

***FINAL***

**ENVIRONMENTAL CONDITION OF  
PROPERTY REPORT**

**BLUCHER S. THARP MEMORIAL  
U.S. ARMY RESERVE CENTER (TX003)  
2801 DUNIVEN CIRCLE  
AMARILLO, TEXAS 79109**

***Prepared For:***

**U.S. Army Corps of Engineers — Louisville District  
Engineering Division — Environmental Engineering Branch  
600 Dr. Martin Luther King, Jr. Place  
Louisville, Kentucky 40202-2232**

**April 4, 2007**

## CERTIFICATION

All information/documentation provided accurately reflects the environmental condition of the property. This Environmental Condition of Property (ECP) Report is in general accordance with the U.S. Department of Defense (DoD) requirements for completion of an ECP Report.

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**JAMES WHEELER II**  
**Chief, Environmental Division**  
**90<sup>th</sup> Regional Readiness Command**

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**DATE**

The undersigned certifies the contents of this report are in general accordance with DoD policies for the completion of an ECP Report.



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**Project Geologist**  
**U.S. Army Corps of Engineers**

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**April 4, 2007**

**DATE**

## EXECUTIVE SUMMARY

The Terraine-EnSafe Joint Venture (TEJV), under contract to the U.S. Army Corps of Engineers, Louisville District, has prepared this Environmental Condition of Property (ECP) Report for the Blucher S. Tharp Memorial U.S. Army Reserve (USAR) Center (Facility ID TX003), hereafter referred to as the "Site" or "USAR Center." The Site is at 2801 Duniven Circle in Amarillo, Potter County, Texas.

This ECP Report was conducted in conformance with primary Department of Defense (DoD) and Army guidance, the DoD's Base Redevelopment and Realignment Manual, DoD 4165.66-M, Army regulations and the American Society for Testing and Materials Designation D 6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*, as secondary guidance when it was not inconsistent with the primary guidance.

This ECP Report details the history of the property, including the USAR and any prior uses of the Site and the resulting environmental condition of the property.

The USAR Center is on 4.133 acres of land with two permanent buildings: an 11,732-square-foot Training Building and a 2,864-square-foot organizational maintenance shop. The site is currently occupied by the 974<sup>th</sup> Quartermaster Company.

Based on a review of aerial photographs and U.S. Geological Survey topographical maps dating back to 1950, the Site was an undeveloped lot prior to the U.S. government's purchase in 1957. The two buildings on the Site were constructed in 1960.

One "High Risk" property, Smithson Automotive Center, is a leaking petroleum storage tank site, approximately 870 feet northeast of the USAR Center, at which the extent of contamination in soil and groundwater is unknown at the time of this ECP Report.

Areas of potential environmental concern were reviewed and the TEJV found no significant concerns relating to the environmental condition of the Site. While no releases were observed during the Site reconnaissance, it cannot be stated with any certainty that there has never been a release on the Site. In accordance with DoD policy defining the classifications (see S.W. Goodman Memorandum dated October 21, 1996), the Site has been classified as Category 2. This classification does not include categorizing the property based on *de minimis* conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

## Table of Contents

EXECUTIVE SUMMARY.....	i
List of Acronyms and Abbreviations .....	v
1.0 INTRODUCTION .....	1
1.1 Purpose of Environmental Condition of Property .....	1
1.2 Scope of Services .....	2
1.3 Assumptions and Limitations .....	3
2.0 SITE LOCATION AND PHYSICAL DESCRIPTION.....	4
2.1 Site Location .....	4
2.2 Asset Information .....	4
2.3 Physical Description .....	5
2.4 Hydrogeological Characteristics .....	7
2.4.1 Surface Water Characteristics .....	7
2.4.2 Hydrogeological Characteristics .....	8
2.5 Site Utilities .....	8
2.6 Water Supply Wells and Septic Systems .....	9
3.0 SITE HISTORY.....	10
3.1 History of Ownership.....	10
3.2 Past Uses and Operations .....	10
3.3 Past Use, Storage, Disposal, and Release of Hazardous Substances .....	12
3.3.1 Past Use and Storage of Hazardous Substances .....	12
3.3.2 Past Disposal and Release of Hazardous Substances .....	13
3.4 Past Bulk Petroleum Storage Tanks .....	13
3.5 Review of Previous Environmental Reports.....	13
3.5.1 Environmental Baseline Survey.....	13
3.5.2 Architectural Assessment Report .....	14
3.5.3 Archaeological Assessment and Reconnaissance .....	14
3.5.4 Oil-Water Separator Evaluation.....	14
3.5.5 Radon Report.....	15
3.5.6 Asbestos Report.....	15
3.5.7 Cultural Resources Report .....	15
3.5.8 Polychlorinated Biphenyls Report.....	15
4.0 ADJACENT PROPERTIES.....	17
5.0 REVIEW OF REGULATORY INFORMATION.....	18
5.1 Federal Environmental Records .....	18
5.1.1 Federal National Priorities List Sites within One Mile .....	18
5.1.2 Federal CERCLIS Sites within One-Half Mile.....	18

5.1.3	Resource Conservation and Recovery Act Corrective Action Sites within One Mile .....	19
5.1.4	RCRA Transport, Treatment, Storage, and/or Disposal Facilities within One-Half Mile .....	19
5.1.5	Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile.....	19
5.1.6	Federal Emergency Response Notification System List.....	20
5.2	State and Local Environmental Records.....	20
5.2.1	State-Registered Landfills or Solid Waste Disposal Sites within One-Half Mile .....	20
5.2.2	State-Registered Leaking Petroleum Storage Tank Sites within One-Half Mile .....	20
5.2.3	State-Registered Petroleum UST Sites within One-Quarter Mile .....	23
5.2.4	State Hazardous Waste Sites within One Mile .....	23
5.2.5	State Solid Waste Illegal Dumps within One-Half Mile .....	23
5.2.6	State AST Sites within One-Quarter Mile .....	23
5.2.7	State Emergency Response Incidents Sites.....	23
5.2.8	State Sites with Institutional and Engineering Controls within One-Half Mile .....	23
5.2.9	State Voluntary Cleanup Program Sites within One-Half Mile .....	26
5.2.10	State Brownfields Program Sites within One-Half Mile .....	26
5.3	Tribal Environmental Records.....	26
5.4	Unmapped Sites .....	26
5.5	Summary of Properties Evaluated to Determine Risk to Site.....	26
6.0	SITE INVESTIGATION AND REVIEW OF HAZARDS .....	27
6.1	Underground and Aboveground Storage Tanks .....	27
6.2	Inventory of Chemicals/Hazardous Substances .....	27
6.3	Waste Disposal Sites.....	28
6.4	Pits, Sumps, Dry Wells, and Catch Basins .....	28
6.5	Asbestos-Containing Material .....	28
6.6	PCB-Containing Equipment .....	28
6.7	Lead-Based Paint .....	29
6.8	Radon .....	29
6.9	Unexploded Ordnance .....	29
6.10	Radioactive Materials.....	29
7.0	REVIEW OF SPECIAL RESOURCES.....	30
7.1	Land Use .....	30
7.2	Coastal Zone Management.....	30
7.3	Wetlands.....	30
7.4	100-Year Floodplain .....	30
7.5	Natural Resources .....	30
7.6	Cultural Resources .....	31
7.7	Other Special Resources .....	31

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8.0	CONCLUSIONS .....	32
9.0	REFERENCES .....	35

### List of Tables

Table 1	Historical Summary of Blucher S. Tharp Memorial USAR Center.....	10
Table 2	List of Adjacent Properties .....	17
Table 3	RCRA Small Quantity Generators .....	21
Table 4	Leaking Petroleum Storage Tank Sites .....	22
Table 5	Underground Storage Tank Sites .....	24

### List of Appendices

#### Appendix A Figures

- Figure 1 General Site Location Map
- Figure 2 Site Layout Plan
- Figure 3 Training Building Floor Plan
- Figure 4 OMS Building Floor Plan
- Figure 5 1956 Topographic Map
- Figure 6 1956 — 1967 Topographic Map
- Figure 7 1973 Topographic Map
- Figure 8 1985 Topographic Map
- Figure 9 1950 Aerial Photograph
- Figure 10 1959 Aerial Photograph
- Figure 11 1967 Aerial Photograph
- Figure 12 1978 Aerial Photograph
- Figure 13 1988 Aerial Photograph
- Figure 14 1995 Aerial Photograph
- Figure 15 2001 Aerial Photograph
- Figure 16 2002 Aerial Photograph
- Figure 17 FEMA Flood Zone Map

- Appendix B Site Reconnaissance Photographs
- Appendix C Chain-of-Title Report
- Appendix D Previous Environmental Reports
- Appendix E Regulatory Database Search Reports

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## List of Acronyms and Abbreviations

ACM	asbestos-containing material
AMSA	Area Maintenance Support Activity
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulations
CORRACTS	Corrective Action Sites
DoD	Department of Defense
ECCI	Environmental, Compliance & Construction, Inc.
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Agency
IHW	Industrial and Hazardous Waste
kg	kilogram
LBP	lead-based paint
LC	Light Commercial
LPST	leaking petroleum storage tank
LQG	large-quantity generator
MEP	military equipment parking
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
OMS	organizational maintenance shop
OWS	oil-water separator

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Parsons	Parsons Engineering Science, Inc.
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PMT	pole-mounted transformer
POV	privately owned vehicle
PWS	Public Water Supply
RCRA	Resource Conservation and Recovery Act
RGF	RGF Environmental Systems
RQ	reportable quantity
RRC	Regional Readiness Command
SQG	small-quantity generator
TCEQ	Texas Commission on Environmental Quality
TEJV	Terraine-EnSafe Joint Venture
TSD	treatment, storage, and disposal
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VCP	Voluntary Cleanup Program
VWR	vehicle wash rack

## **1.0 INTRODUCTION**

The Terraine-EnSafe Joint Venture (TEJV), under contract to the U.S. Army Corps of Engineers (USACE) Louisville District, was authorized to prepare an Environmental Condition of Property (ECP) Report for the Blucher S. Tharp Memorial U.S. Army Reserve (USAR) Center (Facility ID TX003), in response to the Base Realignment and Closure Act (BRAC) 2005 legislation. The work was performed under Contract No. W912QR-04-D-0044, Delivery Order No. 0008. The facility at 2801 Duniven Circle in Amarillo, Potter County, Texas, is hereafter referred to as the "Site" or "USAR Center." In support of the ECP, a visual reconnaissance of the Site was conducted on August 14, 2006. The purpose of the reconnaissance was to visually obtain information indicating the likelihood of recognized environmental conditions in connection with the Site.

### **1.1 PURPOSE OF ENVIRONMENTAL CONDITION OF PROPERTY**

The Military Department with real property accountability shall assess, determine and document the environmental condition of all transferable property in an ECP Report. This ECP Report is based on readily available information. Pursuant to the Department of Defense's (DoD's) policy, set forth in the Base Redevelopment and Realignment Manual (DoD 4165.66-M, March 1, 2006) Section C8.3 (BRRM), the primary purposes of the ECP Report include the following:

- Provide the Army with information it may use to make disposal decisions.
- Provide the public with information relative to the environmental condition of the property.
- Assist in community planning for the reuse of BRAC property.
- Assist federal agencies during the property screening process.
- Provide information for prospective buyers.
- Assist prospective new owners in meeting the requirements under U.S. Environmental Protection Agency's (USEPA) "All Appropriate Inquiry" regulations.
- Provide information about completed remedial and corrective actions at the property.
- Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

The ECP Report contains the information required to comply with the provisions of 40 Code of Federal Regulations (CFR) Part 373, which require that a notice accompany contracts for the sale of, and deeds entered into, for the transfer of federal property on which any hazardous substance was stored, released or disposed of. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 120(h) stipulates that a notice is required if certain quantities of designated hazardous substances have been stored on the property for one year or more — specifically, quantities exceeding 1,000 kilograms (kg) or the reportable quantity (RQ), whichever is greater, of the substances specified in 40 CFR 302.4 or one kg of acutely hazardous waste as defined in 40 CFR 261.30. A notice is also required if hazardous substances have been disposed of or released on the property in an amount greater than or equal to the RQ. Army Regulation 200-1 requires that the ECP Report address asbestos, lead-based paint (LBP), radon and other substances potentially hazardous to human health.

This ECP Report used the American Society for Testing and Materials (ASTM) Designation D 6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys* as a guideline when not inconsistent with the BRRM, CERCLA § 120, Army regulations and other applicable Army guidance.

## **1.2 SCOPE OF SERVICES**

This ECP Report covers the 4.133-acre USAR Center at 2801 Duniven Circle in Amarillo, Texas. A general Site location map, Site map, historical topographic maps and aerial photographs, and a Federal Emergency Management Agency (FEMA) flood plain map are provided in Appendix A. Appendix B provides photographs taken during the August 2006 Site reconnaissance. Appendix C provides chain-of-title information. Historical environmental documents and reports are provided in Appendix D. The environmental database report is provided in Appendix E.

This ECP Report classifies the property into one of seven DoD Environmental ECP categories as defined by the S.W. Goodman Memorandum dated October 21, 1996. The property classification categories are as follows:

- Category 1: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).
- Category 2: Areas where only release or disposal of petroleum products has occurred.
- Category 3: Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial response.

- Category 4: Areas where release, disposal, and/or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken.
- Category 5: Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are underway, but all required remedial actions have not yet been taken.
- Category 6: Areas where release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.
- Category 7: Areas that are not evaluated or require additional evaluation.

### **1.3 ASSUMPTIONS AND LIMITATIONS**

This report was prepared to permit formulation of an opinion of the environmental condition of the Site. Opinions on the environmental conditions at the Site are based on information from the visual reconnaissance, interviews, and collection and review of readily available information. New information or changes in Site use could require a review and possible modification of the findings and conclusions contained in this report.

The information obtained from the USAR, the USAR's representatives, individuals interviewed and prior environmental reports was considered to be accurate unless reasonable inquiries indicated otherwise. Conditions observed were considered representative of areas that were not accessible unless otherwise indicated.

This ECP Report presents a summary of readily available information on the environmental conditions of, and concerns relative to, the land, facilities, and real property assets at the USAR Center. Its findings are based on a record search of readily available documents, a thorough review of the applicable and relevant documents, a visual Site reconnaissance conducted on August 14, 2006, and interviews with personnel knowledgeable about the Site and its history. Extensive environmental investigations and reports and Site historical documents were reviewed in support of this ECP. Information obtained from these other studies is reflected within this report by reference. A complete list of references is provided as Section 9.0.

All Site buildings were visually inspected during the Site reconnaissance. However, a 100% visual reconnaissance of each building (e.g., attics, crawl spaces, etc.) was not practical due to accessibility restrictions. No sampling or analysis of any media was conducted during this survey.

## 2.0 SITE LOCATION AND PHYSICAL DESCRIPTION

The visual Site reconnaissance included a driving tour of the facility and the surrounding area, and a walking assessment of the Site and buildings including the Training Building and the organizational maintenance shop (OMS). The visual reconnaissance was conducted on August 14, 2006, to field-verify information produced in the document review and to identify recognized environmental conditions of property. All areas on the Site accessible by walking were observed during the reconnaissance.

A reconnaissance of the Site perimeter was conducted to evaluate adjacent property uses that could result in environmental contamination on the Site. TEJV personnel walked along roads around the perimeter and drove through the surrounding area to visually identify any contiguous properties that appear, in the TEJV's professional judgment, to have contamination that could migrate to the Site. The findings of the perimeter survey are presented in Section 4.0.

### 2.1 SITE LOCATION

The Site is at 2801 Duniven Circle in Amarillo, Potter County, Texas (Figure 1 in Appendix A). The Site is in a developed area in northwest Amarillo. It is bordered by commercial areas to the northeast, southeast, and south, and by churches to the northwest and southwest.

### 2.2 ASSET INFORMATION

Facility Name and Address:	Blucher S. Tharp Memorial USAR Center 2801 Duniven Circle Amarillo, Texas 79109
Property Owner:	U.S. Government
Date of Ownership:	January 3, 1957
Current Occupant:	974 <sup>th</sup> Quartermaster Company
Zoning:	Light Commercial (LC)
County, State:	Potter County, Texas
USGS Quadrangle:	Amarillo East, Texas
Section/Township/Range:	Not applicable in this county
Latitude/Longitude:	35° 11' 24.4" N; 101° 52' 14.2" W

**Legal Description:** All those certain pieces or parcels of land, designated as Tract No. A-100, USAR Training Center, being in Section 227, A, B, and M Survey, lying and situated in the City of Amarillo, County of Randall, State of Texas.

### **2.3 PHYSICAL DESCRIPTION**

A Site map of the USAR Center is provided as Figure 2 in Appendix A. Figure 3 in Appendix A presents a layout of the Training Building. Figure 4 presents a layout of the OMS. Photographs 1 through 5 in Appendix B show the Training Building area, the interior and exterior of the building, and specific environmental conditions or other Site-specific features. Photographs 6 through 35 show the OMS and military equipment parking (MEP) areas, the interior and exterior of the building, and specific environmental conditions or other Site-specific features. Photographs 36 through 39 show the adjacent properties.

The USAR Center is on 4.133 acres of land with two permanent structures: a 11,732-square-foot Training Building and the 2,864-square-foot OMS. Both buildings were constructed in 1960 of concrete block with brick veneer on a concrete slab. All painted surfaces appeared to be in good condition and no peeling paint was observed.

In addition to the Training Building and OMS, the Site also contains one privately owned vehicle (POV) parking area and fenced MEP area. A vehicle wash rack (VWR) is located in the MEP area. One portable, steel hazardous materials storage building stores petroleum and hazardous chemicals within the fenced MEP area. A steel storage shed on wooden skids, also located in the fenced MEP area, is used for military equipment storage. One 10-foot, 11 20-foot, and three 40-foot metal shipping containers were located in the fenced MEP area. The containers held military laundry and bath systems, military tents, and miscellaneous tools. Twenty-four military trucks, all with an oil drip pan positioned beneath them, were parked in the MEP area. Minor oil staining was observed beneath three of the military trucks in the MEP area.

Approximately half of the Site is considered impervious (asphalt parking areas, driveways, concrete walkways, building footprints, etc.) and the other half is covered by lawn. Vehicle access to the POV parking lot is via entrances from Duniven Circle and Church Avenue, while access to the fenced MEP area is from Blackburn Street and the POV parking lot.

Topographically, the Site slopes from northeast to southwest. No signs of erosion, excavation, or fill were observed on the Site. According to USAR personnel, no offsite soil or fill material has been brought onto the Site nor has any significant re-grading occurred on the Site.

The Training Building includes classrooms, a kitchen, restrooms, offices, an arms storage room, a Drill Hall, and a mechanical room. The interior of the building appeared to be well maintained during the Site reconnaissance. Offices, restrooms, and classrooms

occupy the north part of the Training Building. No concerns were identified in the offices, restrooms, or classrooms. The arms storage room is located between the offices and Drill Hall. The arms storage room is currently used to store automatic rifles, pistols and ammunition. The kitchen is located in at the eastern corner of the Drill Hall. The kitchen is not in use according to USAR personnel; a grease trap associated with the kitchen is near the eastern outside wall. The grease trap was not inspected during the Site reconnaissance.

According to USAR personnel, the Drill Hall was once equipped for an indoor firing range based on the metal shielding along the column supports of the southeast wall. Evidence of a former range or range closure documents were not identified during the ECP. Small quantities of cleaning chemicals were stored in a janitor's closet. Floor drains in the restrooms, mechanical room, and kitchen collect condensate from the chillers/refrigerators and/or wash water from floor cleaning. The floor drains discharge into the public sanitary sewer that serves the Site. Southwest of the Training Building and west of the Drill Hall is a wooden gazebo.

The OMS is a one-story, rectangular structure within the chain-link security fencing southeast of the Training Building. The interior of the OMS is one room with the western third separated into sections by chain-link fencing, storage shelves along the northwest side, and two open vehicle bays in the remainder of the room. Natural gas radiant heaters are mounted from the ceiling of the OMS. A concrete block storage room and a restroom are built into the OMS at the north corner of the building. The restroom has one floor drain that is connected to the sanitary sewer. The storage room is used for paint storage. The fenced rooms are used to store soldiers' field equipment. One flammable materials storage cabinet inside the OMS was being used to store items such as brake fluid, aerosol cans of starter fluid, and petroleum lubricants. A steel room connected to the southwest exterior of the OMS contains a wash water recycling system associated with the VWR.

The VWR has a concrete foundation with a 6-inch containment curb on the northeast, southwest, and northwest sides to reduce storm water inflow, and a ramp on the southeast side. The floor of the foundation slopes toward a slotted floor drain that is connected to a 500-gallon single-wall concrete oil-water separator (OWS) that was originally installed with the VWR in 1974. The OWS was converted to use as a sump in 1995 when an aboveground OWS and wash water recycling system were installed at the facility and the discharge to the sanitary sewer from the OWS was discontinued. The aboveground OWS is maintained in the steel room that is attached to the OMS. The new closed-loop system, manufactured by RGF Environmental Systems (RGF), inoperable during the TEJV's Site visit, according to USAR personnel, does not drain to the sanitary sewer.

The VWR is covered by a metal canopy supported by six steel poles. A trailer-mounted tactical water pump was parked in the VWR at the time of the Site reconnaissance. Photographs 13 through 15 in Appendix B provide views of the VWR and OWS. There were no physical signs of surface spillage, staining, or releases at the OWS.

Electric power to the Site is provided by overhead lines from the Xcel Power Company. Three pole-mounted transformers (PMTs) are located west of the OMS on a single utility pole. Two PMTs are located south of the MEP area on another utility pole (Photographs 9 and 12 in Appendix B).

## **2.4 HYDROGEOLOGICAL CHARACTERISTICS**

### **2.4.1 Surface Water Characteristics**

Appendix A provides a topographic map (Figure 1) of the Site and surrounding area. As shown on the map, the Site slopes from northeast to southwest and is approximately 3,621 feet above mean sea level. The Site drains toward Church Avenue; no storm water drains were observed at the Site. No surface water bodies are present on the Site or adjacent areas.

According to U.S. Department of Agriculture soil survey information included in the Environmental Data Resources, Inc. (EDR) environmental database search report (Appendix E), the predominant surface soil composition in the area of the subject property is Px — Pullman-Urban Land Complex.

Soils of the Pullman series are very deep, well-drained, slowly permeable soils that formed in calcareous, loamy and clayey sediments of Pleistocene age. These soils are on nearly level to very gently sloping plains. This component is on playa slopes on plateaus, plains on plateaus. The parent material consists of clayey eolian deposits from the Blackwater Draw Formation of Pleistocene age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2%. Pullman soil does not meet hydric criteria and are, therefore, not associated with wetlands. The surface texture of Pullman soils is silty clay loam. The Pullman series are classified as Hydrologic Group Class D.

The City of Amarillo is within the Great Plains Physiographic Region. Information provided in environmental databases indicated that the lithology underlying the Site consists of the late Tertiary age.

No wells or springs were observed on the Site. The Site and surrounding area are served with public water by the City of Amarillo. A search was conducted for wells within 1 mile of the Site (see the EDR report in Appendix E). The environmental database report included a search of the following well databases: federal U.S. Geological Survey (USGS),

Federal Reporting Data System — Public Water Supply (PWS) System, and State Database. No PWS System wells or federal USGS wells were found within 1 mile on the databases researched by EDR. EDR found 24 state-registered wells within 1 mile of the Site. The nearest well was mapped 0.2 mile southeast of the Site. The well was installed to a depth of 85 feet for the purposes of environmental monitoring and the owner was listed as Home Depot. Depth to groundwater was not reported for the well.

#### **2.4.2 Hydrogeological Characteristics**

There is one primary aquifer in the Amarillo and Texas pan-handle area. The Ogallala aquifer is used primarily as a domestic drinking-water supply. Near the surface of much of the Texas High Plains are layers of resistant caliche known as "caprock." Caliche occurs in both Ogallala and post-Ogallala sediments and is formed by the leaching of carbonate and silica from surface soils and the re-deposition of the dissolved mineral layers below the surface. The caliche ranges from crumbly to very hard and is almost impermeable although secondary porosity has been observed in many samples.

The City of Amarillo lies within the High Plains aquifer system. This is a regional aquifer that extends into parts of Colorado, Kansas, Nebraska, New Mexico, South Dakota, and Wyoming. The portion of the aquifer in Texas consists predominantly of the Ogallala Formation of late Tertiary age; locally unconsolidated deposits of Quaternary age are included in the aquifer. In places, the High Plains aquifer is hydraulically connected to permeable parts of underlying bedrock, which ranges in age from Permian to Cretaceous. The age of the Ogallala Formation is considered to be Miocene.

A former playa lake underlies the area of the Site and surrounding properties to the southwest which have been developed since 1960. The remnants of the Lawrence Playa Lake are located approximately one-quarter mile southwest of the Site. The High Plains is recharged by infiltration of precipitation that falls directly on the aquifer. Water from the High Plains aquifer is used primarily for crop irrigation. Because pumping to satisfy the large demand for crop irrigation has been considerably in excess of recharge, water levels in the High Plains aquifer have declined substantially.

General groundwater flow is not documented for the Site. However, based upon a review of historical topographic maps, shallow groundwater flow is expected to be generally east to southeast toward the aquifer discharge points along the eastern escarpment of the High Plains.

#### **2.5 SITE UTILITIES**

The Site is served by public utilities. Electric power to the Site is provided by overhead lines from Xcel Power Company. Natural gas is provided by Atmos Gas Company. Potable water, sanitary sewer service, and solid waste disposal are provided by the City of Amarillo municipal services.

## **2.6 WATER SUPPLY WELLS AND SEPTIC SYSTEMS**

As described in Section 2.4.1, there are no PWS wells within 1 mile of the Site. Because the Site is served by a public sanitary sewer system, there are no septic systems on the Site, and no known systems were identified in the area.

### 3.0 SITE HISTORY

#### 3.1 HISTORY OF OWNERSHIP

Land titles for the Site were reviewed back to 1909. Appendix C contains a historical chain-of-title report completed for the Site. Key historical deed transfers of the Site within the last 60 years are as follows:

- January 3, 1957 — C. L. Duniven, Jr. and Florence Duniven and Augusta Dumas to United States of America.

The chain-of-title report did not identify any leases or environmental liens against the USAR Center property.

#### 3.2 PAST USES AND OPERATIONS

Important events in the facility's development, administration, and mission are summarized in Table.

Table 1 Historical Summary of Blucher S. Tharp Memorial USAR Center	
Year	Description
1957	Site property was acquired by the U.S. government
1960	Training Building and OMS were constructed
1974	VWR and OWS constructed
1995	OWS system modified with aboveground wash water recycling system added at OMS building

Historical information sources suggest that the Site was undeveloped until the U.S. government built the USAR Center in 1960.

Historical topographic maps and aerial photographs provide information about the Site and surrounding area. Figures 5 through 8 in Appendix A present topographical maps of the Site and surrounding area dated 1956, 1967, 1973, and 1985, respectively. Figures 9 through 16 present aerial photographs of the Site and surrounding areas dated 1950, 1959, 1967, 1978, 1988, 1995, 2001, and 2002, respectively. Pertinent observations on the historical topographic maps are summarized below.

- **1956 (Figure 5).** The 1956 Amarillo East Quadrangle map shows the Site as undeveloped. Civic Circle, approximately two blocks northeast of the Site, is shown on this map. Wolflin Avenue and South Georgia Street are major thoroughfares present north and east of the Site, respectively. South Austin Street to the east, which becomes Duniven Circle west of South Georgia Street, is present. A portion of Blackburn Street, which borders the Site to the southeast, is also present.

- **1967 (Figure 6).** The 1967 Amarillo East Quadrangle map shows development of the streets that border the Site (Duniven and Virginia circles and Blackburn and Church streets); however the USAR Center buildings are not shown on this topographic map.
- **1973 (Figure 7).** The 1973 Amarillo East Quadrangle map is similar to the 1967 topographic map. The USAR Center buildings are not shown on this topographic map. Additional road and building development is shown southwest of the Site. Lawrence Playa Lake is shown approximately one-half mile southwest of the Site.
- **1985 (Figure 8).** The 1985 Amarillo East Quadrangle map does not show the USAR Center buildings. The 1985 topographic map shows that the corporate limits of Amarillo have completely surrounded the Site.

Pertinent observations on the historical aerial photographs are summarized below.

- **1950 (Figure 9).** The 1950 aerial photograph shows Wolflin Avenue and South Georgia Street north and east of the Site, respectively. No other road or building development is shown on the Site or its immediate vicinity. The northeast shore of the Lawrence Playa Lake extends to the Site. The Site appears to be partially covered by what appears to be a smaller pool of Lawrence Playa Lake. Two smaller water bodies also appear northeast of the Site.
- **1959 (Figure 10).** The 1959 aerial photograph shows the USAR Center under construction. The Training Building, OMS, and POV parking area can be seen partially developed in this aerial photograph. Civic and Duniven circles are shown northeast of the Site, with Duniven Circle bordering the Site on the northeast side. Blackburn Street is shown bordering the southeast side of the Site. Virginia Circle has not yet been developed. Some building development has occurred northwest of the Site, with more extensive development northeast. The properties south of the Site are undeveloped.
- **1967 (Figure 11).** The 1967 aerial photograph shows additional development in the Site vicinity. Interstate 40 is shown north of the Site. Virginia Circle has been developed southwest of the Site. The MEP area and a concrete pad in the MEP area have been added to the USAR Center, and the church and restaurant to the west have been built. There has been extensive building development to the northeast and northwest of the Site. A large building is on the parcel southeast of the Site, while the parcels southwest of the Site remain undeveloped. This aerial photograph also shows development of Paramount Boulevard. Lawrence Playa Lake can be seen approximately one-half mile to the southwest.

- **1978 (Figure 12).** The 1978 aerial photograph is similar to the 1967 aerial photograph, except that there is more building development on all sides of the Site but the southwest. No changes were noted for the Site in this aerial photograph. Lawrence Playa Lake can be seen approximately one-half mile to the southwest.
- **1988 (Figure 13).** The 1988 aerial photograph shows a higher density of building development around the Site, including the parcels to the southwest. No changes were noted for the Site in this aerial photograph.
- **1995 through 2002 (Figures 14 through 16).** The 1995 through 2002 aerial photographs are similar in presentation to the 1988 aerial photograph. No changes were noted to the Site in these aerial photographs.

The earliest available information about the Site is from a 1950 aerial photograph, which shows the Site to be undeveloped. The Site is shown under construction in the 1959 aerial photograph. No changes were noted at the Site in the 1967 to 2002 aerial photographs. By 1988, the entire area around the Site had been developed. No discernable changes in the surrounding area were noted from 1988 through 2002.

Available business directories including Hudspeth's City Directory and Polk's City Directory were reviewed by EDR (EDR's research spanned roughly five-year intervals between 1921 through 1994). In addition, the TEJV reviewed Hudspeth's and Polk's city directories dated 1951, 1954, 1957, 1958, 1959, and 1961, as well as Cole's city directories dated 2000 and 2005 at the Amarillo Public Library. The Site address was not listed before 1959. In 1959, the Site was listed as "under construction." City directories listed "US Army Reserve Training Center," "USA Reserve Training Center," "Government Offices of Department of Defense," "Blucher S. Tharp Army Reserve Center," and/or "United States Army Reserve" at 2801 Duniven Circle from 1960 to 2005.

Sanborn maps for the City of Amarillo were also reviewed at the library; however, the maps did not include the Site.

### **3.3 PAST USE, STORAGE, DISPOSAL, AND RELEASE OF HAZARDOUS SUBSTANCES**

#### **3.3.1 Past Use and Storage of Hazardous Substances**

Information related to the past use and storage of hazardous substances at the Site was compiled through review of available Site records, search of federal and state environmental databases, and interviews with USAR personnel.

Chemicals formerly used and stored at the Site were associated with vehicle and facility maintenance activities and janitorial services. Janitorial chemicals and building maintenance-related products were stored in the designated storage area within the janitorial closet in the Training Building. Vehicle maintenance at the Site was suspended in approximately 2002 and currently is limited to topping off fluids and

maintaining tire pressure. Vehicle maintenance was consolidated to the USAR Area Maintenance Support Activity (AMSA) facility located in Lubbock, Texas. Two 55-gallon drums containing approximately 20 gallons of used oil are stored in secondary containment containers near the hazardous materials storage building in the MEP area. USAR personnel stated that waste fluids are removed from the USAR Center by the AMSA in Lubbock, Texas.

Certain types of chemical products used and stored at the Site would have contained CERCLA hazardous substances and would have been stored on a rotational basis in amounts necessary to support the unit through direct-support-level maintenance. However, there is no indication that CERCLA hazardous substances were stored at the Site for one year or more in excess of their corresponding RQs.

### **3.3.2 Past Disposal and Release of Hazardous Substances**

Information related to past disposal and potential release of hazardous substances at the Site was compiled through review of available Site records, search of federal and state environmental databases, and interviews with USAR personnel. According to USAR personnel and Site records, the disposal of hazardous materials or hazardous wastes has not occurred on the Site.

No stained soil or stressed vegetation was observed during the Site reconnaissance. The MEP area and POV parking area did not show any signs of significant staining, and no noxious or foul odors were noted.

### **3.4 PAST BULK PETROLEUM STORAGE TANKS**

Based upon a review of available Site records, a search of federal and state environmental databases, and interviews with USAR personnel, there is no evidence that aboveground storage tanks (ASTs) and/or underground storage tanks (USTs) for bulk petroleum storage have been used on the Site. The OWS is registered as a UST with the Texas Commission on Environmental Quality (TCEQ) and is discussed in section 3.5.4.

### **3.5 REVIEW OF PREVIOUS ENVIRONMENTAL REPORTS**

A review of Site records produced several applicable reports. The following subsections provide a brief summary of these reports. Copies of the reports, unless otherwise specified, are provided in Appendix D. Only pertinent sections of reports that addressed multiple sites are presented in Appendix D.

#### **3.5.1 Environmental Baseline Survey**

Environmental, Compliance & Construction, Inc. (ECCI) issued an *Environmental Baseline Survey* of the USAR Center for the USAR 90<sup>th</sup> Regional Readiness Command (RRC) in March 2006. The Environmental Baseline Survey provides summary and general information about the Site. "In accordance with the ASTM Standard D5746-98 for

*Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities,*” ECCI classified the Site as an ECP Area Type 1 Property. An ECP Area Type 1 Property is an area or parcel of real property where no release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including any migration of these substances from adjacent properties.

### **3.5.2 Architectural Assessment Report**

Parsons Engineering Science, Inc. (Parsons) performed a *Historic Architectural Resources Assessment of the 90<sup>th</sup> Regional Support Command Facilities in Texas* for the Department of the Army. The findings of the assessment were compiled in a report issued February 1998. The report concluded that the buildings on the Site were not eligible for placement on the National Register of Historic Places because they did not meet the 50-year age criteria and they did not appear to possess exceptional historical importance. No further architectural surveys were recommended for the Site until 2010.

### **3.5.3 Archaeological Assessment and Reconnaissance**

Parsons performed an *Archaeological Assessment of 90<sup>th</sup> Regional Support Command Facilities in Texas* for the Department of the Army. The findings of the assessment were compiled in a report issued February 1998. The report concluded that no known archaeological sites exist at the USAR Center. The report also indicated that no cultural resource studies have been conducted on or near the Site. The report determined the USAR Center archaeological potential to be “low” and no archaeological survey was recommended. The Texas State Historic Preservation Office concurred with the report’s recommendations in a letter dated July 15, 1997.

### **3.5.4 Oil-Water Separator Evaluation**

According to the *Oil-Water Separator Evaluation* performed by EnSafe Inc. in 2000, the Site has two OWSs. The original OWS, installed in 1974, was used to treat wash water from the VWR before discharge to the sanitary sewer system. In 1995, that system was modified with the addition of an aboveground OWS to create a re-circulating water system that was then disconnected from the sanitary sewer. In the modified system, the older OWS collected and routed wash water to the 1995 OWS, which treated the spent vehicle wash water and stored it in a 500-gallon AST for re-use. The 1995 system, manufactured by RGF, uses nine stages of oil-water separation and filtration to process spent vehicle wash water. In 1999, EnSafe noted 1 foot of sludge in a sediment trap and 2 inches of sludge in the OWS, indicating a lack of maintenance for this system. Used filters were being disposed of as solid waste.

In the 2000 report, EnSafe recommended that the automatic sump pump in the system be repaired and that procedures be implemented for the proper collection and disposal of waste sludge and used filters from the system. Also, EnSafe indicated that the RGF OWS system needed monthly maintenance to ensure peak performance during operation, the OWS and all drain lines and sumps leading to the OWS should be cleaned out, and the unit inspected on a routine basis. EnSafe recommended the facility establish a schedule for routine sludge and oil removal based on usage and material accumulation, and inspect the OWS annually.

### **3.5.5 Radon Report**

According to an August 29, 1994, memorandum from the Chief of the Environmental Branch, Fort Hood, Texas, three air samples were collected at the USAR Center and analyzed for radon. All results were less than 1.0 picocuries per liter (pCi/L).

### **3.5.6 Asbestos Report**

During September 1999, an asbestos survey and inspection was performed at the Site by the USAR. The results were summarized in *Asbestos Building Survey, Blucher S. Tharp Memorial USARC, Amarillo, Texas*, issued September 1999. As part of the inspection, 34 samples were collected for asbestos analysis. The report stated that no materials containing more than 1% asbestos (which defines an asbestos-containing material [ACM]) were identified at the facility. The inspection identified a flue in the mechanical room that was wrapped in insulation suspected of containing asbestos. The insulation was not sampled during the survey. The report recommended that the insulation be sampled prior to any future disturbance or removal.

### **3.5.7 Cultural Resources Report**

Parsons performed an assessment and prepared a *Management Summary, Cultural Resources Assessment of 90<sup>th</sup> Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas* for the Department of the Army. The assessment was compiled and issued in February 1998. The assessment concluded that there are no architectural issues at the USAR Center. The Site has a "low" archaeological potential, and is not eligible for the National Register of Historic Places because the Site buildings are less than 50 years old.

### **3.5.8 Polychlorinated Biphenyls Report**

The U.S. Army Center for Health Promotion and Preventive Medicine performed a *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* for the 90<sup>th</sup> RRC and issued a report on September 30, 1997. The assessment addressed the PMTs at the Site. Three PMTs were located on one utility pole west of the OMS (Photograph 12 in Appendix B). The PCB assessment report identified the PMTs as owned by the Southwestern Public Service Company. Two of the transformers were manufactured by

General Electric (one in 1959, one age not specified). The third transformer was manufactured by Wagner Electric in 1971. The PCB status of those three transformers was not determined during that evaluation.

The report also identified some of the fluorescent light fixtures as having PCB ballasts (no specific details provided).

#### 4.0 ADJACENT PROPERTIES

Figure 16 in Appendix A provides a 2002 aerial view of the Site and adjacent properties. The property is bounded by Duniven Circle and an office building to the northeast; Church Avenue and First Christian Church to the northwest; a restaurant and a church to the southwest; and Blackburn Street, then a commercial storage center to the southeast. Table 2 provides a list of adjacent properties with their directional location from the Site and zoning.

<b>Direction From Site</b>	<b>Name/Type of Property</b>	<b>Addresses</b>	<b>Zoning</b>
Northeast	Office building	2800 block of Duniven Circle	GR, General Retail
Northwest	First Christian Church	2900 block of Duniven Circle	LC
Southeast	All Storage commercial storage	2700 block of Duniven Circle	LC
Southwest	Pancake Station and Church	2800 block of Virginia Street	LC

Appendix A provides historical aerial photographs and topographic maps, and Appendix E presents an environmental data report that was used to evaluate potential environmental impacts from adjacent and nearby properties that may have also impacted the environmental conditions at the Site. Land use at the adjacent properties does not appear to have changed significantly over the years once they were developed and does not appear to have impacted the environmental conditions of the USAR Center.

## **5.0 REVIEW OF REGULATORY INFORMATION**

A component of the ECP is the review of all reasonably obtainable federal, state, and local government records for the Site and surrounding properties where there has been a release or likely release of any hazardous substance or petroleum product that are likely to cause a release or threatened release of any hazardous substance or petroleum product on the federal real property. An environmental database summary was obtained from EDR on July 14, 2006. The environmental database summary consolidates standard federal, state, local, and tribal environmental record sources based on ASTM D 6008-recommended minimum search distances from the Site. A copy of the complete EDR report is included in Appendix E.

The Site OWS was registered as a UST. There were no other environmental registrations or permits issued for the Site; therefore, there were no permit applications or associated permit documentations applicable for review. There were no known contamination events on the Site that required an environmental cleanup; therefore, the Site did not participate in the Installation Restoration Program, Military Munitions Response Program, or a Compliance Cleanup program.

TEJV visited TCEQ offices in Amarillo to review pertinent files and reviewed reasonably accessible USAR environmental documents, TCEQ files, City of Amarillo records, and historical aerial photographs and maps to investigate environmental conditions at the Site and surrounding area. Available information on and the potential impact of environmental conditions on the Site were each assessed.

The interviews included topics of general environmental interest and specific areas of interest identified during the records review and visual Site reconnaissance. Pertinent information from these interviews is incorporated into this report.

### **5.1 FEDERAL ENVIRONMENTAL RECORDS**

#### **5.1.1 Federal National Priorities List Sites within One Mile**

The National Priorities List (NPL) is a subset of the CERCLA Information System (CERCLIS) and identifies more than 1,200 sites for priority cleanup under the Superfund Program. NPL sites are targeted for long-term remedial action under CERCLA. According to the environmental database report, the USAR Center is not an NPL site and there are no such sites within one mile of the Site.

#### **5.1.2 Federal CERCLIS Sites within One-Half Mile**

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and persons, pursuant to Section 103 of CERCLA. CERCLIS contains sites that are either proposed to be or are on the NPL, sites that are in the screening and assessment phase for possible inclusion on the

NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL.

CERCLIS No Further Remedial Action Planned (NFRAP) sites have been removed and archived from CERCLIS sites. NFRAP status indicates that, to the best of USEPA's knowledge, assessment at a site has been completed and that no further steps will be taken to list this site on the NPL, unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with the site; it means that, based on available information, the location is not judged to be a potential NPL site.

According to the environmental database report, the USAR Center is not a CERCLIS site and there are no CERCLIS sites within one-half mile of the Site.

### **5.1.3 Resource Conservation and Recovery Act Corrective Action Sites within One Mile**

Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) represent facilities that have generated or managed hazardous wastes and require corrective action. According to the environmental database report, the USAR Center is not a CORRACTS. No CORRACTS were identified within one mile of the Site.

### **5.1.4 RCRA Transport, Treatment, Storage, and/or Disposal Facilities within One-Half Mile**

The RCRA Information Database includes selective information on sites that generate, transport, or treat, store, and/or dispose (TSD) of hazardous waste as defined by RCRA. According to the environmental database report, the USAR Center is not a RCRA TSD site and there are no such sites within one-half mile.

### **5.1.5 Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile**

Conditionally exempt small-quantity generators generate less than 100 kg of hazardous waste and less than 1 kg of acutely hazardous waste per month. RCRA small-quantity generators (SQGs) are defined as facilities generating between 100 kg and 1,000 kg of hazardous waste per month and less than 1 kg of acutely hazardous waste, while a large-quantity generator (LQG) is defined as a facility generating more than 1,000 kg of hazardous waste or over 1 kg of acutely hazardous waste, per month. According to the environmental database report, the Site is not an SQG or LQG. No RCRA LQGs are within one-quarter mile of the Site.

Eight RCRA SQGs are within one-quarter mile of the Site and are listed in Table 3. These RCRA SQG sites are considered to represent low risks to the Site due to their distance from the Site and limited violations reported.

#### **5.1.6 Federal Emergency Response Notification System List**

The Federal Emergency Response Notification System (ERNS) provides information on reported releases of oil and hazardous substances. According to the environmental database report, the USAR Center is not listed on ERNS.

### **5.2 STATE AND LOCAL ENVIRONMENTAL RECORDS**

The regulatory information presented below was obtained from the environmental database report. Supplemental information was also provided from research at the TCEQ.

#### **5.2.1 State-Registered Landfills or Solid Waste Disposal Sites within One-Half Mile**

According to the environmental database report, no solid waste landfills, incinerators, or transfer stations are within one-half mile of the USAR Center. There is no solid waste landfill, incinerator, or transfer station on the Site.

#### **5.2.2 State-Registered Leaking Petroleum Storage Tank Sites within One-Half Mile**

The Site is not listed in the state leaking petroleum storage tank (LPST) database. According to the environmental database report, seven LPST sites are within one-half mile of the USAR Center; the sites are listed in Table 4. Except for the Smithson Automotive Center, the LPST sites are considered to represent low risks to the Site due to their "closed" status with TCEQ, which indicates that that no further remedial action is required and that residual petroleum contamination does not pose a concern for human health or the environment.

Due to the proximity and higher elevation of the Smithson Automotive Center's property in relation to the Site, and because the extent of soil and groundwater contamination on the property was unknown at the time of this ECP, the Smithson Automotive Center property is considered to represent a "High Risk" to the Site due to the potential for contamination migration.

**Table 3**  
**RCRA Small Quantity Generators**

<b>Site Name/ RCRA EPA ID</b>	<b>Address</b>	<b>Distance and Direction from Site</b>	<b>Status</b>	<b>Elevation Relative to Site</b>
Don Judd Cadillac Inc #TXD981594591	2501 Paramount Avenue	Approximately 930 feet southwest	One verbal informal violation for state solid waste rule in 1990	Lower
Tuneup Masters #TXD982285967	2314 South Georgia Street	Approximately 950 feet east	No violations	Higher
Autohaus of Amarillo Inc. #TXD988070330	2401 South Georgia	Approximately 980 feet southeast	No violations	Higher
Russell Buick #TXD044272334	2401 South Georgia	Approximately 1,000 feet southeast	No violations	Higher
Amarillo Imports Inc #TXD055290878	3019 West 26 <sup>th</sup> Avenue	Approximately 1,100 feet southeast	No violations	Higher
Bill Frank Automotive #TXD987987500	3006 West 26 <sup>th</sup> Street	Approximately 1,130 feet southeast	No violations	Higher
Moss Body Shop #TXD981905284	3000 West 26 <sup>th</sup> Street	Approximately 1,140 feet southeast	No violations	Higher
Georgia Street Cleaners of America #TXD981060049	1800 South Georgia	Approximately 1,286 feet northeast	No violations	Higher

**Table 4**  
**Leaking Petroleum Storage Tank Sites**

Site Name/ TCEQ Facility No.	Address	Distance and Direction from Site	Status	Elevation Relative to Site
Smithson Automotive Center LPST ID: 0012599	2821 Wolflin Avenue	Approximately 870 feet northeast	Pre-assessment/release determination. Groundwater has not been evaluated. Facility is upgradient of USAR Center.	Higher
Texaco LPST ID: 0013494	2001 Paramount Avenue	Approximately 880 feet northwest	Case Closed	Higher
Wolfin Square 66 LPST ID: 0043630	1901 South Georgia	Approximately 1,170 feet northeast	Case Closed	Higher
Toot'N'Totum Food Stores 81 LPST ID: 0045241	2601 Paramount Avenue	Approximately 1,350 feet southwest	Case Closed	Higher
Dupriest Acura LPST ID: 0060084	2525 South Georgia	Approximately 1,530 feet southeast	Case Closed	Higher
Westgate Car wash & Lube Center LPST ID: 0022381	2608 South Georgia	Approximately 1,830 feet southeast	Case Closed	Higher
Culligan Water Cond of Amarillo LPST ID: 0023968	3801 Wolflin Avenue	Approximately 2,590 feet northwest	Case Closed	Higher

### **5.2.3 State-Registered Petroleum UST Sites within One-Quarter Mile**

USTs are regulated under RCRA Subtitle I and must be registered with the state department responsible for administering the UST program. The Site is listed in the state UST database for its underground OWS. The environmental database report identified 15 additional state-registered UST sites within one-quarter mile. The listed facilities are in Table 5. Except for the Smithson Automotive Center discussed in Section 5.2.2, there are no reported releases associated with these sites, which therefore represent low risks to the Site.

### **5.2.4 State Hazardous Waste Sites within One Mile**

According to the environmental database report, no state Industrial and Hazardous Waste (IHW) sites are within one mile of the USAR Center. The Site is not classified as an IHW site.

### **5.2.5 State Solid Waste Illegal Dumps within One-Half Mile**

According to the environmental database report, no illegal dumps have been identified within one-half mile of the USAR Center. There is no illegal dump on the Site.

### **5.2.6 State AST Sites within One-Quarter Mile**

According to the environmental database report there are no state-registered ASTs within one-quarter mile of the USAR Center.

### **5.2.7 State Emergency Response Incidents Sites**

According to the environmental database report, the USAR Center is not listed on the Texas emergency response incidents list.

### **5.2.8 State Sites with Institutional and Engineering Controls within One-Half Mile**

Institutional controls include administrative procedures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post-remediation care requirements intended to prevent exposure to contaminants remaining onsite. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. According to the environmental database report, no state-registered sites with Institutional or Engineering Controls are within one-half mile of the USAR Center.

<b>Table 5 Underground Storage Tank Sites</b>					
<b>Site Name/ TCEQ Facility No.</b>	<b>Address</b>	<b>Distance and Direction from Site</b>	<b>Status</b>	<b>Closure Status</b>	<b>Elevation Relative to Site</b>
Kmart 4023 # 0015724	2747 Duniven Circle	Approximately 350 feet northwest	1,000-gallon used oil tank.	Tank removed in 1989; no documented releases.	Higher
Pit Stop # 0054376	2413 Paramount	Approximately 600 feet southwest	Two 500-gallon used oil tanks.	Tanks removed in 1990; no release documented.	Higher
Tascosa Shell #0008210	3307 West Interstate Highway 40	Approximately 790 feet west	Three 8,000-gallon gasoline tanks.	Tanks removed in 1995; no documented releases.	Higher
Smithson Automotive Center #0012599	2821 Wolflin	Approximately 870 feet northeast	Three 6,000-gallon gasoline tanks.	Tanks removed in 2004; release documented (see Table 4).	Higher
Texaco #001349	2001 Paramount Avenue	Approximately 880 feet northwest	Two 10,000-gallon and one 6,000-gallon used oil tanks.	Tanks removed in 1988; release documented (see Table 4).	Higher
Gen. Messer Cadillac # 0027727	2314 South Georgia Street	Approximately 930 feet southwest	One 10,000 gallon and One 4,000 gallon gasoline tanks.	Tanks removed in 1998; no documented releases.	Higher
Tuneup Masters, Store 823 # 002407	2314 South Georgia Street	Approximately 930 feet east	500-gallon used oil tank.	Tanks removed in 2001; no documented releases.	Higher
AFCO 010419 #0010112	2333 South Georgia Street	Approximately 940 feet east	Two 10,000-gallon gasoline tanks.	Tanks removed in 1991; no documented releases.	Higher
Key Guard Fuel # 0023605	2333 South Georgia Street	Approximately 945 feet east	Two 6,000-gallon gasoline tanks.	Tanks removed in 1989; no documented releases.	Higher

**Table 5  
 Underground Storage Tank Sites**

<b>Site Name/ TCEQ Facility No.</b>	<b>Address</b>	<b>Distance and Direction from Site</b>	<b>Status</b>	<b>Closure Status</b>	<b>Elevation Relative to Site</b>
Mcbrayer-Day Baldwin Piano # 004047	2100 South Georgia Street	Approximately 1,000 feet northeast	2,000-gallon gasoline tank.	Tank removed in 1990; no documented releases.	Higher
Wally McCarthys Amarillo Imports # 0044263	3019 West 26 <sup>th</sup> Street	Approximately 1,100 feet southeast	Four 40-gallon hydraulic lift tanks.	Tanks active; no documented releases.	Higher
Toot'N'Totum 17 # 0044775	2601 Patterson	Approximately 1,130 feet southwest	Three 10,000-gallon gasoline tanks.	Tanks removed in 1997; no documented releases.	Higher
Bill Frank Automotive # 0048161	3006 West 26 <sup>th</sup> Street	Approximately 1,130 feet southeast	500-gallon used oil tank.	Tanks removed in 1999; no documented releases.	Higher
Wolfen Square 66 # 0043630	1901 South Georgia Street	Approximately 1,170 feet northeast	500-gallon, 8,000-gallon, Two 10,000-gallon, 12,000-gallon used oil tanks.	Tanks removed in 1990; release documented (see Table 4).	Higher
Tascosa Gulf # 0008561	3400 West Interstate Highway 40	Approximately 1,280 feet northwest	Three 6,000-gallon and one 500-gallon gasoline tanks.	Tanks removed in 1996; no documented releases.	Higher

## **5.2.9 State Voluntary Cleanup Program Sites within One-Half Mile**

There are no State Voluntary Cleanup Program (VCP) sites with one-half mile of the USAR Center. According to the environmental database report, the USAR Center is not listed on the VCP list.

## **5.2.10 State Brownfields Program Sites within One-Half Mile**

Included in the listing are brownfields properties addressed by Cooperative Agreement Recipients and brownfields properties targeted by Targeted Brownfields Assessments. According to the environmental database report, no state-registered Brownfield Program Sites are within one-half mile of the USAR Center. According to the environmental database report, the USAR Center is not listed on the Brownfields list.

## **5.3 TRIBAL ENVIRONMENTAL RECORDS**

According to the environmental database report, no designated Indian Reservations are within one mile of the USAR Center.

## **5.4 UNMAPPED SITES**

The environmental database search yielded 15 unmapped sites. Unmapped sites are those with address information sufficient only to identify them as within the zip code of the target Site. The TEJV made every effort to locate these sites and assess their relevance to this ECP report. Further research was conducted using maps of the Site and surrounding area. None of the Sites was estimated to be within the corresponding ASTM D 6008-recommended minimum search distance for the databases on which they are listed.

## **5.5 SUMMARY OF PROPERTIES EVALUATED TO DETERMINE RISK TO SITE**

During review of environmental information summarized in this section, multiple databases and sites were reviewed to evaluate potential risks to the Site. One site was identified as potentially having a "High Risk" to the Site, as detailed in Section 5.2.2. The Smithson Automotive Center property is an LPST site, it is approximately 870 feet northeast of the Site, it is at a higher elevation than the Site, and assessment of the property has not been completed, so the extent of contamination in soil and groundwater is unknown. Therefore, the Smithson Automotive Center property is considered a "High Risk" to the Site. "High Risk" properties are those that exhibit significant environmental conditions that have the probability of adversely affecting the environmental conditions at the Site.

## **6.0 SITE INVESTIGATION AND REVIEW OF HAZARDS**

Findings documented in the following subsections are based on the TEJV's August 14, 2006, Site and area reconnaissance, review of available Site records, and information obtained from USAR personnel.

### **6.1 UNDERGROUND AND ABOVEGROUND STORAGE TANKS**

One UST associated with the OWS is registered with the TCEQ (TCEQ Facility ID 69229) and there are no reported releases associated with the UST. The original OWS installed in 1974 was used to treat wash water from the VWR before discharge to the sanitary sewer system. In 1995, the system was modified with the addition of an aboveground OWS to create a re-circulating water system that was then disconnected from the sanitary sewer. In the modified system, the older OWS collected and routed wash water to the 1995 OWS, which treated the spent vehicle wash water and stored it in a 500-gallon AST for reuse. The 1995 system, manufactured by RGF, uses nine stages of oil-water separation and filtration to process spent vehicle wash water. Since the 2000 OWS evaluation, curbing had been installed around and a canopy over the VWR. During the TEJV's Site reconnaissance, the OWS and wash water re-circulating system were not in a well-maintained condition and had become non-operational.

### **6.2 INVENTORY OF CHEMICALS/HAZARDOUS SUBSTANCES**

During Site reconnaissance, the chemicals and hazardous substances observed on the Site were consumer-size quantities of cleaning supplies in the janitor's closet of the Training Building. The hazardous materials storage building in the MEP area has two compartments. One compartment contained two 55-gallon drums of lubricating oil, and a metal shelf containing quarts and gallons of petroleum lubricants, cleaning solvents, and bleach. The second compartment contained over two dozen 5-gallon diesel fuel cans, approximately half of which were full.

A flammable materials storage cabinet located inside the OMS contained several dozen aerosol cans of starter fluid, carburetor cleaner, brake parts cleaner, and brake fluid. The paint storage closet in the OMS contained several dozen aerosol cans of automotive and lacquer paint, a 5-gallon bucket of latex paint, and painting supplies. Three yellow plastic outdoor drum storage containers were located behind the hazardous materials storage building. One of containers had two 55-gallon drums, approximately half full of used oil. The remaining two containers had empty plastic containers.

During the Site reconnaissance, no leaks or stains was observed at any of the chemical storage areas described above. There is no evidence that hazardous substances above RQs were stored for one year or more, released, or disposed at the Site.

A self-contained IT-48WC Inland Technology parts washer is located in the OMS between two bay doors. The parts washer uses a petroleum-based fluid. During the Site reconnaissance, no stains were observed on or around the parts washer. The

waste generated from the parts washer is collected by the USAR AMSA facility in Lubbock, Texas, for disposal.

### **6.3 WASTE DISPOSAL SITES**

No signs of landfilling or illegal waste disposal activities were observed on the Site during the Site reconnaissance.

### **6.4 PITS, SUMPS, DRY WELLS, AND CATCH BASINS**

The Site is served by a sanitary sewer system from the City of Amarillo. Wastewater from within the buildings discharges to the sanitary sewer system. Floor drains are in the Training Building kitchen, mechanical room, and restrooms. There is a grease trap outside the kitchen, which is not in use. A former mechanics pit is suspected to have been in the OMS at the northern bay. Although the pit has been filled to grade and capped with concrete flush with the surrounding OMS floor, the outline of the pit was evident as were holes in the concrete floor surrounding the former pit, indicative of fall protection fencing. No documents concerning closure of the former mechanics pit were identified during this ECP.

### **6.5 ASBESTOS-CONTAINING MATERIAL**

In September 1999, an asbestos survey was performed at the USAR Center and no ACM was identified. However, the survey identified a flue in the mechanical room that was suspected to be wrapped in insulation containing asbestos but was not sampled during the survey. The report recommended that the insulation be sampled prior to any future disturbance or removal. The TEJV observed a flue for exhaust gases of the natural gas-fueled water heater in the Training Building mechanical room and no damage was observed on the flue insulation.

### **6.6 PCB-CONTAINING EQUIPMENT**

As described in Section 3.5.8, the PCB status of three transformers on a pole west of the OMS was not determined during a 1997 assessment. Fluorescent lighting may have PCB-containing ballasts. Additionally, fluorescent lights are shipped offsite for recycling. Any light ballast not marked with "No PCBs" should be assumed to contain PCBs and management and disposal of these light ballasts must be in accordance with local, State, and Federal requirements.

Two PMTs located on one utility pole southwest of the MEP area on the property boundary were not identified in the 1997 assessment but were observed by the TEJV (Photograph 9 in Appendix B). One surface-mounted electrical transformer was observed at the evaporative cooler near the exterior of the Training Building mechanical room. Markings on the surface-mounted transformer did not indicate if it was oil-cooled or if it contained PCB-cooling oils. The PCB status of all transformers on the Site is unknown. No leaks,

damage, or evidence of staining from oils in any of the transformers was observed during the Site reconnaissance.

### **6.7 LEAD-BASED PAINT**

No documentation was provided to TEJV indicating a LBP assessment has been conducted at the Site. During the Site reconnaissance, all painted surfaces appeared to be in good condition and no peeling paint was observed.

### **6.8 RADON**

According to the USEPA Map of Radon Zones for Texas, Potter County is in an area with low propensity for radon. Areas tested were classified in Zone 2, which is more than or equal to 2 pCi/L and less than or equal to 4 pCi/L. The EDR report (Appendix E) stated the average radon activity reported for Potter County in the Texas Department of Health database is 10.850 pCi/L for basements and 4.447 pCi/L for first-floor living areas.

In 1994, radon tests were performed at three locations at the Site. Sample results were all less than 1.0 pCi/L. The USEPA-recommended action level for radon is 4 pCi/L.

### **6.9 UNEXPLODED ORDNANCE**

No indications were found during the Site reconnaissance or during the review of records to indicate the presence of munitions and explosives of concern at the Site.

### **6.10 RADIOACTIVE MATERIALS**

During the Site reconnaissance and records review process, no indications were found of the past storage, use, or release of radiological commodities at the USAR Center.

## **7.0 REVIEW OF SPECIAL RESOURCES**

### **7.1 LAND USE**

Based on an interview with Amarillo Zoning Office personnel, the Site is zoned LC. The surrounding properties are also zoned LC, except for the property to the northeast which is zoned general retail. Figure 16 in Appendix A provides a 2002 aerial photograph of the USAR Center and surrounding properties, and depicts current land use.

### **7.2 COASTAL ZONE MANAGEMENT**

The Texas Coastal Management Plan is administered by the Texas General Land Office. The Texas coastal zone extends southwest along the coast from the Sabine River to the Rio Grande River, seaward into the Gulf of Mexico for a distance of 10.35 miles, and inland to include 36 counties. The coastal zone includes all counties bordering the Gulf of Mexico and extends approximately 40 miles inland. It includes all estuaries and tidally influenced streams and bounding wetlands. The USAR Center is approximately 500 miles inland from the Gulf of Mexico. Potter County is not included in the Texas Coastal Management Plan.

### **7.3 WETLANDS**

A search for wetland information was conducted online from the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map data Web site, with no digital data available for the Site. Additionally, EDR did not have wetlands information for the Site. The Site is upland, well drained, and no vegetation typical of wetlands was observed on the Site.

### **7.4 100-YEAR FLOODPLAIN**

The FEMA Flood Rate Insurance Map indicates that the Site lies within the 100-year flood plain. Figure 17 in Appendix A provides a map of the 100-year flood plain in the area of the Site. As shown on that figure, the Site is in Zone "A23," meaning that the area is subject to the 100-year flood, with the flood elevation determined to be 3,627 feet.

### **7.5 NATURAL RESOURCES**

The USAR Center was not included in any threatened and endangered species habitat analysis previously performed for 90<sup>th</sup> RRC facilities. According to information obtained from the USFWS Region 2 Endangered Species List for Potter County, Texas, the vicinity of the Site includes one endangered fish and two endangered birds:

- Arkansas River Shiner (*Notropis girardi*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Whooping Crane (*Grus americana*)

Based on the developed nature of the Site, its small size, and lack of sensitive natural resources, no rare species are expected to be established there. Except for potential incidental use by migrants, the threatened and endangered species are unlikely to occur at the Site due its urban nature.

## **7.6 CULTURAL RESOURCES**

As described in Section 3.5.7, a cultural resource assessment was performed for the Site. The conclusion was that there were no architectural or archaeological issues at the Site. The Site has a “low” archaeological potential and is not eligible for the National Register of Historic Places.

## **7.7 OTHER SPECIAL RESOURCES**

There are no other known resources that could affect the Site.

## 8.0 CONCLUSIONS

The TEJV, under contract to the USACE Louisville District, has prepared this ECP Report for the Blucher S. Tharp Memorial USAR Center (Facility ID TX003) at 2801 Duniven Circle in Amarillo, Potter County, Texas. The USAR Center is on 4.133 acres of land with two permanent buildings: an 11,732-square-foot Training Building and a 2,864-square-foot OMS. The site is currently occupied by the 974<sup>th</sup> Quartermaster Company.

Findings of this ECP are based on existing environmental information, including visual observations, Site records, and federal, state, and local database and file information related to the storage, release, treatment, or disposal of hazardous substances or petroleum products or derivatives on the Site. The following present the findings related to areas evaluated during the ECP process.

- **Hazardous Substances.** Chemicals containing CERCLA hazardous substances would have been used and stored at the Site in amounts necessary to support unit-level vehicle and building maintenance activities. However, the quantities stored have not exceeded 1,000 kg or the RQ of designated hazardous substances, or 1 kg of acutely hazardous waste. There is no evidence that the chemicals used or stored were ever improperly handled, released, or disposed at the Site.
- **USTs/ASTs.** One UST associated with the OWS is registered with the TCEQ (TCEQ UST Facility ID 69229) and there are no reported releases associated with the UST. A 500-gallon AST associated with the OWS stores spent vehicle wash water for reuse. During the Site reconnaissance, the OWS and wash water re-circulating system were not well-maintained and they had become non-operational.
- **Non-UST/AST Petroleum Storage.** Petroleum substances observed on the Site included: a hazardous materials storage building in the MEP area contained two 55-gallon drums of lubricating oil, multiple quart and gallon containers of petroleum lubricants, and over two dozen 5-gallon diesel fuel cans, approximately half of which were full; a flammable materials storage cabinet inside the OMS contained several dozen aerosol cans of starter fluid, carburetor cleaner, brake parts cleaner, and brake fluid; a yellow plastic storage container behind the hazardous materials storage building had two 55-gallon drums, approximately half full of used oil; and a self-contained IT-48WC Inland Technology parts washer with petroleum-based fluid was in the OMS between the two bay doors. No leaks or staining was observed at any of the chemical storage areas described above.
- **PCBs.** The PCB status of three transformers on a pole west of the OMS was not determined during a 1997 assessment, and fluorescent lighting may contain PCB-containing ballasts. Two PMTs located on one utility pole southwest of the MEP area on the property boundary were not identified in the 1997 assessment. Also, one surface-mounted electrical transformer was observed at the evaporative

cooler near the exterior of the Training Building mechanical room. The PCB status of all transformers on the Site is unknown. No leaks, damage, or evidence of staining from oils in any of the transformers was observed during the Site reconnaissance. Also, fluorescent lights are shipped offsite for recycling. Any light ballast not marked with "No PCBs" should be assumed to contain PCBs and management and disposal of these light ballasts must be in accordance with local, State, and Federal requirements.

- **ACM.** A September 1999 asbestos survey performed at the USAR Center identified no ACM. However, a flue in the mechanical room suspected to be wrapped in insulation containing asbestos was not sampled during that survey. The report recommended that the insulation be sampled prior to any future disturbance or removal. TEJV observed a flue for exhaust gases of the natural gas-fueled water heater in the Training Building mechanical room and no damage was observed on the flue insulation.
- **LBP.** No LBP evaluation has been conducted at the USAR Center. Due to the age of the buildings (constructed before 1978), it is presumed that they contain LBP. During the Site reconnaissance, all painted surfaces appeared to be in good condition and no peeling paint was observed.
- **Radiological Materials.** No radiological materials were identified during the Site reconnaissance. There is no evidence of any release of radiological materials at the Site.
- **Radon.** In 1994, radon tests were performed at three locations at the Site and all results were less than 1.0 pCi/L. The USEPA-recommended action level is 4 pCi/L. Radon is not considered an environmental concern at the Site.
- **Munitions and Explosives.** No evidence was found during the Site reconnaissance or records review process of the past presence of munitions and explosives of concern.
- **Surrounding Properties.** Potential environmental sites of concern, located within corresponding ASTM D 6008-recommended minimum search distances from the Site, were evaluated. The Smithson Automotive Center property is an LPST site approximately 870 feet northeast of and at a higher elevation than the Site. The assessment of the LPST property has not been completed, so the extent of contamination in soil and groundwater was unknown at the time of this ECP. Based on an evaluation of available information and details concerning the identified site, the Smithson Automotive Center property is considered a "High Risk" to the Site due to the potential for contamination migration. "High Risk properties are those that exhibit significant environmental conditions that have the probability of adversely affecting the environmental conditions at the Site.

Areas of potential environmental concern were reviewed and the TEJV found no significant concerns relating to the environmental condition of the Site. While no releases were observed during the Site reconnaissance, it cannot be stated with any certainty that there has never been a release on the Site. In accordance with DoD policy defining the classifications (see S.W. Goodman Memorandum dated October 21, 1996), the Site has been classified as Category 2. This classification does not include categorizing the property based on *de minimis* conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

## 9.0 REFERENCES

### ***Persons Contacted***

- L. Jerry, City of Amarillo Zoning Department, (806) 358-1601. Telecommunication on August 15, 2006.
- Christopher Greer, Blucher S. Tharp Memorial USAR Center, (806) 352-8911. Meeting on August 14, 2006
- Donnie Rhynehart, Blucher S. Tharp Memorial USAR Center, (806) 352-8911. Meeting on August 14, 2006
- Sergeant Orlando Rivera, Blucher S. Tharp Memorial USAR Center, (806) 352-8911. Meeting on August 14, 2006

### ***Resources Consulted***

- Amarillo Public Library. Aerial photographs dated 1950.
- Chief of the Environmental Branch, Fort Hood, Texas. Memorandum for the Blucher S. Tharp USAR Center, subject: *Results of Radon Testing*. August 29, 1994.
- ECCI. *Environmental Baseline Survey* for Blucher S. Tharp Memorial USAR Center. March 2006.
- EnSafe Inc. *Oil-Water Separator Evaluation*. May 5, 2000.
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- Federal Emergency Management Agency. *Flood Insurance Rate Map, City of Amarillo, Texas, Potter County, Community Panel Number 050207 0010 B* obtained at [www.msc.fema.gov](http://www.msc.fema.gov). July 19, 1982.
- Goodman, S.W. *Memorandum: Clarification of "Uncontaminated" Environmental Condition of Property at Base Realignment and Closure (BRAC) Installations*. October 21, 1996.
- NETR-Real Estate Research & Information, 2055 East Rio Salado Parkway, Tempe, Arizona, 85281. *Historical Chain-of-Title Report*. Project No. N06-4917. August 1, 2006.

- Parsons Engineering Science, Inc. *Archaeological Assessment of 90<sup>th</sup> Regional Support Command Facilities in Texas* for the Department of the Army. February 1998.
- Parsons Engineering Science, Inc. *Management Summary, Cultural Resources Assessment of 90<sup>th</sup> Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.* February 1998.
- Parsons Engineering Science, Inc. *Historic Architectural Resources Assessment of the 90<sup>th</sup> Regional Support Command Facilities in Texas.* February 1998.
- Texas Department of Environmental Quality, Region 1 Office, Amarillo, Texas. File reviews of UST and LPST sites.
- U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* (for 90<sup>th</sup> RRC). September 30, 1997.
- U.S. Army 90<sup>th</sup> Regional Support Command. *Asbestos Building Survey, Blucher S. Tharp Memorial USARC, Amarillo, Texas.* September 1999.
- U.S. Department of Agriculture, National Resources Conservation Service, *Web Soil Survey.* <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- U.S. Fish and Wildlife Services, Branch of Habitat Assessment, *National Wetlands Inventory Wetlands Mapper.* <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>
- U.S. Geological Survey, Terra Server Web site (2002 aerial photograph) <http://terraserver-usa.com/default.aspx>

### **Agencies Contacted**

- Texas Commission of Environmental Quality
- City of Amarillo Zoning Office
- City of Amarillo Public Library

**Appendix A**  
**Figures**

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**FIGURES**

Figure 1	General Site Location Map
Figure 2	Site Layout Plan
Figure 3	Training Building Floor Plan
Figure 4	OMS Building Floor Plan
Figure 5	1956 Topographic Map
Figure 6	1956 — 1967 Topographic Map
Figure 7	1973 Topographic Map
Figure 8	1985 Topographic Map
Figure 9	1950 Aerial Photograph
Figure 10	1959 Aerial Photograph
Figure 11	1967 Aerial Photograph
Figure 12	1978 Aerial Photograph
Figure 13	1988 Aerial Photograph
Figure 14	1995 Aerial Photograph
Figure 15	2001 Aerial Photograph
Figure 16	2002 Aerial Photograph
Figure 17	FEMA Flood Zone Map

**Appendix B**  
**Site Reconnaissance Photographs**

**Appendix C**  
**Chain-of-Title Report**

**Appendix D**  
**Previous Environmental Reports**

## PREVIOUS ENVIRONMENTAL REPORTS

1. Chief of the Environmental Branch, Fort Hood, Texas. Memorandum for the Blucher S. Tharp USAR Center, subject: *Results of Radon Testing*. August 29, 1994.
2. ECCL. *Environmental Baseline Survey*. March 2006.
3. EnSafe Inc. *Oil-Water Separator Evaluation*. May 5, 2000. (pertinent pages only)
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8. U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97*. September 30, 1997. (pertinent pages only)
9. U.S. Army 90<sup>th</sup> Regional Support Command. *Asbestos Building Survey, Blucher S. Tharp Memorial USARC, Amarillo, Texas*. September 1999.

**Appendix E**  
**Regulatory Database Search Reports**