



Damage Floor Tile Inside the Armory



One of the Rooms in the Armory



Office Inside the Armory



Classroom Inside the Armory



Utility Room Inside the Armory



Maintenance Room Inside the Armory



Suspect Lead-Based Paint in Armory Drill Floor



Safe-Doors Inside the Armory



TSI Inside Garage H



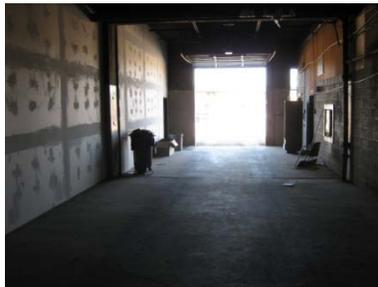
TSI Inside Garage H



TSI Inside Garage H



Utility Room Inside Armory



TSI Inside Garage G



TSI Inside Garage G



TSI Inside Garage G



TSI Inside Garage H



TSI Inside Garage H



One of the Garage Doors in Armory



Kitchen Area in Armory



Gas Canisters In the Kitchen Located in Garage #



Part of Kitchen Floor



Armory Kitchen With Grease Drain Covered With a Plastic Lid



Garage F



Elevator Doors in Armory



TSI in Garage H



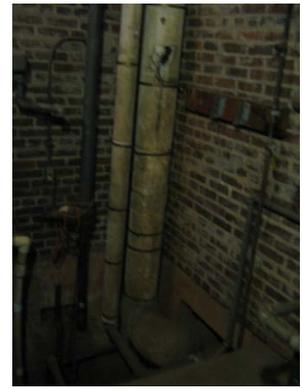
TSI in Garage H



Boiler & TSI in Garage G



Boiler & TSI in Garage G



TSI in Room 103



TSI in Room 103



TSI in Room 103



TSI in Room 103



Former IFR



Former IFR



Storage Room Inside IFR



Garage Inside Armory



Garage Inside Armory



Room North of the Former IFR



Drill Floor of Armory



Drill Floor of Armory



**Suspect Lead-Based Paint in Drill
--**



Ceiling of Armory Drill Floor



Southeast View of Armory



Southeast View of Armory



Armory Property



Armory Property



Front Outside View of Armory



TSI Near Garages C & D



TSI Near Garages C & D



One of the Garages with Suspect Lead-Based Paint



Office with Damaged Tile Inside Armory



One of the Garages with TSI Inside the Armory



TSI in Garage G



TSI in Garage G



Former IFR with TSI



Former IFR with TSI



TSI Inside Former IFR



Storage Room Within the IFR



Suspect Asbestos in Window Frame



Suspect Asbestos in Between Windows in Armory



Drill Floor Inside Armory



Safe Door Inside Armory



Outside Damaged Door at Armory



API Oil Water Separator



VOC, SVOC, & Metals Samples on West Side of Sump



VOC, SVOC, & Metals Samples on East Side of Sump



VOC, SVOC, & Metals Samples on West Side of Sump



VOC, SVOC, & Metals Samples on West Side of Sump



VOC, SVOC, & Metals Samples from API Oil Water Separator



API Oil Water Separator with Samples

APPENDIX J

OKC 23RD STREET NATIONAL GUARD ARMORY

FLOOR PLAN & SITE VISIT NOTES

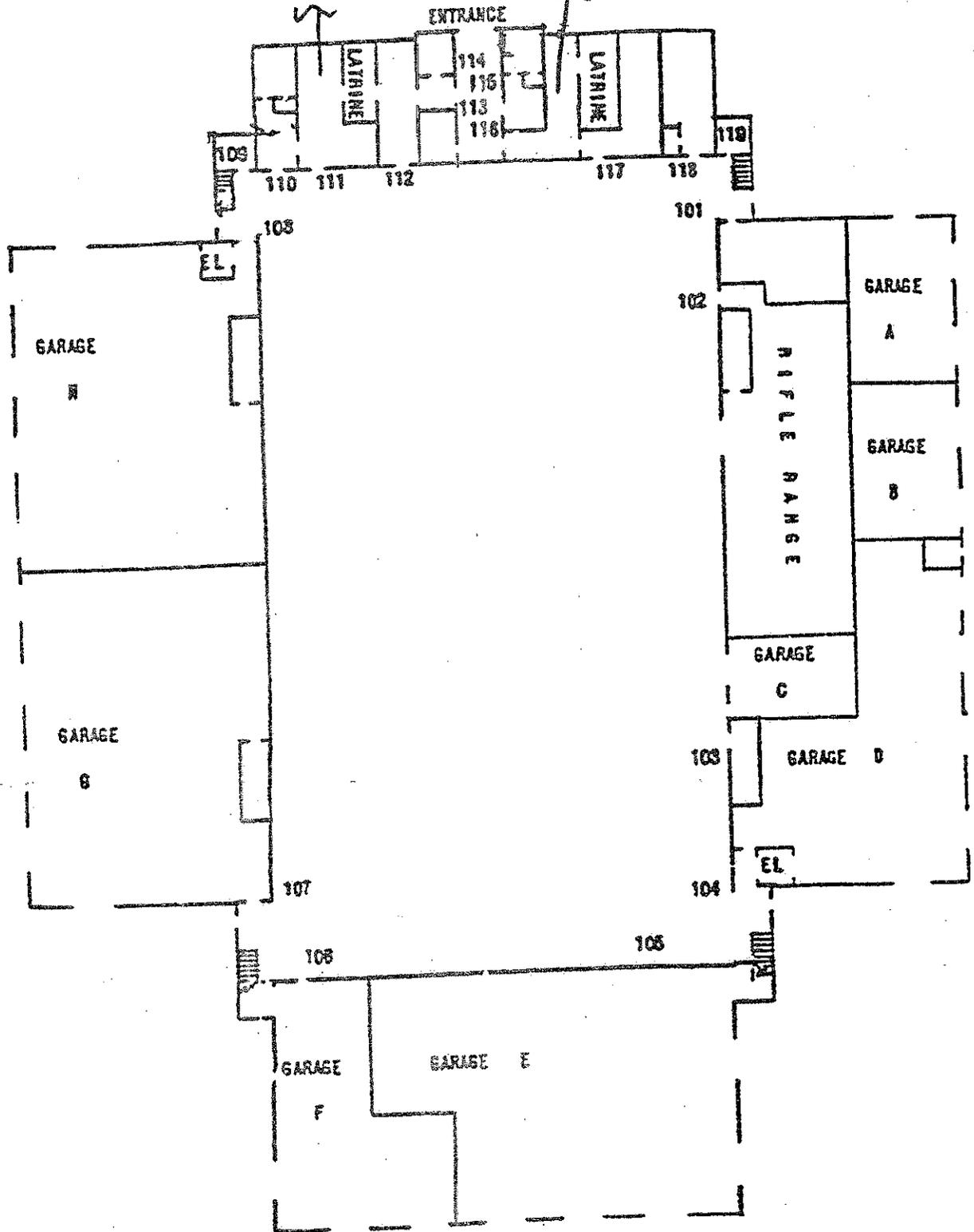
23RD ST. ARMORY
OKLAHOMA CITY, OK

FIRST FLOOR

Scale 1" = 40'

BMMO

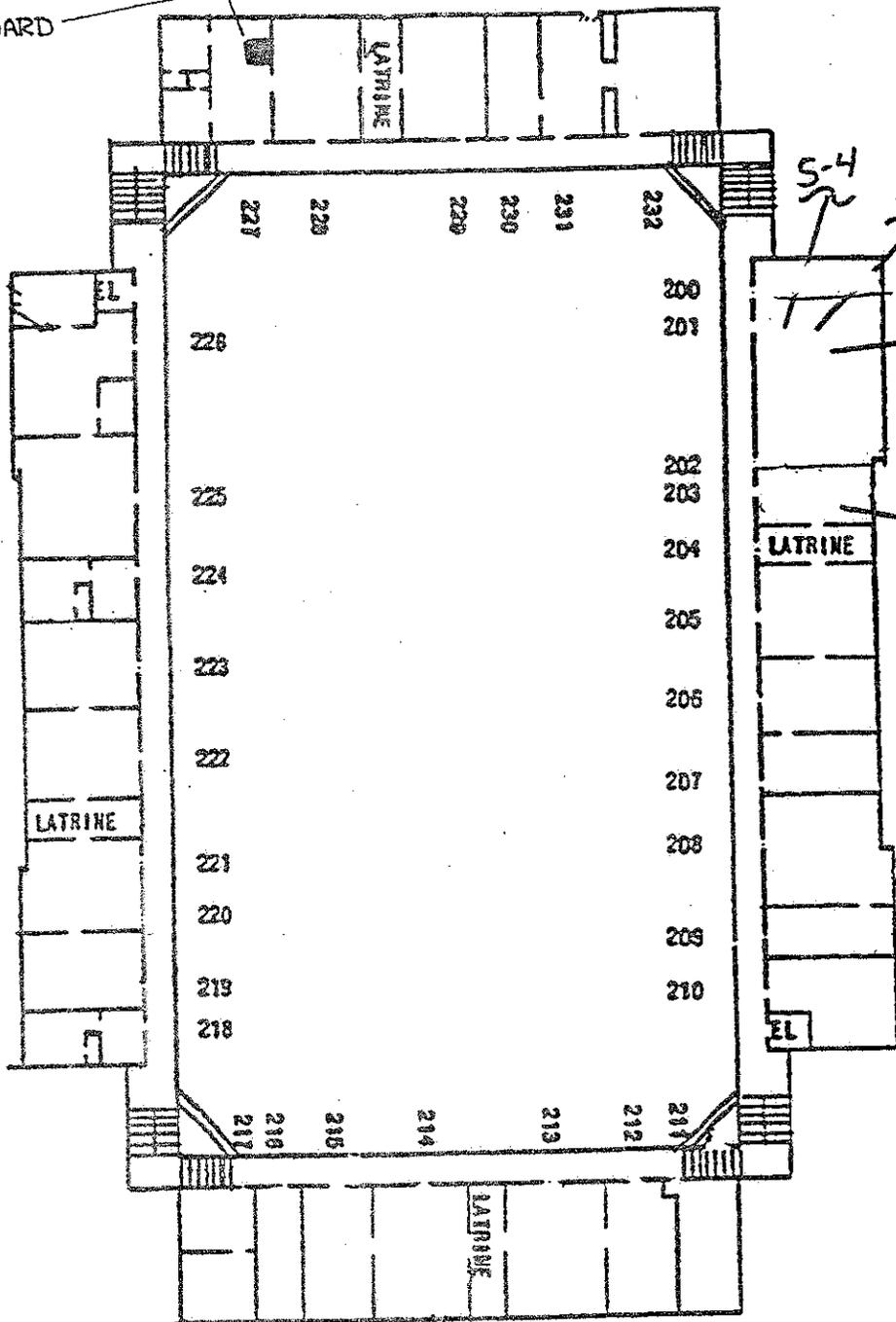
BMMC



SECOND FLOOR
23RD ST. ARMORY
OKLAHOMA CITY, OK

Scale 1" = 40'

SWITCHBOARD



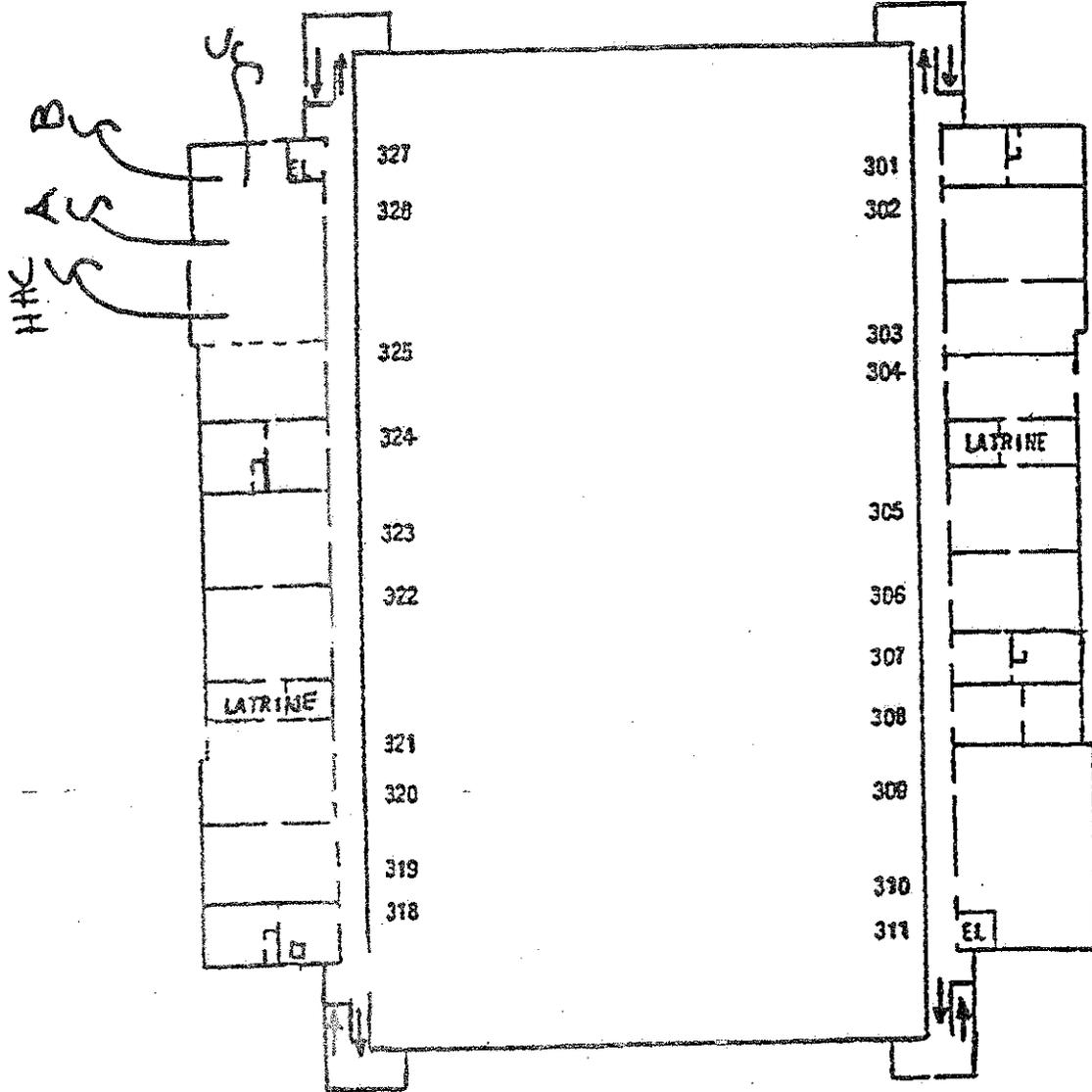
S-4
S-2
S-1

BDE
S-1/4



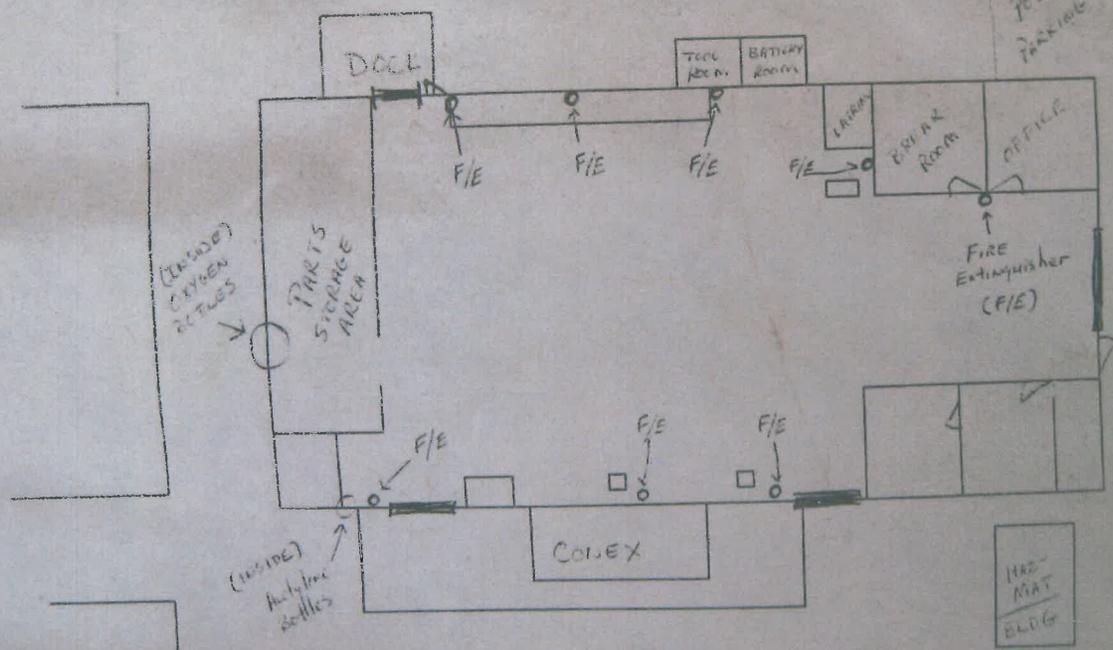
THIRD FLOOR
23RD ST. ARMORY
OKLAHOMA CITY, OK

Scale 1" = 40'



OKLAHOMA
ARMY NATL
GUARD
ARMORY

PARKER
PUB BLDG



VEHICLE COMPOUND

FIRE EXIT PLAN

23RD ST. ARMORY
OKLAHOMA CITY, OK

FIRST FLOOR

Scale 1" = 40'

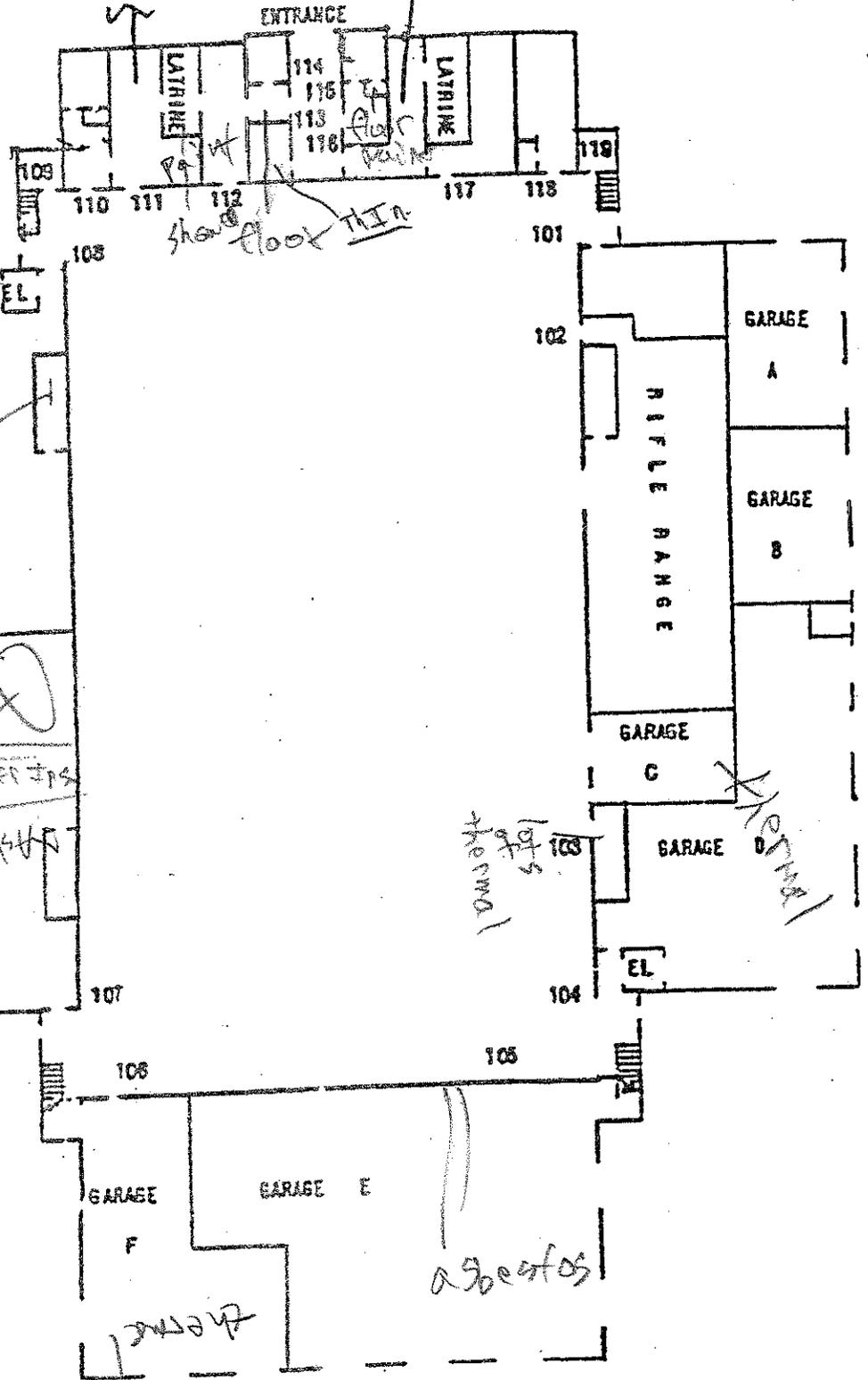
classrooms
2205 N. central
2-trans near dumpster
2-trans near band

BMMO

BMMC



Tooth
Supply
Best of all



Thermal

Asbestos

down for 10 days

Thermal

Asbestos

Thermal

Garage
Door
peeled
Paint
Window
Seals

Asbestos

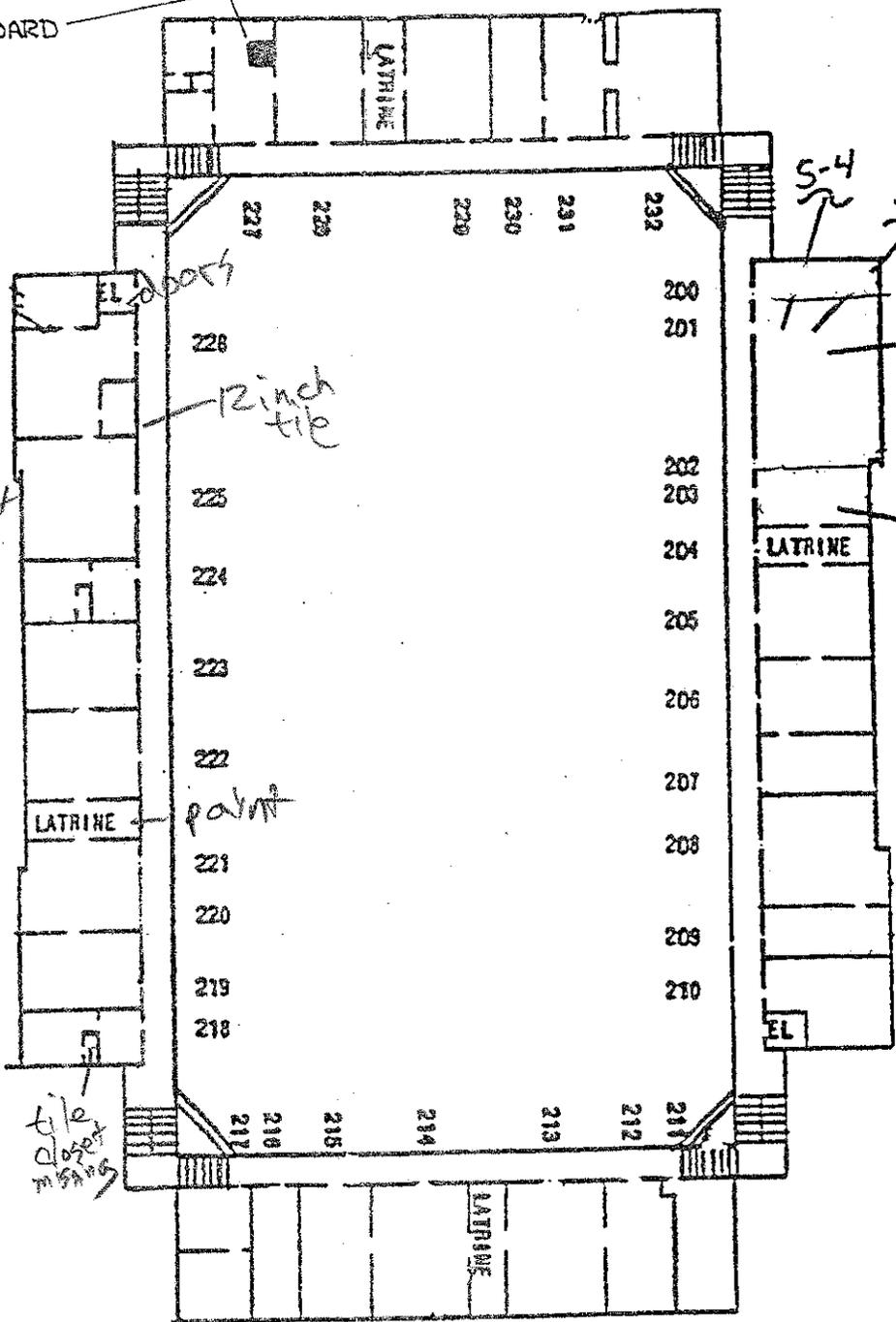
SECOND FLOOR
23RD ST. ARMORY
OKLAHOMA CITY, OK

Scale 1" = 40'



SWITCHBOARD

Repair shop
drain - 1,1 eastward
12 inch tile
doors - paint
IHVAC

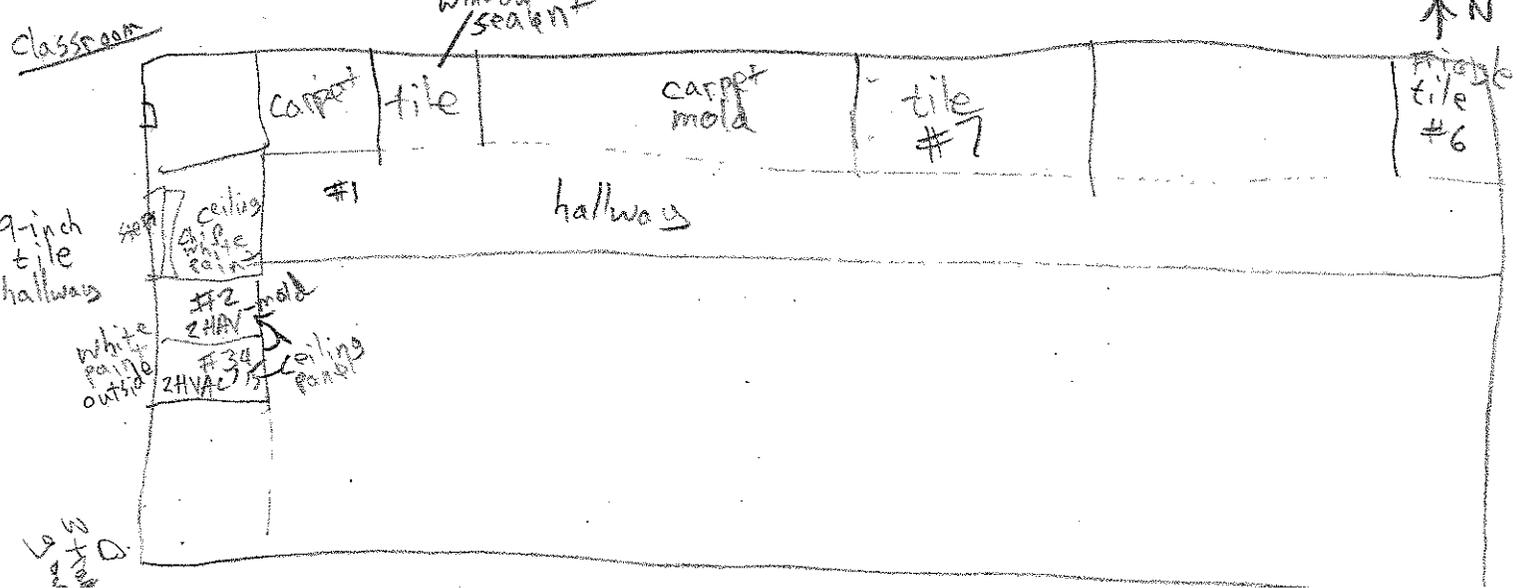
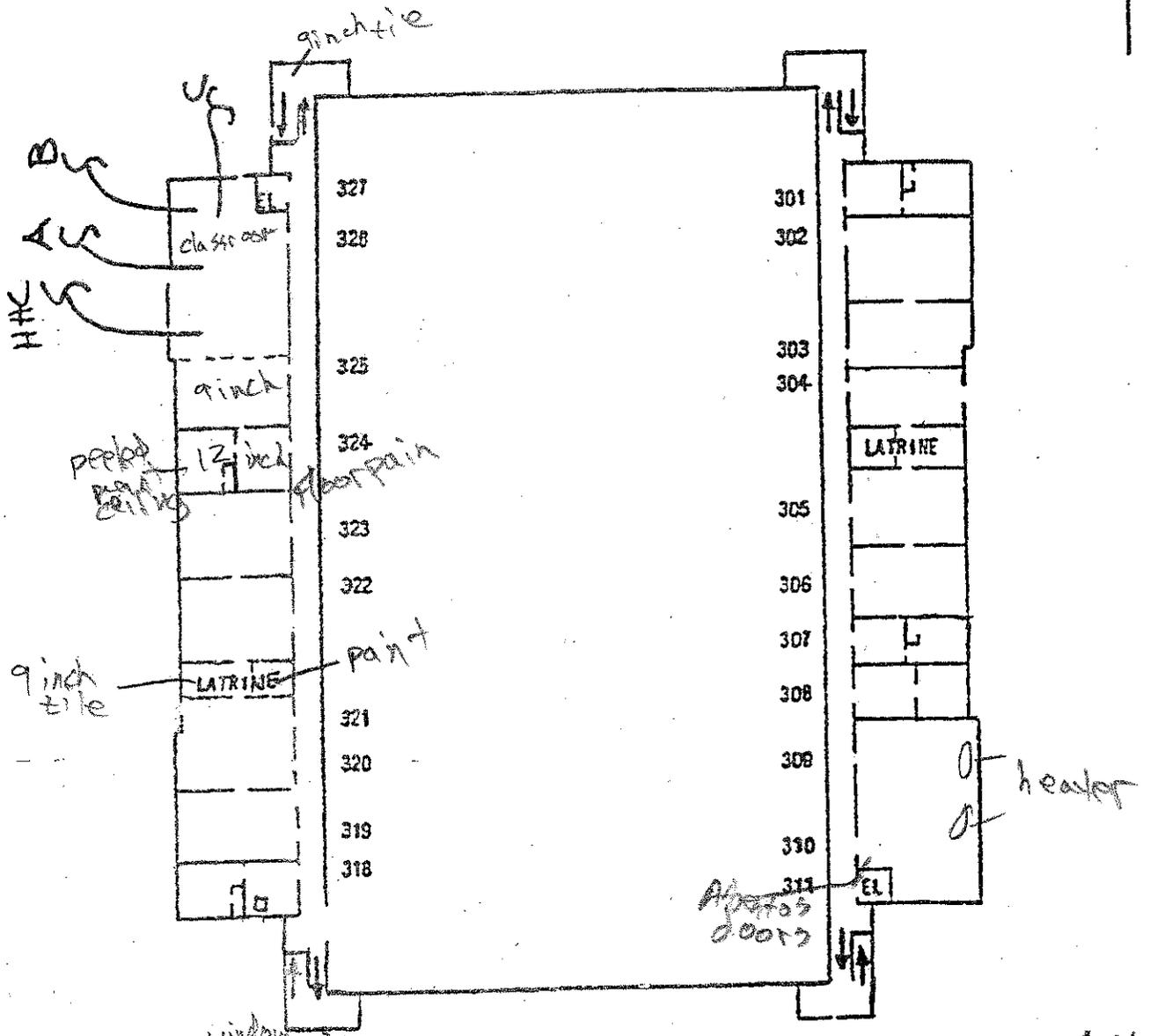


tank gone in back

band room - Mold - Big!
12 inch tile
tile s missing insulation hanging
latrine heavily damaged
HVAC unit
water heater
trans - S-2 - good

THIRD FLOOR
 23RD ST. ARMORY
 OKLAHOMA CITY, OK

Scale 1" = 40'



APPENDIX K
RCRA NOTIFIERS

RCRA NOTIFIERS LISTING
 Source: USEPA RCRAInfo Database

State of: OKLAHOMA

EPA-ID	FACILITY NAME	LOCATION ADDRESS	CITY	ZIP	COUNTY/ PARISH	S T L			G G R O O A			RECEIVED DATE	
						N	N	N	E	A	OPER		W
OKD982560211	OKLA ARMY NATL GUARD #1 Contact: FLOYD MCGEEHEE	200 NE 23RD ST Mailing Adrs: 200 NE 23RD ST, OKLAHOMA CITY, OK 73105	OKLAHOMA CITY	73105	OKLAHOMA	3				S			11/10/88 Phone: 4055259402
OKR000019257	OKLA CITY PORTLAND MAINT SHOP, Contact: PAT H MORRIS	3738 SW 15TH ST Mailing Adrs: 115 N SHARTEL, OKLAHOMA CITY, OK 73102	OKLAHOMA CITY	73108	OKLAHOMA	2					M	M	P 04/02/10 Phone: 4052973925
OKD980795900	OKLA DEPT HUMAN SVCS Contact: LYLE COIT	940 NE 13TH Mailing Adrs: BOX 26307, OKLAHOMA CITY, OK 73126	OKLAHOMA CITY	73105	OKLAHOMA	6				P			01/11/82 Phone: 4052714518
OKD021917190	OKLA DEQ CUSTOMER SERVICE DIVI Contact: JUDITH DUNCAN	707 N ROBINSON Mailing Adrs: PO BOX 1677, OKLAHOMA CITY, OK 73101	OKLAHOMA CITY	73102	OKLAHOMA	2				S			04/09/99 Phone: 4027021000
OKD982562993	OKLA DOT Contact: ERNEST CANTRELL	2100 N WALNUT Mailing Adrs: 2100 N WALNUT, OKLAHOMA CITY, OK 73105	OKLAHOMA CITY	73105	OKLAHOMA	2				S			02/13/89 Phone: 4055212614
OKD987098001	OKLA DOT Contact: SUSAN LEVERITT	200 NE 21ST-MATERIALS DIV Mailing Adrs: 200 NE 21ST-MATERIALS DIVISION, OKLAHOMA CITY, OK 73105	OKLAHOMA CITY	73105	OKLAHOMA	3				S			06/22/93 Phone: 4055212677
OKD981915655	OKLA VO-TECH FRANCIS TUTTLE Contact: JARROD MOSER	12777 N ROCKWELL Mailing Adrs: 12777 N ROCKWELL, OKLAHOMA CITY, OK 73142	OKLAHOMA CITY	73142	OKLAHOMA	3				S	S		03/15/07 Phone: 4057174232
OKD981154487	OKLAHOMA AGRICULTURE LABORATOR Contact: SUE CANNON	2800 N LINCOLN BLVD Mailing Adrs: 2800 N LINCOLN BLVD, OKLAHOMA CITY, OK 73105	OKLAHOMA CITY	73105	OKLAHOMA					S			03/05/86 Phone: 4055213864
OKD000763458	OKLAHOMA BATTERY RECYCLING COM Contact: KEITH-R FEILMEIER	3804 NW 8TH STREET Mailing Adrs: 3804 NW 8TH STREET, OKLAHOMA CITY, OK 73102	OKLAHOMA CITY	73102	OKLAHOMA	7				P			08/18/80 Phone:
OKD982284366	OKLAHOMA CITY - LINCOLN PARK G Contact: UC FERGUSON	4001 NE GRAND BLVD Mailing Adrs: 4001 NE GRANO BLVD, OKLAHOMA CITY, OK 73111	OKLAHOMA CITY	73111	OKLAHOMA	7					M	O	04/08/96 Phone: 4054241421
OKD053715611	OKLAHOMA CITY CLINIC Contact: ENVIRONMENTAL CONTACT	701 NE 10TH Mailing Adrs: 701 NE 10TH, OKLAHOMA CITY, OK 73104	OKLAHOMA CITY	73104	OKLAHOMA						P	O	04/09/86 Phone: 4052712905
OKD987097771	OKLAHOMA CITY CLINIC-NORTHWEST Contact: EDDIE ROSS	1524 NW 122ND Mailing Adrs: 1524 NW 122ND, OKLAHOMA CITY, OK 73114	OKLAHOMA CITY	73114	OKLAHOMA	3				P			06/08/93 Phone: 4052712905
OKD981903875	OKLAHOMA CITY COUNTY HEALTH DE Contact: CHRIS ARMSTRONG	921 NE 23RD ST. Mailing Adrs: 921 NE 23RD ST., OKLAHOMA CITY, OK 73105	OKLAHOMA CITY	73105	OKLAHOMA	3					C		02/12/87 Phone: 4054278651
OKD065443459	OKLAHOMA CITY DISPOSAL INC Contact: PETER DUNLAP	7701 N CLASSEN Mailing Adrs: 35 FLOOR 60 STATE STREET, BOSTON, MA 02109	OKLAHOMA CITY	73116	OKLAHOMA	6							08/18/80 Phone: 6173678300
OK0000991844	OKLAHOMA CITY FIRE DEPARTMENT Contact: MIKE FONZI	600 N PORTLAND Mailing Adrs: 600 N PORTLAND, OKLAHOMA CITY, OK 73107	OKLAHOMA CITY	73107	OKLAHOMA	6					M	M	12/15/94 Phone: 4052971300
OKD086994787	OKLAHOMA CITY FREIGHTLINER Contact: GREG MORGAN	5301 I-40 W Mailing Adrs: PO BOX 82279, OKLAHOMA CITY, OK 73148	OKLAHOMA CITY	73127	OKLAHOMA	7					P	O	O 01/22/03 Phone: 4059428827
OKR000000406	OKLAHOMA CITY POSTER & SIGN Contact: JERRY WILCOX	2818 W RENO Mailing Adrs: 2818 W RENO, OKLAHOMA CITY, OK 73107	OKLAHOMA CITY	73107	OKLAHOMA	7					P	P	05/08/95 Phone: 4052368252

APPENDIX L

QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONALS

Environmental Professional Qualifications

Jonathan Reid holds a Bachelors Degree in Environmental Science with an emphasis in Natural Resources and a Minor in Soil Science from Oklahoma State University. Mr. Reid has 8 years experience in environmental sampling, remediation, and technical studies. He is an Environmental Programs Specialist III with the Land Protection Division of the Oklahoma Department of Environmental Quality. His responsibilities include: project management of Brownfield/Voluntary Cleanup Project (VCP) sites, fuel spill sites, conducting Targeted Brownfield Assessments, mercury program and assisting other project managers on technical activities at other Brownfield/VCP and National Priorities List sites as needed.

Heather Mallory holds a Bachelors and Masters Degree in Environmental Science from the University of Oklahoma. Mrs. Mallory has nine years experience in environmental sampling and remediation. She is an Environmental Programs Specialist with the Land Protection Division of the Oklahoma Department of Environmental Quality. Her responsibilities include: Targeted Brownfield Assessment Coordinator for DEQ Land Protection Division, project management of various Voluntary Cleanup sites across the state, NEPA coordinator for the Tar Creek voluntary buyout of residents, conducting and reviewing Targeted Brownfield Assessments, serving on agency-wide GIS policy making committee, and training DEQ Land Protection Division staff on GPS receivers.