

FINAL

**ENVIRONMENTAL CONDITION OF
PROPERTY REPORT**

**JULES E. MUCHERT
U.S. ARMY RESERVE CENTER (TX023)
10031 EAST NORTHWEST HIGHWAY
DALLAS, TEXAS 75238**

Prepared For:

**U.S. Army Corps of Engineers — Louisville District
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March 15, 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.

JAMES WHEELER II
Chief, Environmental Division
90th Regional Readiness Command

DATE

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



LENARD GUNNELL, P.G.
Project Geologist
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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 Jules E. Muchert U.S. Army Reserve (USAR) Center (Facility ID TX023), hereafter referred to as the "Site" or "USAR Center." The Site is located at 10031 East Northwest Highway, in Dallas, Dallas 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 4165.77-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 tenant uses of the Site and the resulting environmental condition of the property.

The USAR Center encompasses 5.15 acres of land with four permanent structures: a 30,861-square-foot Training Building, a 6,383-square-foot organizational maintenance shop (OMS), a vehicle wash rack (VWR) covered by a 600-square-foot awning, and a 312-square-foot recreation shelter. The Site is currently occupied by five units: 223rd Maintenance Detachment, 321st Military Intelligence, 345th Psychological Operations Command, 468th Quartermaster Battalion, and the 5778th Reserve Training Unit.

Based on a review of aerial photographs and U.S. Geological Survey topographical maps dating back to 1942, the Site was an undeveloped lot prior to development by the U.S. government in 1957. The U.S. government purchased in the Site in 1956 and constructed the original Training Building, the OMS, and the VWR in 1957.

Areas of potential environmental concern were reviewed and the TEJV found one significant environmental condition relating to the Site. TXU Energy responded to a transformer oil leak at the USAR Center in approximately 2003. TXU Energy excavated impacted soil, replaced the excavation with clean backfill, and replaced the leaking transformer. USAR personnel indicated TXU Energy prepared a report documenting the soil removal, which was not available for review by the TEJV.

In accordance with DoD policy defining the classifications (see S.W. Goodman Memorandum dated October 21, 1996), the Site has been classified as Category 4. 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.

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List of Acronyms and Abbreviations

ACM	asbestos-containing material
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
EBS	Environmental Baseline Survey
ECCI	Environmental, Compliance & Construction, Inc.
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
hazmat	hazardous material
HVAC	heating, ventilating, and air conditioning
IFR	indoor firing range
kg	kilograms
LBP	lead-based paint
LPST	leaking petroleum storage tank
LQG	large-quantity generator
MEP	military equipment parking
NFA	No Further Action
NPL	National Priorities List
OMS	organizational maintenance shop
OWS	oil-water separator

Parsons	Parsons Engineering Science, Inc.
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PMTs	pole-mounted transformers
POL	petroleum, oil, and lubricants
POV	privately owned vehicle
RCRA	Resource Conservation and Recovery Act
RCRAInfo	RCRA Information
RQ	reportable quantity
SQG	small-quantity generator
TBA	Targeted Brownfields Assessments
TCEQ	Texas Commission on Environmental Quality
TEJV	Terraine-EnSafe Joint Venture
TRC	Railroad Commission of Texas
TWDB	Texas Water Development Board
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAR	U.S. Army Reserve
USDA	U.S. Department of Agriculture
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 Jules E. Muchert U.S. Army Reserve (USAR) Center (Facility ID TX023), 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 located at 10031 East Northwest Highway, in Dallas, Dallas County, Texas, 75238, 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 1, 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 5.15-acre Jules E. Muchert USAR Center at 10031 East Northwest Highway in Dallas, Texas. The property is bordered by single-family residences to the north, the TXU Energy Lake Highlands (electric power) Substation to the west, East Northwest Highway and single-family residences to the south, and light commercial businesses to the east. A general Site location map, building floor plans, historical topographic maps and aerial photographs, a wetland map, and a flood plain map are provided in Appendix A. Appendix B provides photographs taken during the August 1, 2006 Site reconnaissance. Appendix C provides chain-of-title information. Historical environmental documents, reports, and records of communication 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 subject property. Opinions on the environmental conditions at the Site are based on information from the Site reconnaissance, interviews, and collection and review of readily available information. New information or changes in property 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 Jules E. Muchert 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 reconnaissance conducted on August 1, 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.

According to USAR personnel, the person responsible for maintaining environmental records at the USAR Center was recently reassigned. As a result, some records could not be located and were not available for review by TEJV personnel during preparation of the ECP Report.

2.0 SITE LOCATION AND PHYSICAL DESCRIPTION

A visual Site reconnaissance involving a walking tour of the facility and its perimeter, as well as a systematic survey on foot through each section of the property, was conducted by TEJV personnel on August 1, 2006, to field-verify information produced in the document review and to identify recognized environmental conditions of property. The interior and exterior of both Site buildings were included in the visual reconnaissance.

A reconnaissance of the Site perimeter was conducted to evaluate adjacent property uses that could cause environmental contamination on the Site. TEJV personnel drove on roads along the perimeter to visually identify any contiguous properties that appear, in 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 10031 East Northwest Highway in Dallas, Dallas County, Texas (Figure 1 in Appendix A). The Site is located in the northeast portion of Dallas County within the city limits of Dallas, Texas. The Site is in a primarily residential and urban park area, with some commercial property to the east. White Rock Lake and its surrounding park are located approximately 1,500 feet west and southwest of the Site, with a small section of the park abutting the northwest corner of the property.

2.2 ASSET INFORMATION

Facility Name and Address: Jules E. Muchert USAR Center (TX023)
10031 East Northwest Highway
Dallas, Texas 75238

Property Owner: U.S. Government

Date of Ownership: March 9, 1956

Current Occupants: 223rd Maintenance Detachment
321st Military Intelligence
345th Psychological Operations Command
468th Quartermaster Battalion
5778th Reserve Training Unit

Zoning: R-7.5(A) — Single Family Residential

County, State: Dallas County, Texas

USGS Quadrangle(s): White Rock Lake, Texas

Section/Township/Range: Not applicable

Latitude/Longitude: 32° 51' 52.6" N; 96° 42' 51.1" W

Legal Description: All those certain pieces or parcels of land being in the John H. Hyde Survey, A-546, and part of the A.D. Murdock Survey, A-997, lying and situate in the City of Dallas, County of Dallas, Texas.

2.3 PHYSICAL DESCRIPTION

A Site layout plan of the USAR Center is provided as Figure 2 in Appendix A. Photographs 1 through 4 in Appendix B show the general layout of the Site and buildings, and photographs 5 through 27 illustrate specific environmental conditions, other site-specific features, and surrounding properties.

The USAR Center is on 5.15 acres of land with four permanent structures: a 30,861-square-foot Training Building, a 6,383-square-foot organizational maintenance shop (OMS), a vehicle wash rack (VWR) covered by a 600-square-foot awning, and a 312-square-foot recreation shelter. Initial construction of the Training Building and OMS (with VWR) began in 1957, and the awning at the VWR was added after October 1999. The Training Building walls are concrete block with brick exterior and finished sheetrock interior, and the OMS walls are concrete block with a brick exterior. Both buildings have concrete foundations.

Vehicle access to the Site is via three driveways from East Northwest Highway to the south. Two driveways connect to one privately owned vehicle (POV) parking lot on the west side of the Training Building. One driveway connects to a small POV parking lot and military equipment parking (MEP) lot on the east side of the Training Building. The parking lots on the east side of the Training Building are controlled with gates, and the west parking lot is open to the street. The west POV parking lot is connected to the east POV parking lot and the east MEP parking lot by a paved area north of the Training Building. Additional MEP parking is along the northern boundary of the Site, with access controlled by gates that open toward the interior of the property.

An MEP area is west of the OMS. The OMS and MEP are enclosed by a gated chain-link security fence. The VWR is located east of the OMS, within the fenced area. A hazardous materials (hazmat) storage shed is also within the OMS fenced area.

Approximately three-quarters of the Site are covered by impervious surface features, such as asphalt parking areas, driveways, concrete walkways, and building footprints. The remaining ground surface is covered by lawn and landscaped areas.

The Training Building is a two-story, modified T-shaped structure (Figures 3 and 4, Appendix A) that includes classrooms, restrooms, offices, a Drill Hall, an arms storage room, a kitchen, and mechanical rooms. The arms storage room on the second floor was formerly an indoor firing range (IFR) that was decommissioned in 1997. The interior of the building appeared to be well maintained.

Mechanical rooms 101, 122, and 201 contain the heating, ventilating, and air-conditioning (HVAC) system and hot water heaters. Air-conditioning equipment is also outside the assembly hall. Mechanical rooms are equipped with floor drains that convey the condensate/blowdown/leakage from the various pieces of mechanical equipment to the city sewer system (Appendix B, Photograph 5). The condensate/blowdown/leakage is piped directly from each piece of equipment to the floor drains to prevent water from accumulating on floors. Floor drains are also located in the restrooms and janitor's closet to facilitate floor cleaning (Appendix B, Photograph 6). The floor drains discharge to the public sanitary sewer that serves the Site.

The OMS is a one-story, rectangular structure adjacent to the MEP lot and within the chain-link security fencing north of the Training Building. Five roll-up garage doors on the west side of the OMS open onto the MEP staging area. Four additional MEP areas are west of the staging area in front of the OMS. The OMS has two pedestrian doors: one on the south wall and one on the north wall. The OMS has a bare concrete floor and concrete block walls with brick exterior. The southern-most bay contained a Hummer at the time of the Site reconnaissance.

The VWR that abuts the east side of the OMS, within the fenced area (Appendix B, Photograph 7), is equipped with an oil-water separator (OWS) that is piped to the City of Dallas sanitary sewer system (Appendix B, Photograph 8). Vehicle wash water is provided via a 1-inch water line and hose. A two-room hazmat storage shed and a steel storage shed are also within the OMS fenced area (Appendix B, Photograph 9). At the time of the Site reconnaissance, the hazmat storage shed contained empty 55-gallon drums, 5-gallon pails of various petroleum, oil, and lubricants (POLs), and a 55-gallon drum partially filled with used oil (Appendix B, Photographs 10 and 11). Two empty oil drums were located outside the hazmat storage shed in a spill containment unit (Appendix B, Photograph 12). The steel storage shed contained equipment such as tents, chairs, etc.

Topographically, the Site slopes from northeast to southwest. No signs of erosion, excavation, or fill were observed on the Site. No offsite soil or fill material has been brought onto the Site nor has any significant regrading occurred on the Site.

Numerous Hummers and a three-axle truck were parked in the MEP area during the Site reconnaissance (Appendix B, Photograph 4).

2.4 SITE HYDROLOGY AND GEOLOGY

2.4.1 Surface Water Characteristics

Figure 1 in Appendix A provides a portion of the 1973 White Rock Lake, Texas U.S. Geological Survey (USGS) topographic map, which includes the Site. As shown, the Site lies between White Rock Creek to the west and the Dixon Branch of White Rock Creek to the east, approximately 2,500 feet northeast of the confluence of White Rock Creek and White Rock Lake. The Site is at an elevation of approximately 485 feet above mean sea level and slopes to the west and southwest toward White Rock Lake. No surface water bodies are present on the Site.

The Site is at the foot of a hill that abruptly rises approximately 75 feet to the east along East Northwest Highway. Hills border the property on the west, east, north, and southeast. A branch of the White Rock Lake floodplain extends from the lake toward the southwest portion of the Site. The floodplain is almost flat, except for East Northwest Highway and Buckner Street, which cross it and are built up to reduce the flooding potential of the two streets.

Most storm water at the Site appears to flow to the west and enters a storm water drainage system through two storm drains located on the west boundary of the Site (Appendix B, Photograph 13). Storm water from the grassy areas on the south and east sides of the Site enter the storm water system through two grates near the southeast corner of the property (Appendix B, Photograph 14).

According to a review of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Mapper Web site, no wetland areas are present on the Site (Figure 5, Appendix A). The nearest wetland area is approximately 1,500 feet southwest of the property, near White Rock Lake.

2.4.2 Hydrogeological Characteristics

The geologic sequence in Dallas County consists of the following Cretaceous and Quaternary-age units in ascending order:

- **Cretaceous-age Sedimentary Rocks:** Twin Mountains/Travis Peak, Glen Rose, Paluxy, Woodbine, Eagle Ford Shale, Austin Chalk, and Ozan Formations.
- **Quaternary-Age Unconsolidated Sediments:** Holocene alluvium, Pleistocene terrace deposits, and fluvial stream deposits.

These deposits and rock units make up the following three primary hydrogeologic units in Dallas County:

- Local shallow groundwater zones in unconsolidated Pleistocene and Holocene sediments
- The Cretaceous-age regional confining sedimentary bedrock system (Eagle Ford Shale, Austin Chalk)
- The regionally confined Cretaceous-aged aquifer system of the Trinity Group (Ashworth and Hopkins, 1995; Texas Water Commission, 1989)

Based on a review of the Geologic Atlas of Texas, Dallas Sheet (Dutton, et al., 1994), the subject property lies on the Cretaceous, Austin Chalk Formation (Austin Chalk). The Austin Chalk is a mostly micro-granular, massive limestone with thinly inter-bedded calcareous clay zones and ranges from 300 to 500 feet thick. The limestone is gray, but weathers to a buff white color and crops out near White Rock Lake southwest of the Site. The Austin Chalk yields only small quantities of water, and then in only small local areas (Nordstrom, 1982).

According to information acquired from the U.S. Department of Agriculture (USDA) Soil Conservation Service's State Soil Geographic Database, soil at the Site is part of the Austin Soil Series. The Soil Conservation Service *Soil Survey of Dallas County, Texas*, also depicts the Site as being in the Austin Soil Series (Austin), but divides the Austin into specific soils. The subject Site is developed on the Urban land soil, according to the USDA soil survey.

Austin and Urban land soils are generally moderately deep, well-drained clayey soils that are derived from the chalky limestone of the Austin Chalk and have slopes that range from 0 to 8%. The soils have high corrosion potential and are not classified as hydric. Austin and Urban land soils average 40 inches thick and rest on weathered limestone.

Dallas County, in the Blackland Prairie physiographic province of the West Gulf Coastal Plain, is characterized by relatively level to slightly rolling land surface consisting of low flood plains, broad flat upland terraces, and rolling hills in the Trinity River watershed. This terrain is dissected by numerous dendritic streams and creeks, and surface drainage is occasionally controlled by fractures or faults in the locally outcropping Austin Chalk (Dutton, et al., 1994).

The Environmental Data Resources, Inc. (EDR) proprietary AQUIFLOW Information System did not provide groundwater flow direction data for the Site. AQUIFLOW information available for wells at one-half to one mile from the Site indicated varying groundwater flow direction. Groundwater flow direction at the property, based on surface topography, is estimated to be southwest toward White Rock Lake.

2.5 SITE UTILITIES

The City of Dallas provides potable water and sanitary sewer service to the Site. Wastewater is generated from bathrooms, sinks, cooling system condensate, and vehicle wash water that passes through the OWS. Electricity is provided to the Site by TXU Energy. Natural gas is provided by Atmos Energy.

Storm water is discharged to the City of Dallas storm water sewer system. Most storm water at the Site appears to flow to the west and enters the storm water drainage system through two storm drains located on the west boundary of the Site. Storm water from the grassy areas on the south and east sides of the Site enter the storm water system through two grates near the southeast corner of the property.

2.6 WATER SUPPLY WELLS AND SEPTIC SYSTEMS

Based on a review of historical Site and agency records, interviews with USAR personnel, the Site reconnaissance, and a review of the Texas Water Development Board (TWDB) groundwater information database, no water supply wells, groundwater monitoring wells, or septic systems are currently or have been on the Site.

A search of federal and state water well databases identified one City of Dallas water supply well located approximately 1,500 feet southwest of the Site. The well (TWDB well number 3311101) was drilled in 1953 to a depth of 3,206 feet and terminated in the Twin Mountain aquifer. The environmental database report indicates that the well is not currently being used. A Texas Department of Water Resources report (Nordstrom, 1982) includes a map that also identifies well number 3311101 as not being used.

The environmental database report identified four additional wells. One well is north of the Site and appears to be a shallow monitoring well based on the reported water level ranging between 8.09 and 8.78 feet below ground surface. Three other wells are clustered together and also appear to be monitoring wells. One of the three is reported to have water levels that ranged between 15 and 22 feet below ground surface.

The Site is connected to the City of Dallas sanitary sewer system. No septic system was observed on site. USAR personnel indicated that the buildings have always been connected to the sanitary sewer.

3.0 SITE HISTORY

3.1 HISTORY OF OWNERSHIP

A Historical Chain-of-Title Report (Appendix C) for the Site was obtained from NETR Real Estate Research and Information. No environmental liens, institutional controls, or engineering controls were identified in the report. Historical property ownership was reviewed back to 1904. The City of Dallas acquired the property from Hilltop Development Corporation in 1955. The 5.15-acre USAR Center property was acquired by the U.S. government from the City of Dallas in 1956. According to USAR personnel, the original Training Building and the OMS were constructed in 1957. Both buildings are shown on a 1957 topographic map and a 1958 aerial photograph (see discussion in Section 3.2).

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

3.2 PAST USES AND OPERATIONS

Based on a review of historic topographic maps and aerial photographs, the Site property appears to have been unimproved until 1957, when the USAR Center was constructed. Important events in the facility's development, administration, and mission are summarized in Table 1.

Year	Description
1956	Property purchased by U.S. government from the City of Dallas
1957	Construction of Training Building, VWR, and OMS
1997	Decommissioning of IFR

Available business directories were reviewed at approximately five-year intervals for the years spanning 1921 through 2005. A 1959 Cole's Directory at the Dallas public library lists the Site as "U.S. Army Reserve Center." According to a city directory abstract report provided by EDR (Appendix E), the address of the USAR Center was first listed in the R.L. Polk Co. Directory in 1961. The Site is listed as a USAR Center from 1959 until 2000. The Site is not listed in the 2005 Cole's Directory.

The Site has primarily functioned as an administrative, logistical, and educational facility, with minor maintenance performed on military vehicles in the OMS. Reservists drill on weekends all year. At the time of the Site reconnaissance, five units occupied the Site: the 223rd Maintenance Detachment, the 321st Military Intelligence, 345th Psychological Operations Command, 468th Quartermaster Battalion, and the 5778th Reserve Training Unit. According to USAR personnel, the Site has been used as a

USAR Center since its purchase by the U.S. government in 1956, and has not been leased to or occupied by other entities.

The OMS has been used to perform routine, limited preventive maintenance on military equipment such as vehicle fluid, brake, and electrical checks. Large-scale maintenance activities are conducted at the Area Maintenance Support Activity in either Grand Prairie or Seagoville, Texas. The OMS was clean and well maintained at the time of the Site reconnaissance and no evidence of spills was observed.

Vehicle washing has routinely occurred at the VWR located east of the OMS. The VWR is canopied and currently equipped with a standard hose connection. No pressure washing equipment was observed. Wash water is collected in an approximately 18-inch square single drain and passes through an OWS before being discharged to the City of Dallas sanitary sewer system.

Historical aerial photographs, topographic maps, and city directories were the primary sources of information on the past use and operations at the Site. Figures 6 through 11 in Appendix A present topographical maps of the Site dated 1893, 1957, 1959, 1968, 1973, and 1995. Figures 12 through 17 present aerial photographs of the Site and surrounding areas dated 1942, 1958, 1973, 1984, 1996, and 2001. The TEJV requested Sanborn fire insurance maps from EDR Sanborn, which claims copyright to the largest and most complete collection of Sanborn maps. None was available for the Site, as is documented in Appendix D. The TEJV also searched the Dallas public library and Texas State Library Web site for Sanborn maps, but the USAR Center was not included in the available Sanborn map coverage areas.

Pertinent observations on the historical USGS topographic maps are summarized below.

- **1893 (Figure 6).** This map cannot be used to determine Site development because the scale (1:125,000) shows city blocks but not individual buildings. White Rock Creek has not been dammed, so White Rock Lake is not present.
- **1957 (Figure 7).** The USAR Center, in its current configuration, is first shown on the 1957 topographic map.
- **1959 (Figure 8).** The USAR Center in its current configuration is shown on this map. The scale is 1:62,500 and shows the development of residential areas around White Rock Lake.
- **1968 (Figure 9).** This figure shows the USAR Center and surrounding area to be essentially the same as in the figure of the 1959 map.
- **1973 (Figure 10).** This figure shows development of the residential tracts to the north and south of the USAR Center to be essentially complete.

- **1995 (Figure 11).** This figure does not show the USAR Center, although Thurgood Lane and East Northwest Highway can be identified. The boundary of White Rock Lake Park can be seen as a blue dashed line along the west side of the Site.

Pertinent observations on the historical aerial photographs are summarized below.

- **1942 (Figure 12).** This figure shows the Site and surrounding area as cultivated farm land. No residential areas are present, although 12 to 14 farm houses are visible.
- **1958 (Figure 13).** This figure shows significant urbanization of the area has occurred between 1942 and 1957. Most of the primary streets are present. White Rock Lake and large residential tracts are visible, although not completed, to the north and south. The shopping center that is currently adjacent to the east of the Site is not present, but a large residential area is present further east. MEP and POV parking areas at the Site are not highly reflective and appear to be either asphalt or dirt.
- **1973 (Figure 14).** The TXU Energy electrical substation that abuts the property to the west is visible on this figure. Parking areas are highly reflective at the Site and appear to be concrete in this figure. The outline of the VWR is defined in this figure and the elongated shape suggests that the awning has not been constructed.
- **1984 (Figure 15).** The photograph shows that an apartment complex has been built northeast of the Site. The USAR Center property appears unchanged from the previous figure.
- **1996 (Figure 16).** This figure shows the recreation shelter between the two north-south trending sections of the Training Building. The outline of the VWR area is similar to earlier aerial photographs, indicating that the awning over the wash rack had not been constructed. The Dallas Police Station to the west of the Site is present in the 1996 aerial photograph.
- **2001 (Figure 17).** This figure shows the USAR Center and surrounding areas to be essentially the same as during the August 1, 2006 Site reconnaissance.

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 a 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 products and small amounts of POLs were stored in the hazmat storage shed or a hazmat locker within the OMS building (Appendix B, Photograph 15).

The OMS wash rack is equipped with a 1-inch hydrant and hose bib, drain, and OWS, which discharges to the City of Dallas sanitary sewer system. USAR personnel indicated that soap and degreasers were not used at the wash bay, and that equipment washing was rare.

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 federal and state environmental databases, and interviews with USAR personnel. According to USAR personnel, there is no evidence that hazardous substances above RQs were released or disposed at the Site. USAR personnel indicated that a car battery abandoned in one of the parking areas two to three years earlier was sent offsite for recycling with USAR batteries.

No stained soil or stressed vegetation was observed during the August 1, 2006 Site reconnaissance. Additionally, the MEP area and POV parking area contained *de minimis* (less than 1 foot in diameter) oil stains from vehicle drips. No noxious or foul odors were noted during the Site reconnaissance.

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, it does not appear that bulk petroleum aboveground storage tanks (ASTs) have been used on the Site.

An OWS associated with the VWR which separates oil from process wash water prior to discharge to the City of Dallas sanitary sewer was installed in 1987. The OWS is registered with the Texas Commission on Environmental Quality (TCEQ) as an underground storage tank (UST). No other USTs were identified or reported to have been on the Site.

3.5 REVIEW OF PREVIOUS ENVIRONMENTAL REPORTS

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

3.5.1 Environmental Baseline Survey Report

Environmental, Compliance & Construction, Inc. (ECCI) issued an *Environmental Baseline Survey* for the USAR Center in August 2005. The Environmental Baseline Survey (EBS) provides summary and general information about the Site. In accordance with the ASTM Standard D 5746-98 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 4 Property. An ECP Area Type 4 Property is an area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken. ECCI assigned the Site a Type 4 status "Because the facility had a transformer failure that resulted in a release of transformer fluid with an unknown PCB content."

3.5.2 Architectural Assessment Report

Parsons Engineering Science, Inc. (Parsons) prepared a *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Texas* in 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 this Site until 2007. The Texas Historical Commission concurred with the report recommendations in a letter dated July 23, 1997.

3.5.3 Archaeological Assessment Report

Parsons prepared *Archaeological Assessment and Reconnaissance of 90th Regional Support Command Facilities in Texas* in February 1998. Parsons recommended that no archaeological survey be performed at the Site and indicated that it is unlikely that any archaeological resources remain on the USAR Center. The Texas Historical Commission concurred with the report recommendations in a letter dated July 15, 1997.

3.5.4 Lead-Based Paint Report

The USAR performed a LBP survey of the USAR Center and issued *Lead-Based Paint Survey, Jules Muchert USAR Center, Dallas, TX* in November 2001. The report stated that the date of construction for the USAR Center buildings was 1957. The assessment documented materials/surfaces containing LBP in the USAR Center. Positive test results for LBP were indicated at 10 locations in the Training Building and OMS, as discussed in

Section 6.7. The report recommended no immediate action and proper worker and environmental protection if lead-positive areas are disturbed.

3.5.5 Indoor Firing Range Report

American Asbestos, Inc. completed a lead abatement, cleanup, and encapsulation project on January 31, 1997, during which it decommissioned the IFR on the second floor of the USAR Center. The results of its activities are documented in a May 21, 1997, report titled *Final Submittals, Presented in Connection with: Prepare Indoor Firing Range for Alternate Use at Various Locations in Oklahoma & Texas*. American Asbestos, Inc. removed steel panels, plates, and equipment from the firing range and sent the metal to Duggan Industries, Inc., a local recycler in Dallas, Texas. Debris and sand from the bullet traps were containerized and reportedly transported to the American Asbestos, Inc. facility in Oklahoma City, Oklahoma, and later delivered to Encycle Recycling in Corpus Christi, Texas. The HVAC system exhaust unit was removed and capped with a metal covering. The bullet trap pit was filled with clean sand and capped with concrete to match existing floor grade.

3.5.6 Asbestos Reports

The USAR performed an asbestos survey of the Site in June 1999. The results are summarized in a report titled *Asbestos Building Survey, Jules E. Muchert USAR Center, Dallas, Texas*. The survey identified asbestos in floor tile mastic and brown floor tile, as discussed further in Section 6.5.

3.5.7 Oil-Water Separator Report

EnSafe Inc. conducted an OWS evaluation at the USAR Center on October 20, 1999, and issued an *Oil/Water Separator Evaluation* report on May 5, 2000. The report indicated that one OWS was present at the Site. The OWS was described as a two-chambered, 750-gallon concrete vessel that processed water generated at the VWR before discharge to the City of Dallas sanitary sewer. At the time of the report, the City of Dallas did not require a permit, but did have discharge limits for oil and grease of 100 milligrams per liter. The OWS had been registered with the Texas Natural Resource Conservation Commission (now TCEQ) as a UST under Owner ID 49607 and Facility ID 69231.

3.5.8 Threatened and Endangered Species Report

Parsons performed an investigation and issued a *Final Phase 2 Threatened and Endangered Species Habitat Analysis of the 90th RRC Facilities* in August 2005. The Phase 2 analysis was performed on the Site because of its proximity to managed wildlife areas (White Rock Lake) as well as hydrological features and associated wetlands in the area. The report listed the following federal and state-listed threatened and endangered species in Dallas County:

- American Peregrine Falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Black-Capped Vireo (*Vireo atricapilla*)
- Migrant Loggerhead Shrike (*Lanius ludovicianus migrans*)
- Interior least tern (*Sterna Antillarum*)
- Whooping Crane (*Grus americana*)
- Wood Stork (*Mycteria Americana*)
- Texas Horned Lizard (*Phrynosoma cornutum*)

The report concluded that the Site did not contain habitat for threatened and endangered species. Except for potential incidental use by migrant species, the listed species were reported to be unlikely to occur at the Site.

3.5.9 Cultural Resources Report

In response to the archaeological assessment, Parsons prepared a *Management Summary Cultural Resources Assessment of 90th Regional Support Command Facilities in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas* in February 1998. The summary reiterated that there were no architectural or archaeological issues at the USAR Center. The Site was stated to have a “low” archaeological potential and not eligible for the National Register of Historic Places.

3.5.10 PCB Assessment

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) prepared *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* in September 1997. The report concluded that three pole-mounted transformers (PMTs) outside the east wall of the Training Building were owned by Texas Utilities Electric (now TXU Energy). The 1997 report listed the age of the transformers and their PCB status as unknown. The report also stated that fluorescent lighting at the USAR Center was operated by non-PCB containing ballasts.

4.0 ADJACENT PROPERTIES

Figure 17 in Appendix A provides a 2001 aerial view of the Site and adjacent properties. The Site is bounded by East Northwest Highway to the south and Thurgood Lane to the east. The backyards of multiple single-family residences abut the Site on the north (Appendix B, Photograph 18) and there is one apartment complex northeast of the Site (Appendix B, Photograph 19). The northern quarter of the west boundary of the Site abuts White Rock Lake Park (Appendix B, Photograph 20). The remainder of the west boundary is abutted by the TXU Energy Lake Highlands electric power substation (Appendix B, Photograph 21). Single-family residences are located south of the Site, across East Northwest Highway (Appendix B, Photograph 22). A retail shopping center is located east of the Site, across Thurgood Lane. Businesses and other entities noted in the shopping center were Goodyear Tire, Disabled American Veterans, and Knights of Columbus (Appendix B, Photographs 23 and 24). Table 2 provides a list of adjacent properties with their directional location from the Site and zoning.

Direction From Site	Name/Type of Property	Addresses	Zoning
North	Residential Area	Various	Single-Family Residential
North West	White Rock Lake Park	None	Single-Family Residential
West	TXU Energy Lake Highlands Substation	9939 East Northwest Highway	Single-Family Residential
South	Residential Area	Various	Single-Family Residential
East	Retail Shopping Center	Various	Single-Family Residential
East	Disabled American Veterans	8630 Thurgood	Single-Family Residential

Appendix A provides historical aerial photographs and topographic maps and Appendix E presents an environmental database report that was used to evaluate potential environmental impacts at 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 since 2001, 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, and which is 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 17, 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 EDR environmental database report is included in Appendix E.

There were no environmental permits issued for the Site; therefore, there were no permit applications or associated permit documentation available for review.

The TEJV interviewed local authorities and reviewed reasonably accessible USAR environmental documents, TCEQ electronic records, city and county electronic records, and historical aerial photographs and maps to investigate environmental conditions at the Site and surrounding area. Available information on the potential impact of environmental conditions at the Site was each assessed.

The TEJV conducted multiple interviews with relevant personnel to discuss general environmental interest and specific areas of interest identified during the records review and visual reconnaissance. Copies of the interview reports are included in Appendix D. Section 9.0 of this report identifies the individuals interviewed with respect to conditions and operations at the Site and the information from those interviews 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 over 1,200 sites for priority cleanup under the Superfund Program. According to the environmental database search, the USAR Center is not a listed NPL site, and no other NPL sites were located 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, and sites that are in the screening and assessment phase for possible inclusion on the NPL. According to the environmental database search, the USAR Center is not a listed CERCLIS site and no other such sites were located 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) identifies hazardous waste handlers with RCRA corrective action activity. According to the environmental database search, the USAR Center is not a listed RCRA CORRACTS and no other such sites were located within one mile of the Site.

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

The RCRA Information (RCRAInfo) database is USEPA's comprehensive information system that includes selective data on facilities that generate, store, treat, transport, and dispose of hazardous waste, as defined by RCRA.

Top Hat Dry Cleaners is a listed RCRAInfo site and is approximately 612 feet east-northeast of the Site at a higher elevation. The dry cleaner, at 8517 Ferndale Road, had two written informal solid waste rule violations in 1991. No violations are documented after 1991. Due to the informal nature of the violations, this site is considered to pose a low risk to the Site.

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 or less than 1 kg of acutely hazardous waste in a calendar month. RCRA small-quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste in a calendar month. Large-quantity generators (LQGs) generate more than 1,000 kg of hazardous waste or over 1 kg of acutely hazardous waste in a calendar month.

The USAR Center is not listed on RCRAInfo as a generator of hazardous waste. Top Hat Cleaners east-northeast of the Site is listed as a SQG with USEPA identification number TXD981609126 and Texas solid waste registration number 55406.

No other SQGs or LQGs were mapped by EDR within one-quarter mile of the Site.

5.1.6 Federal Emergency Response Notification System List

The federal Emergency Response Notification System (ERNS) List is used to record and store information on reported releases of oil and hazardous substances. According to the environmental database search, the USAR Center is not a listed ERNS site.

5.2 STATE AND LOCAL ENVIRONMENTAL RECORDS

The regulatory information presented below was obtained from the regulatory database search report. Supplemental information was provided from database searches via the online databases referenced in Section 9.0.

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

Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites. According to the environmental database search, the USAR Center is not a listed solid waste landfill/facility site and no other such sites were located within one-half mile of the Site.

5.2.2 State-Registered Leaking UST Sites within One-Half Mile

The TCEQ maintains a database on all registered leaking petroleum storage tanks (LPSTs). The Site is not listed on the LPST database. Five LPST sites identified within one-half mile of the site are summarized in Table 3.

Table 3 Leaking Petroleum Storage Tank Sites				
Company/Site	Address	Distance and Direction from Site	Status	Elevation Relation to Site
Exxon RS 64883	10120 East Northwest Highway, Dallas, Texas 75238	Approximately 500 feet east-southeast	No Further Action	Higher
Backus Shell	10141 East Northwest Highway, Dallas, Texas 75238	Approximately 500 feet east	No Further Action	Higher
Former Texaco	10141 East Northwest Highway, Dallas, Texas 75238	Approximately 500 feet east	No Further Action	Higher
Pizza Hut Delivery.	10200 East Northwest Highway, Dallas, Texas 75238	Approximately 700 feet east	No Further Action	Higher
Fire Station 48	10480 East Northwest Highway, Dallas, Texas 75238	Approximately 2,500 feet east	No Further Action	Higher

Each of these LPST sites identified has been granted No Further Action (NFA) status by TCEQ, so they are considered to be a low risk to the USAR Center.

5.2.3 State-Registered UST Sites within One-Quarter Mile

USTs are regulated under RCRA Subtitle I and must be registered with the TCEQ. Eight registered UST sites, including the USAR Center, identified within one-quarter mile of the USAR Center are summarized in Table 4.

Four of the eight UST sites had tanks removed and one that was an LPST site was granted NFA status by TCEQ. Three of the eight UST sites are active facilities with no known leaks, or the leaks were from former tanks which had been granted NFA status by TCEQ. The seven UST sites are considered to be a low risk to the USAR Center. The eighth UST site is the USAR Center.

5.2.4 State Spills Incidents

The environmental database for the USAR Center included a TCEQ database of spills reported to the commission. The USAR Center was not identified as having a spill reported to TCEQ.

5.2.5 Records of Contaminated Public Wells

A review of the TWDB Groundwater Database, which lists contaminated groundwater wells, did not indicate any records for the Site.

5.2.6 Voluntary Action Program Sites within One-Half Mile

The Texas Voluntary Cleanup Program (VCP) is administered by the TCEQ and was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites. The Railroad Commission of Texas (TRC) has a companion program to promote the cleanup of oil- and gas-related pollution by participants as long as they did not cause or contribute to the contamination. The Site is not listed as a TCEQ or TRC VCP site, and no such other sites were identified within one-half mile of the USAR Center.

5.2.7 State Brownfields Program Sites within One-Half Mile

Included in this listing are brownfields properties addressed by Cooperative Agreement Recipients and brownfields properties targeted by Targeted Brownfields Assessments (TBA). The TBA program is designed to assist states, tribes, and municipalities in minimizing the uncertainties of contamination often associated with brownfields. Under the TBA program, USEPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. TBA supplement and work with other efforts under USEPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. The Site is not listed as a brownfield site or as being in the brownfields program. No such other sites were identified within one-half mile of the Site.

Table 4 Underground Storage Tank Sites					
Company/Site	Address	Distance and Direction from Site	Tank Status	Closure Status	Elevation Relation to Site
Jules E. Muchert USAR Center	10031 East Northwest Highway, Dallas, Texas 75238	Subject Site	Oil Water Separator	Active	N/A
Guardian Savings	10116 East Northwest Highway, Dallas, Texas 75238	Approximately 250 feet southeast	3 Tanks — Removed from Ground	Not an LPST	Equal
Goodyear Tire and Rubber	10150 Shoreview Road, Dallas, Texas 75238	Approximately 300 feet east-northeast	1 Tank — Removed from Ground	Not an LPST	Higher
Exxon RS 64883	10120 East Northwest Highway, Dallas, Texas 75238	Approximately 500 feet east-southeast	3 Tanks — In Use	Not applicable	Higher
Backus Shell	10141 East Northwest Highway, Dallas, Texas 75238	Approximately 500 feet east	4 Tanks — In Use	Not applicable	Higher
Pizza Hut	10200 East Northwest Highway, Dallas, Texas 75238	Approximately 600 feet east	3 Tanks — Removed from Ground	LPST — No Further Action	Higher
Phillips 66 Company 014450	10201 East Northwest Highway, Dallas, Texas 75238	Approximately 600 feet east-northeast	5 Tanks — Removed from ground	Not an LPST	Higher
Albertsons Express 4297	10201 East Northwest Highway, Dallas, Texas 75238	Approximately 600 feet east-northeast	2 Tanks — In Use	Not applicable	Higher

5.2.8 State-Registered Sites with Engineering Controls within One-Half Mile

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 effect human health. TCEQ maintains a database of activity and use limitations that include engineering and institutional controls. The Site was not identified in the environmental database report as being under use limitations. No other such sites were identified within one-half mile of the Site.

5.2.9 State-Registered Sites with Institutional 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 on site. Deed restrictions are generally required as part of the institutional controls. TCEQ maintains a database of activity and use limitations that include engineering and institutional controls. The Site was not identified in the environmental database report as being under use limitations. No other such sites were identified within one-half mile of the Site.

5.2.10 State-Registered Dry-Cleaning Facilities within One-Quarter Mile

TCEQ maintains a database of registered, active, or inactive dry-cleaning facilities. Top Hat Cleaners, previously discussed, is within one-quarter mile east of the Site and registered with Regulated Entity Number RN100711134.

5.2.11 State-Registered Manufactured Gas Sites within One Mile

Manufactured gas sites, often referred to as towngas sites, were used to produce gas from whale oil, rosin, coal, or mixtures of these products from the early to mid 1800s to the 1950s. The Site is not listed on the environmental database proprietary Manufactured Gas Plant Database. No such sites were identified within one mile of the Site.

5.3 TRIBAL ENVIRONMENTAL RECORDS

Tribal records included searches for Native American-administered lands that have an area of 640 acres or larger, or USTs on Native American land. No Native American reservations or USTs on tribal-administered lands were identified within one mile of the Site. The Site is not on or part of a Native American reservation.

5.4 UNMAPPED SITES

Twenty-five unmapped or orphan sites were identified during the environmental database search by EDR. Unmapped sites are those with address information sufficient only to identify as within the zip code of the target Site. The TEJV attempted to locate each site during the Site reconnaissance and by searching the Internet mapping site Windows Live Local powered by Virtual Earth. Twenty-four of the sites were located outside the ASTM D 6008-recommended minimum search distance from the Site for the databases on which they are listed. One site, Capitol Service Station, could not be located with the Site name and address provided.

One of the unmapped site addresses, Exxon Mobil Corporation at 10104 East Northwest Highway, is across East Northwest Highway just southeast of the Site. Area reconnaissance indicates that Guardian Savings Bank is currently located at this address. Guardian Savings Bank is a listed registered UST site, but is reported to be located at 10116 East Northwest Highway on the environmental database report. Based on the visual confirmation of the location of Guardian Savings Bank and information provided in the environmental database report, it appears that the Exxon Mobil and Guardian Savings Bank are the same facility and that the tanks removed from the ground by Guardian are the former Exxon Mobil USTs.

5.5 SUMMARY OF PROPERTIES EVALUATED TO DETERMINE RISK TO SITE

To summarize Sections 5.1 through 5.4, 11 properties in addition to the USAR Center were evaluated as potential risk properties to the Site. The properties evaluated were identified as a result of information obtained during area reconnaissance and regulatory database searches and are listed in Table 5.

Based on an evaluation of available Site information and details concerning the properties listed in Table 5, none of the facilities evaluated are classified as "High Risk." "High Risk" properties are those that exhibit significant environmental conditions that have the probability of adversely affecting the environmental conditions at another site.

Table 5 Properties Evaluated for Potential Environmental Risks				
Company/Site	Database(s)	Elevation in Regards to Site	Potential Risk to Site?	Comment
Top Hat Dry Cleaners	RCRA SQG, Dry Cleaners, USEPA Facility Index System, Industrial and Hazardous Waste	Higher	Low	Two minor RCRA violations.
Exxon RS 64883	LPST, UST	Higher	Active USTs	LPST received NFA. No violations associated with USTs.
Former Texaco	LPST	Higher	Low	LPST received NFA.
Backus Shell	LPST, UST	Higher	Active USTs.	LPST received NFA. No violations associated with USTs.
Pizza Hut Delivery	LPST	Higher	Low	LPST received NFA.
Fire Station 48	LPST	Higher	Low	LPST received NFA.
Guardian Savings Bank (Former Exxon/Mobile)	UST	Higher	Low	USTs removed from ground. Not an LPST.
Goodyear Tire and Rubber	UST	Higher	Low	UST removed from ground. Not an LPST.
Phillips 66 Company 014450	UST	Higher	Low	USTs removed from ground. Not an LPST.
Albertson's Express 4297	UST	Higher	Active USTs	No violations associated with USTs.
City of Dallas Water Well	TWDB Groundwater	Lower	Low	Not listed in any other environmental database.

6.0 SITE INVESTIGATION AND REVIEW OF HAZARDS

Findings documented in the following subsections are based on the August 1, 2006 Site and area reconnaissance, a review of available Site records, and information obtained from USAR personnel.

6.1 UNDERGROUND AND ABOVEGROUND STORAGE TANKS

The Site has one registered UST, which is the OWS at the VWR. No ASTs were observed on the Site, and USAR personnel were unaware of ASTs or other USTs at the Site.

6.2 INVENTORY OF CHEMICALS/HAZARDOUS SUBSTANCES

At the time of the Site reconnaissance, the OMS contained a 30-gallon metal trash can for oily rags, a 30-gallon metal trash can for clean rags, a 30-gallon metal trash can for oil absorbent, an 85-gallon drum containing a spill kit, and a flammable materials cabinet. The flammable materials cabinet contained non-commercial consumer quantities of various POLs (engine oil, transmission fluid, WD-40, starting fluid, brake fluid, etc.), spray paint, and detergent cleaners. No spills or stains were observed during the Site reconnaissance.

A two-room hazmat storage shed was located outside the OMS. One room contained one 55-gallon drum each of used oil and used antifreeze. The other room contained 5-gallon buckets of grease, engine oil, transmission fluid, and brake fluid. Three 85-gallon spill kits were located outside the OMS in the parking area. No spills or stains were observed during the Site reconnaissance.

No hazardous substances were observed in the Training Building during the August 1, 2006 Site reconnaissance. There is no evidence that hazardous substances above RQs were stored for one year or more, released or disposed at the Site.

USAR personnel indicated that pesticides were not currently stored, mixed, or used by USAR personnel because pest control is managed by a professional service provider.

6.3 WASTE DISPOSAL SITES

The Site is not registered as a waste generator and does not have a state solid waste registration number or a USEPA identification number. The Site is not a permitted solid waste facility and is not required to maintain a solid waste permit. USAR personnel stated no waste had been disposed, buried, or burned on the Site. The Site reconnaissance did not indicate evidence of landfill activities or illegal waste disposal.

6.4 PITS, SUMPS, DRY WELLS, AND CATCH BASINS

No drywells, pits, sumps, or catch basins were observed during the Site reconnaissance. The kitchen area of the Training Building contains a grease trap. The kitchen was not in operation at the time of the Site reconnaissance and, according to USAR personnel, it had

not been for several years. Reportedly, the grease trap was periodically cleaned when the kitchen was in operation. Floor drains are located within the kitchen area, mechanical rooms, and restrooms. Site personnel indicate that the drains discharge to the City of Dallas sanitary sewer system. No drains were observed in the OMS building work bays or storage rooms.

The vehicle washing area located east of the OMS building has one square grit trap that connects to the nearby OWS, which discharges to the municipal sanitary sewer. The OWS evaluation (EnSafe, 2000) indicated that the OWS was last cleaned in 1997.

Storm water flows towards storm drains located on the west side of the MEP and POV parking areas. Two additional storm drains are located in the grassy area near the southeast corner of the Site and discharge to the City of Dallas storm sewer system.

6.5 ASBESTOS-CONTAINING MATERIAL

The USAR performed an asbestos inspection of the Site in June 1999. Asbestos-containing material (ACM) identified during the survey included approximately 10 square feet of brown 9-inch floor tile and associated mastic in the assembly hall and mastic associated with the "old white floor tiles" in the Training Building. Approximately 750 square feet of the old white floor tile is located in two of the three mechanical rooms and the kitchen. During the Site reconnaissance, the floor tile in the Training Building was in good condition and not friable.

6.6 PCB-CONTAINING EQUIPMENT

Three PMTs are outside the east wall of the Training Building (Appendix B, Photograph 25). According to the USACHPPM PCB assessment prepared in September 1997, Texas Utilities Electric (now TXU Energy) owned the transformers. The report stated the transformers were of unknown age and unknown PCB status. The report also stated that fluorescent lighting in this facility was operated by non-PCB containing ballasts. During the Site reconnaissance, the PMTs outside the east wall of the Training Building appeared in fair to good condition with no signs of leakage.

During the Site reconnaissance, two additional PMTs were observed east of the midway point of the east property boundary along Thurgood Lane (Appendix B, Photograph 26). The PMTs were outside the property fence within the utility right-of-way. Those transformers, which were not included in the 1997 assessment report, appeared in good condition with no signs of leakage.

According to USAR personnel, TXU Energy responded to a transformer oil leak at the USAR Center in approximately 2003, and subsequently prepared a report summarizing their activities. The TXU Energy report was not available for review. USAR personnel indicated that TXU Energy excavated the impacted soil below the transformer, took soil

confirmation samples, replaced the excavated soil with clean soil, and replaced the transformer.

6.7 LEAD-BASED PAINT

A LBP survey was performed at the Site on November 7, 2001. The survey identified LBP in two interior and three exterior samples associated with the Training Building. The interior samples at the Training Building that contained LBP were from the gray wood rail in the sitting area of the second floor (Sample 2) and the gray metal stair rail on the east end of the first floor (Sample 19). The three exterior LBP positive samples at the Training Building were: the white metal flagpole (Sample 41), a white metal roof drain (Sample 42), and brown door frames (Samples 45, 46, and 50).

Five samples (two inside and three outside) were identified to have LBP at the OMS. The two interior OMS samples include yellow safety striping on the concrete floor (Sample 53) and a green metal support beam (Sample 54). Exterior samples included: a beige grease rack (Sample 60), a beige overhead door frame (Sample 63), and a white bumper guard (Sample 63). During the Site reconnaissance, the beige grease rack was not present and painted surfaces were in good condition.

6.8 RADON

No Site-specific radon survey reports were available for review during the Site reconnaissance and USAR personnel were not aware of any having been conducted on the Site. Therefore, radon information was obtained from the National Radon Database, which was developed by the USEPA and is a compilation of the USEPA/State Residential Radon Survey and the National Residential Radon Survey conducted from 1986 to 1992.

Dallas County is in the USEPA Radon Zone 3, which has an indoor average level of less than 2 picocuries per liter (pCi/L). Ninety-five sites were tested in Dallas County and two sites were tested in the 75238 zip code of the Site. The results for Dallas County had a mean value of 1.2 pCi/L and a maximum value of 6.8 pCi/L. The average activity of the two sites tested in the 75238 zip code was 0.650 pCi/L. The USEPA-recommended action level is 4.0 pCi/L.

6.9 UNEXPLODED ORDNANCE

No evidence was found during the Site reconnaissance or records review process of the past presence of munitions and explosives of concern.

The USAR Center contained an arms vault on the first floor and an IFR on the second floor, both of which were utilized from 1959 until the mid-1980s, according to USAR personnel. In May 1997, American Asbestos, Inc. removed the steel bullet stop plates, debris, and sand from the IFR bullet trap. The bullet trap trench was filled with clean sand and capped with 3,000-pounds-per-square-inch concrete. American Asbestos, Inc.'s activities are

documented in its 1997 report. During the Site reconnaissance, the firing range was confirmed to be decommissioned and in use for general storage. The arms vault could not be opened but was empty, according to USAR personnel.

6.10 RADIOACTIVE MATERIALS

No radiation sources were observed during the Site reconnaissance. USAR personnel stated there were currently no radiation sources on the premises and they were not aware of any stored or used on the Site in the past.

One of the equipment storage cages in the Assembly Hall of the Training Building had a "Caution — Radioactive Materials" sign on the screen (Appendix B, Photograph 27). USAR personnel stated the cage was used to store radiation detectors, called "Radacks" and a "very small" calibration source was kept in a test set.

7.0 REVIEW OF SPECIAL RESOURCES

7.1 LAND USE

According to the City of Dallas Web site, the Site is zoned R-7.5(A), Single-Family Residential, with 5,285 housing units within one mile of the Site. The Site is located in a mixed-use area that includes commercial, residential, and open park areas. Figure 17 in Appendix A is a 2001 aerial photograph of the USAR Center and surrounding properties and depicts current land uses.

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 250 miles inland from the Gulf of Mexico. Dallas County is not included in the Texas Coastal Management Plan.

7.3 WETLANDS

According to the USFWS National Wetlands Inventory map (Figure 5, Appendix A) there are no jurisdictional wetland areas on the Site or adjacent properties. The nearest wetland is located approximately 1,500 feet southwest of the Site and is associated with White Rock Lake.

7.4 100-YEAR FLOODPLAIN

According to the Federal Emergency Management Agency Flood Insurance Rate Map, Community Panel 4801710100D, which was included in the environmental database report, the Site is not included in the 100-year or 500-year floodplain elevations (Figure 18, Appendix A).

7.5 NATURAL RESOURCES

TEJV personnel walked the property but did not observe evidence of wetlands or surface water bodies. According to the USFWS endangered and threatened species list for Dallas County, five federally listed species (all birds) have the potential to be present, based on species distribution mapping. ECCI (2005) cites a May 2004 report by Parsons, which identified eight threatened and endangered federal and state species in Dallas County.

Based on the results of the May 2004 report, a habitat analysis was conducted in 2005 by Parsons. The resulting report (Parsons, 2005) concludes that "Due to prior and existing land use, no suitable habitat was found at the Jules E. Muchert USARC."

ECCI reported (2005) that it received correspondence from the USFWS indicating that no threatened/ endangered species had been documented on the USAR Center property or adjacent properties. The TEJV contacted the USFWS office in Arlington, Texas, which stated that human presence in and around White Rock Lake discouraged threatened and endangered species from using the lake habitat and that they were not aware of any sightings of threatened or endangered species near the lake.

7.6 CULTURAL RESOURCES

Archaeological and historic architecture assessments were conducted on the Site in February 1998. Information from the two assessments was used to develop a management summary of cultural resources.

The archaeological report concluded that the "archaeological potential" for the USAR Center is "low" due to the extent of construction disturbance and the absence of nearby surface water. The report did not recommend an archaeological survey. The Texas State Historic Preservation Office concurred in a letter dated July 15, 1997.

The historic architectural resources assessment concluded that the buildings on the Site were not eligible for inclusion in the National Register of Historic Places because they did not meet the 50-year age qualification and "do not appear to possess exceptional importance from a historical perspective." An architectural survey was not recommended until the buildings reached 50 years in age. The management summary report (Parsons, 1998) also concluded that architectural surveys should not be conducted until buildings reached 50 years of age. The Texas State Historic Preservation Office agreed with this conclusion in a letter dated July 23, 1997. The letter also states that as properties reach 50 years of age, "each property should be re-examined for eligibility." The USAR Center will reach 50 years of age in 2007.

7.7 OTHER SPECIAL RESOURCES

According to the City of Dallas Web site, the northwest corner of the USAR Center abuts the White Rock Lake Park. White Rock Lake Park is a City of Dallas park that includes the lake and surrounding open space.

8.0 CONCLUSIONS

The TEJV, under contract to the USACE, Louisville District, has prepared this ECP Report for the Jules E. Muchert USAR Center (Facility ID TX023), located at 10031 East Northwest Highway, in Dallas, Dallas County, Texas. The USAR Center encompasses 5.15 acres of land with four permanent structures: a 30,861-square-foot Training Building, a 6,383-square-foot OMS, a VWR covered by a 600-square-foot awning, and a 312-square-foot recreation shelter. The Site is currently occupied by five units: 223rd Maintenance Detachment, 321st Military Intelligence, 345th Psychological Operations Command, 468th Quartermaster Battalion, and the 5778th Reserve Training Unit

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 property. The following present the findings related to areas evaluated during the ECP process.

- **Hazardous Substances.** Chemicals containing CERCLA hazardous substances would have historically been used and stored at the Site in amounts necessary to support unit-level vehicle and building maintenance activities. However, the quantities stored would not have exceeded 1,000 kg or the RQ of designated hazardous substances, or one kg of acutely hazardous waste. There is no evidence that the chemicals used or stored were improperly handled, released, or disposed at the Site.
- **USTs/ASTs.** According to the environmental database search and the 2000 EnSafe OWS evaluation, the Site has one registered UST, which is the OWS at the VWR. No ASTs were observed and, based on discussions with USAR personnel, they have not been used on the Site.
- **Non-UST/AST Petroleum Storage.** Petroleum storage is occurring and historically has occurred in designated areas within the OMS and POL storage shed in the OMS area. POLs were observed in both consumer and commercial size containers. Used oil and used antifreeze were observed in 55-gallon drums.
- **Polychlorinated Biphenyls.** The USACHPPM conducted a PCB assessment of the Site in September 1997. The report concluded that three PMTs outside the east wall of the Training Building were owned by Texas Utilities Electric (now TXU Energy). The 1997 report listed the age of the transformers and their PCB status as unknown. During the Site reconnaissance, the PMTs outside the east wall of the Training Building appeared in fair to good condition with no signs of leaks.

During the Site reconnaissance, two PMTs were observed on the east boundary of the property outside the fence on City of Dallas right-of-way. Those transformers were not included in the 1997 assessment report. During the Site reconnaissance, the PMTs along the east boundary appeared in good condition with no signs of leaks.

According to USAR personnel, TXU Energy responded to a transformer oil leak on the USAR Center in approximately 2003. TXU Energy excavated impacted soil and replaced the excavation with clean backfill. The leaking transformer was also replaced. USAR personnel indicated TXU Energy prepared a report documenting the soil removal, but a copy of the report was not available for review by the TEJV.

- **ACM.** The USAR performed an asbestos survey of the Site in June 1999. The survey identified asbestos in the floor tile mastic associated with the “old white tile” (estimated 750 square feet) and an approximately 10-square-foot of brown floor tile in the assembly hall of the Training Building. During the Site reconnaissance, the floor tile in the Training Building was in good condition and not friable.
- **Lead-Based Paint.** A LBP survey was performed at the facility on November 7, 2001. In the Training Building, LBP was identified in two interior and three exterior samples. In the OMS, LBP was identified in two inside and three outside samples. During the Site reconnaissance, painted surfaces were in good condition.
- **Indoor Firing Range.** The USAR Center utilized an IFR on the second floor from 1959 until the mid 1980s. In May 1997, American Asbestos, Inc. removed the steel bullet stop plates, debris, and sand from the IFR bullet trap. The bullet trap trench was filled with clean sand and capped with 3,000-pounds-per-square-inch concrete. During the Site reconnaissance, the firing range was confirmed to have been decommissioned and was being used for general storage.
- **Radiological Materials.** No radiation sources were observed during the Site reconnaissance. One of the equipment storage cages in the assembly hall of the Training Building had a “Caution-Radioactive Materials” sign on the screen because the cage was used to store radiation detectors, called “Radacks”, and a “very small” calibration source was kept in a test set.
- **Radon.** No Site-specific radon tests have been conducted. Dallas County is in the USEPA Radon Zone 3, which has an indoor average level of less than 2 pCi/L. Ninety-five sites were tested in Dallas County and two sites were tested in the 75238 zip code of the Site. The results for Dallas County had a mean value of 1.2 pCi/L and a maximum value of 6.8 pCi/L. The average activity of the two sites tested in the 75238 zip code was 0.650 pCi/L, which is below the USEPA-recommended action level of 4.0 pCi/L; therefore, radon is not a 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. None of the properties evaluated are considered “High Risk.” “High Risk” properties are those that exhibit environmental conditions that have the probability of adversely affecting the environmental conditions at the Site. Land use at the adjacent properties does not appear to have changed significantly since the USAR Center was built and does not appear to have impacted the environmental conditions of the USAR Center.

Areas of potential environmental concern were reviewed and the TEJV found one significant concern relating to the environmental condition of the Site. TXU Energy responded to a transformer oil leak on the USAR Center in approximately 2003. TXU Energy excavated impacted soil, replaced the excavation with clean backfill, and replaced the leaking transformer. USAR personnel indicated TXU Energy prepared a report documenting the soil removal, which was not available for review by the TEJV.

In accordance with DoD policy defining the classifications (see S.W. Goodman Memorandum dated October 21, 1996), the Site has been classified as Category 4. 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

- James Anderson, Jules E. Muchert USAR Center Facility Manager, (214) 348-1131, Ext 221, August 1, 2006.
- Sean Edwards, U.S. Fish and Wildlife Service, Arlington, Texas Ecological Services Field Office, (817) 277-1100, Telephone Conversation — August 18, 2006.
- Sergeant First Class Fredric Fiege, 345th Psychological Operations Command, OMS Manager, August 1, 2006.

RESOURCES CONSULTED

- American Asbestos, Inc. *Final Submittals, Presented in Connection with: Prepare Indoor Firing Ranges for Alternate Use at Various Locations in Oklahoma and Texas.* May 21, 1997.
- Ashworth, John B., and Hopkins, Janie. Texas Water Development Board, Report 345, *Aquifers of Texas.* November 1995.
- City of Dallas Interactive Maps Web site. <http://maps.dallascityhall.com/>.
- Coles City Directories (1957, 1958, 1959, 2000, 2005), Dallas Public Library, 1515 Young Street, Dallas, Texas.
- Dallas Central Appraisal District Website. <http://www.dallascad.org/>.
- Dutton, et al. *Occurrence and Movement of Groundwater in Austin Chalk and Eagle Ford and Ozan Formations at the Superconducting Super Collider Site, Ellis County, Texas.* Bureau of Economic Geology, The University of Texas at Austin, May 1994.
- ECCL. *Environmental Baseline Survey.* August 2005.
- EnSafe Inc. *Oil/Water Separator Evaluation.* May 2000.
- Environmental Data Resources, Inc. *The EDR Radius Map with GeoCheck,* (July 17, 2006). 3530 Post Road, Southport, Connecticut. (800) 241-6487.
 - *The EDR-Aerial Photography Print Service,* Inquiry Number 1716259.5, (July 18, 2006).
 - *The EDR-City Directory Abstract,* Inquiry Number 1716259.6, (July 17, 2006).

-
- *The EDR-Historical Topographic Map Report*, Inquiry Number 1716259.4, (July 17, 2006).
 - *The EDR-Sanborn No Coverage Map Report*, Inquiry Number 1716259.3, (July 17, 2006).
 - Federal Emergency Management Agency Flood Hazard Insurance Map. <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView>
 - NETR Real Estate Research & Information. *Historical Chain of Title Report, Jules E. Muchert USARC, 10031 E. Northwest Hwy. Dallas, Texas.* August 1, 2006.
 - Nordstrom, Phillip L. *Occurrence, Availability, and Chemical Quality of Ground Water in the Cretaceous Aquifers of North-Central Texas.* Texas Department of Water Resources. April 1982.
 - Parsons Engineering Science, Inc. *Archaeological Assessment and Reconnaissance of 90th Regional Support Command Facilities in Texas.* February 1998.
 - Parsons Engineering Science, Inc. *Historic Architectural Resources Assessment of 90th Regional Support Command Facilities in Texas.* February 1998.
 - Parsons Engineering Science, Inc. *Management Summary Cultural Resources Assessment of 90th Regional Support Command Facilities in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.* February 1998.
 - Parsons Engineering Science, Inc. *Final Phase 2 Threatened and Endangered Species Habitat Analysis 90th RRC Facilities.* August 2005.
 - The University of Texas at Austin, Bureau of Economic Geology, Geologic Atlas of Texas Dallas Sheet, Revised 1988 map.
 - TCEQ, Leaking Petroleum Storage Tank Database Query Web site, http://www.tceq.state.tx.us/remediation/pst_rp/pstquery.html.
 - TCEQ, Petroleum Storage Tanks Registration Database Query Web site, http://www.tceq.state.tx.us/permitting/registration/pst/pst_query.html.
 - Texas General Land Office, Geographic Information Systems Data, <http://www.glo.state.tx.us/gisdata/gisdata.html>.
 - Texas Water Commission. *Groundwater Quality of Texas.* Report 89-01, March 1989.

- Texas Water Development Board, Groundwater Database Query, http://wiid.twdb.state.tx.us/ims/wwm_drl/viewer.htm?DISCL=1&.
- U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97.* September 30, 1997.
- U.S. Army Corps of Engineers. *Engineering and Design — Ordnance and Explosives Response.* Publication Number EP 1110-1-18, April 24, 2000.
- U.S. Department of Agriculture Soil Conservation Service. *Soil Survey of Dallas County, Texas.* February 1980.
- U.S. Geological Survey. The National Map Web site, <http://nmviewogc.cr.usgs.gov/viewer.htm>.
- U.S. Environmental Protection Agency Map of Radon Zones, <http://www.epa.gov/radon/zonemap.html>
- U.S. Army 90th Regional Support Command. *Asbestos Building Survey, Jules E. Muchert USAR Center, Dallas, TX.* June 1999.
- U.S. Army 90th Regional Support Command. *Lead Based Paint Survey, Jules E. Muchert USAR Center, Dallas, Texas.* November 2001.

AGENCIES CONTACTED

- U.S. Fish and Wildlife Services

Appendix A
Figures

FIGURES

- Figure 1 General Site Location Map
- Figure 2 Site Layout Plan
- Figure 3 Training Center First Floor Plan
- Figure 4 Training Center Second Floor Plan
- Figure 5 USGS Wetlands Map
- Figure 6 1893 Topographic Map
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- Figure 12 1942 Aerial Photograph
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- Figure 14 1973 Aerial Photograph
- Figure 15 1984 Aerial Photograph
- Figure 16 1996 Aerial Photograph
- Figure 17 2001 Aerial Photograph
- Figure 18 FEMA Flood Plain Map

Appendix B
Site Reconnaissance Photographs

Appendix C
Chain-of-Title Report

Appendix D
Previous Environmental Reports

PREVIOUS ENVIRONMENTAL REPORTS

1. American Asbestos, Inc. *Prepare Indoor Firing Ranges for Alternate Use at Various Locations in Oklahoma and Texas*. May 21, 1997.
2. ECCI. *Environmental Baseline Survey*. August 2005.
3. EnSafe Inc. *Oil/Water Separator Evaluation*. May 2000.
4. Parsons Engineering Science, Inc. *Archaeological Assessment and Reconnaissance of 90th Regional Support Command Facilities in Texas*. February, 1998. (pertinent pages only)
5. Parsons Engineering Science, Inc. *Final Phase 2 Threatened and Endangered Species Habitat Analysis 90th RRC Facilities*. August, 2005.
6. Parsons Engineering Science, Inc. *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Texas*. February 1998. (pertinent pages only)
7. Parsons Engineering Science, Inc. *Management Summary Cultural Resources Assessment of 90th Regional Support Command Facilities in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas*. February, 1998.
8. U.S. Army, 90th Regional Support Command. *Asbestos Building Survey, Jules E. Muchert USAR Center, Dallas, Texas*. June, 1999.
9. U.S. Army, 90th Regional Support Command. *Lead Based Paint Survey, Jules E. Muchert USAR Center, Dallas, Texas*. November, 2001.
10. U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97*. September 30, 1997.

Appendix E
Regulatory Database Search Reports

**FINAL ENVIRONMENTAL CONDITION OF PROPERTY REPORT
JULES E. MUCHERT — U.S. ARMY RESERVE CENTER (TX023)
10031 EAST NORTHWEST HIGHWAY — DALLAS, TEXAS 75238
March 15, 2007**

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JULES E. MUCHERT — U.S. ARMY RESERVE CENTER (TX023)
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