

FINAL

**ENVIRONMENTAL CONDITION OF
PROPERTY REPORT**

**DONALD A. ROUSH
U.S. ARMY RESERVE CENTER (OK007)
1720 OPAL STREET
CLINTON, OKLAHOMA 73601**

Prepared For:

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

March 23, 2007

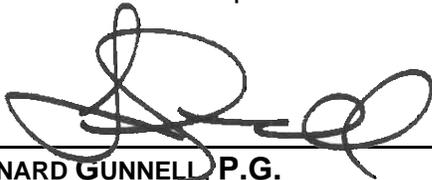
CERTIFICATION

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
U.S. Army Corps of Engineers

28 March 2007

DATE

EXECUTIVE SUMMARY

The Terraine-EnSafe Joint Venture (TEJV), under contract to the U.S. Army Corps of Engineers, Louisville District, prepared this Environmental Condition of Property (ECP) Report for the Donald A. Roush U.S. Army Reserve (USAR) Center (Facility ID OK007), hereafter referred to as the "Site" or "USAR Center." The Site is at 1720 Opal Street in Clinton, Custer County, Oklahoma.

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 tenant uses of the Site and the resulting environmental condition of the property.

The USAR Center is on 4.75 acres of land with two permanent structures: a 9,632-square-foot Training Building and a 1,325-square-foot organizational maintenance shop. The USAR Center was closed in 2004 and remains inactive. The last USAR unit based in this USAR Center was the 818th Replacement Company. Other units historically based at the Site include the 313th Training Brigade Unit, a Drill Sergeant Unit, and a USAR Postal Service Unit.

Based on a review of aerial photographs and U.S. Geological Survey topographical maps dating back to 1940, the Site was a farmed area located on the south side of Clinton, Oklahoma, prior to the 1958 land acquisition by the U.S. government. The USAR Center buildings on the Site were constructed in 1960 and 1961.

Areas of potential environmental concern were reviewed and the TEJV found no significant issues relating to the environmental condition of the property. 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

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 Site Hydrology and Geology	8
2.4.1 Surface Water Characteristics	8
2.4.2 Hydrogeological Characteristics	8
2.5 Site Utilities	9
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	13
3.3.1 Past Use and Storage of Hazardous Substances	13
3.3.2 Past Disposal and Release of Hazardous Substances	14
3.4 Past Bulk Petroleum Storage Tanks	14
3.5 Review of Previous Environmental Reports	14
3.5.1 Environmental Baseline Survey	14
3.5.2 Architectural Assessment	14
3.5.3 Lead-Based Paint	15
3.5.4 Radon	15
3.5.5 Asbestos	15
3.5.6 Threatened and Endangered Species	16
3.5.7 Cultural Resources	16
3.5.8 Polychlorinated Biphenyls	17
4.0 ADJACENT PROPERTIES	18
5.0 REVIEW OF REGULATORY INFORMATION	19
5.1 Federal Environmental Records	19
5.1.1 Federal National Priorities List Sites within One Mile	19
5.1.2 Federal CERCLA Information System Sites within One-Half Mile	19
5.1.3 Federal CERCLIS No Further Remedial Action Planned Sites within One-Half Mile	20
5.1.4 Resource Conservation and Recovery Act Corrective Action Sites within One Mile	20
5.1.5 RCRA Transport, Treatment, Store, and/or Disposal Facilities within One-Half Mile	20
5.1.6 Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile	20
5.1.7 Federal Emergency Response Notification System List	21

5.2	State and Local Environmental Records.....	21
5.2.1	State Voluntary Cleanup and Superfund Site Status Reports within One Mile.....	21
5.2.2	State-Registered Solid Waste Facilities Within One-Half Mile	21
5.2.3	State-Registered Leaking UST Sites within One-Half Mile.....	21
5.2.4	State-Registered UST Sites within One-Quarter Mile	22
5.2.5	State-Registered UST Sites, List II Version within One-Quarter Mile..	23
5.2.6	State-Registered Leaking AST Sites within One-Half Mile.....	23
5.2.7	State-Registered AST Sites within One-Quarter Mile.....	24
5.2.8	State-Registered Sites with Institutional Controls within One-Half Mile	24
5.2.9	Voluntary Action Program Sites within One-Half Mile	24
5.2.10	State-Registered Dry-Cleaning Facilities within One-Quarter Mile.....	24
5.2.11	State Brownfields Program Sites within One-Half Mile.....	24
5.3	Tribal Environmental Records.....	24
5.4	Unmapped Sites	24
5.5	Summary of Properties Evaluated To Determine Risk to Site	25
6.0	SITE INVESTIGATION AND REVIEW OF HAZARDS	26
6.1	USTs and ASTs.....	26
6.2	Inventory of Chemicals/Hazardous Substances	26
6.3	Waste Disposal Sites.....	26
6.4	Pits, Sumps, Dry Wells, and Catch Basins	26
6.5	Asbestos-Containing Material	26
6.6	PCB-Containing Equipment	27
6.7	Lead-Based Paint	27
6.8	Radon	27
6.9	Unexploded Ordnance	27
6.10	Radioactive Materials.....	27
7.0	REVIEW OF SPECIAL RESOURCES.....	28
7.1	Land Use	28
7.2	Coastal Zone Management.....	28
7.3	Wetlands.....	28
7.4	100-Year Flood Plain	28
7.5	Natural Resources	28
7.6	Cultural Resources	28
7.7	Other Special Resources.....	28
8.0	CONCLUSIONS	29
9.0	REFERENCES.....	31

List of Tables

Table 1	Historical Summary of Donald A. Roush USAR Center	10
Table 2	Summary of Positive Results from 1993 Asbestos Project Survey... ..	16
Table 3	List of Adjacent Properties	18
Table 4	Leaking Underground Storage Tank Sites	22
Table 5	Underground Storage Tank and Historical Underground Storage Tank Sites....	23

List of Appendices

Appendix A Figures

- Figure 1 - General Site Location Map
- Figure 2 - Site Layout Plan
- Figure 3 - Flood Plain Map
- Figure 4 - Wetlands Map
- Figure 5 - National Wetlands Inventory Map
- Figure 5 - 1956/1957 Topographic Map
- Figure 6 - 1983 Topographic Map
- Figure 7 - 1940 Aerial Photograph
- Figure 8 - 1955 Aerial Photograph
- Figure 9 - 1966 Aerial Photograph
- Figure 10 - 1995 Aerial Photograph
- Figure 11 - 2006 Aerial Photograph

Appendix B Site Photographs

Appendix C Chain-of-Title Report

Appendix D Previous Environmental Reports and Records of Communication

Appendix E Regulatory Database Search Reports

List of Acronyms and Abbreviations

ACM	asbestos-containing material
AEP-PSCO	American Electric Power-Public Service Company of Oklahoma
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
CESQG	conditionally exempt small-quantity generator
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
FEMA	Federal Emergency Management Agency
hazmat	hazardous materials
kg	kilogram
LBP	lead-based paint
LQG	large-quantity generator
LUST	leaking underground storage tank
MEP	military equipment parking
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
OCC	Oklahoma Corporation Commission
OMS	organizational maintenance shop
OWS	oil-water separator

Parsons	Parsons Engineering Science, Inc.
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
POV	privately owned vehicle
PWS	Public Water Supply
RCRA	Resource Conservation and Recovery Act
RCRAInfo	RCRA Information
ROTC	Reserve Officer Training Corps
RQ	reportable quantity
RRC	Regional Readiness Command
SQG	small-quantity generator
TEJV	Terraine-EnSafe Joint Venture
TSD	treatment, storage, and disposal
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAR	U.S. Army Reserve
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Service
UST	underground storage tank
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 Donald A. Roush U.S. Army Reserve (USAR) Center (Facility ID OK007), 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 1720 Opal Street, Clinton, Custer County, Oklahoma, is hereafter referred to as the "Site" or "USAR Center." In support of the ECP, a visual reconnaissance of the Site and surrounding area was conducted on July 25 and 26, and August 23, 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 4.75-acre Donald A. Roush USAR Center at 1720 Opal Street in Clinton, Oklahoma. The property is bounded by Opal Street and a residential area to the north, 18th Street and a residential area to the west, Jaycee Street and Clinton High School to the south, and a residential area to the east. A general Site location map, Site map, flood plain map, wetlands map, and historical topographic maps and aerial photographs are provided in Appendix A. Appendix B provides photographs taken during the July and August 2006 Site reconnaissance. Appendix C provides chain-of-title information. Historical environmental documents and 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 properties).
- 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 has 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 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 Donald A. Roush USAR Center. Its findings are based on a record search of readily available, a thorough review of the applicable and relevant documents, a visual reconnaissance conducted on July 25 and 26, and August 23, 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 involving a walking tour of the facility, including the Training Building and organizational maintenance shop (OMS), and its perimeter was conducted by TEJV personnel on July 25 and 26, and August 23, 2006, to field-verify information produced in the document review and to identify recognized environmental conditions of property.

A visual 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 and in the surrounding area 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 1720 Opal Street in Clinton, Custer County, Oklahoma (Figure 1 in Appendix A). The Site is in a developed area in the southwest area of Clinton. It is bordered by residential areas to the west, north, and east, and the Clinton High School campus to the south.

2.2 ASSET INFORMATION

Facility Name and Address: Donald A. Roush USAR Center (OK007)
1720 Opal Street
Clinton, OK 73601

Property Owner: U.S. Government

Date of Ownership: June 13, 1958

Current Occupant: Unoccupied (818th Replacement Company was the last unit to occupy the Site. The facility was vacated in September/October 2004)

Zoning: R-1, Single Family Residential

County, State: Custer County, OK

USGS Quadrangle: Clinton, OK

Section/Township/Range: Section 22, Township 12 North, Range 17 West

Latitude/Longitude: 35° 38' 24.5" N; 98° 58' 54.8" W

Legal Description: All those certain pieces or parcels of land being Block 12, Arcadia Garden, Subdivision of the North $\frac{1}{2}$ of the Northeast $\frac{1}{4}$ of Section 22, Township 12 North, Range 17 West, the area described is designated as Tract Number A-100, Army Reserve Training Center, lying and situated in the City of Clinton, Custer County, State of OK.

2.3 PHYSICAL DESCRIPTION

A Site map of the USAR Center is provided in Figure 2 in Appendix A. Photographs of the Site and surrounding area are presented in Appendix B. Photographs 1 through 10 show the general layout of the Site and buildings. Photographs 11 through 17 show specific rooms and conditions within the Training Building. Photographs 18 through 26 illustrate specific features in the military equipment parking (MEP) area and OMS. Photographs 27 through 32 show the land use of property adjacent to the Site.

The USAR Center is on 4.75 acres of land with two permanent structures: a 9,632-square-foot Training Building and the 1,325-square-foot OMS. Initial construction of the Training Building occurred in 1960, and construction of the OMS occurred in 1961. Modifications made to the Training Building in 1985 included expansion of the building to the east and addition of the Drill Hall. The Training Building walls are concrete block with brick veneer, and the OMS walls are concrete block. Both buildings have concrete foundations. The general layout of the Site relative to the Training Building is shown on Photographs 1 through 5 in Appendix B. The general layout of the Site relative to the OMS is shown on Photographs 6, 7, and 8 in Appendix B.

A Site map of the USAR Center is provided in Figure 2 in Appendix A. As shown on that figure, vehicle access to the Site is via two driveways from Opal Street to the north. The driveways connect to two privately owned vehicle (POV) parking areas on opposite sides of the Training Building — the west POV parking area and the east POV parking area. These two POV parking areas are connected by a paved road south of the Training Building. A paved driveway extends from this paved road to the roll-up door in the Drill Hall of the Training Building. An MEP area, which is connected by a paved road to the west POV parking area, is located west of the OMS. The OMS and MEP are enclosed by a gated chain-link security fence topped with barbed wire. A grease rack ramp is located north of the OMS, within the fenced area.

Two hazardous materials (hazmat) storage sheds were within the OMS fenced area during the July 2006 Site reconnaissance — the “old” hazmat storage shed and the “new” hazmat storage shed. Neither shed contained hazmat during the July 2006 reconnaissance. The old shed was previously used to store hazmat to support vehicle maintenance and cleaning activities. The new shed was never used; the shelves were lying on its floor during the July 2006 Site reconnaissance. The new shed was not on the Site during the August 2006 Site reconnaissance; the USAR had moved it offsite for use at another location.

As shown on Figure 2 in Appendix A, approximately one-third of the Site is covered by impervious surface features (e.g., asphalt parking areas, driveways, concrete walkways, building footprints, etc.). The remaining ground surface is covered by lawn area; there are landscaped shrubs immediately adjacent to the Training Building. There are two deciduous trees that are taller than forty feet in the area of the Training Building (Photographs 3, 4 and 5 in Appendix B). The lawn area on the south side of the Site is shown on Photographs 9 and 10 in Appendix B.

Topographically, the Site is relatively flat. No signs of erosion, excavation, or fill were observed on the Site. According to interviews with USAR personnel, soil or fill material from offsite sources has not been brought onto the Site, nor has any significant regrading occurred on the Site.

The original Training Building consisted of a one-story, rectangular shaped structure. In 1985, a new meeting room was added on the east side of the building and the Drill Hall and kitchen area were added to the south, making the building footprint "L"-shaped. The Training Building includes classrooms, restrooms, offices, a Drill Hall, an arms storage room, a kitchen, and mechanical room. The interior of the building appeared to be well maintained during the visual reconnaissance. No evidence of chemical or petroleum releases was observed inside the building.

The Drill Hall has a vehicle roll-up door on the south side that opens onto a driveway. The Drill Hall was used for troop assemblies and storage. During the Site reconnaissance, some members of the local high school Reserve Officers Training Corps (ROTC) and their adult instructors were target shooting inside the Drill Hall. The practice drill used pellet guns and temporary targets. Temporary targets were lined up against the west wall of the Drill Hall (Appendix B, Photograph 11). The targets were 2-inch by 4-inch wooden frames with a thin (approximately one-eighth inch) piece of plywood on the front and a lead/metal back. The lead pellets went through the plywood, and were stopped by the lead/metal back and dropped to the bottom of the frame. The lead pellets were contained in the frames and did not present a potential lead contamination issue. The arms storage room with storage racks and a locking cabinet located on the northwest area of the Training Building (Appendix B, Photograph 12) is currently used to store the ROTC pellet guns. USAR personnel said that no live ammunition was ever stored on the Site and that there were no other firing range activities that may have resulted in lead contamination of the Site.

The kitchen area consists of three rooms. Each has a floor drain that discharges to the public sanitary sewer. Kitchen equipment, including a large refrigerator, freezer, and stoves, was present during the Site reconnaissance. USAR personnel said that the kitchen had not been used since the 1980s. Small quantities of cleaning chemicals were stored in the janitor's closet and on a cleaning cart observed inside the kitchen (Appendix B, Photograph 13). A metal lid-covered grease trap, utilized when the kitchen was in operation, is located outside the eastern wall of the Training Building. A concrete wash basin equipped with a floor drain is located adjacent to the grease trap, next to the building. The grease trap and wash basin are shown in Appendix B, Photograph 14.

The mechanical room located within the west-central portion of the building contains the heating, ventilating, and air-conditioning system, hot water heaters, chillers, and the fire prevention system equipment. The room is equipped with floor drains to convey the condensate/blowdown/leakage from the various pieces of mechanical equipment to the public sewer system. Two floor drains and some equipment and piping in the mechanical room are shown on Photographs 15, 16, and 17 in Appendix B.

The condensate/blowdown/leakage is piped directly from the equipment to a floor drain to prevent water from accumulating on the floor. Floor drains are also located in the restrooms and in the kitchen to collect condensate from the chillers/refrigerators and to facilitate floor cleaning. The floor drains discharge into the public sanitary sewer that serves the Site.

Electric power to the Site is provided by overhead lines from American Electric Power-Public Service Company of Oklahoma (AEP-PSCO). There are two pole-mounted electrical transformers on the east and west sides of the Site (Appendix B, Photograph 18).

The OMS is a one-story, rectangular structure adjacent to the MEP area within the chain-link security fencing south of the Training Building. A grease rack ramp, old hazmat shed, and the former vehicle wash rack (VWR) area are located within the fenced MEP parking area (Appendix B, Photographs 19 and 20). A single roll-up garage door on the west side of the OMS opens onto the MEP area. The OMS has two pedestrian doors: one on the west side of the south wall and one on the east side of the north wall. Two windows are located in the north wall and one in the east wall. The OMS has a bare concrete floor and concrete block walls, and was empty during the July 2006 Site reconnaissance (Appendix B, Photograph 21). An overhead heater and insulated piping in the OMS are shown on Photograph 22 in Appendix B.

The grease rack ramp located just north of the OMS and the exterior of the old hazmat shed are shown on Photograph 23 in Appendix B. Storage racks that were removed from the OMS were being stored under the grease rack ramp during the July 2006 Site reconnaissance. The empty interior of the old hazmat storage shed is shown on Photograph 24 in Appendix B. The location of the former VWR and oil-water separator (OWS) is shown on Photographs 25 and 26 in Appendix B. The VWR and OWS were removed in 1993 and the area is now covered in grass with no visible evidence of either feature. A description of the removal work is presented in Section 3.3.1 of this ECP Report.

No military vehicles were located within the MEP area or onsite during the visual reconnaissance.

Activities historically conducted at the Site may have been different or included other activities than those observed on the Site during the visual reconnaissance and/or described by current USAR personnel.

2.4 SITE HYDROLOGY AND GEOLOGY

2.4.1 Surface Water Characteristics

Appendix A provides a topographic map of the Site and surrounding area. As shown on the map, the Site is fairly flat and approximately 1,600 feet above mean sea level. The north end of the Site drains toward Opal Street to the north and to the east. As shown in the Site photographs, the east POV parking area is lower in elevation than the west POV parking area. The southern half of the Site generally slopes to the southeast. A shallow drainage swale curves through the south lawn area of the Site from the OMS area to the southeast corner of the Site. No surface water bodies are present on the Site or adjacent areas. The Washita River, located approximately 1.5 miles east of the Site, is the nearest major surface water feature to the Site. The Washita River ultimately discharges into the Red River.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the City of Clinton, Oklahoma (Community-Panel Number 400054 0005 D, Map revised April 3, 1987), the Site is in Zone C. FEMA defines Zone C as “areas of minimal flooding.” The Site is outside the 100-year and 500-year flood zones. Figure 3 in Appendix A provides a map depicting the extents of the nearest 100-year and 500-year flood plains in the area of the Site.

2.4.2 Hydrogeological Characteristics

Based on the Custer County soils map from the U.S. Department of Agriculture Natural Resource Conservation Service, the predominant soil types on the Site are:

- CaB — Carey silt loam
- WoD— Woodward silt loam

The runoff class for Carey silt loam is low and it is well drained. The runoff class for Woodward silt loam is medium; it is also well drained. Both soils are not flooded and not ponded and are classified as Hydrologic Group Class B, which is categorized as having deep and moderately deep, moderately well and well-drained soils with moderately coarse textures. Carey silt loam and Woodward silt loam are not hydric soils. There are no wetlands on the Site according to Figure 4 in Appendix A, which is a copy of the National Wetlands Inventory Map of the Site area.

The Site is located approximately two blocks from the City Of Clinton water tank and is near a topographic high point in the area. The Site and surrounding area are served with public water by the City of Clinton.

No wells or springs were observed on the Site, nor were any wells identified on the Site during a search of the U.S. Geological Survey (USGS), Federal Reporting Data System Public Water Supply (PWS) System, and state databases. A search was also conducted

for wells within 1 mile of the Site (see the Environmental Data Resources, Inc. [EDR] Report in Appendix E).

No PWS wells within 1 mile were listed on the databases researched by EDR. One Federal USGS well and 22 other wells within 1 mile were listed on databases researched. The Federal USGS well was reported to be within one-half mile of the Site. TEJV attempted to physically locate the well in the field during the July 2006 Site reconnaissance but was unsuccessful.

The other 22 wells were reportedly greater than one-quarter, but less than, 1 mile from the Site. The wells were reportedly shallow (typically 12 to 25 feet deep) and primarily used for water quality or site assessment. The TEJV attempted to physically locate these wells in the field during the July 2006 Site reconnaissance. Only two groundwater monitoring wells were observed in the field; these wells were located north of the closed Coca-Cola facility on Corbin Lane more than one-quarter mile from the Site. Other listed wells were not located in the field. The two observed wells are not located upgradient from the Site and do not represent conditions that will present a potential risk to the Site.

2.5 SITE UTILITIES

The Site and surrounding area are served by public utilities. The City of Clinton provides potable water and sanitary sewer service. Oklahoma Natural Gas Company provides natural gas service to the Site. AEP-PSCO provides electricity to the Site. Solid waste disposal takes place in the Custer County Landfill by municipal service.

2.6 WATER SUPPLY WELLS AND SEPTIC SYSTEMS

As described in Section 2.4.2, 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 1892. Appendix C contains a historical Chain-of-Title Report completed for the Site. Key historical deed transfers of the Site are as follows:

- May 20, 1892 — United States of America to Alice Butts
- December 23, 1907 — Alice Butts to C. H. Lamb and Chas W. Goodwin
- January 7, 1908 — Chas W. Goodwin and Carrie Goodwin, husband and wife; and C. H. Lamb to The Clinton Townsite and Investment Company
- March 4, 1922 — The Clinton Townsite and Investment Company to C. E. Johnson
- June 13, 1958 — Josephine Havens Chody and husband, Byron Chody, Billie Jo Arnold and husband, James E. Arnold (heirs of C. E. Johnson) to United States of America

The Chain-of-Title Report did not identify any leases or environmental liens against the USAR Center property. No historical Sanborn fire insurance maps were available for this Site.

As shown on the Site map (Figure 2 in Appendix A), there is a 10-foot-wide sanitary sewer easement that runs east-west near the center area of the Site.

3.2 PAST USES AND OPERATIONS

Important events in the facility's development, administration, and mission are summarized below:

Year	Description
1958	Site property was acquired by the U.S. government
1960	Training Building was constructed, along with a POV parking area to the west
1961	OMS was constructed
1985	Training Building was expanded to the east, and Drill Hall and kitchen were added
1985	East POV parking areas was added
2004	Facility closed as an active USAR Center

Historical information sources suggest that the Site was previously part of a farm on the south side of Clinton, Oklahoma. The Site has served as a USAR Center since the U.S. government acquired the land in 1958.

The Site primarily functioned as an administrative and educational facility, with limited maintenance of military vehicles. The Site was historically used by reservists for drill activities on various weekends throughout the year. The USAR Center was closed in 2004 and remains inactive. The last USAR unit based in this USAR Center was the 818th Replacement Company. Other units historically based at the Site prior to the 818th Replacement Company included the 313th Training Brigade Unit, a Drill Sergeant Unit, and USAR Postal Service Unit.

During the Site reconnaissance, the Training Building was unoccupied except for high school ROTC training being performed in the Drill Hall. The Training Building contained tables, chairs, desks, and the kitchen equipment from previous USAR activities. However, the kitchen had not been used since the 1980s.

The OMS was also empty at the time of the Site reconnaissance. Storage racks formerly located in the OMS had been removed and stockpiled under the grease rack ramp outside the OMS. According to a USAR representative, the USAR units stationed at the Site did not have many government vehicles, and vehicle maintenance and repair work was primarily performed at an Area Maintenance Support Activity shop located at one of the other USAR centers in Oklahoma. As described in Section 3.5.2, a VWR with an OWS was shown on a figure in a previous architectural report. During the July 2006 Site reconnaissance, the area was covered with grass and there were no visible signs of the VWR or OWS. As described in Section 3.3.1, the VWR and OWS were reportedly removed in 1993, although no closure reports were made available for review.

Historical topographic maps and aerial photographs provide information about the Site and surrounding area. Figures 5 and 6 in Appendix A present topographical maps of the Site and surrounding area dated 1956/1957 and 1983, respectively. Figures 7 through 11 present aerial photographs of the Site and surrounding areas dated 1940, 1955, 1966, 1995, and 2006, respectively.

Pertinent observations on the historical USGS maps are summarized below.

- **1956/1957 (Figure 5).** The Site is located just south of the developed area of Clinton. One building is shown on the northwest corner of the Site; it may have been a farm house for the Site and surrounding area. The area immediately north of Opal Street is shown as developed. Houses are shown west of the Site on the other side of what is now 18th Street. The south side of the Site is bounded by the Panhandle and Santa Fe railroad track; the area farther south appears to be farm land. The area east of the Site between the developed area of Clinton and the railroad track also appears to be farm land or undeveloped. The City of Clinton is

shown to the north and west of the Site. Route 66 is shown through downtown Clinton and then east and south of the Site.

- **1983 (Figure 6).** The Site is shown as part of the developed area of Clinton; no specific buildings and residences are shown on the Site or in the immediate area. The area east and southeast of the Site is shown as developed; the area to the east is shown as McLain Rogers Park. The west side of the Site is bordered by 18th Street. The railroad tracks south of the Site were replaced by Jaycee Lane. Clinton High School is shown south of the Site and Jaycee Lane. More development is shown north and west of the Site. A new road is shown along the railroad tracks to the west. Interstate 40 is also shown south of the Site.

Pertinent observations on the historical aerial photographs are summarized below.

- **1940 (Figure 7).** A building assumed to be a farm house is shown in the northwest corner of the Site. The Site appears to be in a farmed/cleared area on the south side of Clinton. Residential development is visible north of the Site, within the town of Clinton. The density of houses is higher in the town of Clinton to the north. Opal Street is shown on the north side of the Site and railroad tracks are shown to the south. There are no cross streets and only two buildings are present in the area between Opal Street and the railroad tracks. A drainage swale appears to discharge away from the northeast corner of the Site to the southeast. The area to the south appears to be farm land.
- **1955 (Figure 8).** The building in the northwest corner of the Site remains. More houses and buildings are shown in Clinton north of the Site. Some cross streets and other roads are present between Opal Street to north side and the railroad tracks to the south. The area to the south appears to be farm land.
- **1966 (Figure 9).** The USAR Center buildings are shown on the Site. The main part of the Training Building, OMS, and west POV parking area are shown. The pad for the VWR (mentioned in the Architectural Report) is visible north of the MEP area. The areas north, west, and east of the Site are fully developed residentially. The railroad to the south has been replaced by Jaycee Lane.
- **1995 (Figure 10).** The USAR Center buildings and additions are shown on the Site. The Training Building has been expanded to the east and the Drill Hall added to the south. The east POV parking area and the road that connects the east and west POV parking areas are shown. A driveway from this connector road to the Drill Hall door is also shown. The pad for the VWR is not visible. More residential development is visible southeast of the Site.
- **2006 (Figure 11).** The USAR Center shown on the Site appears similar to the 1995 conditions. The area around the Site is fully developed.

The earliest available information about the Site is from a 1940 aerial photograph, which shows the Site as a farming operation. As documented in the topographic maps and aerial photographs presented in Appendix A, a structure (possibly a house) was located on the northwest corner of the Site. No other records were found regarding this structure. This structure was removed prior to development of the USAR Center on 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 AR personnel.

Chemicals formerly used and stored at the Site were associated with limited vehicle maintenance, facility maintenance activities, and janitorial services. Hazardous substances were stored in the hazmat shed in the OMS fenced area. However, there is no evidence that CERCLA hazardous substances were stored at the Site for one year or more in excess of their corresponding RQs.

The 1998 Historical Architectural Report contained a map dated August 28, 1989 that showed a "1 - Vehicle Wash Rack with Oil/Water Separator" on the north side of the MEP within the OMS fenced area. The OMS was labeled as a "Supply Warehouse" on the same figure. A yard hydrant/hose bib and associated bollard were observed in this area during the Site reconnaissance; however, the area was a grass lawn and there were no signs of the former VWR or OWS. USAR personnel provided general information about the VWR and associated OWS via interview. The OWS was reported to be a "rectangular shaped structure," approximately 4 feet wide by 6 feet long and 2 feet deep; contained baffles to separate, collect, and hold oil and grease; and did not have a separate tank to store oil and grease. Oil accumulated in the OWS was cleaned out manually. Water from the OWS discharged directly to the sanitary sewer. The OWS was not required to be registered with the state of Oklahoma when it was operational.

The VWR and OWS were removed by a contractor in 1993 (Work Order # 2P00-23P - Project # 2P00023P). The contract required that all contaminated soils in and around the OWS "be removed and fresh fill materials placed, compacted and revegetated." USAR personnel could not locate a closure report, but stated that the cleanup was completed in accordance with the contract requirements and environmental regulations applicable at that time. If contaminated soil was encountered during the removal work, it reportedly would have been removed; however, there is no record that contaminated soil was encountered. According to USAR personnel, this type of removal work did not require a closure report because the OWS was not registered.

3.3.2 Past Disposal and Release of Hazardous Substances

Information related to past disposal and 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, there is no evidence that hazardous substances above RQs were released or disposed at the Site. No stained soil or stressed vegetation was observed during the visual reconnaissance. Additionally, the MEP and POV parking areas did not show any signs of staining, and no noxious or foul odors were noted during the visual 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) and/or underground storage tanks (USTs) were previously located on the Site.

3.5 REVIEW OF PREVIOUS ENVIRONMENTAL REPORTS

A review of Site records produced several reports pertaining to the Site. 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

An Environmental Baseline Survey (EBS) was completed in 2004 for the Site for the USAR, 90th Regional Readiness Command (RRC). Environmental, Compliance & Construction, Inc. (ECCI) issued an *Environmental Baseline Survey for Disposal of Donald A. Roush United States Army Reserve Center* in November 2004. The 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 1 Property.

3.5.2 Architectural Assessment

Parsons Engineering Science, Inc. (Parsons) performed a *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Oklahoma* for the Department of the Army, 90th RRC, Office of the Engineer. 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 Registry 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 2011. The Oklahoma State Historic Preservation Officer concurred with the

report recommendations in a letter dated February 2, 1998. A copy of the letter is included with applicable pages from the report in Appendix D of this ECP Report.

3.5.3 Lead-Based Paint

ETC Engineers, Inc. of Little Rock, Arkansas, performed a LBP survey of the USAR Center for the USACE Little Rock District. The results were summarized in a *Report of Findings, Lead-Based Paint and Ozone Depleting Chemicals Assessment and Management, Roush USARC, Clinton, Oklahoma*, issued January 1994. The report stated that the date of construction for the USAR Center buildings was 1960, an addition occurred in 1961, and a new roof was added in 1992.

The report stated that LBP was detected at nine locations in the USAR Center, including door jambs, pipe bollard, edge guard, grease rack, and walls.

3.5.4 Radon

Per a memo on September 28, 1993, the Department of the Army, Headquarters 122D USAR Command issued copies of radon screening results as of January 13, 1993, for the USAR Center. The radon screening tests were performed at six locations in the Training Building. All results were "1.0 or less" picocuries per liter (pCi/L).

3.5.5 Asbestos

Two asbestos surveys and inspections were performed at the USAR Center. The first asbestos survey reported that non-friable and friable asbestos-containing material (ACM) were detected on the Site as of January 22, 1993. The positive asbestos analytical results from that survey are summarized in Table 2.

Building	Location	Material	ACM Type	Quantity (in square feet)
Training Building	West Classroom	Floor tile	non-friable	5,043
Training Building	West Classroom	Mastic	non-friable	5,043
Training Building	Above ceiling in west end hall and center hall	MJP insulation above ceiling	friable	43
Supply Building (assumed to be OMS)	Vibration joint	Vibration joint	friable	4

An asbestos inspection was performed at the USAR Center in February 1997 by the Environmental Section of the 90th RRC, USAR in Little Rock, Arkansas. The results were

summarized in *Asbestos Building Inspection, Donald A. Roush U.S. Army Reserve Center, Clinton, Oklahoma*, issued February 1997. As part of the inspection, eight samples were collected for asbestos analysis. A sample of the floor tile mastic in the west classroom tested positive for asbestos. The report stated that the non-friable floor tile mastic “may be disturbed during demolition projects and removal could become necessary to prevent asbestos exposure” and “Two flexible duct connectors found in the maintenance shop were assumed to be asbestos.” The report stated that these connectors could be damaged “due to the moderate potential for air erosion.” The report also stated that “the maintenance shop is seldom occupied.” The term “maintenance shop” in the reports has been interpreted to be the OMS for the purposes of this ECP Report.

According to interviews with USAR personnel, ACM within the USAR Center was removed. The work was performed between 1998 and 2000. USAR personnel were not able to locate specific documentation or reports describing the work and/or when it was performed.

3.5.6 Threatened and Endangered Species

Parsons performed an investigation and issued a *Final Phase 2 Threatened and Endangered Species Habitat Analysis of the 90th Regional Readiness Command (RRC) Facilities* for the Department of the Army, 90th RRC in August 2005. The Phase 2 analysis was performed on the USAR Center due to a recorded observation of the Texas Horned Lizard in 1995. The report listed the following federal and state-listed threatened and endangered species in Custer County:

- American Peregrine Falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Black-Tailed Prairie Dog (*Cynomys ludovicianus*)
- Interior least tern (*Sterna Antillarum*)
- Whooping Crane (*Grus americana*)
- Texas Horned Lizard (*Phrynosoma cornutum*)

The Texas Horned Lizard is a state-listed species; all of the others are contained in both state and federal lists. The report concluded that the Donald A. Roush USAR Center did not contain habitat for threatened and endangered species, including the Texas Horned Lizard.

3.5.7 Cultural Resources

Parsons performed an assessment and prepared a *Management Summary, Cultural Resources Assessment of 90th Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma and Texas* for the Department of the Army, 90th RRC. The assessments were compiled and issued in February 1998. The assessments concluded that there were no architectural or archeological issues at the Donald A. Roush USAR Site. The Site has a “low” archeological potential and is not eligible for the National Registry of Historical Places. The Oklahoma State Historic Preservation Officer concurred

with the report recommendations in a letter dated February 2, 1998. The Oklahoma State Archeologist concurred with the recommendations in the draft report for the USAR Center in a letter dated July 14, 1997.

3.5.8 Polychlorinated Biphenyls

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) performed *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* for the 90th RRC facilities in Arkansas, Louisiana, Oklahoma, New Mexico, and Texas. The assessments were compiled and issued on September 30, 1997. The assessment addressed the two pole-mounted transformers west of the Site on the west side of 18th Street (Appendix B, Photograph 18) and fluorescent lighting in the Training Building. The transformers were reported to be owned by PSCO; their manufacturer and age were listed as unknown. The PCB status of one of the transformers was reported to be "Non-PCB," and the PCB status of the other one was reported as "Unknown." The transformer identified as Non-PCB was listed in "Fair" condition with "some rust." The transformer with unknown PCB status was listed in "Good" condition with "no leaks." The fluorescent lighting fixtures in the USAR Center were identified as "Non-PCB ballast" in the USACHPPM report.

4.0 ADJACENT PROPERTIES

Figure 11 in Appendix A provides a 2006 aerial view of the Site and adjacent properties. The Site is bounded by Opal Street to the north, 18th Street to the west, and Jaycee Lane to the south. The backyards of multiple single-family houses are adjacent to the Site on the east. The Site is located in a primarily residential area. Clinton High School is on the south side of Jaycee Lane; the campus includes the high school, the Tornado Dome (an indoor arena), athletic fields, and parking lots. Table 3 provides a list of adjacent properties with their directional location from the Site and zoning. Photographs 27 through 32 in Appendix B present views of adjacent properties and surrounding land use.

Direction From Site	Name/Type of Property	Addresses	Zoning
North	Residential property on the north side of Opal Street. Primarily single family, some multifamily to the northeast.	1600 and 1700 blocks of Opal Street	Primarily R-1, Single-Family Residential, some R-3 Multifamily Residential
West	Residential property on the west side of 18th Street. Single Family.	700 block of 18th Street	R-1, Single-Family Residential
South	Clinton High School	Jaycee Lane and Corbin Lane	R-1, Single-Family Residential
East	Residential property on the west side of 18th Street. Single Family	Philips Lane, Park Avenue, Opal Street, and Gholson Avenue	R-1, Single-Family Residential

Appendix A provides historical aerial photographs and topographic maps. 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 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 acquired from EDR on July 13, 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 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. 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 interviewed local authorities and reviewed reasonably accessible USAR environmental documents, Oklahoma Corporation Commission (OCC) files, City of Clinton 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.

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 CERCLA Information System 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 private 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 report, the USAR Center is not a CERCLIS site and there are no CERCLIS sites located within one-half mile of the Site.

5.1.3 Federal CERCLIS No Further Remedial Action Planned Sites within One-Half Mile

CERCLIS No Further Remedial Action Planned (NFRAP) sites have been removed and archived from CERCLIS. 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 NFRAP site and there are no CERCLIS NFRAP sites located within one-half mile of the Site.

5.1.4 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.

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

The RCRA Information Database (RCRAInfo) includes selective information on sites that generate, transport, and 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 located within one-half mile.

5.1.6 Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile

Conditionally exempt small-quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or 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, 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.

The Donald A. Roush USAR Center is listed as a CESQG on RCRAInfo. USAR personnel said that USAR centers generated small quantities of hazardous waste, such as used

fluorescent light bulbs, as part of their normal operation. They reported that all of the materials were properly managed and disposed; no records of violations were found during the ECP record review process.

No RCRA SQGs or LQGs are within one-quarter mile of the Site.

5.1.7 Federal Emergency Response Notification System List

The federal Emergency Response Notification System (ERNS) List provides information on reported releases of oil and hazardous substances. According to the environmental database report, 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 environmental database search report. Supplemental information was also provided from research at the OCC.

5.2.1 State Voluntary Cleanup and Superfund Site Status Reports within One Mile

There are no State Voluntary Cleanup and Superfund Sites within one mile of the USAR Center.

5.2.2 State-Registered Solid Waste Facilities within One-Half Mile

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

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

According to the environmental database report, four leaking UST (LUST) sites were identified within one-half mile of the USAR Center. Table 4 lists the sites along with their addresses and elevations relative to the Site. The Site itself is not listed in the state LUST database.

TEJV researched and reviewed files in the OCC and visually observed each site in the field. As shown in Table 4, all four LUST sites have received closure approval from the OCC, indicating that no further remedial action is required and that residual petroleum contamination does not pose a risk to human health or the environment. These LUST sites are not considered to be a potential environmental risk to the Site due to their location and current closed status. OCC documentation for these sites is in Appendix D.

Table 4 LEAKING UNDERGROUND STORAGE TANK SITES				
Site Name/ OCC Facility No.	Address	Distance and Direction from Site	Status	Elevation Relation to Site
Clinton Coca-Cola #2007085	2310 Corbin Lane Clinton, OK	Approximately 2,000 feet west-southwest of Site, on west side of Gary Boulevard	Closure approved via OCC letter on March 8, 1994	Lower
Classic Car Care (Old Texaco Station) #0-013154	2134 Gary Boulevard Clinton, OK	Approximately 1,300 feet west of Site	See Abandoned Station #2009122	Lower
Abandoned Station (Texaco Station) #2009122	2140 Gary Boulevard Clinton, OK	Approximately 1,300 feet west of Site	Final Closure Report approved by OCC February 27, 2003. Currently a Subway store.	Lower
Paul's 66 #2009935	I-40/Neptune Road Clinton, OK	Approximately 3,000 feet south-southeast of Site	Closure approved via OCC Letter on December 11, 2003	Lower

5.2.4 State-Registered 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 environmental database report identified four UST sites in the OCC UST database within one-quarter mile of the Site. Table 5 lists the sites along with their address and elevation relative to the Site. The USAR Center itself is not listed in the OCC UST database. These UST sites are all inactive and are not considered to be a potential environmental risk to the Site due to their location and current closed status.

Table 5 UNDERGROUND STORAGE TANK AND HISTORICAL UNDERGROUND STORAGE TANK SITES				
Company/Site	Address	Distance and Direction from Site	Status	Elevation Relation to Site
Clinton Coca-Cola #2007085	2310 Corbin Lane Clinton, OK	Approximately 2,000 feet west-southwest of Site, west of Gary Blvd	Closure approved via OCC Letter on March 8, 1994	Lower
Clinton Public School #20001439	2130 Gary Freeway Clinton, OK	Approximately 1,300 feet south of Site	Permanently out of use. Closure approved via OCC Letter on May 17, 1999	Lower
Texaco Station #2009122	2134 Gary Blvd Clinton, OK	Approximately 1,300 feet west of Site	Final Closure Report approved by OCC February 27, 2003. Same site as Abandoned Station in LUST section. Currently a Subway Store on site.	Lower
Classic Car Care (Old Texaco Station) # 0-013154	2134 Gary Blvd Clinton, OK	Approximately 1,300 feet west of Site	See Texaco Station #2009122.	Lower

5.2.5 State-Registered UST Sites, List II Version within One-Quarter Mile

The UST Sites, List II Version, includes historical UST sites and information through March 2003 from OCC. The environmental database report identified four historical UST sites within one-quarter mile of the Site. The List II Version historical sites are presented on Table 5; they are the same sites listed in the UST database.

5.2.6 State-Registered Leaking AST Sites within One-Half Mile

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

5.2.7 State-Registered 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.

5.2.8 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 onsite. According to the environmental database report, no state-registered sites with Institutional Controls are located within one-half mile of the USAR Center.

5.2.9 Voluntary Action Program Sites within One-Half Mile

Brownfields sites are included on the Superfund Voluntary Cleanup, Oversight, and Assistance Program listing. According to the environmental database report, no state-registered Voluntary Action Program Sites are located within one-half mile of the USAR Center.

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

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

5.2.11 State Brownfields Program Sites within One-Half Mile

Included in the state brownfields program 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 located within one-half mile of the USAR Center.

5.3 TRIBAL ENVIRONMENTAL RECORDS

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

5.4 UNMAPPED SITES

The environmental database search yielded 29 unmapped sites. Unmapped sites are those with insufficient address information such that they can only be identified within the zip code of the target Site. The TEJV identified and/or estimated the location of each site and none of them were determined to be within the corresponding ASTM D 6008-recommended minimum search distances for the databases on which they were listed.

5.5 SUMMARY OF PROPERTIES EVALUATED TO DETERMINE RISK TO SITE

During review of environmental information summarized in Section 5, multiple databases and sites were reviewed to evaluate potential risks to the Site. Based on an evaluation of available information and details concerning the identified sites, no "High Risk" sites were identified in the area of the Site. "High Risk" properties are those that exhibit significant environmental conditions that have the probability of adversely affecting the environmental conditions at another site.

6.0 SITE INVESTIGATION AND REVIEW OF HAZARDS

Findings documented in the following subsections are based on the July 25 and 26, and August 23, 2006, visual reconnaissance, review of available Site records, and information obtained from USAR personnel.

6.1 USTs AND ASTs

Based on observations and interviews with USAR personnel, no petroleum USTs or ASTs are currently located at the Site.

6.2 INVENTORY OF CHEMICALS/HAZARDOUS SUBSTANCES

During the July 25 and 26, 2006, visual reconnaissance, there was no evidence that hazardous substances above RQs were stored for one year or more, released, or disposed at the Site. The OMS was virtually empty and contained an unused drum overpack. As shown on Photograph 24 in Appendix B, some absorbent material and what appeared to be remnants of the bags that previously contained the absorbent material was observed on the floor of the old hazmat shed. No chemicals were observed in the shed. During the July 2006 visual reconnaissance, no materials were observed in the new hazmat shed; it appeared to have never been used as the shelves were not installed. The new hazmat shed was removed from the Site prior to the TEJV's August 23, 2006, visual reconnaissance.

6.3 WASTE DISPOSAL SITES

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

6.4 PITS, SUMPS, DRY WELLS, AND CATCH BASINS

The Site is served by a sanitary sewer system from the City of Clinton. All wastewater generated within the buildings discharges to the sanitary sewer system. Training Building floor drains are located within the kitchen, mechanical room, and restrooms. There is a grease trap outside the kitchen; however the kitchen has not been used since the 1980s.

Storm water drains off the Site to storm drains on Opal Street to the north and Jaycee Lane to the south.

6.5 ASBESTOS-CONTAINING MATERIAL

As described in Section 3.5.5, ACM previously identified in the USAR Center buildings was reportedly removed. TEJV was not provided with written documentation regarding removal of asbestos from the Site.

6.6 PCB-CONTAINING EQUIPMENT

TEJV contacted the District Engineer of AEP-PSCO regarding two transformers on the Site and was told that both are non-PCB containing units. No visible leaks were observed in the transformers during the visual reconnaissance. As described in Section 3.5.8, there is no other known PCB-containing equipment on the Site.

6.7 LEAD-BASED PAINT

As described in Section 3.5.3, LBP was detected on the Site during a 1994 assessment by ETC Engineers, Inc. During the July 2006 visual reconnaissance, the painted surfaces in both buildings appeared to be in good condition.

6.8 RADON

The Site is in USEPA's Radon Zone 3, which has "Low Potential" for radon. The average short-term radon measurement that can be expected in a Zone 3 building, without the implementation of radon controls, is less than 2.0 pCi/L. The USEPA-recommended action level is 4.0 pCi/L.

The state radon database for Custer County, referenced in the environmental database report, lists the average indoor radon reading as 1.24 pCi/L. The federal database for zip code 73601 indicates that the average first floor living space radon reading is 1.214 pCi/L. This information is consistent with the actual readings previously described for the Site.

6.9 UNEXPLODED ORDNANCE

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

6.10 RADIOACTIVE MATERIALS

During the July 2006 visual reconnaissance and records review process, no indications were found of the past storage or release of radiological materials at the USAR Center.

7.0 REVIEW OF SPECIAL RESOURCES

7.1 LAND USE

The Site and surrounding area are zoned for residential use. The Site and most of the surrounding area are zoned for R-1, Single-Family Residential with some smaller specific areas in the vicinity zoned R-3, Multifamily Residential. Figure 11 in Appendix A provides a 2006 aerial photograph of the USAR Center and surrounding properties and depicts current land use. As shown in that figure, the areas west, north, and south of the Site are residential; the area south of the Site contains Clinton High School.

7.2 COASTAL ZONE MANAGEMENT

There is no coastal zone management plan for Oklahoma.

7.3 WETLANDS

The Site is upland and well drained. According to the U.S. Fish and Wildlife Service National Wetlands Inventory map, no jurisdictional wetland areas are identified on the Site, adjacent properties, or within the City of Clinton. The nearest wetland is located approximately 3,000 feet northwest of the Site. Figure 4 in Appendix A provides a map of wetlands in the area of the Site.

7.4 100-YEAR FLOOD PLAIN

The (FEMA) Flood Hazard Area map indicates that the Site lies outside the 100-year flood plain. Figure 3 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 flood Zone C, which FEMA defines as "areas of minimal flooding."

7.5 NATURAL RESOURCES

As described in Section 3.5.6, the USAR Center does not contain habitat for threatened and endangered species. Except for potential incidental use by migrants, the threatened and endangered species are unlikely to occur at the Site.

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 Donald A. Roush USAR Center. The Site has a "low" archaeological potential and is not eligible for the National Registry of Historical 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, was authorized to prepare an ECP Report for the 4.75-acre Donald A. Roush (Facility ID OK007) USAR Center, located at 1720 Opal Street in Clinton, Custer County, Oklahoma. The USAR Center is currently vacant; the last unit to occupy the facility was the 818th Replacement Company. The Site contains a Training Building and an OMS. The Site primarily functioned as an administrative and educational facility when it operated as a USAR Center from 1960 to 2004.

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 limited unit-level vehicle maintenance 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.** No petroleum ASTs or USTs are currently on the Site, nor have ASTs or USTs reportedly ever been on the Site since the U.S. government's purchase of the property in 1958.
- **Vehicle Wash Rack.** A VWR with an OWS was previously located on the Site within the MEP fenced area near the OMS. According to USAR personnel, the VWR and OWS and contaminated soil (if any) were removed from the Site in 1993. The area is now covered in grass with no visible evidence of either the VWR or OWS.
- **Non-UST/AST Petroleum Storage.** Petroleum storage would have occurred in designated areas within the OMS and hazmat storage shed located in the OMS. There is no evidence that non-UST/AST petroleum products in excess of 55 gallons were stored for one year or more on the Site.
- **PCBs.** A PCB assessment was performed in 1997 on the nearby offsite electric transformers that feed the Site and the fluorescent lighting fixtures on the Site. Based on the assessment and contact with AEP-PSCO, the transformers were determined to be non-PCB containing. The fluorescent lighting fixtures were also identified as non-PCB units.

- **ACM.** Two asbestos surveys were performed on the Site: one in 1993 and one in 1997. The 1997 asbestos survey indicated that there was ACM and suspect ACM at the Site. According to interviews with USAR personnel, ACM within the USAR Center was removed. The work was performed between 1998 and 2000. USAR personnel were not able to locate specific documentation or reports describing the work and/or when it was performed.
- **LBP.** ETC Engineers, Inc. performed a LBP assessment of the USAR Center in 1994. The assessment documented materials/surfaces containing LBP. During the July 2006 visual reconnaissance, painted surfaces in the buildings were observed to be in good condition.
- **Radiological Materials.** No radiological materials were identified during the July 2006 visual reconnaissance or during interviews with USAR personnel. There is no evidence that radioactive material or sources were stored or released at the Site.
- **Radon.** In 1993, radon tests were performed at six locations in the Training Building. All results were 1.0 pCi/L or less. The Site is in the USEPA Radon Zone 3, which has "Low Potential" for radon. The USEPA-recommended action level is 4.0 pCi/L. Therefore, based on actual measurements and the general location of the Site, radon is not an environmental concern at the Site.
- **Munitions and Explosives.** No evidence was found during the July 2006 visual reconnaissance, interviews with USAR personnel, or during the review of records to indicate the presence of munitions and explosives of concern at the Site.
- **Nearby 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 no significant issues relating to the environmental condition of 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

- Mr. Grayson Bottom. City of Clinton, Clinton City Manager, Clinton, OK. (580) 323-0261. Meeting on July 26, 2006 and Telecommunication on August 7, 2006.
- Mr. Mike Galloway. Custer County Emergency Management Director, Arapaho, OK 580-323-4105
- Mr. Tommy D. Grizzle. 90th RRC, Army Installation Management, Engineering Support Branch, Fort Sill, OK 580-442-5966. Telecommunications on August 23 and 24, 2006
- Mr. Jerry Hughes. Environmental Scientist, Engineering & Environment, Inc. (USAR Contractor), Oklahoma City, OK. (405) 946-4967. Meeting on July 26, 2006, and Telecommunications on August 7 and 8, 2006.
- Mr. Greg McSpiritt. AEP-PSCO Engineer, 580-323-4411 ext 4. Telecommunication on August 8, 2006.
- Mr. Douglas Rose. U.S. Department of Agriculture, Custer County Farm Service Agency. (580) 323-0366. Meeting on July 26, 2006.
- Mr. Ed Wagner. 90th RRC. Area Facility Operational Specialist (AFOS) Oklahoma City, OK. (405) 948-1003. Telecommunications on August 23 and 24, 2006.

Resources Consulted

- Aerial Photographs dated 1940, 1955, 1995, and 2006 provided by Oklahoma Department of Libraries.
- City of Clinton, Zoning Map.
- Department of the Army, Headquarters 122D U.S. Army Reserve Command. *Memo with asbestos and radon data for Roush USARC*. September 28, 1993.
- ECCI. *Environmental Baseline Survey for Disposal of Donald A. Roush U.S. Army Reserve Center*. November 2004.
- Environmental Data Resources Inc. *The EDR Radius Map with GeoCheck, 440 Wheelers Farms Road, Milford, Connecticut 06461*. Inquiry No. 1714475.2s. July 13, 2006.

- ETC Engineers, Inc. *Report of Findings, Lead-Based Paint and Ozone Depleting Chemicals Assessment and Management, Roush USARC, Clinton, Oklahoma* for U.S. Army Corps of Engineers, Little Rock District. January 1994.
- Federal Emergency Management Agency. *Flood Insurance Rate Map, City of Clinton, Oklahoma, Custer County, Community Panel Number 400054 0005 D.* Map revised: April 3, 1987.
- NETR-Real Estate Research & Information, 2055 East Rio Salado Parkway, Tempe, Arizona, 85281 (chain of title). Project No. N06-4906. August 1, 2006.
- Oklahoma Corporation Commission, Petroleum Storage Tank Division. File reviews of UST and LUST sites.
- Parsons Engineering Science, Inc. *Management Summary, Cultural Resources Assessment of 90th Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma and Texas* (for Department of the Army, 90th RRC). February 1998.
- Parsons Engineering Science, Inc. *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Oklahoma.* February 1998.
- Parsons Engineering Science, Inc. *Final Phase 2 Threatened and Endangered Species Habitat Analysis of the 90th RRC Facilities* (for the Department of the Army, 90th RRC). August 2005.
- U.S. Army 90th RRC. *Asbestos Building Inspection, Donald A. Roush U.S. Army Reserve Center, Clinton, Oklahoma.* February 1997.
- U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* (for 90th RRC). September 30, 1997.
- U.S. Fish & Wildlife Services, Branch of Habitat Assessment, *National Wetlands Inventory Wetlands Mapper.* <http://wetlandswfs.er.usgs.gov/wtlnds/launch.html>

Agencies Contacted

- Oklahoma Corporation Commission, Petroleum Storage Tank Division
- American Electric Power, Public Service Company of Oklahoma
- City of Clinton, Oklahoma
- Oklahoma Department of Libraries
- United States Fish and Wildlife Service, Department of Interior
- Federal Emergency Management Agency