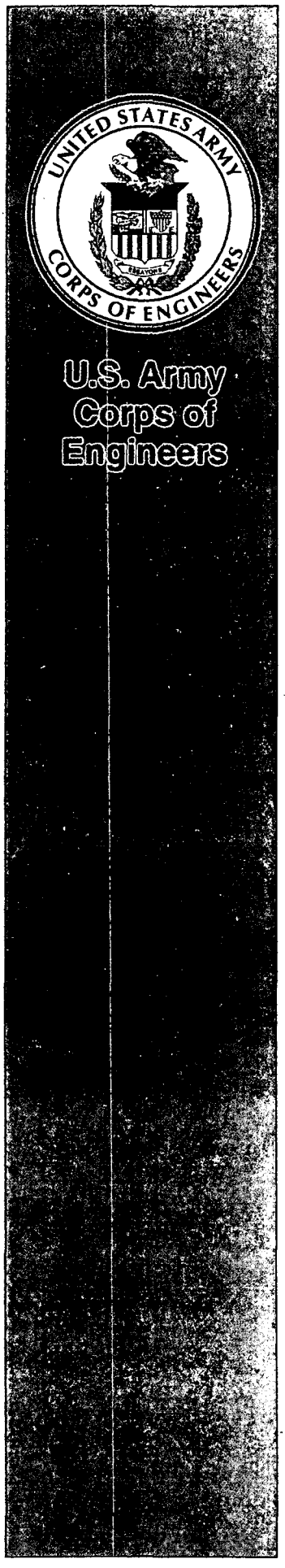
# FINAL DECISION DOCUMENT FOR THE NO ACTION STUDY AREAS DOD OPERABLE UNIT FORT SHERIDAN IL

6/1/2001

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION




# DECISION DOCUMENT FOR THE NO ACTION STUDY AREAS DOD OPERABLE UNIT FORT SHERIDAN, ILLINOIS

**Fort Sheridan**
**Delivery Order CY05**
**Contract Number F44650-99-D-0007**

**FINAL**

**Prepared for:**

**U.S. Army Corps of Engineers**
**Louisville District**
**600 Martin Luther King, Jr. Place**
**Louisville, Kentucky 40201-0059**

**Prepared by:**

**Science Applications International Corporation**
**11251 Roger Bacon Drive**
**Reston, Virginia 20190**

**June 2002**

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## TABLE OF CONTENTS

## TABLE OF CONTENTS (CONTINUED)



## APPENDICES

## LIST OF FIGURES



## LIST OF TABLES

## LIST OF ACRONYMS

| | |
|---|---|
| 4-A-2,6-DNT | 4-Amino-2,6-dichloroethene |
| ANOVA | Analysis of Variance |
| B2EHP | Bis(2-ethylhexyl)phthalate |
| BERA | Baseline Ecological Risk Assessment |
| BLS | Below Land Surface |
| BOD | Biological Oxygen Demand |
| BRA | Baseline Risk Assessment |
| BRAC | Base Realignment and Closure |
| BTEX | Benzene, Toluene, Ethylbenzene, and Xylenes |
| CAC | Coastal Artillery Corps |
| CDC | Centers for Disease Control and Prevention |
| CEC | Cation Exchange Capacity |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| cis-1,2-DCE | cis-1,2-Dichloroethene |
| COD | Chemical Oxygen Demand |
| COPC | Constituent of Potential Concern |
| DERP | Defense Environmental Restoration Program |
| DOD | U.S. Department of Defense |
| ecoCOPC | Ecological Constituent of Potential Concern |
| EPIC | Environmental Photographic Interpretation Center |
| EQ | Ecotoxicity Quotient |
| ESE | Environmental Science and Engineering, Inc. |
| FS | Feasibility Study |
| FFS | Focused Feasibility Study |
| gpd | Gallon per Day |
| gpm | Gallon per Minute |
| HI | Hazard Index |
| HQ | Hazard Quotient |
| IDNS | Illinois Department of Nuclear Safety |
| IEPA | Illinois Environmental Protection Agency |
| LOHHI | Local Occupational Health Hazards Inventory |
| LUST | Leaking Underground Storage Tank |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NSSD | North Shore Sanitary District |
| OQAPP | Overall Quality Assurance Project Plan |
| OU | Operable Unit |
| OWS | Oil/Water Separator |
| PA | Preliminary Assessment |
| PAH | Polynuclear Aromatic Hydrocarbon |
| PCB | Polychlorinated Biphenyl |
| PCE | Tetrachloroethene |
| PCP | Pentachlorophenol |
| RAB | Restoration Advisory Board |
| RCRA | Resource Conservation and Recovery Act |
| RI | Remedial Investigation |
| RI/BRA | Remedial Investigation/Baseline Risk Assessment |
| RME | Reasonable Maximum Exposure |
| SAIC | Science Applications International Corporation |

## LIST OF ACRONYMS (CONTINUED)

| | |
|---|---|
| SARA | Superfund Amendments and Reauthorization Act |
| STP | Sewage Treatment Plant |
| SVOC | Semivolatile Organic Compound |
| TACO | Tiered Approach to Corrective Action Objectives |
| TCE | Trichloroethene |
| TDS | Total Dissolved Solids |
| TOC | Total Organic Carbon |
| TOHI | Target Organ Hazard Index |
| TPH | Total Petroleum Hydrocarbons |
| TRV | Toxicity Reference Value |
| TSS | Total Suspended Solids |
| USACE | U.S. Army Corps of Engineers |
| USACHPPM | U.S. Army Center for Health Promotion and Preventive Medicine |
| USAEC | U.S. Army Environmental Center |
| USEPA | U.S. Environmental Protection Agency |
| UST | Underground Storage Tank |
| VES | Vehicle and Equipment Storage |
| VOC | Volatile Organic Compound |

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# 1. DECLARATION

## 1.1 SITE NAME AND LOCATION

Fort Sheridan
U.S. Department of Defense (DOD) Operable Unit (OU)
Fort Sheridan, Illinois 60037

This document addresses the final decision for 23 study areas on the DOD OU at Fort Sheridan, Illinois. These 23 study areas are:

- Shenck Ravine Fill
- Vehicle and Equipment Storage (VES) Area #3
- VES Area #4
- VES Area #5
- VES Area #6
- VES Area #7
- Boles Loop Drain
- Former Ammunition Storage Building 384
- Former Ammunition Storage Building 389
- Former Ammunition Storage Building 390
- Former Coastal Artillery Corps (CAC) Firing Point
- Former Sewage Treatment Plant (STP)/Sludge Beds
- Former Incinerator
- Former NIKE Missile Control and Fueling Area
- Building 128 Yard Area
- Building 137/139 Yard Area – Machine Shops
- Building 142 Administration
- Building 361 Yard Area – Former Photographic Shop
- Building 368 Yard Area – Auto Maintenance Shop
- Building 377 Yard Area
- Building 379 Yard Area – Electronic Communications Repair Shop
- Building 564/565 Yard Area
- Building 902 Yard Area – Maintenance Shop.

This Decision Document addresses only the study areas of the DOD OU listed above. Remedy selection for other DOD OU study areas will be addressed in separate Decision Documents.

## 1.2 STATEMENT OF BASIS AND PURPOSE

This Decision Document presents the determination that no action is necessary for 23 study areas within the DOD OU at Fort Sheridan, Illinois. This determination is made in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Decision Document explains the factual and legal basis for the determination that no action is necessary at these study areas. Information supporting this no action decision is contained in the Administrative Record for the DOD OU. A copy of the DOD OU Administrative Record Index is presented in Appendix A. This Decision Document was

prepared in accordance with *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA 1999).

## 1.3 DESCRIPTION OF THE NO ACTION DETERMINATION

Based on the results of the baseline risk assessment (BRA) (SAIC 1999a) conducted for the DOD OU, the U.S. Department of the Army and the U.S. Department of the Navy, in consultation with the U.S. Environmental Protection Agency (USEPA) Region V and the Illinois Environmental Protection Agency (IEPA), have determined that no CERCLA response actions are necessary for the protection of human health and the environment at the 23 DOD OU study areas addressed in this Decision Document.

## 1.4 STATUTORY DETERMINATIONS

No actions are necessary to ensure protection of human health and the environment; therefore, none of the CERCLA §121 statutory determinations is applicable or relevant. In addition, the no action determination will not result in hazardous substances, pollutants, or contaminants remaining onsite at concentrations that would restrict unlimited use and unrestricted exposure; therefore, 5-year reviews will not be required for any of the 23 study areas addressed in this Decision Document.

## 1.5 AUTHORIZING SIGNATURES

The U.S. Department of the Army (Lead Agency) and the U.S. Department of the Navy have determined that no actions are required for the protection of human health and the environment at the 23 DoD OU study areas identified in this Decision Document for Fort Sheridan, Illinois. Concurrence letters from the U.S. Environmental Protection Agency and the Illinois Environmental Protection Agency are provided in Appendix B.

12 SEP 02
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# 2. DECISION SUMMARY

## 2.1 SITE NAME, LOCATION, AND DESCRIPTION

Fort Sheridan is located in Lake County, Illinois, approximately 24 miles north of Chicago, Illinois, and 18 miles south of the Wisconsin state line along the western shore of Lake Michigan, as shown in Figure 2-1. (All figures are located at the end of Section 2.) The overall facility covered approximately 712 acres, including surplus property (406 acres), property owned by the U.S. Navy (206 acres), and property owned by the U.S. Army Reserve (100 acres). The surplus property has been transferred to the Lake County Forest Preserve District and to the surrounding communities of Highland Park and Highwood. The Post was established in 1887 to maintain civil order following the Great Chicago Fire in 1871 and labor riots in the city in 1886. The installation subsequently operated as a training post for troops serving in the Spanish-American War, the Mexican Intervention of 1913, World War I, and World War II. Fort Sheridan is bounded by Lake Michigan to the east, the city of Lake Forest to the north, the city of Highland Park to the south, and the city of Highwood to the west. The three residential and commercial communities surrounding the facility have a combined population of approximately 54,000 people and a combined area of approximately 30 square miles.

Twenty-three U.S. Department of Defense (DOD) Operable Unit (OU) study areas are included in this Decision Document. These 23 study areas are:

- Shenck Ravine Fill (Navy/Army Reserve Property)
- Vehicle and Equipment Storage (VES) Area #3 (Navy Property)
- VES Area #4 (Army Reserve Property)
- VES Area #5 (Army Reserve Property)
- VES Area #6 (Army Reserve Property)
- VES Area #7 (Navy/Army Reserve Property)
- Boles Loop Drain (Navy Property)
- Former Ammunition Storage Building 384 (Navy Property)
- Former Ammunition Storage Building 389 (Navy Property)
- Former Ammunition Storage Building 390 (Navy Property)
- Former Coastal Artillery Corps (CAC) Firing Point (Navy Property)
- Former Sewage Treatment Plant (STP)/Sludge Beds (Navy Property)
- Former Incinerator (Navy Property)
- Former NIKE Missile Control and Fueling Area (Army Reserve Property)
- Building 128 Yard Area (Army Reserve Property)
- Building 137/139 Yard Area – Machine Shops (Army Reserve Property)
- Building 142 Administration (Navy Property)
- Building 361 Yard Area – Former Photographic Shop (Navy Property)
- Building 368 Yard Area – Auto Maintenance Shop (Navy Property)
- Building 377 Yard Area (Navy Property)
- Building 379 Yard Area – Electronic Communications Repair Shop (Army Reserve Property)
- Building 564/565 Yard Area (Army Reserve Property)
- Building 902 Yard Area – Maintenance Shop (Army Reserve Property).

Physical descriptions of the study areas included in this Decision Document are summarized below. The study area locations are shown in Figure 2-2. The primary sources of historical information include the *Draft Final Remedial Investigation/Risk Assessment Report* (ESE 1992a), the *Enhanced Preliminary Assessment Report* (ANL 1989), the *Archives Search Report Findings* (USACE 1996), aerial

photographs, discussions with project personnel, and review of historical maps and data obtained from Fort Sheridan. Two phases of investigation activities have been conducted on the DOD OU since 1990. A Phase I Remedial Investigation (RI), conducted between 1990 and 1992, consisted predominantly of intrusive investigations using drilled borings, test pit excavations, and monitoring well installations. The Phase II investigation was conducted between 1996 and 1998 and consisted of supplemental intrusive investigations at 13 sites previously investigated during Phase I and investigations at an additional 11 sites identified by the U.S. Army.

### *2.1.1 Shenck Ravine Fill*

Shenck Ravine is the southernmost ravine on the DOD OU property at Fort Sheridan. The ravine extends from the current eastern U.S. Army Reserve property boundary to Lake Michigan (Figure 2-3). The former ravine is filled to the west of the U.S. Army Reserve property boundary fence up to Building T-639. Although written records of the ravine filling are not available, construction debris has been observed on the ground surface in the area of the filled ravine. Based on aerial photographs the ravine may have been filled some time between 1976 and 1985 and may have been associated with the removal of several buildings along the south side of 11$^{th}$ Street during this time period.

### *2.1.2 Vehicle and Equipment Storage Areas*

The U.S. Army identified six VES storage areas for investigation as part of the DOD OU RI. VES Area #8 subsequently was merged with Landfill #6 because of its proximity to the landfill site. The areas were used to park military vehicles and for the bulk storage of equipment. The primary environmental concern at the VES Areas on Fort Sheridan involves the potential for hazardous materials leaking and/or spilling from vehicles and containers that formerly occupied the sites.

#### *2.1.2.1 Vehicle and Equipment Storage Area #3 and Building 377 Yard Area*

VES Area #3 was identified on aerial photographs as a 6.7-acre area located northwest of Patten Road toward Building 162 and north of Finley Road on property now owned by the U.S. Navy (Figure 2-4). The site included the former Post exchange service station (Building 208), existing Building 162, and the yard area east of Building 377 (former entomology shop). Equipment storage at VES Area #3 is documented by aerial photographs dating between 1952 and 1985. The former service station (Building 208) has been demolished and a fenced yard occupies approximately one-fourth of the Building 377 Yard Area. Remediation of fuel releases associated with leaking underground storage tanks (LUSTs) at the former service station (Building 208) is being performed under Illinois Environmental Protection Agency's (IEPA's) LUST Program in accordance with IEPA's Tiered Approach to Corrective Action Objectives (TACO). To date, as a result of previous remedial activities, the U.S. Army has excavated and replaced approximately 70 percent of the soil in VES Area #3. Additional investigation is ongoing.

#### *2.1.2.2 Vehicle and Equipment Storage Area #4*

VES Area #4 (formerly VES Area #5 in ESE 1992a), located south of Building 528, is between D Street and the western boundary of the Post on property now owned by the U.S. Army Reserve (Figure 2-5). The storage area is approximately 100 by 500 feet (1.2 acres). Historical aerial photographs and observations from site visits indicate that the location was and is used to store military vehicles. VES Area #4 consists of a relatively flat area covered with gravel and enclosed with a chain-link fence. A fence also is used to cordon off the northern one-third of the study area.

#### *2.1.2.3 Vehicle and Equipment Storage Area #5 and Building 128 Yard Area*

VES Area #5 (formerly VES Area #6 in ESE 1992a) was identified from aerial photographs and is bounded by C, D, Third, and Fourth Streets near the western boundary of the Post on property now owned by the U.S. Army Reserve (Figure 2-6). The approximately 120- by 300-foot area (0.8 acres) is located south of Building 128 and is enclosed by a chain-link fence. According to historical aerial photographs, the gravel and asphalt area has been used for vehicle storage since 1952. Building 128 was used for the maintenance of electronic equipment. The building was converted in 1976 for use as a vehicle maintenance center. The yard located immediately north of Building 128 was used to store waste materials. The 80- by 120-foot area formerly contained a 500-gallon aboveground waste oil tank, barrel storage area, and wash rack. The barrels were used to store spent solvents, antifreeze, and similar fluids prior to their disposal. The barrels were stored on wooden pallets positioned on top of gravel in the yard area. The Building 128 Yard Area and VES Area #5 currently are contained within the same perimeter fence.

#### *2.1.2.4 Vehicle and Equipment Storage Area #6*

VES Area #6 (formerly VES Area #7 in ESE 1992a) is a 4.5-acre area bounded by B, C, and Third Streets and located north of Buildings 575 and 573 in the southwest portion of the Post on property now owned by the U.S. Army Reserve (Figure 2-7). Historical aerial photographs of the Post indicate that the lot was used as a vehicle storage area between 1952 and 1972. The site currently contains Building 574 (former barracks) and its adjoining parking lot. The remainder of the area has been landscaped and is primarily covered with grass and small trees (ESE 1992a).

#### *2.1.2.5 Vehicle and Equipment Storage Area #7*

VES Area #7 (Figure 2-8) is located west of Patten Road on property now owned by the U.S. Navy and occupies a filled portion of the Van Horne Ravine. Available maps and aerial photographs (USACE 1996) indicate that the western extension of Van Horne Ravine across Patten Road may have been filled between 1941 and 1943. The study area was identified on Environmental Photographic Interpretation Center (EPIC) photographs (April 3, 1962) and presently contains a fenced yard area that is being used to store boats and recreational vehicles, and includes a paved parking area associated with Building 475.

### *2.1.3 Boles Loop Drain*

Storm drainage from the officer family housing area on Boles Loop discharges along the Lake Michigan shore through Boles Loop Drain. The drainage system was included in the Phase I investigation because the western limit of the drainage collection was downgradient from LUSTs at Building 208, the former Post service station. Sediment and surface water from the drain outfall were sampled during both the Phase I and Phase II investigations. The service station was remediated in 1997 as part of the underground storage tank (UST) program. Stormwater discharge from Boles Loop Drain was sampled during the Phase I investigation and was not re-sampled during Phase II.

### *2.1.4 Former Ammunition Storage Buildings 384, 389, 390, and Former CAC Firing Point*

Several buildings located on the DOD OU formerly were used for the storage of small arms and small caliber ammunition (Figure 2-9) prior to the 1960s (ETC 1994). Environmental concerns in these areas are predominantly associated with the former usage, transport, and storage of bulk explosives and

ammunition in and around the buildings. Buildings 389 and 390 are adjoining earthen-covered, cement and cinder block structures located east of Building 368. Temporary ammunition storage buildings were constructed on the bluff near the former CAC firing point ("B" in USACE 1996 and Building 388 on Post maps) as part of the Armour Research test firing operations (USACE 1996).

### *2.1.5 Former Sewage Treatment Plant/Sludge Beds*

The former STP (Figure 2-10) is located near Lake Michigan, north of Landfill #7 and south of the former CAC firing point location "B" (as designated by USACE 1996). The STP initially was constructed in 1918, rebuilt in 1941, modified in 1942, and dismantled in 1978 when Fort Sheridan was connected to the North Shore Sanitary District (NSSD). The design of the STP included a bar screen, grit chamber, primary sedimentation basins, parshall flume, siphon dosing chambers, trickling filters, secondary settling basins, gas chlorinators, contact tanks, sludge digestion tanks, and sludge drying beds. A former sludge drying bed is located at the base of the bluff on the beach of Lake Michigan. Sludge from the STP was mixed with soil and used as landfill cover and may have been used as fertilizer on Post by housing residents (LOHHI 1981). Currently, there is no evidence of the former STP on the ground surface. A portion of the remaining subsurface structures (trickling filters) were removed during the rerouting of the Wells Ravine storm sewer under the Landfill #7 interim remedial action. Effluent sewage was treated and discharged directly into Lake Michigan during the time of the STP operation.

### *2.1.6 Former Incinerator*

The former incinerator was located near the former STP (Buildings 331 and 334) at the top of the bluff adjacent to (north of) Landfill #7. The exact dates of operation of the incinerator are uncertain, but operation probably extends back to World War I or earlier (ANL 1989). Interview records indicate that the incinerator was demolished before 1965, and the debris was disposed of in the landfill in operation at that time (possibly Landfill #7 based on proximity). The type of refuse that was incinerated also is uncertain, but it probably would have included office rubbish as a major component. The incinerator also handled infectious medical waste on Fort Sheridan (ANL 1989) prior to transfer of those activities to the Great Lakes Naval Training Center in approximately 1971.

### *2.1.7 Former NIKE Missile Control and Fueling Area*

The U.S. Army's NIKE Missile Battery (Figure 2-11) was built between 1953 and 1974 to provide protection from aerial attack to priority military installations as well as key metropolitan areas. Operations at the sites required assembly, maintenance, and storage of components of military hardware as well as handling, disposal, and storage of fuels, cleaners, solvents, hydraulic fluids, and other materials necessary to maintain the NIKE Missile Battery operation. The missile deployment at Fort Sheridan was designated "C-98." Two types of NIKE missiles (Ajax and Hercules) sequentially were deployed at Fort Sheridan. The NIKE Missile Battery at Fort Sheridan consisted of a missile launching control area on the Surplus OU and the launch area, including three silos and a refueling area, located on both the Surplus and DOD OUs. One silo is located on the DOD OU and is under the jurisdiction of the U.S. Army Reserve, and the other two silos are located on the Surplus OU. The missile fueling point was part of the design of the NIKE silos. A sump reported (ESE 1997a) to be located adjacent to the Reserve Center (Building 900) may have been used to dispose of solvents and fuels when the missile installation was in use. The inferred sump location is not evident on a construction drawing of the NIKE facility and a sump associated with the NIKE facility was not located in the field. The missile silo in the DOD OU (west silo) is fully contained underground within a restricted access, concrete paved, fenced enclosure. A central building structure (Building 910) on a concrete base with numerous access vents and ports on the concrete surface also is located within the fenced area. Several trailers are parked along the south side of the

building. A soil berm previously existed at the site between Buildings 900 and 910. The berm was surrounded by a drainage ditch. Additional building structures that formerly existed on the NIKE facility included an acid storage shed, a missile assembly and test building, and a generator building with an operator's control room. The berms and operations buildings have been removed.

### *2.1.8 Buildings 137/139 Yard Area – Machine Shops*

The storage yard area behind Buildings 137 and 139 historically has been used to store 55-gallon drums of spent automotive fluids, vehicles, parts, and equipment (Figure 2-12). The area (Container Storage Area #2) at the northeast corner of Building 137 was cited by IEPA in 1992 for Resource Conservation and Recovery Act (RCRA) violations that were related to the storage of hazardous wastes for periods exceeding 90 days without a RCRA permit. Based on the results of soil sampling at the site (Ogden 1995), the area was closed under RCRA in 1995. The Building 137/139 Yard Area was investigated further to identify areas of contamination that may be associated with the industrial usage of the yard area.

### *2.1.9 Building 142 Administration*

Building 142 is a 73,000-square foot, permanent (brick, concrete, and slate construction) structure used as general administrative office space (Fort Sheridan 1962). The building formerly housed a forms duplication operation and also was used as a 500-man barracks (Fort Sheridan 1962). The three-story building was constructed in 1939 and is located adjacent to (west of) Patten Road southwest of Boles Loop. Two polychlorinated biphenyl (PCB) transformers were found to be leaking in the building basement in 1981 (ESE 1992a). The leakage was cleaned and the transformers subsequently were removed and replaced with non-PCB containing pad-mounted transformers outside the building.

### *2.1.10 Building 361 Yard Area – Former Photographic Shop*

The Fort Sheridan photographic laboratory was housed in Building 361 (Figure 2-13). Soil sampling was conducted to characterize potential soil contamination associated with past releases from a brick masonry manhole located on the north side of the building toward Van Horne Ravine. The building was included in the Phase I RI to investigate reported discharge of photographic chemicals into the sewer system. Staining and deterioration of the floor tiles was noted in the finishing, color, and chemical mixing room (ESE 1992a).

### *2.1.11 Building 368 Yard Area – Auto Maintenance Shop*

Building 368 is located immediately to the west of the former ammunition storage buildings and firing point along the Lake Michigan bluff area and is adjacent to Van Horne Ravine (Figure 2-14). The 5,096-square foot building was constructed in 1941 as a radio shelter (Fort Sheridan 1962). Building 368 was used for instrumentation, dark room, office, shop, metal components, and vehicle storage as part of the Armour Research consolidated Testing Facility. The building is also the former Auto Craft Shop that was used by Post personnel to conduct maintenance on personal vehicles. Building 368 presently is used as a vehicle maintenance and equipment storage area by the U.S. Marines.

### *2.1.12 Building 379 – Electronic Communications Repair Shop*

Building 379 is an 11,475-square foot building constructed in 1945 that consists of a single-story, concrete structure containing machine shops, repair shops, a spray painting area, a sanding area, an

electric kiln, and office space (Figure 2-15). The building is the former electronic communications repair shop that used minor amounts of sprayed solvent and related chemicals and also contained a calibration shop that utilized radioactivity measurement devices (ANL 1989). Building 379 is surrounded by grassed and asphalt-paved areas and is located in an area of light industrial shops.

### *2.1.13 Building 564/565 Yard Area*

Building 564 (former thrift shop) and Building 565 (former service station) are located near the western boundary of Fort Sheridan south of Building 137 (Figure 2-16). A former Post service station (Building 125) was located northwest of Building 565 and was demolished in 1993 when the associated USTs were removed. Buildings 564 and 565 were not shown on the 1925 map of Fort Sheridan (USACE 1996), but are located on a 1946 water utility map of the Post and are visible on 1952 (and subsequent) aerial photographs of the Post. The site area has shown little additional disturbance between the 1952 photographs and the present. Exploratory trenches in the area between Buildings 564 and 565 were excavated by Ecology Services, Inc. under contract to the U.S. Army Corps of Engineers (USACE) in 1997 (P. Day, written communication 1997) to assess the extent of petroleum concentrations observed during routine utility work associated with Building 564. Soil fill, including a 2- to 3-foot thick layer of ash, was excavated on the west side of Building 564 and had a strong fuel odor. The fill contained bricks, bottles, horseshoes, a shovel, a urinal, and other debris (P. Day, written communication 1997). Additional trenching between the buildings identified clay fill to 3 feet below land surface (BLS) overlying saturated gray ash, slag, burnt wood, bottles, and broken glass to 5 feet BLS. A slight oil sheen was observed on water collected in test pits between the buildings without the odor of petroleum.

### *2.1.14 Building 902 Yard Area – Maintenance Shop*

Vehicle maintenance for the reserve units that are headquartered at Fort Sheridan historically was conducted in Buildings 900 and 902. This area is located at the southeastern tip of Fort Sheridan near the Former CAC Firing Point. Two oil/water separators (OWSs) are located in this area, one outside each building. The soils surrounding these two OWSs were investigated to determine if these sumps had released mission-related constituents to the surrounding soils.

## 2.2 SITE HISTORY AND ENFORCEMENT ACTIVITIES

Prior to the military development of the land that is presently Fort Sheridan, the property was operated as a manufacturing center and lake shipping port between the 1840s and 1860s (Melichar 1996). Historical accounts indicate that extensive brickworks operations were established along the Lake Michigan bluff approximately 1,300 feet north of the present southern Post boundary (approximately near Shenck Ravine) and that a lumber mill was operated near the location of the present historic district (Melichar 1995 and 1996). The brickworks activity involved the quarrying of sufficient indigenous clay materials to produce in excess of 6 million bricks for building construction on the property.

The deed for the property that was to become Fort Sheridan was recorded on October 6, 1887 and the first troops arrived at the property (known as Camp Highwood) in November 1887 (Fort Sheridan 1969). The site was officially renamed Fort Sheridan in February 1888 and the first permanent construction at the facility was initiated in 1889 (Fort Sheridan 1969). The Post operated as an active Army Post between 1887 and 1993 and provided garrison and training facilities for U.S. Army troops participating in the Spanish-American War (1898), the Mexican Intervention of 1913, World War I, and World War II, and was established as a NIKE missile launch site in the 1950s. Training activities in preparation for World War I included extensive construction of mock combat trenches over a large area of the southern portion of Fort Sheridan. Fort Sheridan also was the site of the largest World

War I-vintage U.S. Army hospital (Lovell General Hospital) to treat wounded and convalescent soldiers. The hospital was closed in 1920 and Fort Sheridan became a military garrison between 1920 and 1940. Horses and U.S. Army mules played important roles in the training and daily activities on the Post from the initiation of the facility until approximately 1940. Prior to and during World War II, Fort Sheridan was a center of anti-aircraft and coastal artillery training and also served as a recruit reception center. Three artillery batteries were established along the shoreline of Lake Michigan. The Post hospital was re-designated as a Regional Station Hospital and Rehabilitation Center and its facilities were expanded in 1945 to meet the increased post-war needs of returning troops.

Between the 1950s and 1974, Fort Sheridan functioned not only as a NIKE missile launch area in the Chicago defense network, but also as a maintenance and service center for NIKE operations for several midwestern metropolitan areas. Between 1967 and 1993, operations at Fort Sheridan were primarily administrative, with the Post serving alternately as headquarters for the Fifth Army, the U.S. Army Recruiting Command, the Fourth Army, and also providing administrative and logistical support to 74 U.S. Army Reserve centers located in midwestern states from Minnesota to Michigan.

In 1988, Fort Sheridan was recommended for closure by the Base Realignment and Closure (BRAC) commission and the Post ceased military operations as a U.S. Army facility in May 1993 and closed under the BRAC process. The southwest quadrant and the northwest corner (approximately 100 acres) of the Post were realigned to the U.S. Army Reserve Command. In January 1994, the southeast quadrant and a small area on the central west side of Fort Sheridan (approximately 206 acres) were realigned to the U.S. Navy for use as housing and administrative offices. The combined U.S. Army Reserve and U.S. Navy properties have been designated as the DOD OU. The property that comprises the remainder of the installation, designated as the Surplus OU, primarily consists of the golf course and the historic district. The Surplus OU has been transferred to the surrounding municipalities for reuse. The Surplus OU was formerly under the administrative control of Fort McCoy in Wisconsin and is not included in the DOD OU.

Preliminary assessments (PAs) of Fort Sheridan conducted in 1981, 1987, and 1989 identified areas on the DOD OU that potentially were affected by land filling and site usage by the U.S. Army. The *Installation Assessment of Fort Sheridan and Joliet Training Area* (Gross et al. 1982) was conducted in 1981 by the Installation Restoration Branch of the U.S. Army Environmental Center (USAEC) at Aberdeen Proving Ground, Maryland. The assessment provided general conclusions regarding the management of hazardous materials and wastes at the Post, and recommended that the U.S. Army continue efforts to close Landfill #7, secure proper PCB and pesticide storage areas, and test petroleum USTs for leakage. The Post assessment, updated in 1987 (ESE 1987), documented that deficiencies related to PCB and pesticide storage were resolved and that the Post was working with IEPA to close former Landfill #7. The assessment also concluded that available geologic evidence and information regarding potential chemical sources did not indicate that chemicals were migrating through shallow groundwater. The report also stated that USTs on Post had not been leak tested.

Argonne National Laboratory completed an *Enhanced Preliminary Assessment of Fort Sheridan* (ANL 1989). The Enhanced PA was initiated by the U.S. Army after Fort Sheridan was required to close under the BRAC program. The Enhanced PA identified and characterized all environmentally significant operations with respect to known or suspected chemical releases to the environment; areas of concern that may require immediate action; areas that may require additional investigation; other actions that may be necessary to address and resolve all identified environmental problems; and other environmental concerns that may present impediments to the expeditious transfer of the property. Argonne National Laboratory concluded that Fort Sheridan did not present any imminent or substantial threat to human health or the environment; however, additional investigations were recommended to characterize fully the

environmental impacts of onsite landfills and Buildings 139, 368, and 377, which are included in the DOD OU.

The U.S. Environmental Protection Agency's (USEPA's) EPIC, under contract to USAEC, compiled and analyzed historical aerial photographs of Fort Sheridan using photographs obtained over the Post between 1952 and 1985 (USEPA 1989a). The EPIC photographs document Post activities and provide an archive of information regarding the evolving Post land usage during this time period. The boundaries for study areas in the DOD OU initially were established during the Phase I RI using the EPIC photographic interpretations. DOD OU activities that are clearly documented on the photographs include landfilling activities at Landfills #1, #6, and #7; VES areas; and former coal storage pile locations.

Environmental Science and Engineering, Inc. (ESE) initiated a facility-wide Phase I RI at Fort Sheridan in 1990 that included study areas located within the Surplus and DOD OUs. The Phase I RI Report (ESE 1992a) included recommendations for further investigations to characterize additionally the various study areas and support a baseline risk assessment (BRA) and Feasibility Study (FS). These Draft Final RI Report recommendations, as well as data gaps identified by subsequent reviews of this report and supplemental historical information, indicated the need for a second phase of data collection and an analysis phase. The results of concurrent asbestos and electrical transformer surveys were reported separately (ESE 1992b and 1992c).

Recent environmental studies at Fort Sheridan addressing portions of the DOD OU include a background sampling and analysis program (ESE 1995) to establish the existing analytical data base for background soil, sediment, surface water, and groundwater. The background sampling and analysis program is designed to characterize the background environmental conditions for comparison with soil, sediment, surface water, and groundwater data from the investigated study areas. Specifically, soil and groundwater samples were collected from four areas, one on each of the north, south, east, and west boundaries of the Post. Background surface water and sediment samples were obtained from an off-Post tributary to Janes Ravine, located north of Fort Sheridan.

The DOD OU Phase II RI was initiated in 1995 by Science Applications International Corporation (SAIC). DOD OU Phase II RI activities were conducted at 40 study areas, including 23 sites identified during the Phase I RI (ESE 1992a) and 17 additional areas recommended for investigation by Fort Sheridan during the Phase II RI. The objectives of the RI were to investigate and confirm the presence, nature, and extent of potential mission-related constituents resulting from the historical military training, light industrial, and landfilling activities conducted on the DOD OU since the late 1880s. The investigations included assessments of the sources of potential chemical compounds, delineation of the areal extent of detected constituents, geologic and hydrogeologic characterization of selected study areas, and assessment of potential ecological and human health risks associated with detected chemical constituents.

Because of regulatory concerns regarding potential human health risks that are associated primarily with Landfill #7, interim remedial actions have been undertaken at Landfills #6 and #7. Problems that have been associated with Landfill #7 include leachate seeps from the landfill slopes, leachate discharges to storm sewers, and landfill gas odors and emissions. Re-grading of a portion of Landfill #7 to mitigate landfill seepage near the U.S. Navy housing area was completed in 1995. A Focused Feasibility Study (FFS) (ESE 1996a) was completed to evaluate potential interim remedial action alternatives at the landfills. The alternatives that were evaluated in detail in the FFS included no action, emplacement of a RCRA cap, emplacement of a modified RCRA cap, and waste excavation with offsite disposal. The U.S. Army, IEPA, and USEPA prepared a proposed plan for the interim remedial action in 1996 that identified a preferred alternative. The preferred alternative for Landfills #6 and #7 consists of a combination of the capping alternatives and includes a RCRA cover for the upper portion of

Landfill #7 and the entirety of Landfill #6 with a modified RCRA cover on the east slope of Landfill #7. The FFS was made available to the public in June 1996 and the proposed plan was available for public review and comment between August and September 1996. The approved Decision Document for the selected interim source control action at Landfills #6 and #7 was finalized in April 1997 (ESE 1997b). In addition to the previously identified capping alternative, the selected remedy also provides for leachate collection and treatment, installation of a new storm drain around the perimeter of the landfills with decommissioning of the old storm sewer beneath the landfills, installation of an active landfill gas collection and treatment system, and land use controls to protect the cap and the installed remediation systems.

Since 1997, when the Decision Document was approved, USEPA, IEPA, local officials, and the Fort Sheridan Restoration Advisory Board (RAB) reviewed conceptual and preliminary design plans for Landfills #6 and #7. The outcome of these reviews produced suggestions and recommendations for improvements in the landfill cap design. The revised landfill cap design now includes installing a RCRA-equivalent cap on both landfills, rather than the combined RCRA/modified RCRA cap selected in the Decision Document. In addition to the cap, the leachate collection system was revised based on a pump test conducted in 1998 to remove leachate from the landfills. The revised leachate collection system design involves collecting the leachate from the landfills for offsite treatment and disposal, instead of onsite pretreatment with discharge to the sanitary sewer system (Fort Sheridan 2001).

## 2.3 COMMUNITY PARTICIPATION

The U.S. Army relies on public input so that the alternatives selected for the study areas meet the needs and concerns of the community. Information repositories containing information that is most pertinent to the environmental studies on the DOD OU have been established at libraries in each of the three adjoining municipalities: Highwood Public Library, Lake Forest Library, and Highland Park Public Library. The complete Administrative Record File is maintained at the Fort Sheridan BRAC office located in Building 379 at Fort Sheridan, Illinois.

To ensure that the community's concerns were thoroughly addressed, the Proposed Plan for the 23 no action study areas was available for public comment between November 12 and December 11, 1999. During this time, the public was encouraged to submit comments on the Proposed Plan to the U.S. Army. The notice of availability of the Proposed Plan was published in the Chicago Tribune newspaper on November 10, 1999, and a public information session was held on November 17, 1999 in Building 900 at Fort Sheridan to discuss the Proposed Plan for the 23 no action study areas on the DOD OU. During that meeting, the U.S. Army presented findings of the RI and BRA and summarized the rationale used in making the no action proposal. The U.S. Army also was available to interested citizens who wished to ask questions and provide comments. Written public comments were accepted at the Fort Sheridan BRAC Office until December 11, 1999.

Since 1995, the Fort Sheridan RAB has held numerous meetings to facilitate communication and coordination between community and governmental agencies related to the restoration of the Fort Sheridan DOD OU.

## 2.4 SCOPE AND ROLE OF RESPONSE ACTION

The U.S. Army has implemented environmental studies under the Defense Environmental Restoration Program (DERP) and the BRAC program to identify areas of environmental concern at the DOD OU. An RI/BRA has been conducted at 40 study areas on the DOD OU to identify and delineate mission-related constituents in environmental media that are associated with pre-closure mission-related

activities. The results of the RI/BRA for the former NIKE missile site, the former CAC Firing Point; Buildings 128, 137/139, 142, 361, 368, 377, 379, 564/565, and 902; Boles Loop Drain; Shenck Ravine Fill; VES Areas #3, #4, #5, #6, and #7; Ammunition Storage Buildings 384, 389, and 390; the former STP; and the former incinerator indicate that the chemical constituents detected in the environmental media do not pose significant risk to human health or the environment. This assessment is based on the evaluation of risks that consider current and future (residential, industrial, and recreational) land use scenarios for the sites as identified from the RI/BRA study (SAIC 1999a) of the DOD OU. The U.S. Department of the Army and the U.S. Navy, in consultation with USEPA and IEPA, have determined that no actions are necessary at these 23 study areas.

The remaining RI/BRA sites on the DOD OU are addressed in the Phase III Technical Plan Addendum (SAIC 1999b), the RI/BRA (SAIC 2001a), and the Fort Sheridan FS for the DOD OU (SAIC 2001b). These study areas will be addressed in the future under separate Decision Documents. Groundwater exposures were not evaluated in the DOD OU BRA because the water underlying the study areas is not used as a source of potable water, the aquifer is unable to sustain sufficient production to act as a potable water source, and an abundant water source is readily available in Lake Michigan.

## 2.5 SITE CHARACTERISTICS

The RIs conducted at the 23 study areas on the DOD OU for which no action is proposed are summarized below. The detected constituents at the sites generally consist of metals (inorganics), semivolatile organic compounds (SVOCs) (predominantly polynuclear aromatic hydrocarbons [PAHs]), and pesticides. Volatile organic compounds (VOCs) that were detected at low concentrations are common laboratory-related or field-sampling related contaminants. Although organic constituents (specifically PAHs and pesticides) are present in background samples, all organic constituents detected at the study areas were included in the risk assessment regardless of whether or not they were detected below background concentrations. The detected inorganic constituents were screened against site-specific background concentrations and were used with the detected organic constituents in the BRA, the results of which are discussed in Section 2.7. Inorganic constituent concentrations within each study area were compared to the background metals concentrations using the statistical analysis of variance (ANOVA) method.

### *2.5.1 Shenck Ravine Fill*

Three test pits were excavated (TP-SHEN-01 through TP-SHEN-03) on U.S. Army Reserve property between the boundary fence and Building T-639. Test pit TP-SHEN-01 was excavated to 12 feet BLS and consisted of silty fill from 0 to 6 feet BLS and clayey till from 6 to 12 feet BLS. The fill material at TP-SHEN-01 contained cinders, brick, and rebar. Soil samples were collected from TP-SHEN-01 and analyzed for VOCs, SVOCs, herbicides, pesticides, PCBs, and metals. Pits TP-SHEN-02 and TP-SHEN-03 were excavated to 7 feet BLS and consisted of silty fill from 0 to 3 feet BLS and clayey till, from 3 to 7 feet BLS. No waste materials were encountered in the fill at TP-SHEN-02 or TP-SHEN-03; therefore, soil samples were not collected. The test pit locations are shown in Figure 2-3.

Organic constituents (VOCs, SVOCs, and pesticides) that were detected in the fill material at TP-SHEN-01 consisted of acetone (0.022 to 0.054 µg/g); PAHs, including acenaphthene (0.19 µg/g), anthracene (0.79 µg/g), benzo(a)anthracene (0.22 to 1.8 µg/g), benzo(a)pyrene (0.19 to 1.5 µg/g), benzo(b)fluoranthene (0.24 to 1.9 µg/g), benzo(g,h,i)perylene (0.82 µg/g), benzo(k)fluoranthene (0.55 µg/g), carbazole (0.56 µg/g), chrysene (0.2 to 1.5 µg/g), dibenzo(a,h)anthracene (0.24 µg/g), fluoranthene (0.44 to 3 µg/g), fluorene (0.4 µg/g), 2-methylnaphthalene (0.24 µg/g), phenanthrene

(0.26 to 2.8 µg/g), and pyrene (0.44 to 3 µg/g). In addition, the following pesticides were detected in fill samples between 0 and 7.5 feet BLS: aldrin (0.0012 µg/g), α-chlordane (0.00414 to 0.0185 µg/g), γ-chlordane (0.00236 to 0.0104 µg/g), 4,4′-DDD (0.0464 to 2.9 µg/g), 4,4′-DDE (0.0419 to 0.23 µg/g), 4,4′-DDT (0.032 to 0.0566 µg/g), dieldrin (0.0142 µg/g), endosulfan (0.00195 µg/g), endrin (0.00317 µg/g), endrin ketone (0.00145µg/g), and methoxychlor (0.00447 to 0.00828 µg/g). Acetone (0.022 µg/g) was the only organic compound that was detected in the undisturbed glacial soil and is considered a laboratory contaminant.

Metals constituents in soil and fill at TP-SHEN-01 that exceeded background soil concentrations consisted of aluminum (18,800 to 21,200 µg/g), boron (20 to 41.5 µg/g), chromium (27.3 to 29.1 µg/g), lead (110 µg/g), mercury (0.119 to 0.168 µg/g), molybdenum (1.45 to 3.5 µg/g), selenium (0.286 to 0.566 µg/g), silver (0.638 µg/g), thallium (0.288 to 0.522 µg/g), tin (7.46 µg/g), vanadium (26.4 to 39.1 µg/g), and zinc (47.7 to 262 µg/g).

### *2.5.2 Vehicle and Equipment Storage Area #3/Building 377 Yard Area*

During the Phase I investigations east and southeast of Building 377, the study area soils were evaluated by excavating three test pits and drilling one soil boring. During the Phase II investigation, seven borings (SB-VES3-01 through SB-VES3-07) were drilled west of the fenced yard area to provide spatial coverage of the historical limits of the yard. All soil samples were analyzed for VOCs, SVOCs, and metals. In addition, samples collected from soil borings next to Building 377 (SB-VES3-05, SB-VES3-06, and SB-VES3-07) were analyzed for pesticides, PCBs, and herbicides. Seven soil samples also were selected for total organic carbon (TOC), cation exchange capacity (CEC), and pH analyses. The boring and test pit locations are shown in Figure 2-4.

Organic constituents detected in surface soil at VES Area #3 included VOCs, SVOCs, and pesticides. Isolated VOC detections included acetone (0.014 to 0.4 µg/g) and 2-butanone (0.055 µg/g) at locations SB-VES3-03 and SB-VES3-06. Acetone is a common laboratory-related constituent used to clean glassware. The SVOCs detected in the surface soil included acenaphthene (0.24 µg/g), anthracene (0.64 µg/g), benzo(a)anthracene (1.6 µg/g), benzo(a)pyrene (1.4 µg/g), benzo(b)fluoranthene (2.1 µg/g), benzo(g,h,i)perylene (0.87 µg/g), benzo(k)fluoranthene (0.81 µg/g), carbazole (0.19 µg/g), chrysene (1.4 µg/g), dibenzo(a,h)anthracene (0.2 µg/g), dibenzofuran (0.59 µg/g), fluoranthene (0.16 to 2.4 µg/g), fluorene (0.26 µg/g), indeno(1,2,3-cd)pyrene (0.86 µg/g), 2-methylnaphthalene (0.27 to 1.5 µg/g), naphthalene (0.82 µg/g), phenanthrene (2.6 µg/g), and pyrene (2.8 µg/g). The SVOCs were predominantly in samples SB-VES3-03 and SB-VES3-05. Pesticides were detected in the surface soil adjacent to the eastern side of Building 377 (SB-VES3-05 to SB-VES3-07) and consisted of α-chlordane (0.0022 to 0.00447 µg/g), endrin (0.00276 µg/g), γ-chlordane (0.00275 to 0.00484 µg/g), 4,4′-DDD (0.00958 to 0.0343 µg/g), 4,4′-DDE (0.00902 to 0.00301 µg/g), 4,4′-DDT (0.0238 to 0.0273 µg/g), and methoxychlor (0.00659 to 0.00752 µg/g).

Fifteen metals exceeded background concentrations in the surface soil samples, including aluminum (15,000 to 19,700 µg/g), arsenic (12 µg/g), barium (247 µg/g), boron (17.7 to 84.7 µg/g), beryllium (6.83 µg/g), cadmium (2.08 µg/g), chromium (22.8 to 27.4 µg/g), copper (42.1 µg/g), lead (60 to 230 µg/g), molybdenum (1.75 to 4.64 µg/g), silver (0.638 to 0.744 µg/g), thallium (1.13 µg/g), tin (9.63 to 33 µg/g), vanadium (48.5 to 48.8 µg/g), and zinc (375 µg/g).

VOCs, SVOCs, and pesticides were not widely detected in the subsurface soil. Acetone (0.012 to 0.4 µg/g) was the only VOC detected above the Overall Quality Assurance Project Plan (OQAPP) reporting limits. SVOC concentrations were detected in SB-VES3-02, SB-VES3-03, SB-VES3-05, and B377SB01 at depths up to 10 feet BLS. Acetone is a common laboratory-related compound. SVOCs detected at these

locations included isolated concentrations of acenaphthene (0.24 µg/g), anthracene (0.64 µg/g), benzo(a)anthracene (0.52 to 1.6 µg/g), benzo(a)pyrene (0.4 to 1.4 µg/g), benzo(b)fluoranthene (0.64 to 2.1 µg/g), benzo(g,h,i)perylene (0.24 to 0.87 µg/g), benzo(k)fluoranthene (0.22 µg/g), 2-butanone (0.055 µg/g), chrysene (0.36 to 1.4 µg/g), dibenzo(a,h)anthracene (0.2 µg/g), dibenzofuran (0.59 µg/g), fluoranthene (0.16 to 2.4 µg/g), fluorene (0.26 µg/g), hexachloroethane (0.33 to 0.86 µg/g), 2-methylnaphthalene (0.1 to 1.5 µg/g), naphthalene (0.82 µg/g), phenanthrene (0.071 to 2.6 µg/g), and pyrene (0.93 to 2.8 µg/g). Similar to the distribution observed in the surface soil, pesticides were detected to a depth of 8 feet BLS in SB-VES3-05 through SB-VES3-07 adjacent to Building 377. Pesticides included aldrin (0.00114 µg/g), α–chlordane (0.0022 to 0.00447 µg/g), γ-chlordane (0.00244 to 0.00484 µg/g), 4,4′-DDD (0.00958 µg/g), 4,4′-DDE (0.00301 to 0.00902 µg/g), 4,4′-DDT (0.00148 to 0.0273 µg/g), endosulfan (0.0011 µg/g), endosulfan sulfate (0.00181 to 0.00243 µg/g), endrin (0.00276 µg/g), and methoxychlor (0.00659 to 0.00752 µg/g). TOC in the subsurface soil ranged from 19,200 to 35,400 µg/g. CEC ranged from 4.4 to 8.4 milliequivalents/100g.

Metals that exceed background soil concentrations in the subsurface soil samples at VES Area #3 included aluminum (14,200 to 19,700 µg/g), antimony (8.07 to 16.6 µg/g), arsenic (8.52 to 22 µg/g), barium (76.4 to 247 µg/g), beryllium (1.48 to 6.83 µg/g), boron (17.7 to 84.7 µg/g), cadmium (2.08 µg/g), chromium (22.6 to 27.4 µg/g), copper (26.1 to 42.1 µg/g), iron (22,000 to 31,900 µg/g), lead (60 to 230 µg/g), manganese (796 to 2,230 µg/g), mercury (0.228 to 0.471 µg/g), molybdenum (1.19 to 4.64 µg/g), nickel (2.97 to 53.7 µg/g), selenium (0.314 to 0.784 µg/g), thallium (0.234 to 1.13 µg/g), tin (9.63 to 33 µg/g), vanadium (7.54 to 48.8 µg/g), and zinc (25.4 to 375 µg/g). Metals exceeded background soil concentrations in the native till to depths up to 25 feet BLS.

### *2.5.3 Vehicle and Equipment Storage Area #4*

The Phase I investigation at VES Area #4 included excavating and sampling four test pits (VES5TP1 through VES5TP4). The test pits were positioned throughout the 500-foot length of the study area to obtain coverage over the storage area. The Phase II investigation included the installation of four shallow soil borings in the vicinity of the storage yard (SB-VES4-01 through SB-VES4-04). All soil samples were analyzed for VOCs, SVOCs, and metals. In addition, four soil samples also were selected for TOC, CEC, and pH analyses. The boring and test pit locations are shown in Figure 2-5.

Organic constituents detected in surface soil included isolated detections of acetone (0.46 µg/g) and SVOCs consisting of PAHs. The SVOCs detected in the surface soil included anthracene (0.4 to 0.6 µg/g), benzo(a)anthracene (1 µg/g), benzo(a)pyrene (0.9 to 1 µg/g), benzo(b)fluoranthene (0.19 to 2 µg/g), benzo(g,h,i)perylene (0.7 to 1 µg/g), benzo(k)fluoranthene (0.4 to 0.6 µg/g), chrysene (0.9 to 1 µg/g), dibenzo(a,h)anthracene (0.2 µg/g), dibenzofuran (0.59 µg/g), fluoranthene (0.19 to 3 µg/g), indeno(1,2,3-cd)pyrene (0.5 to 0.8 µg/g), 2-methylnaphthalene (0.21 to 0.4 µg/g), naphthalene (0.82 µg/g), phenanthrene (0.3 to 3 µg/g), and pyrene (0.18 to 2 µg/g). The SVOCs were detected in samples SB-VES4-01 and SB-VES4-03. Eight metals exceeded background concentrations in the surface soil samples, including boron (37 to 64 µg/g), cadmium (1.09 to 8.55 µg/g), copper (28.3 to 36.9 µg/g), iron (35,700 to 41,800 µg/g), lead (100 to 200 µg/g), molybdenum (2.84 to 8.63 µg/g), tin (7.86 to 14.9 µg/g), and zinc (178 to 3,900 µg/g).

VOCs were detected in the subsurface soil. Acetone (0.014 to 0.1 µg/g), bis(2-ethylhexyl)phthalate (B2EHP) (0.34 µg/g), chloroform (0.0013 µg/g), and toluene (0.0016 to 0.082 µg/g) were detected above the OQAPP reporting limits. Acetone and phthalates are common sampling-related or laboratory compounds that are unrelated to mission activities at Fort Sheridan. Chloroform and toluene were detected in Phase I samples and were not detected during Phase II. TOC in the subsurface soil ranged from 28,900 to 34,600 µg/g.

Metals that exceeded background concentrations in the subsurface soil samples at VES Area #4 included arsenic (7.79 to 8.71 µg/g), cadmium (0.642 µg/g), iron (22,200 to 23,100 µg/g), molybdenum (2.71 to 4.59 µg/g), silver (0.701 µg/g), tin (31 µg/g), vanadium (28.7 to 29.5 µg/g), and zinc (134 µg/g). CEC ranged from 3.5 to 7 milliequivalents/100g.

### *2.5.4 Vehicle and Equipment Storage Area #5/Building 128 Yard Area*

Phase I investigations at VES Area #5 consisted of excavating three test pits and drilling a shallow soil boring. The Phase II investigation at VES Area #5 consisted of drilling four shallow soil borings (SB-VES5-01 through SB-VES5-04). Four soil borings also were drilled in the yard area at Building 128 (SB-128-01 through SB-128-04) during Phase II. One of the four soil borings (SB-128-02) was located adjacent to the OWS at Building 128. All Phase II soil samples were analyzed for VOCs, SVOCs, metals, herbicides, pesticides, and PCBs. Four soil samples also were selected for TOC, CEC, and pH analyses. The boring and test pit locations are shown in Figure 2-6.

Organic constituents detected in surface soil (0 to 1 foot BLS) at VES Area #5/Building 128 included acetone (0.012 to 0.05 µg/g), SVOCs, and pesticides. The SVOCs that were detected in the surface soil included anthracene (0.22 to 0.4 µg/g), benzo(a)anthracene (0.28 to 1.1 µg/g), benzo(a)pyrene (0.2 to 0.9 µg/g), benzo(b)fluoranthene (0.17 to 1.1 µg/g), benzo(g,h,i)perylene (0.18 to 0.6 µg/g), benzo(k)fluoranthene (0.3 to 0.55 µg/g), B2EHP (0.18 to 0.6 µg/g), di-N-butyl phthalate (0.18 µg/g), carbazole (0.26 µg/g), chrysene (0.27 to 1.2 µg/g), fluoranthene (0.27 to 3 µg/g), fluorene (0.18 µg/g), indeno(1,2,3-cd)pyrene (0.2 to 0.6 µg/g), phenanthrene (0.3 to 1.6 µg/g), and pyrene (0.3 to 2 µg/g). Pesticide concentrations were detected in the surface soil from grassed areas adjacent to Building 128 (SB-128-01, SB-128-02, and SB-128-04) and consisted of 4,4′-DDD (0.0137 µg/g), 4,4′-DDE (0.0169 to 0.0373 µg/g), 4,4′-DDT (0.0227 to 0.0432 µg/g), α-BHC (0.00215 µg/g), dieldrin (0.00291 to 0.00432 µg/g), endosulfan (0.0058 µg/g), endrin aldehyde (0.99 µg/g), heptachlor epoxide (0.00385 µg/g), and methoxychlor (0.00611 µg/g). Concentrations of organic constituents detected in boring SB-128-02 adjacent to the OWS were within the range of concentrations that were detected in other VES Area #5/Building 128 soils and are not indicative of a release from the OWS. The OWS is currently in use at Building 128. Ten metals exceeded background concentrations in the surface soil samples, including aluminum (15,200 µg/g), boron (8.48 to 25.5 µg/g), cadmium (1.64 µg/g), chromium (23.4 µg/g), copper (38.5 µg/g), lead (62 to 110 µg/g), molybdenum (1.26 to 3.19 µg/g), silver (0.608 to 1.01 µg/g), tin (8.28 to 68 µg/g), and zinc (305 µg/g).

Acetone (0.014 to 0.054 µg/g) and toluene (0.0025 to 0.022 µg/g) were the only VOCs that were detected above the OQAPP reporting limits. Acetone and toluene are common laboratory constituents at low concentrations. Toluene concentrations were detected during Phase I and were not detected during the Phase II investigation. SVOC concentrations were detected to a depth of 8 feet BLS during the Phase I investigation and included acenaphthene (0.22 µg/g), anthracene (0.83 to 7.1 µg/g), benzo(k)fluoranthene (0.15 µg/g), B2EHP (0.22 to 0.58 µg/g), chrysene (0.22 to 0.69 µg/g), dibenzofuran (0.29 µg/g), fluoranthene (0.2 to 0.84 µg/g), fluorene (0.61 µg/g), naphthalene (0.1 µg/g), phenanthrene (0.086 to 1.8 µg/g), and pyrene (0.27 to 0.62 µg/g). The PAHs in subsurface samples were detected at Phase I sampling locations VES6TP1 and VES6TP3 and at Phase II boring SB-128-02. Isolated pesticide concentrations were detected to a depth of 2 feet BLS in boring SB-128-02 adjacent to Building 128. Pesticides included 4,4′-DDT (0.00458 µg/g) and heptachlor epoxide (0.0029 µg/g). TOC in the subsurface soil ranged from 4,090 to 36,500 µg/g. CEC ranged from 2.4 to 30.8 milliequivalents/100g.

Metals that exceed background concentrations in the subsurface soil samples include aluminum (14,300 to 25,000 µg/g), antimony (0.376 to 0.498 µg/g), arsenic (7.64 to 8.39 µg/g), barium (78 to 95.4 µg/g), beryllium (1.3 µg/g), boron (23 to 44.1 µg/g), cadmium (0.695 to 0.782 µg/g), chromium

(24.7 to 36.8 µg/g), copper (27.8 µg/g), iron (22,600 to 37,500 µg/g), molybdenum (1.48 to 4.82 µg/g), nickel (46.9 µg/g), silver (0.587 to 1.03 µg/g), tin (8.05 µg/g), vanadium (29.5 to 48.6 µg/g), and zinc (67.2 to 79 µg/g).

### *2.5.5 Vehicle and Equipment Storage Area #6*

Three test pits (VES7TP1, VES7TP2, and VES7TP3) were excavated during the Phase I RI. The Phase II investigation at VES Area #6 included drilling four soil borings (SB-VES6-01 through SB-VES6-04) in locations identified as stained on aerial photographs. All Phase II soil samples were analyzed for VOCs, SVOCs, and metals. In addition, four soil samples were selected for TOC, CEC, and pH analyses. The boring and test pit locations are shown in Figure 2-7.

Organic constituents detected in surface soil included isolated concentrations of acetone (0.046 µg/g), fluoranthene (0.23 to 0.33 µg/g), and pyrene (0.22 µg/g) at locations SB-VES6-03 and SB-VES6-04. Six metals exceeded background concentrations in the surface soil samples from VES Area #6, including aluminum (16,900 to 25,500 µg/g), boron (25.7 to 33.2 µg/g), chromium (23.7 to 37.9 µg/g), molybdenum (1.77 to 3.35 µg/g), tin (7.6 to 10.9 µg/g), and vanadium (43.2 to 49.2 µg/g).

VOCs were not widely detected in the subsurface soil at VES Area #6. Acetone (0.046 to 0.7 µg/g), B2EHP (0.62 µg/g), and toluene (0.0013 to 0.042 µg/g) were the only VOCs that were detected above the OQAPP reporting limits. Acetone, B2EHP, and toluene are common sampling-related or laboratory compounds at low concentrations. Toluene was detected during the Phase I investigation, but was not detected in the Phase II samples. TOC in the subsurface soil ranged from 2,730 to 30,500 µg/g. CEC ranged from 3 to 7.8 milliequivalents/100g.

Metals that exceed background concentrations were detected in the subsurface soil samples at VES Area #6 included aluminum (14,500 to 22,700 µg/g), antimony (0.511 µg/g), arsenic (7.78 µg/g), barium (82.3 to 90.4 µg/g), boron (33.5 µg/g), cadmium (0.822 to 0.84 µg/g), chromium (25.2 to 36.8 µg/g), copper (26.5 to 35 µg/g), mercury (0.381 µg/g), molybdenum (2.16 to 3.36 µg/g), selenium (0.304 to 0.44 µg/g), vanadium (33.4 to 47.6 µg/g), and zinc (72.8 to 79.1 µg/g). Metals exceeding background concentrations were detected to depths up to 4 feet BLS.

### *2.5.6 Vehicle and Equipment Storage Area #7*

Eight soil borings (SB-VES7-01 through SB-VES7-08) and one test pit (TP-VES7-01) were drilled at the storage yard. Test pit TP-VES7-01 was excavated along the easternmost extent of the storage yard adjacent to Patten Road to investigate the materials that were used to fill Van Horne Ravine. Soil samples were analyzed for VOCs, SVOCs, and metals and selected samples were analyzed for TOC, CEC, and pH. The sample locations are shown in Figure 2-8.

Organic constituents detected in surface soil at VES Area #7 included isolated VOCs and SVOCs. Acetone (0.025 to 0.052 µg/g) and B2EHP (1 µg/g) were detected at SB-VES7-04 and SB-VES7-05. These organics are common laboratory constituents at low concentrations. SVOCs were detected in the surface soil samples at locations SB-VES7-06 and TP-VES7-01 within the former Van Horne Ravine extension. Anthracene (0.42 µg/g), benzo(a)anthracene (1.2 µg/g), benzo(a)pyrene (1.1 µg/g), benzo(b)fluoranthene (0.24 to 1.5 µg/g), benzo(g,h,i)perylene (0.77 µg/g), benzo(k)fluoranthene (0.32 to 0.53 µg/g), chrysene (0.16 to 1 µg/g), dibenzo(a,h)anthracene (0.19 µg/g), fluoranthene (0.27 to 2.7 µg/g), fluorene (0.2 µg/g), indeno(1,2,3-cd)pyrene (0.81 µg/g), phenanthrene (1.7 µg/g), and pyrene (0.23 to 1.5 µg/g) were detected. Six metals exceeded background concentrations in the surface soil samples from VES Area #7, including aluminum (14,800 to 16,000 µg/g), boron

(15.3 to 26.5 µg/g), chromium (23.4 to 24 µg/g), lead (60 µg/g), molybdenum (1.26 to 3.54 µg/g), and silver (0.8 to 0.858 µg/g).

Acetone (0.013 to 0.2 µg/g) was the only VOC detected above the OQAPP reporting limits in the subsurface soil. This VOC is a common laboratory contaminant at low concentrations. SVOCs were detected to a depth of 4 feet BLS and were detected in borings SB-VES7-01, SB-VES7-02, and SB-VES7-06. SVOCs detected at these locations included acenaphthene (7 µg/g), anthracene (0.19 to 10 µg/g), benzo(a)anthracene (0.5 to 10 µg/g), benzo(a)pyrene (0.45 to 10 µg/g), benzo(b)fluoranthene (0.78 to 10 µg/g), benzo(g,h,i)perylene (0.33 to 5 µg/g), benzo(k)fluoranthene (0.22 to 5 µg/g), B2EHP (0.2 to 6 µg/g), carbazole (5 µg/g), chrysene (0.51 to 10 µg/g), dibenzo(a,h)anthracene (1 µg/g), dibenzofuran (6 µg/g), fluoranthene (1.3 to 20 µg/g), fluorene (10 µg/g), indeno(1,2,3-cd)pyrene (0.32 to 4 µg/g), 2-methylnaphthalene (3 µg/g), naphthalene (2 µg/g), phenanthrene (0.65 to 30 µg/g), and pyrene (0.85 to 30 µg/g). The maximum SVOC concentrations were detected in boring SB-VES7-01 at a depth of 2 feet BLS. TOC in the subsurface soil ranged from 3,500 to 36,900 µg/g. CEC ranged from 3.2 to 24.1 milliequivalents/100g.

Metals exceeding background concentrations in the subsurface soil samples included aluminum (16,400 to 24,500 µg/g), antimony (0.512 to 0.61 µg/g), barium (57.9 to 111 µg/g), beryllium (1.18 to 1.19 µg/g), boron (22.3 to 34.1 µg/g), chromium (24.4 to 35.7 µg/g), copper (23.1 to 30.2 µg/g), iron (22,300 to 32,600 µg/g), lead (20 to 84 µg/g), molybdenum (2.48 to 4.48 µg/g), nickel (29.2 µg/g), silver (0.7 µg/g), vanadium (28.4 to 47.9 µg/g), and zinc (83.5 to 92.5 µg/g). Metals exceeding background concentrations were detected to depths up to 11 feet BLS at location SB-VES7-07.

### *2.5.7 Boles Loop Drain*

Sediment below the outfall at the Boles Loop Drain was sampled (BLDBSD01, C-4810) during the Phase I and Phase II investigations (SD-BOLE-01, SD-BOLE-02) to evaluate whether chemical constituents have accumulated near the lake shore as a result the storm discharges. Organic constituents that are attributable to field sampling or laboratory activities include isolated concentrations of acetone (0.018 µg/g), di-N-butyl phthalate (0.21 µg/g), and trichlorofluoromethane (0.012 µg/g). Isolated concentrations of the PAHs phenanthrene (0.051 µg/g) and pyrene (0.068 µg/g), and the pesticides 4,4′-DDD (0.00268 to 0.016 µg/g), 4,4′-DDE (0.0531 µg/g), and 4,4′-DDT (0.0028 to 0.0633 µg/g) were detected in the sediments. Inorganic constituents that exceeded background concentrations included barium (89.1 µg/g), boron (38.1 µg/g), chromium (17.7 µg/g), molybdenum (1.5 to 2.06 µg/g), tin (5.51 µg/g), and zinc (67.1 µg/g).

### *2.5.8 Former Ammunition Storage Buildings 384, 389, 390 and Former CAC Firing Point*

During the Phase II RI investigation, two surface soil samples were collected from the ingress/egress locations at each building. An additional surface soil sample was collected immediately below drain pipes located in the rear of Building 384 (SS-AMMO-03). All nine soil samples were analyzed for SVOCs, explosives, metals, TOC, and pH. The sample locations are shown in Figure 2-9.

Explosives compounds were not detected in the surface soil near the ingress/egress points at the ammunition storage buildings. SVOCs detected in surface soil adjacent to the ammunition storage buildings predominantly included phthalates and PAHs. The phthalates B2EHP (0.32 to 9 µg/g), diethyl phthalate (0.5 µg/g), and di-N-butyl phthalate (0.24 µg/g) are commonly detected field sampling or laboratory-related constituents. PAHs detected in the surface soil adjacent to each storage building included benzo(a)anthracene (0.5 µg/g), benzo(a)pyrene (0.7 µg/g), benzo(b)fluoranthene (0.2 to 0.41 µg/g), benzo(g,h,i)perylene (0.4 to 1 µg/g), chrysene (0.27 to 0.8 µg/g), fluoranthene (0.2 to

0.3 µg/g), indeno(1,2,3-cd)pyrene (0.3 µg/g), and pyrene (0.25 to 1 µg/g). Pentachlorophenol (PCP) (0.24 to 0.25 µg/g) was detected in samples SS-389-01 and SS-389-02 and is possibly associated with treated ammunition boxes.

Aluminum (21,200 to 23,900 µg/g), arsenic (13 to 16 µg/g), boron (15.6 to 27.9 µg/g), cadmium (1.11 to 27.7 µg/g), chromium (24.2 to 60.6 µg/g), copper (30.5 to 65.9 µg/g), lead (64 to 300 µg/g), molybdenum (1.61 to 4.35 µg/g), silver (0.718 to 4.98 µg/g), tin (8.59 to 63 µg/g), vanadium (43.9 to 44.5 µg/g), and zinc (181 to 398 µg/g) were detected at concentrations that exceeded background surface soil concentrations.

### *2.5.9 Former Sewage Treatment Plant/Sludge Beds*

Twelve soil borings were installed in the vicinity of the former STP during the Phase II investigation. Three borings (SB-STP-03, SB-STP-04, and SB-STP-05) were drilled within the reinforced concrete structure identified as a former sludge bed located on the Lake Michigan beach. One boring was drilled in each of the two former sludge beds located on the bluff (SB-STP-06 and SB-STP-07). Five borings (SB-STP-08, SB-STP-09, SB-STP-10, SB-STP-11, and SB-STP-12) were installed around the perimeter and inside the two former trickling filters. In addition, soil samples were collected from the borings in which monitoring wells GW-STP-01 and GW-STP-02 were installed (SB-STP-01 and SB-STP-02). All soil samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, herbicides, and explosives. In addition, surface soil samples collected from the sludge beds were analyzed for gross alpha and gross beta to address concern that on-Post activities that used radiological materials may have discharged sanitary wastewater to the STP. Fourteen soil samples also were analyzed for TOC, CEC, and pH. Sample locations are shown in Figure 2-10.

Eleven SVOCs, 8 pesticides, and 2 herbicides were detected in surface soil samples at the former STP site. The detected SVOCs were predominantly PAHs and included benzo(a)anthracene (0.22 to 0.31 µg/g), benzo(a)pyrene (0.19 to 0.28 µg/g), benzo(b)fluoranthene (0.27 to 0.38 µg/g), benzo(g,h,i)perylene (0.18 to 0.2 µg/g), chrysene (0.23 to 0.29 µg/g), fluoranthene (0.2 to 0.56 µg/g), indeno(1,2,3-cd)pyrene (0.18 µg/g), phenanthrene (0.28 to 0.4 µg/g), and pyrene (0.2 to 0.6 µg/g). The maximum SVOC concentrations were detected in surface soil at sample locations SB-STP-01, SB-STP-02, SB-STP-06, SB-STP-10, and SB-STP-12 located in the vicinity of the former sludge beds and trickling filters. Pesticides and herbicides were widely detected in the surface soil and consisted of 4,4′-DDD (0.00218 to 0.16 µg/g), 4,4′-DDE (0.00149 to 0.25 µg/g), 4,4′-DDT (0.00395 to 0.43 µg/g), α-chlordane (0.00156 to 0.00623 µg/g), dieldrin (0.00172 µg/g), endrin (0.004 to 0.00573 µg/g), endrin aldehyde (0.00809 µg/g), heptachlor epoxide (0.00114 to 0.00235 µg/g), 2,4,5-TP (0.0163 to 0.018 µg/g), and Dicamba (0.0245 µg/g). Metals that exceeded background concentrations were detected in surface soil at the former STP and included aluminum (15,200 to 18,100 µg/g), boron (11.7 to 21.9 µg/g), chromium (23 to 32 µg/g), copper (26.6 µg/g), silver (0.582 to 1.53 µg/g), and zinc (117 to 145 µg/g). Gross alpha (0.3 to 13 pCi/g) and gross beta radiation (7.3 to 44 pCi/g) activity was detected in the samples from the former sludge beds. The gross alpha activity is below the background range (120 to 210 pCi/g), as established by the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) (1996). The gross beta activity is below the background range (23 to 32 pCi/g) with the exception of surface soil sample SB-STP-06 (44 pCi/g) in the northern sludge bed.

Isolated VOCs, SVOCs, and pesticides were detected in subsurface soil samples at the former STP site. Acetone (0.012 to 0.068 µg/g) was the only VOC detected and is a common laboratory compound. Isolated SVOCs were detected predominantly at SB-STP-06 at a depth of 8 feet BLS and consisted of B2EHP (0.23 to 0.88 µg/g), fluoranthene (0.25 µg/g), and pyrene (0.23 µg/g). B2EHP is a common sampling-related or laboratory constituent associated with gloves and laboratory tubing.

Pesticides were more widely detected in the subsurface soil and consisted of 4,4′-DDD (0.00168 to 0.0133 µg/g), 4,4′-DDE (0.00158 to 0.015 µg/g), 4,4′-DDT (0.00533 to 0.0083 µg/g), α-chlordane (0.00163 to 0.00452 µg/g), γ-chlordane (0.00194 µg/g), dieldrin (0.002 µg/g), δ-BHC (0.00367 µg/g), endrin aldehyde (0.00231 to 0.0135 µg/g), and heptachlor epoxide (0.002 µg/g). Metals that exceeded background concentrations in subsurface soil at the former STP included aluminum (11,900 to 13,100 µg/g), antimony (0.654 µg/g), barium (61.1 to 74.2 µg/g), cadmium (0.624 to 0.93 µg/g), chromium (18.8 to 20.5 µg/g), copper (25.8 to 28.2 µg/g), iron (22,800 µg/g), lead (21 to 53 µg/g), mercury (0.223 to 1.21 µg/g), nickel (29.2 µg/g), silver (0.648 to 3.1 µg/g), vanadium (23 to 33.4 µg/g), and zinc (103 to 147 µg/g). Gross alpha (9.4 pCi/g) and gross beta (31 pCi/g) activity was detected in sample SB-STP-05 at 4 feet BLS. The radiation values are below background levels for gross alpha and beta emissions for Fort Sheridan, as established by USACHPPM (1996).

Isolated organic constituents that were detected in the groundwater underlying the STP included acetone (7.6 µg/L at GW-STP-01) and B2EHP (5.6 µg/L at GW-STP-02). Acetone and phthalates are commonly detected sampling-related or laboratory compounds at low concentrations. Isolated concentrations of α-BHC (0.0082 µg/L), anthracene (0.174 µg/L), δ-BHC (0.0068 µg/L), endosulfan sulfate (0.037 µg/L), lindane (0.0072 µg/L), and phenanthrene (0.779 µg/L) were detected in well LF7MW02 during the Phase I investigation and were not detected during Phase II above the OQAPP reporting limits. A reported RDX concentration (0.204 µg/L) in well GW-STP-01 also was detected in the associated equipment rinsate.

Metals exceeding background concentrations were detected in the groundwater underlying the former STP and included arsenic (29.4 to 36.4 µg/L), barium (177 to 182 µg/L), cobalt (24.9 to 39.9 µg/L), copper (80.1 to 90.7 µg/L), iron (66,000 to 80,000 µg/L), lead (45.9 µg/L), manganese (1,820 to 4,640 µg/L), mercury (0.233 µg/L), nickel (79.1 µg/L), vanadium (72.1 to 98.1 µg/L), and zinc (150 to 191 µg/L). Metals exceeding background concentrations were detected in wells GW-STP-01 and LF7MW02.

### *2.5.10 Former Incinerator*

A concrete pad potentially associated with the former incinerator building was in place during the Phase II investigation at the site, but has since been removed during the interim remedial action at Landfill #7. During the analysis of surface soil samples adjacent to the former incinerator site, SVOCs (PAHs) and an isolated dioxin compound were detected. The PAHs benzo(a)anthracene (0.6 to 0.93 µg/g), benzo(a)pyrene (0.43 to 0.84 µg/g), benzo(b)fluoranthene (0.59 to 1.1 µg/g), benzo(g,h,i)perylene (0.35 to 0.57 µg/g), benzo(k)fluoranthene (0.2 to 0.35 µg/g), chrysene (0.45 to 0.79 µg/g), dibenzo(a,h)anthracene (0.17 µg/g), fluoranthene (0.76 to 1.2 µg/g), indeno(1,2,3-cd)pyrene (0.35 to 0.63 µg/g), phenanthrene (0.37 to 0.57 µg/g), and pyrene (0.75 to 1.1 µg/g) were detected in both surface soil samples. An isolated concentration of the dioxin compound OCDD (1.65 ppb) was detected in surface sample SB-INC-01. Metals that exceed background concentrations included barium (388 µg/g), cadmium (1.02 µg/g), chromium (44.5 µg/g), lead (78 µg/g), and silver (0.719 to 1 µg/g).

Chemical constituents that were detected in the subsurface soil at the former incinerator site included acetone (0.016 to 0.21 µg/g), and isolated concentrations of the PAHs fluoranthene (0.27 µg/g), 2-methylnaphthalene (0.49 µg/g), and phenanthrene (0.36 µg/g). Aluminum (13,600 to 16,400 µg/g), barium (46.2 to 51 µg/g), cadmium (0.803 µg/g), chromium (20.4 to 22.6 µg/g), nickel (25.7 µg/g), silver (0.649 to 1.14 µg/g), and vanadium (29.8 to 33.9 µg/g) exceeded background concentrations.

### *2.5.11 Former NIKE Missile Control and Fueling Area*

Radiological surveys conducted at the site by USACHPPM and the Illinois Department of Nuclear Safety (IDNS) in 1995 determined that radiological parameters are within the normal range of background (USACHPPM 1995 and IDNS 1995). The Phase I investigation of the missile fueling area consisted of sampling two test pits (MFPTP01 and MFPTP02) and one soil boring (MFPSB01). Monitoring wells (NMBMW01 and NMBMW02) were installed northeast and southwest of the NIKE silos. Each of the underground silos was entered and investigated for signs of improperly stored chemicals and/or spills. Wipe samples, asbestos samples, and sediment samples were collected from inside the silos. The NIKE fueling area was investigated during Phase II by installing passive soil gas collectors over the former berm area and installing a soil boring at the suspected location of a suspected waste solvent sump (SB-LF1-10). Groundwater samples were collected from existing wells NMBW01 and NMBW02 located south of the former fueling area. The groundwater samples were analyzed for VOCs, SVOCs, herbicides, pesticides, explosives, PCBs, and metals. Sample locations are shown in Figure 2-11.

Chemical constituents adsorbed onto 22 aboveground passive soil gas detectors at the former NIKE fueling area were predominantly hydrocarbons (benzene, toluene, and xylenes) and chlorinated solvents (tetrachloroethene [PCE], chloromethane, and trichloroethene [TCE]). The highest observed emission flux rates for benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds occurred at sample locations 1-1 (9.32 $ng/m^2/min$) and 1-8 (9.5 $ng/m^2/min$). Because the area has been extensively altered, including removal or re-grading of the re-fueling area and emplacement of asphalt paving, the observed chemical distribution does not delineate a specific contaminant source.

SVOCs, pesticides, and an isolated explosives-related organic compound were detected during groundwater analyses of the NIKE wells. Detected SVOCs included B2EHP (2.5 µg/L), di-N-butyl phthalate (2.7 to 4.2 µg/L), chrysene (0.196 to 0.262 µg/L), fluoranthene (0.0218 to 0.0432 µg/L), phenanthrene (1.12 to 3.23 µg/L), α-BHC (0.0082 µg/L), δ-BHC (0.0068 µg/L), endosulfan sulfate (0.023 µg/L), lindane (0.0072 µg/L), and an isolated concentration of 1,3-dinitrobenzene (0.113 µg/L) at well NMBMW01. Metals that exceed background groundwater concentrations were detected in well NMBMW01 in the vicinity of the eastern launch area and included aluminum (51,000 µg/L), arsenic (30.7 µg/L), barium (237 to 746 µg/L), chromium (91 µg/L), cobalt (79.5 µg/L), copper (198 µg/L), iron (140,000 µg/L), lead (33.3 to 70.2 µg/L), manganese (3,150 µg/L), nickel (153 µg/L), thallium (2.06 µg/L), vanadium (117 µg/L), and zinc (353 µg/L). Sulfate (570 mg/L) and total dissolved solids (TDS) (1,400 mg/L) exceeded background concentrations in well NMBMW02. Gross alpha (4.8 to 28 pCi/L) and gross beta (1.6 to 37 pCi/L) activities are within the range of values observed in background wells.

The DOD OU silo area was investigated during the Phase I RI by collecting water, wipe, and sediment samples from each of the three silos. Diethyl phthalate (2.67 µg/L) was detected in water samples collected in the northern missile silo. SVOCs were not detected in wipe samples collected on the surfaces in any of the silos. Samples collected for asbestos analysis were negative.

SVOCs were detected in a surface soil sample at boring location NMBSB02 west of the NIKE launch area. Chrysene (0.0189 µg/g), dibenzo(a,h)anthracene (0.00789 µg/g), indeno(1,2,3-cd) pyrene (0.0119 µg/g), pyrene (0.0391 µg/g), B2EHP (0.3 µg/g), di-N-octyl phthalate (0.41 µg/g at MFPSB01), and total petroleum hydrocarbons (TPH) (79.4 µg/g) were detected. Metals that exceeded the background concentrations were detected in the surface soil sample at location MFPSB01 and included aluminum (21,000 µg/g), arsenic (26 µg/g), beryllium (9.78 µg/g), chromium (32.3 µg/g), cobalt (43.8 µg/g), nickel (52.7 µg/g), vanadium (53.5 µg/g), and zinc (131 µg/g).

Isolated VOCs and SVOCs were detected in subsurface soil samples at the former NIKE site. Acetone (0.029 to 0.035 µg/g) and toluene (0.0023 to 0.023 µg/g) were the only VOCs that were detected and are common laboratory compounds. SVOCs detected consisted of benzo(a)anthracene (0.00361 to 0.00759 µg/g), benzo(b)fluoranthene (0.00375 to 0.0038 µg/g), chrysene (0.0191 to 0.1 µg/g), fluoranthene (0.00186 to 0.0225 µg/g), naphthalene (0.21 µg/g), phenanthrene (0.04 to 0.867 µg/g), and pyrene (0.0092 to 0.152 µg/g). TPH ranged from 43.5 to 78.4 µg/g. Metals that exceeded background subsurface concentrations at the NIKE site included aluminum (13,000 to 18,000 µg/g), antimony (11.7 to 16.2 µg/g), arsenic (9.43 to 10 µg/g), barium (60.7 to 184 µg/g), beryllium (5.62 to 5.7 µg/g), chromium (24.4 to 31.3 µg/g), cobalt (31.8 µg/g), iron (31,000 µg/g), lead (18.9 to 31 µg/g), manganese (621 to 4,010 µg/g), nickel (32.1 to 53.6 µg/g), silver (0.645 µg/g), vanadium (28.4 to 63.1 µg/g), and zinc (84.2 to 151 µg/g).

A radiological survey to assess potential residual radiation at the NIKE site (Buildings 908, 909, and 910) on the DOD OU was conducted by USACHPPM in 1996. Water from the underground structures was collected and analyzed for tritium, gross alpha, and gross beta radiological constituents. The gross alpha and beta activities were less than the minimum detectable levels. A gamma spectroscopy analysis was performed; however, insufficient activity prevented the identification of specific isotopes of interest (USACHPPM 1996).

### *2.5.12 Building 137/139 Yard Area – Machine Shops*

The Phase I investigation at Building 137 included four test pits excavations (B137TP1 through B137TP4) adjacent to Buildings 137 and 139. Two soil samples were collected from each pit and analyzed for VOCs, SVOCs, and metals. The Phase II investigation at Buildings 137 and 139 consisted of installing five soil borings (SB-137-01, SB-139-01, SB-139-02, SB-139-03, and SB-139-04) in the yard area. Boring SB-137-01 was drilled through 12 inches of concrete pad adjacent to the Building 137 OWS. Boring SB-139-01 was drilled adjacent to the Building 139 OWS. The other three borings (SB-139-02, SB-139-03, and SB-139-04) were installed in the yard area of Building 139. All soil samples were analyzed for VOCs, SVOCs, and metals. Five samples also were analyzed for TOC, CEC, and pH. The boring and test pit locations are shown in Figure 2-12.

Acetone (0.017 to 0.3 µg/g), B2EHP (0.21 to 0.86 µg/g), di-N-butyl phthalate (0.17 to 0.21 µg/g), and toluene (0.0011 to 0.019 µg/g) were detected in soil samples collected from the Buildings 137/139 yard area and are commonly detected field sampling or laboratory-related constituents. SVOCs detected in surface and subsurface soil consisted predominantly of the following PAHs: 1,2-dichlorobenzene (0.5 to 0.62 µg/g), 1,4-dichlorobenzene (0.18 µg/g), acenaphthene (0.25 to 0.34 µg/g), acenaphthylene (0.08 µg/g), anthracene (0.082 to 1.1 µg/g), benzo(a)anthracene (0.25 to 3.5 µg/g), benzo(a)pyrene (0.23 to 3 µg/g), benzo(b)fluoranthene (0.27 to 3.7 µg/g), benzo(g,h,i) perylene (0.17 to 1.7 µg/g), benzo(k)fluoranthene (0.17 to 1.7 µg/g), carbazole (0.23 to 0.33 µg/g), chrysene (0.26 to 3.7 µg/g), dibenzo(a,h)anthracene (0.22 to 0.44 µg/g), dibenzofuran (0.18 to 1.3 µg/g), fluoranthene (0.19 to 5.6 µg/g), fluorene (0.34 to 0.58 µg/g), indeno(1,2,3-cd)pyrene (0.18 to 1.5 µg/g), 2-methylnaphthalene (0.37 to 4.1 µg/g), naphthalene (0.22 to 2.2 µg/g), phenanthrene (0.063 to 3.6 µg/g), and pyrene (0.21 to 5.2 µg/g). Maximum PAH concentrations were detected in samples SB-139-01, SB-139-02, SB-139-03, and B137TP4 between 1 to 4.3 feet BLS. Only isolated organic constituents and metals were detected in boring SB-137-01. The highest concentrations of PAHs in the surface soil within the yard area were detected in boring SB-139-01, drilled near the OWS at Building 139. However, the concentrations were not detected at this location in subsurface soil, and therefore, a release from the OWS is not indicated. The OWSs are currently in use at Buildings 137/139.

Aluminum (15,000 to 26,800 µg/g), antimony (10.1 to 11.5 µg/g), arsenic (8.78 to 14 µg/g), boron (29.4 to 90.8 µg/g), cadmium (1.26 to 5.48 µg/g), chromium (23.9 to 57.6 µg/g), cobalt (20.4 µg/g),

copper (25.4 to 36.5 µg/g), iron (30,100 to 39,100 µg/g), lead (79 to 230 µg/g), mercury (0.0589 to 0.287 µg/g), molybdenum (1.93 to 6.62 µg/g), nickel (5.71 to 79 µg/g), selenium (0.333 to 0.754 µg/g), silver (0.684 to 1.36 µg/g), thallium (0.264 to 0.523 µg/g), tin (6.25 to 50 µg/g), vanadium (5.7 to 66.8 µg/g), and zinc (43.1 to 236 µg/g) were detected above background concentrations.

### *2.5.13 Building 142 Administration*

Wipe samples from the floor area basement and building areas potentially impacted during the remediation of the two PCB transformers were collected during the Phase I investigation (ESE 1992a). PCBs were not detected during laboratory analysis of the wipe samples. The transformers subsequently were removed after pad-mounted transformers were installed outside the building.

### *2.5.14 Building 361 Yard Area – Former Photographic Shop*

As part of the Phase I investigation, a sediment sample (361E5SEW) was collected from the storm sewer adjacent to the building because spent developing solutions were discharged through floor drains to the sewer, prior to the installation of a silver recovery system. The Phase II investigation consisted of installing and sampling six soil borings (SB-361-01 through SB-361-06) in the yard area to the north of Building 361. Three samples were collected from each boring and submitted for laboratory analysis of VOCs, SVOCs, and metals. In addition, six soil samples were analyzed for TOC, CEC, and pH. The sample locations are shown in Figure 2-13.

Acetone (0.017 to 0.24 µg/g) was detected in surface and subsurface soil samples surrounding Building 361 and is commonly associated with laboratory contamination. Organic chemical constituents detected in surface (0 to 1 foot BLS) soil at the site were widely distributed and consisted predominantly of PAHs, including anthracene (0.27 µg/g), benzo(a)anthracene (0.3 to 1.1 µg/g), benzo(a)pyrene (0.3 to 0.62 µg/g), benzo(b)fluoranthene (0.2 to 1.1 µg/g), benzo(g,h,i)perylene (0.22 to 0.79 µg/g), benzo(k)fluoranthene (0.4 µg/g), chrysene (0.29 to 1 µg/g), fluoranthene (0.17 to 1.7 µg/g), indeno(1,2,3-cd)pyrene (0.21 to 0.79 µg/g), phenanthrene (0.39 to 1.6 µg/g), and pyrene (0.16 to 2.7 µg/g). Isolated concentrations of the SVOCs 2-butanone (0.018 µg/g) and B2EHP (0.37 to 0.68 µg/g) were detected at sample locations SB-361-04 and SB-361-06. Ten metals were detected in the surface soil at Building 361 at concentrations exceeding background, including aluminum (15,400 µg/g), antimony (0.332 to 0.566 µg/g), barium (64 to 84.7 µg/g), cadmium (0.921 to 1.05 µg/g), chromium (29.3 µg/g), lead (27 to 110 µg/g), mercury (0.171 to 0.801 µg/g), silver (1.8 to 4.58 µg/g), vanadium (28.5 to 37.4 µg/g), and zinc (97.2 to 156 µg/g).

PAHs in subsurface soil surrounding Building 361 were detected in borings SB-361-05 and SB-361-06 located north and east of the building, respectively. Benzo(a)anthracene (0.17 µg/g), benzo(b)fluoranthene (0.18 to 0.22 µg/g), chrysene (0.17 µg/g), fluoranthene (0.24 to 0.32 µg/g), 2-methylnaphthalene (1.2 µg/g), naphthalene (0.38 µg/g), phenanthrene (0.18 to 0.19 µg/g), and pyrene (0.23 to 0.3 µg/g) were detected to a depth of 4 feet BLS at each of these locations. Isolated concentrations of B2EHP (0.19 to 0.29 µg/g) were detected at depths of 7 to 8 feet BLS and are commonly associated with sampling-related or laboratory contamination. Seven metals were detected in the subsurface soil at Building 361, including antimony (0.359 to 0.636 µg/g), barium (63.6 to 83.3 µg/g), beryllium (1.25 µg/g), cadmium (0.749 to 1.17 µg/g), iron (22,900 to 24,000 µg/g), silver (0.833 µg/g), and vanadium (31.7 to 49.3 µg/g).

### *2.5.15 Building 368 Yard Area – Auto Maintenance Shop*

The Phase I investigation at Building 368 consisted of excavating two test pits (B368TP1 and B368TP2) and installing three soil borings (B368SB01 through B368SB06). Phase I soil samples were analyzed for VOCs and SVOCs. Groundwater monitoring well B368MW02 was installed and sampled during the Phase I investigation. A time-critical removal action was conducted in 1995 (Fort Sheridan 1995) to remove reactive sediments in a manhole located on the west side of the building. In October 1995, the manhole sediments were removed and the structure was pressure washed. Details on the removal action are presented in the removal action memorandum (Fort Sheridan 1995).

During the Phase II investigation, six additional soil borings (SB-368-01 through SB-368-06) were installed and two surface soil samples (SS-368-01 and SS-368-02) were collected in and around the yard area behind Building 368. All soil samples were analyzed for VOCs, SVOCs, and metals. In addition, six soil samples were analyzed for TOC, CEC, and pH. A sediment sample (SD-368-01) and surface water sample (SW-368-01) were collected from the storm drain that directs stormwater runoff from the Building 368 area to Van Horne Ravine. The sediment sample was analyzed for VOCs, SVOCs, metals, and soil quality parameters (TOC, CEC, and pH), and the surface water sample was analyzed for VOCs, SVOCs, metals, dissolved metals, pesticides, and water quality parameters (anions, hardness, alkalinity, biological oxygen demand [BOD], chemical oxygen demand [COD], total suspended solids [TSS], TOC, and nitrates). Groundwater monitoring well B368MW02 was resampled during the Phase II investigation. The sampling locations are shown in Figure 2-14.

During Phases I and II sampling of groundwater at Building 368, isolated concentrations of phthalates and pesticides were detected, but were not consistent between sampling events. Isolated concentrations of diethyl phthalate (5.1 µg/L), alpha-BHC (0.0082 µg/L), delta-BHC (0.0068 µg/L), endosulfan sulfate (0.051 to 0.14 µg/L), and lindane (0.0072 µg/L) were detected in well B368MW02 during the Phase I investigation. The identified explosives-related compounds HMX and tetryl were not confirmed by re-analysis (second column confirmation) in the laboratory. An isolated barium (184 µg/L) concentration exceeded background levels. Chloride (560 mg/L) and TDS (1,430 mg/L) concentrations in the monitoring well were within background levels observed on Post.

Isolated VOCs and SVOCs detected in the surface soil at Building 368 included acetone (0.5 µg/g), B2EHP (0.18 to 1 µg/g), butyl benzyl phthalate (0.51 to 0.57 µg/g), chloroform (0.0013 to 0.002 µg/g), dimethyl phthalate (0.44 µg/g), toluene (0.0019 µg/g), and trichlorofluoromethane (0.016 µg/g). These compounds are common sampling-related or laboratory contaminants at low concentrations. PAH concentrations were widely detected in surface soil surrounding Building 368 and included anthracene (0.079 to 0.34 µg/g), benzo(a)anthracene (0.23 to 1.8 µg/g), benzo(a)pyrene (0.2 to 1.4 µg/g), benzo(b)fluoranthene (0.18 to 2.1 µg/g), benzo(g,h,i)perylene (0.21 to 0.63 µg/g), benzo(k)fluoranthene (0.17 to 0.62 µg/g), carbazole (0.2 µg/g), chrysene (0.22 to 1.3 µg/g), dibenzofuran (0.053 µg/g), fluoranthene (0.18 to 2.6 µg/g), 2-methylnaphthalene (0.082 to 0.39 µg/g), indeno(1,2,3-cd)pyrene (0.21 to 0.7 µg/g), naphthalene (0.061 to 0.17 µg/g), phenanthrene (0.17 to 0.82 µg/g), and pyrene (0.16 to 2.7 µg/g). Aluminum (16,800 µg/g), cadmium (1.11 to 3.05 µg/g), chromium (24.8 to 25.1 µg/g), copper (97 µg/g), lead (59 to 510 µg/g), silver (0.581 to 0.979 µg/g), and zinc (120 to 254 µg/g) were detected at concentrations that exceeded surface soil background levels.

Isolated VOCs and SVOCs were detected in the subsurface soil at Building 368, including acetone (0.024 to 1 µg/g), B2EHP (1.1 to 1.3 µg/g), chloroform (0.0018 to 0.0019 µg/g), diethyl phthalate (0.85 to 1 µg/g), toluene (0.0055 to 0.02 µg/g), and trichlorofluoromethane (0.0069 to 0.014 µg/g). These compounds are common sampling-related or laboratory compounds at low concentrations. PAHs were detected in subsurface soil at Phase I locations B368TP1, B368SB01 to B368SB03, and B368SB06 and included isolated concentrations of benzo(k)fluoranthene (0.1 µg/g), chrysene (0.2 µg/g), dibenzofuran

(0.093 µg/g), fluoranthene (0.25 µg/g), fluorene (0.082 µg/g), phenanthrene (0.039 to 0.13 µg/g), and pyrene (0.27 µg/g). Inorganics in the subsurface soils at Building 368 were below background levels.

B2EHP (2 µg/g) was the only organic compound detected in the sediment sample at Building 368 and is a commonly detected field sampling or laboratory compound. Metals that exceeded background concentrations included barium (70.2 to 74.7 µg/g), boron (18.2 to 21.6 µg/g), cadmium (3.95 to 4.07 µg/g), chromium (27.1 to 27.6 µg/g), copper (127 to 134 µg/g), lead (980 to 1,100 µg/g), molybdenum (3.42 to 3.78 µg/g), selenium (0.526 to 0.596 µg/g), silver (0.766 to 0.912 µg/g), tin (18 to 20 µg/g), and zinc (969 to 1,060 µg/g).

B2EHP (60 µg/L) and di-N-butyl phthalate (6 µg/L) were detected in surface water from the ephemeral stream located west of Building 368. These compounds are commonly detected field sampling or laboratory-related compounds. The sample contained the pesticides 4,4′-DDD (0.21 µg/L), 4,4′-DDE (0.011 µg/L), and 4,4′-DDT (0.019 µg/L). Metals exceeding background concentrations included chromium (11.7 µg/L), copper (43.9 µg/L), iron (6,350 µg/L), manganese (306 µg/L), nickel (15.6 µg/L), lead (173 µg/L), vanadium (9.58 µg/L), and zinc (452 µg/L).

### *2.5.16 Building 379 Yard Area – Electronic Communications Repair Shop*

During the Phase II investigation, five soil borings (SB-379-01 through SB-379-05) were drilled near points of ingress/egress or possible discharges around the building. All soil samples were analyzed for VOCs, SVOCs, metals, TOC, and pH. The sample locations are shown in Figure 2-15.

Organic compounds detected in surface and shallow subsurface soil samples surrounding Building 379 consisted exclusively of semivolatile PAHs: anthracene (0.34 µg/g), benzo(a)anthracene (0.33 to 1 µg/g), benzo(a)pyrene (0.28 to 2 µg/g), benzo(b)fluoranthene (0.26 to 3 µg/g), benzo(g,h,i)perylene (0.19 to 1 µg/g), benzo(k)fluoranthene (0.29 to 0.9 µg/g), chrysene (0.21 to 1 µg/g), dibenzofuran (0.18 µg/g), fluoranthene (0.28 to 2.7 µg/g), fluorene (0.25 µg/g), 2-methylnaphthalene (0.34 µg/g), indeno(1,2,3-cd)pyrene (0.16 to 1µg/g), phenanthrene (0.24 to 0.8 µg/g), and pyrene (0.23 to 2.7 µg/g) predominantly at locations SB-379-01 and SB-379-02. Antimony (0.382 to 0.519 µg/g), barium (72.2 to 342 µg/g), cadmium (1.1 to 5.93 µg/g), chromium (31.1 to 55.5 µg/g), copper (41.3 to 316 µg/g), iron (22,600 to 63,000 µg/g), lead (20 to 320 µg/g), selenium (0.765 µg/g), silver (0.636 to 1.35 µg/g), and vanadium (30.5 to 49 µg/g) were detected at concentrations that exceeded background in the surface and subsurface soil.

### *2.5.17 Building 564/565 Yard Area*

Phase I investigations were not conducted at Buildings 564 and 565; however, soil borings and monitoring wells were installed at the former service station (Building 125) west of Building 564. Five soil borings (B125SB01 through B125SB05) were installed around the former service station during Phase I. Soil samples were collected from each boring for analysis of VOCs, SVOCs, and metals. Monitoring wells B125MW1A through B125MW05 also were installed and sampled at the former service station site during Phase I.

During the Phase II investigation, 13 soil borings (SB-564-01 through SB-564-13) were drilled around Buildings 564 and 565. Two soil samples were collected from each boring (at the surface and within the fill material) with the exception of SB-564-13. All soil samples were analyzed for VOCs, SVOCs, metals, TOC, and pH. Monitoring wells associated with Building 125 were re-sampled during Phase II and a groundwater sample also was collected from piezometer PZ-564-01. The sample locations are shown in Figure 2-16.

B2EHP (24 µg/L), cis-1,2-dichloroethene (cis-1,2-DCE) (1.8 µg/L), di-N-butyl phthalate (2 to 3.1 µg/L), and TCE (1.2 µg/L) were detected in monitoring wells associated with Building 125. Groundwater at piezometer PZ-564-01 (installed during the Phase II RI) contained isolated concentrations of the explosives compound HMX (1.09 µg/L), di-N-butyl phthalate (3.7 µg/L), naphthalene (3.9 µg/L), benzoic acid (2.1µg/L), and the herbicide 2,4-D (0.76 µg/L). Barium (244 µg/L), lead (39.9 µg/L), manganese (5,630 µg/L), and zinc (141 µg/L) exceeded background. Groundwater in the vicinity of adjacent Building 125 is impacted by inorganics concentrations that exceed background, including barium (258 µg/L), cobalt (52.6 µg/L), copper (91.5 µg/L), iron (85,000 µg/L), chloride (180 to 930 mg/L), lead (53.8 µg/L), manganese (4,440 µg/L), mercury (0.234 µg/L), silver (7.25 µg/L), vanadium (71.7 µg/L), and zinc (369 µg/L).

Organic constituents that were detected in surface soil samples around Buildings 564 and 565 consisted predominantly of widely distributed PAHs, including acenaphthene (0.26 µg/g), anthracene (0.2 to 1 µg/g), benzo(a)anthracene (0.2 to 2.3 µg/g), benzo(a)pyrene (0.4 to 1.9 µg/g), benzo(b)fluoranthene (0.2 to 2.2 µg/g), benzo(g,h,i)perylene (0.2 to 1.2 µg/g), benzo(k)fluoranthene (0.27 to 1 µg/g), carbazole (0.19 µg/g), chrysene (0.4 to 2.1 µg/g), dibenzo(a,h)anthracene (0.27 to 0.28 µg/g), fluoranthene (0.27 to 4 µg/g), fluorene (0.3 µg/g), indeno(1,2,3-cd)pyrene (0.41 to 1.3 µg/g), phenanthrene (0.3 to 3 µg/g), and pyrene (0.2 to 5.1 µg/g). Maximum concentrations of PAHs in surface soil around Buildings 564 and 565 were detected at borings SB-564-05, SB-564-08, and SB-564-09 located north and east of the buildings.

Organic constituents were detected in subsurface soil from four borings (SB-564-05, SB-564-08, SB-564-09, and SB-564-10) in the vicinity of Buildings 564 and 565. Acetone (0.015 to 0.11 µg/g), toluene (0.0014 µg/g), and trichlorofluoromethane (0.0093 µg/g) were detected in soils from the adjacent Building 125 and are common laboratory constituents at low concentrations. Fewer PAHs were detected above the OQAPP reporting limits in the subsurface soils, and the detected compounds had a more limited spatial distribution. Anthracene (0.21 to 0.3 µg/g), benzo(a)anthracene (1.7 µg/g), benzo(a)pyrene (0.24 to 1.5 µg/g), benzo(b)fluoranthene (0.34 to 2 µg/g), benzo(g,h,i)perylene (0.24 to 0.98 µg/g), benzo(k)fluoranthene (0.85 µg/g), 2-butanone (0.022 to 0.046 µg/g), chrysene (0.22 to 1.7 µg/g), dibenzo(a,h)anthracene (0.26 µg/g), fluoranthene (0.41 to 2.5 µg/g), indeno(1,2,3-cd)pyrene (0.2 to 1.1 µg/g), phenanthrene (0.24 to 1.1 µg/g), pyrene (0.5 to 2.9 µg/g), and 2-methylnaphthalene (0.34 µg/g) were detected.

Aluminum (14,500 to 43,700 µg/g), antimony (0.51 to 12.4 µg/g), boron (19.5 to 45.3 µg/g), cadmium (0.65 to 1.32 µg/g), chromium (25 to 55.6 µg/g), copper (26.3 to 44.7 µg/g), lead (18 to 750 µg/g), silver (0.772 to 7.8 µg/g), molybdenum (1.46 to 6 µg/g), silver (0.772 to 7.8 µg/g), tin (6.99 to 44 µg/g), vanadium (24.9 to 79 µg/g), and zinc (68.2 to 346 µg/g) were detected at concentrations that exceeded background in the surface and subsurface soil. Arsenic (7.7 to 11.3 µg/g), barium (65.9 to 241 µg/g), beryllium (1.91 µg/g), cobalt (21.6 to 23.5 µg/g), iron (24,600 to 58,000 µg/g), manganese (583 to 2,400 µg/g), mercury (0.18 to 1.27 µg/g), nickel (34.7 to 51.6 µg/g), and selenium (0.396 to 0.797 µg/g) also were detected in subsurface soils at concentrations exceeding background. Maximum metals concentrations were detected in samples from borings SB-564-01, SB-564-05, SB-564-06, SB-564-08, SB-564-09, and SB-564-13.

### *2.5.18 Building 902 Yard Area – Maintenance Shop*

Three test pits (B902TP1, B902TP2, and B902TP3) were excavated in the yard area surrounding Building 902 during the Phase I investigation. The Phase I soil samples were analyzed for VOCs and SVOCs. During the Phase II investigation, soil borings were drilled next to the OWSs at Building 900 (SB-LF1-01) and Building 902 (SB-LF1-02). Chemical analyses of the soil samples did not indicate a release of mission-related constituents from the OWSs to the surrounding soils. All of the Phase II soil samples were analyzed for VOCs, SVOCs, metals, pesticides, and PCBs.

Acetone (0.0250 to 0.24 µg/g) and toluene (0.00240 to 0.007 µg/g), which were detected in the soil at Building 902, are commonly detected laboratory constituents at low concentrations. SVOCs (PAHs) were detected in subsurface soil samples (3 to 4.5 feet BLS) at B902TP3 and included benzo(k)fluoranthene (0.16 µg/g), chrysene (0.24 µg/g), fluoranthene (0.15 to 0.43 µg/g), 2-methylnaphthalene (0.096 µg/g), phenanthrene (0.19 to 0.2 µg/g), and pyrene (0.15 to 0.46 µg/g). The pesticides α-chlordane (0.023 µg/g), γ-chlordane (0.0094 µg/g), 4,4′-DDD (0.0089 to 0.16 µg/g), 4,4′-DDE (0.022 to 0.069 µg/g), 4,4′-DDT (0.0044 to 0.032 µg/g), endosulfan I (0.0022 µg/g), and heptachlor epoxide (0.0051 µg/g) were detected in soil samples (0 to 4 feet BLS) at borings SB-LF1-01 and SB-LF1-02 near the OWSs at Buildings 900 and 902. Inorganics constituents that exceed background concentrations include aluminum (15,900 to 41,100 µg/g), barium (47.8 to 212 µg/g), boron (11.3 to 68 µg/g), cadmium (1.16 µg/g), chromium (22.8 to 51.5 µg/g), cobalt (12.2 to 19.7 µg/g), copper (29.6 to 396 µg/g), iron (33,900 to 44,200 µg/g), molybdenum (1.31 to 6.16 µg/g), nickel (55.6 µg/g), silver (0.584 µg/g), tin (6.27 to 13.9 µg/g), and vanadium (44 to 73.2 µg/g).

## 2.6 CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

The plan for future private or public development of the DOD OU property at Fort Sheridan is undefined at this time. Therefore, the risk evaluation considered a range of potential future land uses that might be applied to the DOD OU sites. In the future, the risk assessment assumes that the fences currently in place will be ineffective barriers to exposure or will be removed, and conservatively calculates risks as if no fences are in place. The future land use exposure scenarios also are evaluated assuming that remedial actions will not occur. Potential receptors evaluated for both current and future land use scenarios are discussed in Sections 2.6.1 and 2.6.2, respectively.

Groundwater exposures at Fort Sheridan are considered to be unlikely given the insufficient yield capability of the glacial till aquifer and the readily available water supply from Lake Michigan. The groundwater pathway, therefore, is incomplete for the facility and risks associated with exposures to groundwater were not quantitatively evaluated. The till underlying Fort Sheridan is designated as a Class II (section 620.220 of Illinois Groundwater Standards) aquifer (non-potable resource) to a depth of 49 feet BLS (ESE 1996b). The aquifer is categorized as Class II because wells completed in the shallow, saturated till did not generally encounter saturated, permeable materials (hydraulic conductivity greater than $1 \times 10^{-4}$ cm/sec) and are not capable of sustainable yields of 10 gallons per minute (gpm) (150 gallons per day [gpd]). The till extends to depths from 140 to 150 feet BLS in the vicinity of Fort Sheridan.

Currently, potable water is supplied to the installation by the public water system from Lake Michigan. It is unlikely that the development of potable water sources from the shallow till will be feasible or permitted under any redevelopment scenario on the basis of insufficient yield capacity of the groundwater from the shallow till and the availability of a public water supply.

### *2.6.1 Current Land Use*

Currently, Fort Sheridan is an open Post with few access restrictions to the majority of the DOD OU. Fifteen of the 23 study areas that are included in this Decision Document are currently surrounded or partially surrounded by fences to restrict access. The DOD property includes light industrial shops, warehouses, office buildings, housing areas, and open spaces associated with ravines, landfilled areas, or recreational facilities. The current land use scenario includes recreational visitors (to the sites or portions of the sites that are not surrounded by fences), intruders (to the sites or portions of sites that are surrounded by fences), and maintenance workers (at all of the sites). However, only limited potential for exposure exists at this time, particularly for recreational land use. Residential exposures were not

evaluated under current land use, since residents do not live within the boundaries of any of the DOD OU study areas. In addition, maintenance work at many of the sites is limited or nonexistent (e.g., the grass occasionally may be mowed). The potentially exposed receptors evaluated for the current land use include a maintenance worker (adult), recreational visitor (adolescent), and intruder (adolescent).

### *2.6.2 Future Land Use*

Future land use, except the future recreational uses, assumed the possibility of soil excavation to depths of 10 feet BLS and the subsequent spreading of those soils on the surface after excavation. Ten feet is considered a reasonable depth to excavate during typical construction in the area (i.e., the buildings may have basements). The future recreational visitor scenario was designed to address the possibility that some or all of the sites will not be developed and that visitation to the sites will remain infrequent. The potentially exposed receptors evaluated for the future land use scenario include an industrial worker (adult), construction worker (adult), resident (child and adult), and recreational visitor (child and adult).

## 2.7 SITE RISKS

During the RI, a BRA was conducted to estimate the potential threats to human health and the environment associated with exposures to chemical constituents detected in soil, sediment, and surface water on the DOD OU study areas. Baseline risks are risks to human health or the environment in the absence of any institutional controls or remedial actions for the DOD OU study areas. In addition to exposures under current land use, hypothetical exposures were evaluated under potential future land use scenarios.

The Former Incinerator, Building 142, and Building 902 were not evaluated in the BRA. The existing site conditions at these three no action study areas did not present significant human health or environmental risks based on the following information:

- The concrete pad and soil associated with the Former Incinerator were removed during the interim remedial action at Landfill #7.
- The transformer leak in Building 142 was remediated and the transformers subsequently were removed and replaced with non-PCB containing pad-mounted transformers outside the building.
- An investigation was conducted at Building 902 to determine if a release had occurred from the two OWSs associated with this building. The results of the chemical analyses for soil samples collected adjacent to the OWSs did not indicate a release of mission-related constituents to the surrounding soils.

### *2.7.1 Human Health Risk Assessment*

The risk to human health was evaluated by considering exposure to constituents of potential concern (COPCs) present at the DOD OU study areas. The evaluation was completed according to USEPA-approved risk assessment protocols (USEPA 1989b).

### *2.7.1.1 Summary of Human Health Risk Assessment Process*

Human health COPCs were identified after the sampling results were validated and aggregated into exposure units. The sampling results were screened to eliminate common nutrient metals (e.g., sodium, calcium, potassium, and magnesium). The background screening was conducted using an ANOVA statistical evaluation between the site chemical data and the background data. Inorganic constituents that did not exceed background were deemed to be naturally occurring and were not included in the risk assessment. Inorganic constituents that exceeded background and were not common nutrients were designated as COPCs and evaluated in the risk assessment. All detected organic chemicals were designated as COPCs and evaluated in the risk assessment. Cancer risks and non-cancer hazard indices (HIs) were calculated for each COPC and summed across all exposure pathways and media to estimate cumulative site risk.

USEPA has developed target values for cancer risk and noncancer hazards appropriate for the study areas discussed in this Decision Document. For cancer risks, the target is a range extending between 1 chance in 1,000,000 ($1 \times 10^{-6}$) to 1 chance in 10,000 ($1 \times 10^{-4}$) of an individual developing cancer above the expected or background rate. Risk estimates that fall within the range are considered acceptable. In general, men have a one in two chance and women have a one in three chance of developing cancer in their lifetime due to generally occurring, or background, exposures. These chances are called the "expected" rate. Therefore, the risk assessment estimates the chance of developing cancer above this expected rate.

For constituents that cause noncancer effects, the likelihood of adverse health effects is expressed as a numerical ratio called the HI. The HI estimates the potential for the most sensitive individuals to be adversely affected by exposure to site conditions. An HI of 1 or less is considered to be acceptable. The risk calculations for all exposure scenarios were completed using conservative assumptions regarding the distribution of the COPCs and the degree of human exposure to these constituents.

If the USEPA target values for cancer risks and noncancer hazards were exceeded, significant COPCs were identified. Significant COPCs are chemical constituents that significantly contribute to a pathway that exceeds a $1 \times 10^{-4}$ cancer risk or an HI of 1. Chemicals were not identified as significant COPCs if their individual cancer risk was less than $1 \times 10^{-6}$ or their individual noncancer hazard quotient (HQ) was less than 0.1. For noncancer effects, if the pathway HI exceeded 1, chemicals were segregated according to which organ they target, and the pathway HI was recalculated. Chemicals contributing to target organ HIs (TOHIs) less than or equal to 1 were not considered significant COPCs.

Cancer and noncancer risks for lead were determined in a different manner than for other COPCs because of lead's uniqueness with regard to toxicity. Potential health effects associated with low-level lead exposures include reproductive effects, nervous system effects, and learning disorders. At the present time, toxicological studies indicate that lead may be carcinogenic at high exposure levels and that there may be no threshold of exposure below which adverse effects do not occur.

Lead toxicity was evaluated using biokinetic uptake models to predict concentrations of lead in blood from average concentrations of lead in site soils. Modeling was used because blood lead levels in the exposed populations were not directly measured. Modeling was not conducted unless the detected lead concentrations exceeded the action level of 400 mg/kg in soil (USEPA 1994a). Currently, USEPA has provided models for children in a residential setting (USEPA 1994b and USEPA 1994c) and for adult workers in an occupational setting. Calculated blood lead levels were compared to the Centers for Disease Control and Prevention (CDC) target of 10 µg/dL. If the blood lead level for 95 percent of the population exceeded the target of 10 µg/dL, lead was identified as a significant COPC.

### *2.7.1.2 Identification of Potential Human Exposure Pathways*

Exposure pathways provide access for chemicals in the environment to travel from a chemical source to an exposed individual (called a receptor). To evaluate risk, an exposure pathway must be complete. This involves a chemical release to the environment (to soil, groundwater, surface water, sediment, or air), a point at which a receptor contacts the environmental medium (the exposure point), and a means of entry into the body (the exposure route). The exposure routes commonly evaluated include soil or water contacting the skin (dermal absorption); incidental eating or drinking of soil or water (ingestion); or breathing air, vapors, or dust that contain harmful chemicals (inhalation).

If there is no exposure point, there is no exposure, even if chemicals have been detected in the environment. If an exposure pathway is complete, the average chemical concentration and the potential for human uptake at the exposure point are estimated. The exposure pathways that were evaluated in the human health risk assessment are shown in Table 2-1 and include direct contact with soil (through ingestion, dermal contact, and breathing), indirect contact with soil (through ingestion of produce), and direct contact with surface water (through dermal contact) and sediment (through ingestion and dermal contact). (All tables are located at the end of Section 2.)

The fill, soil, sediment, and surface water on or near the DOD OU study areas are the main sources of potential chemical exposures. Exposure pathways associated with these media were considered complete, since the contaminated media are accessible and exposed at the surface (or may be exposed at the surface in the future). Groundwater exposures at Fort Sheridan are considered very unlikely based on the lack of producible water from the glacial till aquifer (either for drinking or irrigation) and the abundant water supply that is readily available from Lake Michigan. Therefore, the groundwater pathway was regarded as incomplete for the facility and was not quantitatively evaluated in the BRA.

Produce (i.e., leafy vegetables, tuberous vegetables, and fruits) ingestion was assessed for residents that hypothetically grow produce in the soil at the DOD OU study areas. As opposed to direct contact with soil (e.g., through soil ingestion, dermal contact, or inhalation), produce ingestion represents an indirect route of soil exposure. This pathway assumes that there is a quantifiable potential for ingestion exposure from chemicals that are taken up by the plants from the soil. The evaluation was conducted for commonly grown vegetables and fruits. The results may be viewed as indicators of the relative uptake of various constituents into produce. However, the magnitude of the risks due to the ingestion of the produce are overestimated because the risk estimates are based on chemical transfer factors from soil to plant. These factors are highly variable depending on site conditions and the available literature values. Since produce is not available from the DOD sites, transfer factors were used to estimate concentrations in produce based on chemical concentrations that were detected in the soil. Because no data are available to confirm the relative degree of uptake by a plant in the soil on the DOD property, the risk estimates for the produce pathway are overly conservative. This conservatism results from the use of the toxicity of readily bioavailable forms of the chemicals in the soil, rather than the toxicity of the constituent in the plant as ingested.

### *2.7.1.3 Results of the Human Health Baseline Risk Assessment*

The results of the human health BRA for direct contact, lead, and the produce pathway (indirect contact) are presented in the following sections.

#### *2.7.1.3.1 Direct Contact with Soil*

***Summary of Results***—Under current land use, HIs for noncancer effects are below the target of 1 and cancer risks ($3 \times 10^{-8}$ to $2 \times 10^{-5}$) are below or within the USEPA target range ($1 \times 10^{-6}$ to $1 \times 10^{-4}$). Table 2-2 summarizes the estimated reasonable maximum exposure (RME) risk estimates for current land use. The RME is a conservative estimate for a given exposure used in the risk assessment. USEPA requires evaluation of this "high-end," yet plausible exposures for the purpose of decisionmaking.

Under future land use conditions, the estimated cancer risks and noncancer hazards are at or below the USEPA targets (noncancer HI of 1 and upper bound cancer risk of $1 \times 10^{-4}$) for all receptors and across all available exposure pathways (excepting produce consumption, as discussed in Section 2.7.1.3.3). The HIs for all of the sites ranged from $3 \times 10^{-6}$ to 1 and the cancer risks ranged from $8 \times 10^{-9}$ to $1 \times 10^{-4}$. Table 2-3 summarizes the RME risk estimates for future land uses.

***Conclusions***—No action is recommended at the no action study areas because site risks for direct contact with soil do not exceed USEPA target criteria. This conclusion is further supported because the bulk of site risks are due to constituents (primarily arsenic and PAHs) ubiquitous in soil across all of the sites as well as the local urban area.

Risks for arsenic and PAHs in the study area soil and sediment are similar to those in background. PAHs were included in the background risk calculations. For example, the cancer risks for the no action study areas ranged from $4 \times 10^{-6}$ at VES Area #6 to $7 \times 10^{-5}$ at the Buildings 137/139 Yard Area, while the cancer risks for background ranged from $1 \times 10^{-5}$ (subsurface soil) to $2 \times 10^{-5}$ (surface soil). The most frequently encountered cancer risk at the no action study areas was $2 \times 10^{-5}$.

The comparison of site risks to background risks is a key component of the risk assessment and risk management decisionmaking. Some chemicals are eliminated from the risk assessment based on the background comparison. However, if a chemical is designated as site-related, the risks represent both a portion that is site-related and a portion that is due to background (i.e., the portion due to background is not subtracted out).

#### *2.7.1.3.2 Lead*

***Summary of Results***—The detected concentrations for lead exceed the 400 mg/kg screening level in surface soil at the Building 368 Yard Area (510 mg/kg) and in subsurface soil at the Building 564/565 Yard Area (750 mg/kg). Lead concentrations at the remaining no action study areas are below the 400 mg/kg screening level. Modeling was conducted to estimate blood lead levels for the resident child and adult worker at the Building 368 Yard Area and Building 564/565 Yard Area. The modeling results indicate that blood lead levels for exposures to soils surrounding Buildings 368 and 564/565 are below the CDC target of 10 µg/dL, as shown in Table 2-2 (current land use) and Table 2-3 (future land use).

***Conclusions***—No action is recommended at the no action study areas because blood lead levels do not exceed the USEPA screening level or the CDC target of 10 µg/dL.

#### *2.7.1.3.3 Produce Pathway (Indirect Contact with Soil)*

***Summary of Results***—Risk estimates for future residential exposures to produce are provided in Table 2-3. The estimated noncancer HI values for produce exposures exceeded the USEPA target (HI >1) at VES Area #3/Building 377, VES Area #4, VES Area #6, Shenck Ravine Fill, Ammunition Storage Buildings, the Former STP, the NIKE facility, Building 137/139 Yard Area, Building 361 Yard Area,

Building 368 Yard Area, Building 379 Yard Area, and Building 564/565 Yard Area. The estimated HI values ranged from 2 to 26 for resident children ingesting produce.

Estimated cancer risks for future residential produce exposures exceeded the USEPA target range ($1 \times 10^{-6}$ to $1 \times 10^{-4}$) at VES Area #3/Building 377, VES Area #4, VES Area #7, Shenck Ravine Fill, the Former STP, NIKE facility, Building 137/139 Yard Area, Building 361 Yard Area, Building 368 Yard Area, Building 379 Yard Area, and Building 564/565 Yard Area. Cancer risk estimates at these sites ranged from $2 \times 10^{-4}$ to $6 \times 10^{-4}$.

COPCs responsible for produce pathway risks above the USEPA cancer and noncancer risk targets ("significant COPCs") consist predominantly of PAHs, metals (including arsenic, cadmium, copper, and zinc) and isolated non-PAH organic compounds. The noncancer HIs are primarily attributable to uptake of metals, particularly into fruits. The cancer risks are primarily attributable to PAHs adhering to the roots of tuberous vegetables.

The concentrations of produce pathway PAH significant COPCs are similar to those found in Fort Sheridan background samples and asphaltic baseline concentrations (ESE 1997c). Three of the PAH significant COPCs, benzo(a)pyrene, dibenzo(a,h)anthracene, and benzo(a)anthracene, were below the asphaltic baseline concentrations with the exception of benzo(a)pyrene in isolated samples at VES Area #3 and VES Area #7. The cancer risks for PAHs in produce grown in the surface soil at VES Area #3 ($2 \times 10^{-4}$) and the subsurface soil at VES Area #7 ($4 \times 10^{-4}$) exceed the upper limit for cancer risk. The greatest contributor to these cancer risks is benzo(a)pyrene ($7 \times 10^{-5}$ at VES Area #3 and $2 \times 10^{-4}$ at VES Area #7). In each of these cases, tuberous produce is predominant because of the propensity for PAHs to adhere to plant roots. No apparent "hot spots" or areas of elevated concentration are located within either VES Area.

For metals, site concentrations of significant COPCs (i.e., arsenic, cadmium, copper, and zinc) and their associated risk are similar to those in background. In general, risks associated with these significant COPCs do not individually exceed USEPA targets. However, when combined, these significant COPCs exceed USEPA targets.

Isolated concentrations of 4-amino-2,6-DNT (4-A-2,6-DNT) and N-Nitroso-di-N-propylamine in soil samples at the Former STP and the Building 361 Yard Area were detected at concentrations below the reporting limits, but above the laboratory detection limit. The concentrations of these chemicals are thus uncertain. In addition, these two chemicals were detected in only one sample. 4-A-2,6-DNT was detected in only 1 of 27 soil samples at the Former STP. N-Nitroso-di-N-propylamine was detected in 1 of 21 soil samples at Building 361. Consideration of these uncertainties indicates that the risks are overestimated.

***Conclusions***—Although produce ingestion risks exceeded USEPA target criteria at some of the sites, no action is recommended for two reasons. First, a significant portion of the produce pathway risks at the study areas are due to naturally occurring or anthropogenic sources of PAHs and metals. Second, the transfer factors used to convert concentrations of contaminants in soil to concentrations in produce are overly conservative.

Regarding the first reason, PAHs are commonly found in urban and suburban soil as a result of road paving, vehicle exhaust, and open burning. Therefore, the presence of these compounds in these DOD OU study area soils is due to both mission-related activities on or near the study areas and anthropogenic background. Anthropogenic baseline concentrations of PAHs have been identified on Fort Sheridan associated with existing asphalt pavement (ESE 1997c).

A measure of the contribution of naturally occurring and anthropogenic sources to the site risk estimates are provided in the risk estimates for background. The cancer risks for produce grown in background soils ranged from $5 \times 10^{-5}$ in subsurface soil to $1 \times 10^{-4}$ in surface soil. The noncancer hazards for produce ranged from 2 in subsurface soil to 5 in surface soil. Although the noncancer hazards and cancer risks are greater at the no action study areas than in background, a significant portion of the estimates for the study areas is represented by the estimates for background.

Regarding the second reason, although produce ingestion is a reasonable exposure pathway for future residents, it exhibits the highest degree of uncertainty in the risk estimates. The uncertainty is due to the differences in environmental conditions for the experimental study underlying the transfer factors versus those found at the study areas. Such differences include soil type and the form of the chemical under consideration (e.g., chemical valence or interactions with organic carbon and other chemicals). As a result, risk estimates are biased toward overestimation. Although the exact magnitude of the uncertainty is unknown without site-specific uptake studies in which plants are actually grown in a study area, risk management decisions to remediate or restrict site use solely on the basis of the produce pathway must consider the uncertainty that is inherent in the evaluation of this pathway.

### *2.7.2 Ecological Risk Assessment*

The baseline ecological risk assessment (BERA) for the Fort Sheridan DOD OU evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to chemicals at the sites. The focus of the BERA is on those areas of the DOD OU that have potential natural habitats for ecological receptors, such as mammals and birds. The presence of potential habitat is necessary for a site to be evaluated as an exposure unit in the BERA. If there is no foraging or nesting habitat at a site, there are no ecological receptors. If there are no receptors, there is no exposure, and therefore, no potential for adverse effects from chemicals at a site. Most of the DOD OU offers little or no habitat for biota as a result of residential and industrial development. For sites in the DOD OU where there is suitable habitat for ecological receptors and potential exposure, the BERA uses the ecotoxicity quotient (EQ) to estimate risks to ecological receptors. The EQ is the ratio between the estimated exposure concentration of a constituent and an effect threshold concentration. EQs that exceed 1 indicate that the receptor is potentially at risk.

***Summary of Results***—Exposure units for the DOD OU BERA were identified based on site reconnaissance and review of published descriptions of habitats and biota at Fort Sheridan (USACE 1990 and Nuzzo 1995). Of the 23 no action study areas included in this Decision Document, only the beach at Boles Loop Drain provides suitable habitat for ecological receptors.

Boles Loop Drain is the principal stormwater outfall draining the housing area at Boles Loop. Water discharge from Boles Loop Drain occurs only in association with rainfall events, so the risk to ecological receptors from exposure to surface water discharging from Boles Loop Drain was not evaluated in the BERA. The DOD OU beach outfall area associated with Boles Loop Drain is an exposure unit for sediment-dwelling biota and shorebirds because the drainage serves as a potential source of site-related constituents that are carried down to the beach by water discharge and potentially remain in beach sediment. Sandy beaches along the Great Lakes typically support a highly variable fauna of sediment-dwelling invertebrates (Bailey et al. 1995), and these are fed upon by many species of shorebirds while residing at or migrating along the Great Lakes (Kleen 1996 and Stoddard 1993).

The ecological constituents of potential concern (ecoCOPCs) that were identified for sediment-dwelling biota or shorebirds from sediment samples collected where Boles Loop Drain empties onto the beach included:

- Boron
- Molybdenum
- Tin
- Acetone
- Trichlorofluoromethane
- Benzo(b)fluoranthene
- Benzoic acid
- δ-BHC
- α-chlordane
- γ-chlordane
- 4,4′-DDD
- 4,4′-DDE
- 4,4′-DDT
- Heptachlor epoxide
- 4-A-2,6-DNT.

The ecoCOPCs with an EQ >1 for sediment-dwelling invertebrates in sediment where Boles Loop Drain empties onto the beach are the pesticides 4,4′-DDD (EQ = 8.0), 4,4′-DDE (EQ = 26.6), and 4,4′-DDT (EQ = 39.6). There is uncertainty about risk to sediment-dwelling invertebrates for boron, molybdenum, tin, acetone, trichlorofluoromethane, benzo(b)fluoranthene, benzoic acid, delta-BHC, alpha-chlordane, gamma-chlordane, and 4-A-2,6-DNT in beach sediment at Boles Loop Drain because no toxicity reference values (TRVs) are available for these constituents. There are no ecoCOPCs with EQs > 1 for shorebirds feeding on animals in sediment at the Boles Loop Drain outfall. TRVs for shorebirds are not available for acetone, trichlorofluoromethane, benzoic acid, heptachlor epoxide, and 4-A-2,6-DNT.

***Conclusions***—No significant risk exists to ecological receptors at the areas on the DOD OU identified as no action sites. Except for the beach at Boles Loop Drain, no ecological habitat at the no action sites is considered in this Decision Document. Because Boles Loop Drain primarily serves a housing area, the pesticides detected in sediment there are likely associated with "background" applications of pesticides in the Boles Loop residential area, as well as the surrounding region. EQs for the pesticides in Boles Loop Drain sediment are less than the Janes Ravine sediment background EQ (4,4′-DDD) or exceed EQs for background sediment by a factor of only 0.5 (4,4′-DDT and 4,4′-DDE). This slight difference makes it unlikely that site-related activities on the DOD OU are responsible for additional risk to sediment-dwelling invertebrates on the beach at Boles Loop Drain. The results of the BERA indicate that predators, such as shorebirds, foraging on sediment-dwelling animals along the beach at Boles Loop Drain are not at risk from exposure to constituents in sediment. The uncertainty about ecoCOPCs without TRVs is not considered a concern because the results for constituents with TRVs, including metals, PAHs, and pesticides, are thought to be representative of the risks to ecological receptors.

### *2.7.3 Summary of the No Action Determination*

The results of the BRA indicate that chemical constituents detected in the environmental media at no action study areas on the DOD OU do not pose significant risk to human health or the environment. Therefore, the U.S. Department of the Army and the U.S. Department of the Navy, in consultation with

USEPA and IEPA, have determined that no actions are necessary at these sites. This assessment is based on the evaluation of risks that consider current and future (residential, industrial, and recreational) land use scenarios for the sites as identified from the RI/BRA study of the DOD OU.

Mission-related constituents were detected in most of the soil, sediment, groundwater, and surface water samples that were collected at the study areas. However, the concentrations of detected mission-related constituents do not and will not cause unacceptable human health or environmental effects. As discussed in Section 2.7.1, the bulk of site risks are due to chemicals (primarily arsenic and PAHs) ubiquitous in soil across all of the sites as well as in background. Estimated potential risks that relate to the ingestion of produce grown in soils on some of the DOD sites are overly conservative. In addition, a significant portion of the metals and PAHs that produce risks at the study areas are due to naturally-occurring or anthropogenic background and do not pose unacceptable health or environmental risk. Pesticides that are associated with potential ecological risks to sediment-dwelling biota on the beach area at Boles Loop Drain (4,4′-DDT, 4,4′-DDE, and 4,4′-DDD) appear to be the result of surface runoff from a residential area and are unrelated to a specific RI site. Pesticides in sediment at Boles Loop Drain only slightly exceed or are below concentrations in background sediments from Janes Ravine. The uncertainty about ecoCOPCs without TRVs is not considered a concern because the results for constituents with TRVs are thought to be representative of the risks to ecological receptors. Groundwater exposures were not evaluated in the DOD OU BRA because the water underlying the study areas is not used as a source of potable water, the aquifer is unable to sustain sufficient production to act as a potable water source, and an abundant water source is readily available in Lake Michigan.

The determination that no action is necessary for the protection of human health and the environment at the 23 study areas discusses in this Decision Document is warranted based on the information contained in the RI/BRA Report (SAIC 1999a) for the DOD OU and summarized in this Decision Document.

## 2.8 DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the 23 no action study areas at the Fort Sheridan DOD OU was released for public comment on November 12, 1999. The Proposed Plan recommended that no actions are necessary for the protection of human health and the environment at the 23 study areas. No written comments were submitted during the public comment period. One oral comment was received to clarify the protocol for assessing individual constituent risk in the risk assessment. A clarification was added into the Revised Final Proposed Plan (issued December 30, 1999). It was determined by the U.S. Department of the Army, USEPA, and IEPA that no significant changes to the no action recommendations, as originally identified in the Proposed Plan, were necessary or appropriate.

## Table 2-1. Exposure Pathways and Receptors for No Action Sites, Record of Decision, DOD OU, Fort Sheridan, Illinois

| | Current Land Use | | | Future Land Use | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Surface | | Surface | Surface Soil | | Subsurface Soil | | | Surface |
| Exposure Unit | Soil | Sediment | Water | Direct Contact | Produce | Direct Contact | Produce | Sediment | Water |
| Shenck Ravine Fill | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Vehicle and Equipment Storage #3/Building 377 Yard Area | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Vehicle and Equipment Storage #4 | MW, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Vehicle and Equipment Storage #5/Building 128 YardArea | MW, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Vehicle and Equipment Storage #6 | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Vehicle and Equipment Storage #7 | MW, Rec, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Former Ammunition Storage Buildings 384, 389, 390, and Former CAC Firing Point | MW, Int | NA | NA | Res, Rec, IW, CW | Res | NA | NA | NA | NA |
| Former Sewage Treatment Plant | MW, Rec, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Former Sewage Treatment Plant Sludge Beds | Rec | NA | NA | Rec, IW, CW | NA | Rec, IW, CW | NA | NA | NA |
| NIKE Missile Control and Fueling Area | Mw, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Buildings 137/139 Yard Area - Machine Shops | MW, Rec, Int | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Building 361 Yard Area - Former Photographic Shop | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Building 368 Yard Area - Auto Maintenance Shop | MW, Rec | MW, Rec | MW, Rec | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res, Rec, IW, CW |
| Building 379 Yard Area - Electronic Communications Repair Shop | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Buildings 564/565 Yard Area | MW, Rec | NA | NA | Res, Rec, IW, CW | Res | Res, Rec, IW, CW | Res | NA | NA |
| Boles Loop Drain | NA | Rec | Rec | NA | NA | NA | NA | Rec, IW, CW | Rec, IW, CW |

* At the landfills, construction workers were assumed to be exposed to the contents of the landfill material (solid media) and leachate (liquid media)

MW - maintenance worker

Rec - recreational

Int - intruder

Res - residential

IW - industrial worker

CW - construction worker

NA - not applicable

# Table 2-2. Reasonble Maximum Exposure Human Health Risks for DOD OU Study Areas (Current Land Use), No Action Sites Record of Decision, Fort Sheridan, Illinois

| Medium | Noncancer HI | | | Cancer Risk | | | Blood Lead Levels (ug/L) |
|---|---|---|---|---|---|---|---|
| | Maint. Worker | Recreational | Intruder | Maint. Worker | Recreational | Intruder | Maint. Worker |
| **Shenck Ravine Fill** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.003 | 0.07 | NA | 1E-07 | 1E-06 | NA | - |
| **Vehicle and Equipment Storage #3/ Building 377 Yard Area** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.002 | 0.02 | NA | 4E-07 | 4E-06 | NA | - |
| **Vehicle and Equipment Storage #4** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.01 | NA | 0.10 | 6E-07 | NA | 6E-06 | - |
| **Vehicle and Equipment Storage #5/ Building 128 Yard Area** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.005 | NA | 0.06 | 4E-07 | NA | 4E-06 | - |
| **Vehicle and Equipment Storage #6** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.004 | 0.09 | NA | 7E-08 | 7E-07 | NA | - |
| **Vehicle and Equipment Storage #7** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 2E-04 | 0.04 | 0.003 | 6E-07 | 6E-06 | 6E-06 | - |
| **Former Ammunition Storage Buildings 384, 389, and 390/Former CAC Firing Point** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.01 | NA | 0.1 | 2E-07 | NA | 1E-06 | - |
| **Former Sewage Treatment Plant** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.01 | NA | 0.10 | 2E-07 | NA | 1E-06 | - |
| **Former Sewage Treatment Plant Sludge Bed** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | NA | 0.001 | NA | NA | 3E-07 | NA | - |
| **NIKE Missile Control and Fueling Area** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.01 | NA | 0.3 | 1E-06 | NA | 1E-05 | - |
| **Buildings 137/139 Yard Area - Machine Shops** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.006 | 0.07 | 0.05 | 9E-07 | 2E-05 | 1E-05 | - |
| **Building 361 Yard Area - Former Photographic Shop** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.003 | 0.04 | NA | 3E-07 | 3E-06 | NA | - |
| **Building 368 Yard Area - Auto Maintenance Shop** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 2E-04 | 0.004 | NA | 2E-07 | 2E-06 | NA | 5 |
| Sediment | 0.004 | 0.09 | NA | 2E-07 | 3E-06 | NA | - |
| Surface Water | 0.001 | 0.006 | NA | 3E-08 | 6E-08 | NA | - |
| **Building 379 Yard Area - Electronic Communications Repair Shop** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.01 | 0.1 | NA | 1E-07 | 1E-06 | NA | - |
| **Buildings 564/565 Yard Area** | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.005 | 0.09 | NA | 5E-07 | 6E-06 | NA | - |
| **Boles Loop Drain** | | | | | | | |
| Sediment | NA | 0.007 | NA | NA | 6E-07 | NA | - |
| Surface Water | NA | 7E-06 | NA | NA | 0E+00 | NA | - |

0E+00 - pathway evaluated but no risks could be calculated due to lack of EPA-approved toxicity values

**Bolded values**: HI > 1, ELCR > $10^{-4}$, or blood lead levels in exposed population > 10 µg/dL

NA = Not Applicable

# Table 2-3. Reasonable Maximum Exposure Human Health Risks for DOD OU Study Areas (Future Land Use), No Action Sites Record of Decision, Fort Sheridan, Illinois

| Medium | Noncancer HI | | | | | | Cancer Risk | | | | Blood Lead Levels (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Residential | | Recreational | | Ind. | Const. | Residential | Recreational | Ind. | Const. | Ind. | Const. | Res. | Rec. |
| | Child | Adult | Child | Adult | Worker | Worker | | | Worker | Worker | Worker | Worker | Child | Child |
| **Sheack Ravine Fill** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.4 | 0.05 | 0.2 | 0.02 | 0.02 | 0.005 | 6E-06 | 3E-06 | 9E-07 | 4E-08 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 0.4 | 0.2 | NA | NA | NA | NA | 4E-05 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.5 | 0.07 | 0.2 | 0.03 | 0.04 | 0.009 | 4E-05 | 2E-05 | 7E-06 | 3E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 3E-04 | NA | NA | NA | - | - | - | - |
| **Vehicle and Equipment Storage #3/ Building 377 Yard Area** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.07 | 0.02 | 0.03 | 0.01 | 0.02 | 0.002 | 2E-05 | 1E-05 | 3E-06 | 1E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 0.6 | 0.4 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 1 | 0.2 | 0.6 | 0.08 | 0.08 | 0.02 | 2E-05 | 1E-05 | 3E-06 | 1E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 2 | 1 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| **Vehicle and Equipment Storage #4** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.4 | 0.1 | 0.2 | 0.06 | 0.09 | 0.02 | 3E-05 | 1E-05 | 4E-06 | 2E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 26 | 15 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.4 | 0.1 | 0.2 | 0.06 | 0.1 | 0.02 | 1E-05 | 5E-06 | 1E-06 | 6E-08 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 26 | 15 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| **Vehicle and Equipment Storage #5/ Building 128 Yard Area** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.02 | 0.005 | 0.01 | 0.002 | 0.003 | 0.001 | 2E-05 | 9E-06 | 3E-06 | 1E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 0.1 | 0.07 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.4 | 0.05 | 0.2 | 0.02 | 0.03 | 0.006 | 8E-06 | 4E-06 | 1E-06 | 5E-08 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 0.8 | 0.5 | NA | NA | NA | NA | 8E-05 | NA | NA | NA | - | - | - | - |
| **Vehicle and Equipment Storage #6** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.5 | 0.07 | 0.3 | 0.03 | 0.04 | 0.008 | 4E-06 | 2E-06 | 6E-07 | 3E-08 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 1 | 0.6 | NA | NA | NA | NA | 3E-05 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.7 | 0.09 | 0.4 | 0.04 | 0.05 | 0.02 | 2E-05 | 8E-06 | 3E-06 | 1E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 3 | 1 | NA | NA | NA | NA | 7E-05 | NA | NA | NA | - | - | - | - |
| **Vehicle and Equipment Storage #7** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.02 | 0.003 | 0.009 | 0.001 | 0.002 | 6E-04 | 3E-05 | 1E-05 | 4E-06 | 2E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 0.1 | 0.07 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.4 | 0.04 | 0.2 | 0.02 | 0.02 | 0.005 | 6E-05 | 3E-05 | 8E-06 | 4E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 0.6 | 0.3 | NA | NA | NA | NA | 4E-04 | NA | NA | NA | - | - | - | - |
| **Former Ammunition Storage Buildings 384, 389, and 390/Former CAC Firing Point** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 1 | 0.4 | 0.7 | 0.2 | 0.3 | 0.06 | 3E-05 | 1E-05 | 5E-06 | 2E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 14 | 8 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| **Former Sewage Treatment Plant** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 1 | 0.2 | 0.7 | 0.08 | 0.09 | 0.01 | 7E-06 | 3E-06 | 1E-06 | 4E-08 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 1 | 0.1 | 0.6 | 0.07 | 0.07 | 0.008 | 4E-06 | 2E-06 | 7E-07 | 3E-08 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |

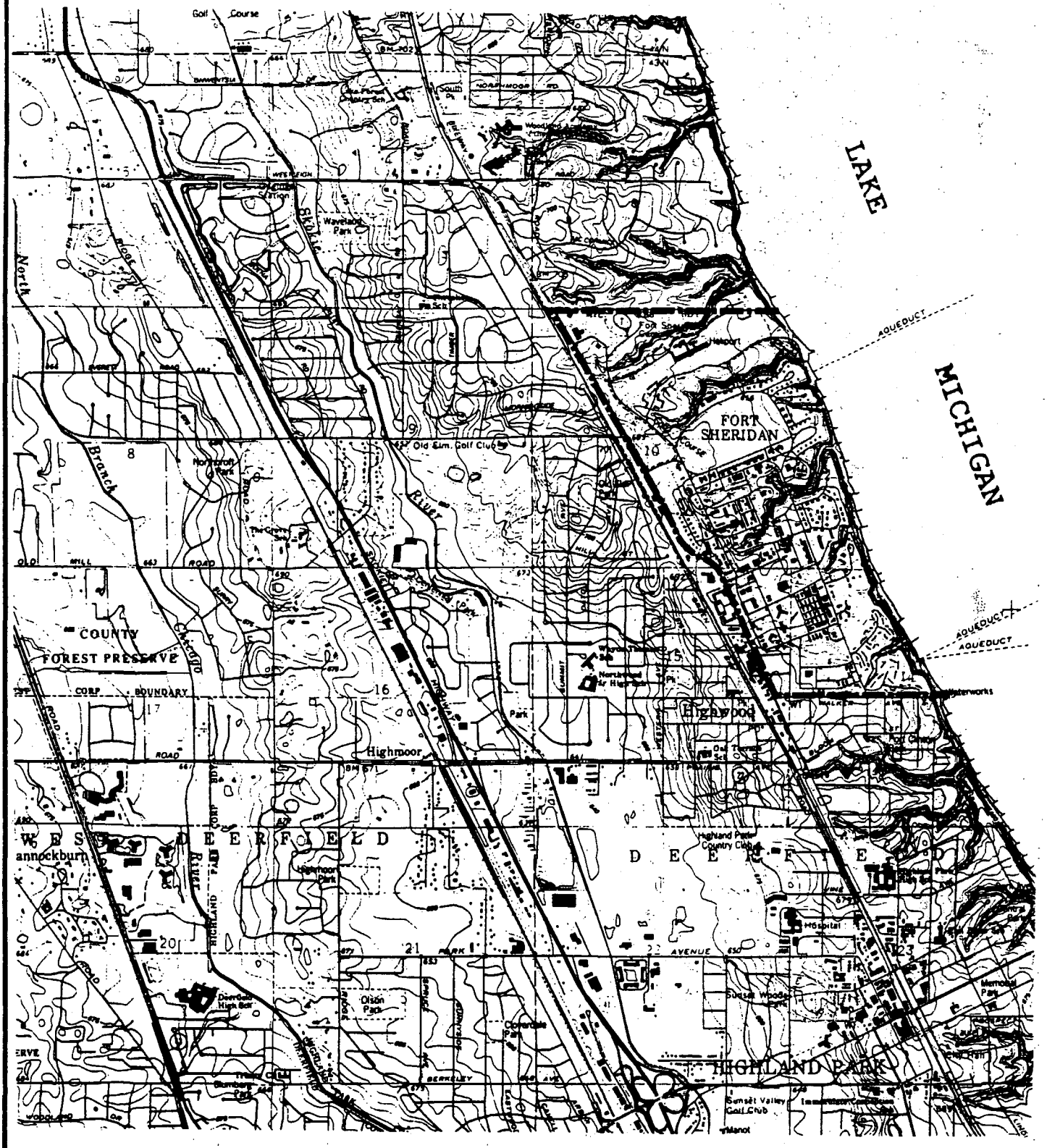
# Table 2-3. Reasonable Maximum Exposure Human Health Risks for DOD OU Study Areas (Future Land Use), No Action Sites Record of Decision, Fort Sheridan, Illinois (Continued)

| Medium | Noncancer HI | | | | | | Cancer Risk | | | | Blood Lead Levels (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Residential | | Recreational | | Ind. | Const. | Residential | Recreational | Ind. | Const. | Ind. | Const. | Res. | Rec. |
| | Child | Adult | Child | Adult | Worker | Worker | | | Worker | Worker | Worker | Worker | Child | Child |
| **Former Sewage Treatment Plant Sludge Beds** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | NA | NA | 0.004 | 5E-04 | 6E-04 | 4E-04 | NA | 6E-07 | 2E-07 | 8E-09 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | NA | NA | 0.006 | 8E-04 | 9E-04 | 7E-04 | NA | 8E-07 | 3E-07 | 1E-08 | - | - | - | - |
| **NIKE Missile Control and Fueling Area** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 1 | 0.2 | 0.7 | 0.08 | 0.08 | 0.06 | 5E-05 | 3E-05 | 9E-06 | 3E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 1.0 | 0.1 | 0.5 | 0.06 | 0.06 | 0.03 | 3E-05 | 1E-05 | 4E-06 | 2E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| **Buildings 137/139 Yard Area - Machine Shops** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.1 | 0.04 | 0.06 | 0.02 | 0.03 | 0.004 | 7E-05 | 4E-05 | 1E-05 | 5E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 2 | 1 | NA | NA | NA | NA | 4E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.5 | 0.07 | 0.2 | 0.04 | 0.04 | 0.02 | 9E-05 | 4E-05 | 1E-05 | 6E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 2 | 1 | NA | NA | NA | NA | 4E-04 | NA | NA | NA | - | - | - | - |
| **Building 361 Yard Area - Former Photographic Shop** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.3 | 0.05 | 0.2 | 0.02 | 0.03 | 0.005 | 1E-05 | 6E-06 | 2E-06 | 8E-08 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 8E-05 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.4 | 0.05 | 0.2 | 0.02 | 0.03 | 0.007 | 7E-06 | 3E-06 | 1E-06 | 4E-08 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 2 | 0.9 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| **Building 368 Yard Area - Auto Maintenance Shop** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.06 | 0.02 | 0.03 | 0.01 | 0.02 | 0.002 | 2E-05 | 8E-06 | 2E-06 | 1E-07 | 5 | 5 | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 0.7 | 0.4 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.6 | 0.07 | 0.3 | 0.04 | 0.04 | 0.02 | 2E-05 | 1E-05 | 3E-06 | 1E-07 | 5 | 5 | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 2 | 1 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Sediment | 0.2 | 0.04 | 0.2 | 0.04 | 0.008 | 0.02 | 8E-06 | 8E-06 | 3E-07 | 1E-07 | - | - | - | - |
| Surface Water | 0.07 | 0.04 | 0.07 | 0.04 | 0.002 | 0.008 | 1E-06 | 1E-06 | 6E-08 | 8E-09 | - | - | - | - |
| **Building 379 Yard Area - Electronic Communications Repair Shop** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.2 | 0.06 | 0.09 | 0.03 | 0.05 | 0.007 | 2E-05 | 8E-06 | 2E-06 | 1E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 8E-05 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.6 | 0.09 | 0.3 | 0.04 | 0.06 | 0.01 | 5E-05 | 2E-05 | 7E-06 | 3E-07 | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 6 | 3 | NA | NA | NA | NA | 3E-04 | NA | NA | NA | - | - | - | - |
| **Buildings 564/565 Yard Area** | | | | | | | | | | | | | | |
| Surface Soil (0 to <0.5 ft BLS) Direct Contact | 0.5 | 0.06 | 0.2 | 0.03 | 0.04 | 0.01 | 2E-05 | 1E-05 | 3E-06 | 2E-07 | - | - | - | - |
| Surface Soil (0 to <0.5 ft BLS) Produce Ingestion | 3 | 2 | NA | NA | NA | NA | 2E-04 | NA | NA | NA | - | - | - | - |
| Subsurface Soil (0 to 10 ft BLS) Direct Contact | 0.5 | 0.06 | 0.2 | 0.03 | 0.04 | 0.009 | 1E-05 | 7E-06 | 2E-06 | 9E-08 | 5 | 5 | 7 | 9 |
| Subsurface Soil (0 to 10 ft BLS) Produce Ingestion | 2 | 1 | NA | NA | NA | NA | 1E-04 | NA | NA | NA | - | - | - | - |
| **Boles Loop Drain** | | | | | | | | | | | | | | |
| Sediment | NA | NA | 0.01 | 0.004 | 9E-04 | 0.002 | NA | 1E-06 | 7E-08 | 2E-08 | - | - | - | - |
| Surface Water | NA | NA | 8E-05 | 4E-05 | 3E-06 | 1E-05 | NA | 0E+00 | 0E+00 | 0E+00 | - | - | - | - |

0E+00 - pathway evaluated but no risks could be calculated due to lack of EPA-approved toxicity values

**Bolded values**: HI > 1, ELCR > $10^{-4}$, or blood lead levels in exposed population > 10 µg/dL

NA = Not Applicable




1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

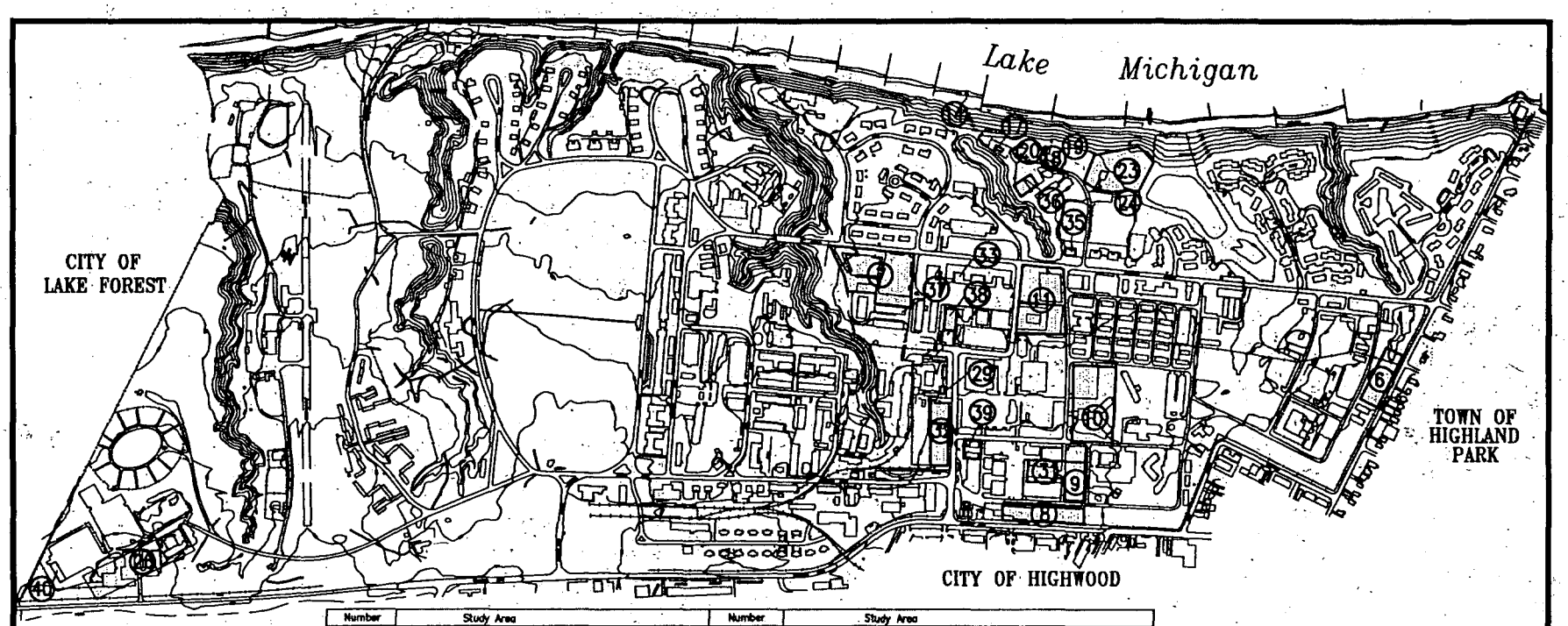
N

Base map from U.S. Geological Survey Highland Park, Illinois Quadrangle 1993.

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# SITE LOCATION MAP
## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-1 | 01-0827-07-3852-080 | FTSH\DWGS\SITE-MAP | Jan., 1998 |




| Number | Study Area | Number | Study Area |
|---|---|---|---|
| 6 | Shenck Ravine Fill | 24 | Former Incinerator |
| 7 | Vehicle & Equipment Storage Area #3 | 26 | Former NIKE Missile Site & Fueling Area |
| 8 | Vehicle & Equipment Storage Area #4 | 31 | Building 128 Yard Area |
| 9 | Vehicle & Equipment Storage Area #5 | 32 | Buildings 137/139 Yard Area – Machine Shops |
| 10 | Vehicle & Equipment Storage Area #6 | 33 | Buildings 142 Administration |
| 11 | Vehicle & Equipment Storage Area #7 | 35 | Building 361 Yard Area – Photographic Shop |
| 14 | Boles Loop Drain | 36 | Building 368 Yard Area – Auto Maintenance Shop |
| 17 | Former Ammunition Storage Bldg 384 | 37 | Building 377 Yard Area |
| 18 | Former Ammunition Storage Bldg 389 | 38 | Building 379 – Electric Communications Repair Shop |
| 19 | Former Ammunition Storage Bldg 390 | 39 | Building 564/565 Yard Area |
| 20 | Former CAC Firing Point | 40 | Building 902 Yard Area – Maintenance Shop |
| 23 | Former Sewage Treatment Plant | | |

LEGEND:

- BUILDINGS
- PRIMARY ROADS
- SECONDARY ROADS
- RAILROAD TRACK
- 610 TOPOGRAPHIC CONTOUR (CI=10 ft.)
- STREAM & TRIBUTARY
- FENCE LINE
- STUDY AREA BOUNDARY
- (12) STUDY AREA

0 600 1200

SCALE: 1" = 1200'

U.S. ARMYCORPS OF ENGINEERS
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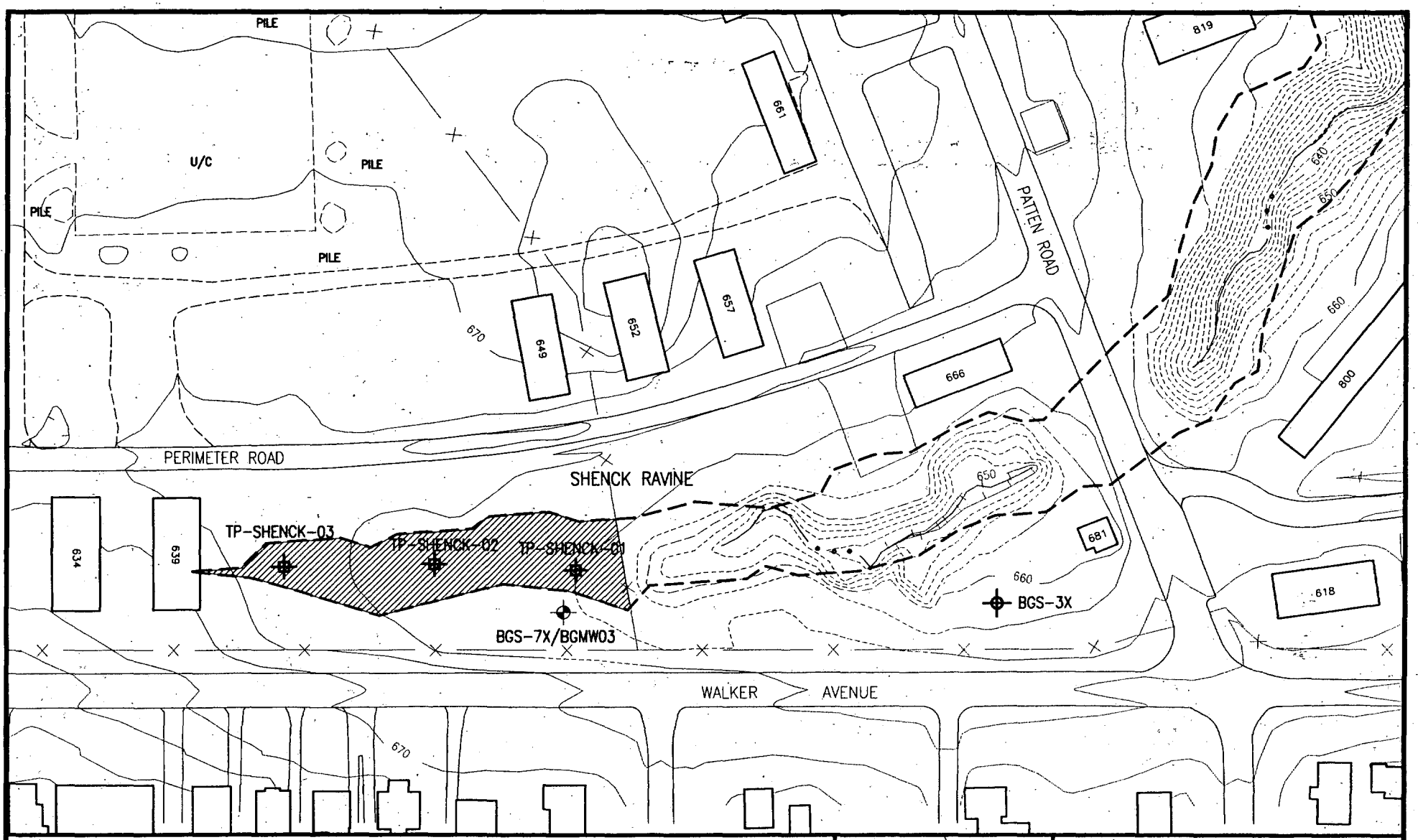
LOUISVILLE, KENTUCKY

# STUDY AREAS LOCATION MAP
# NO-ACTION ROD
# DOD OPERABLE UNIT
# FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-2 | 01-0827-07-3652-130 | FTSH_ROD\SALMA | Jan. 2000 |



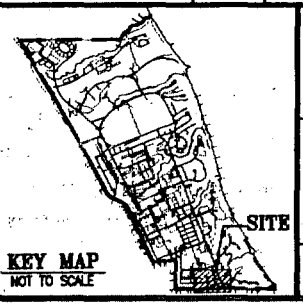

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- SECOUNDARY ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- FILLED RAVINE AREA
- SHENCK RAVINE BOUNDARY (circa 1900)
- SOIL BORING
- MONITORING WELL
- TEST PIT

N

0 60 120

SCALE: 1" = 120'

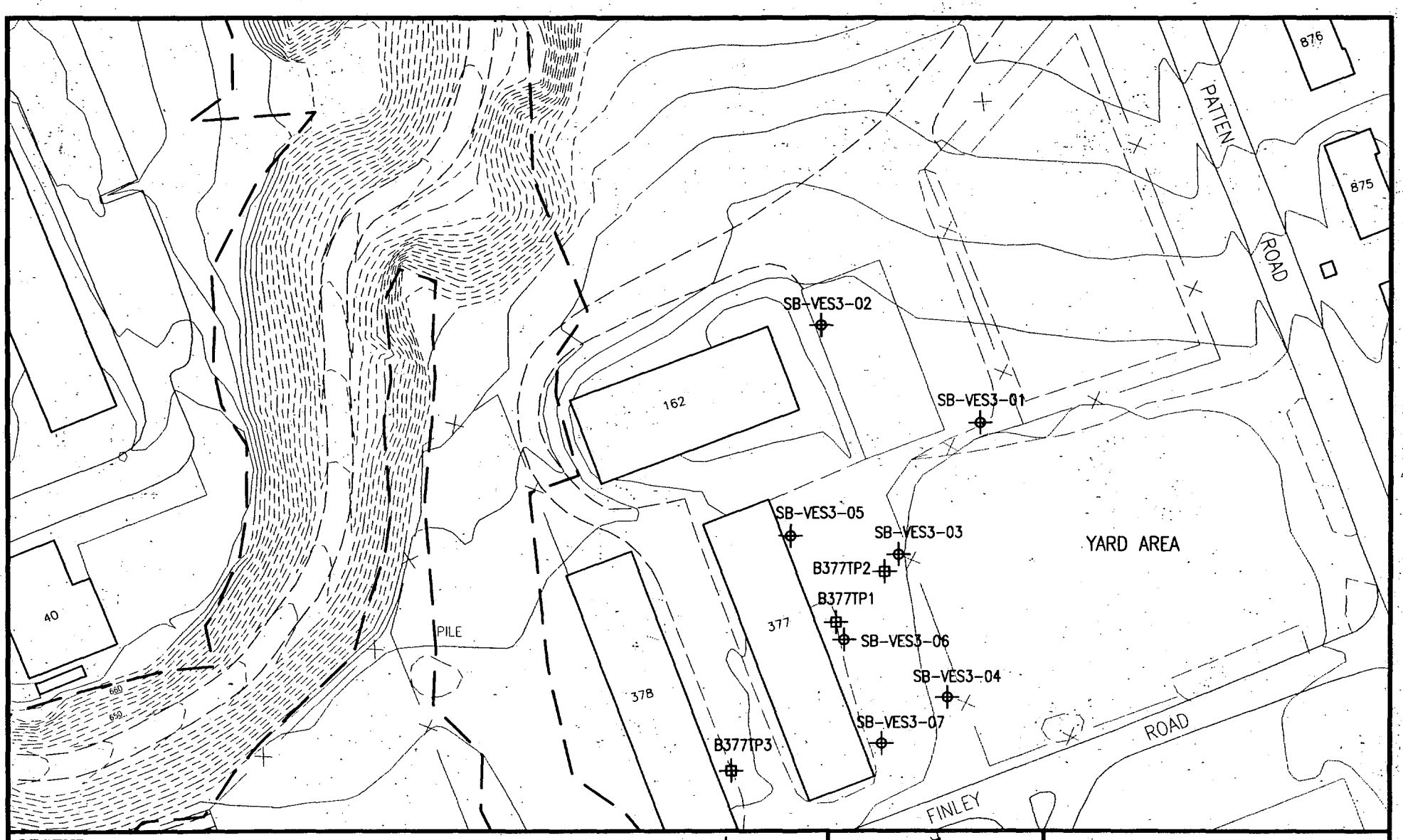



KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# SHENCK RAVINE FILL SAMPLE LOCATION MAP
## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No | File Name | Date |
|---|---|---|---|
| 2-3 | 01-0827-07-3652-130 | FTSH_ROD\SHENKRAV-A | Jan. 2000 |




**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORING
- TEST PIT
- FORMER BARTLETT RAVINE

N

0 50 100

SCALE: 1" = 100'

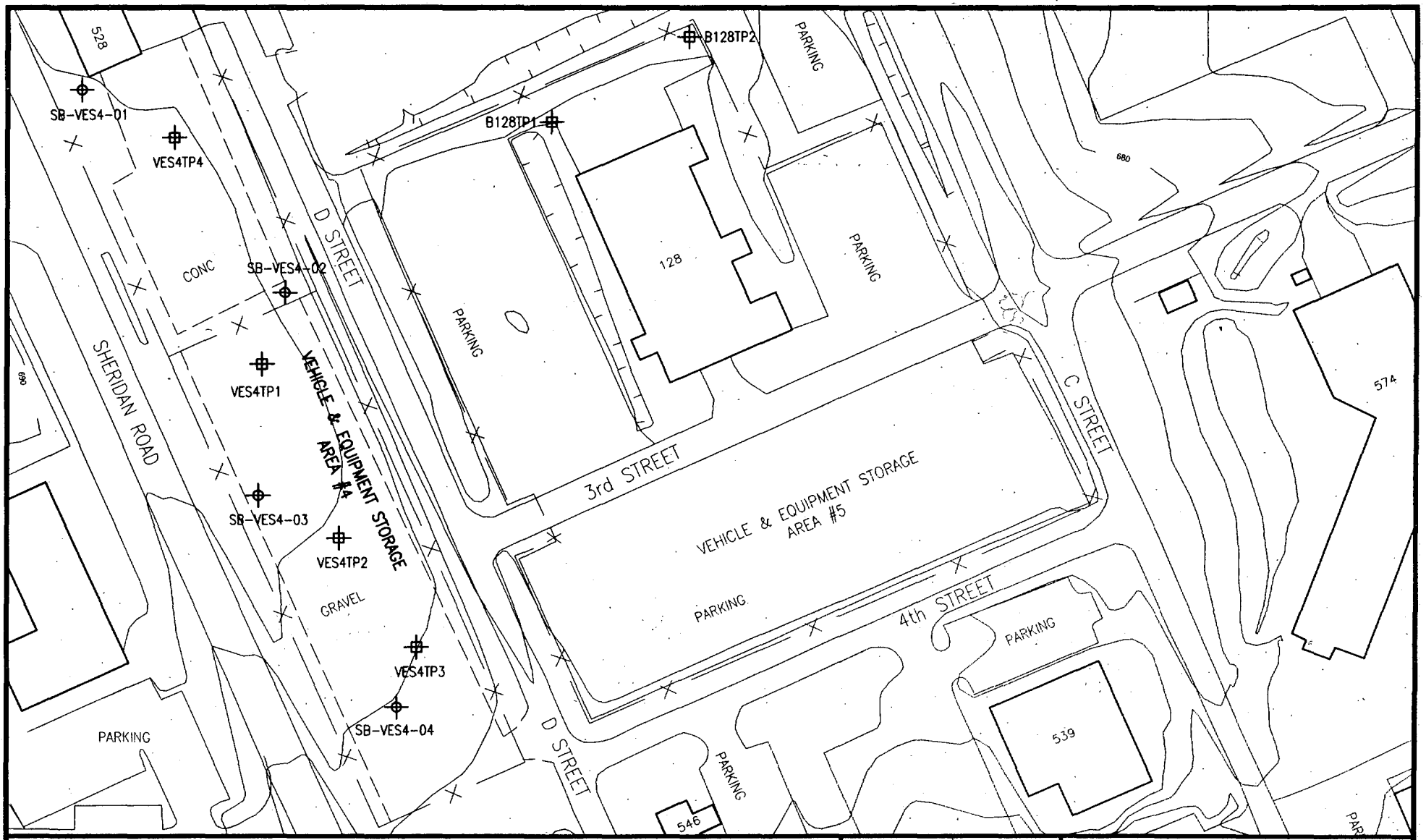
SITE

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# VEHICLE EQUIPMENT STORAGE AREA #3/BUILDING 377 YARD AREA SAMPLE LOCATION MAP
## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| [illegible]-4 | [illegible]07-36[illegible] | [illegible]FTSH_R[illegible]-A | J[illegible] |



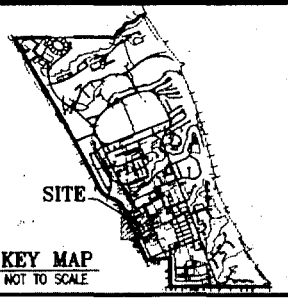

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORING
- TEST PIT

N

0 50 100

SCALE: 1" = 100'




KEY MAP
NOT TO SCALE

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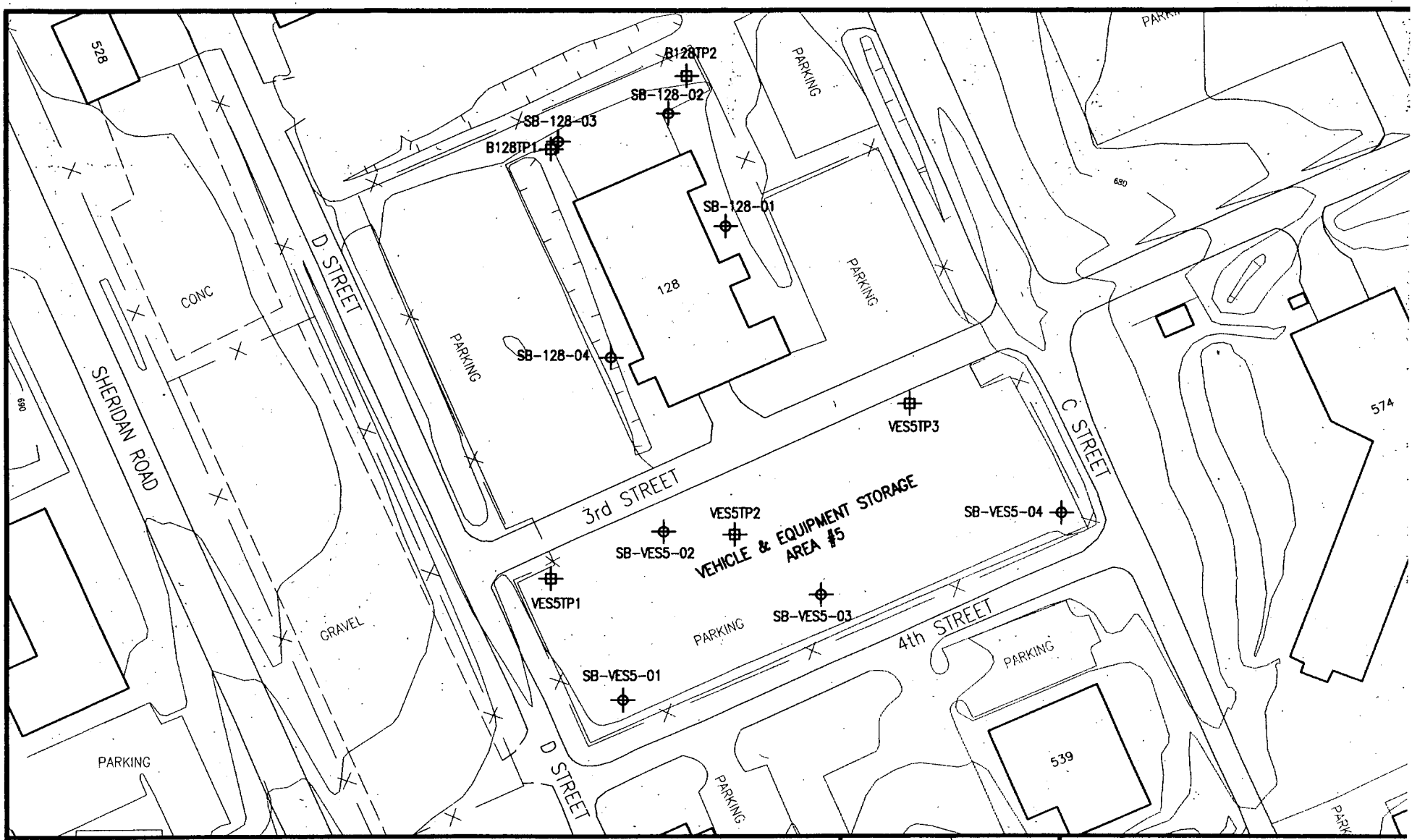
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# VEHICLE EQUIPMENT STORAGE AREA #4 SAMPLE LOCATION MAP FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-5 | 01-0827-07-3652-130 | FTSH_RAV\VES4-A | Jan. 2000 |



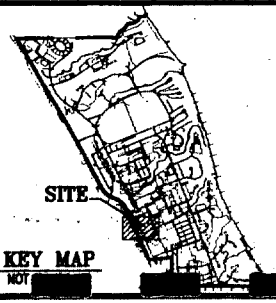

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORING
- TEST PIT

N

0 50 100

SCALE 1" = 100'




KEY MAP
NOT

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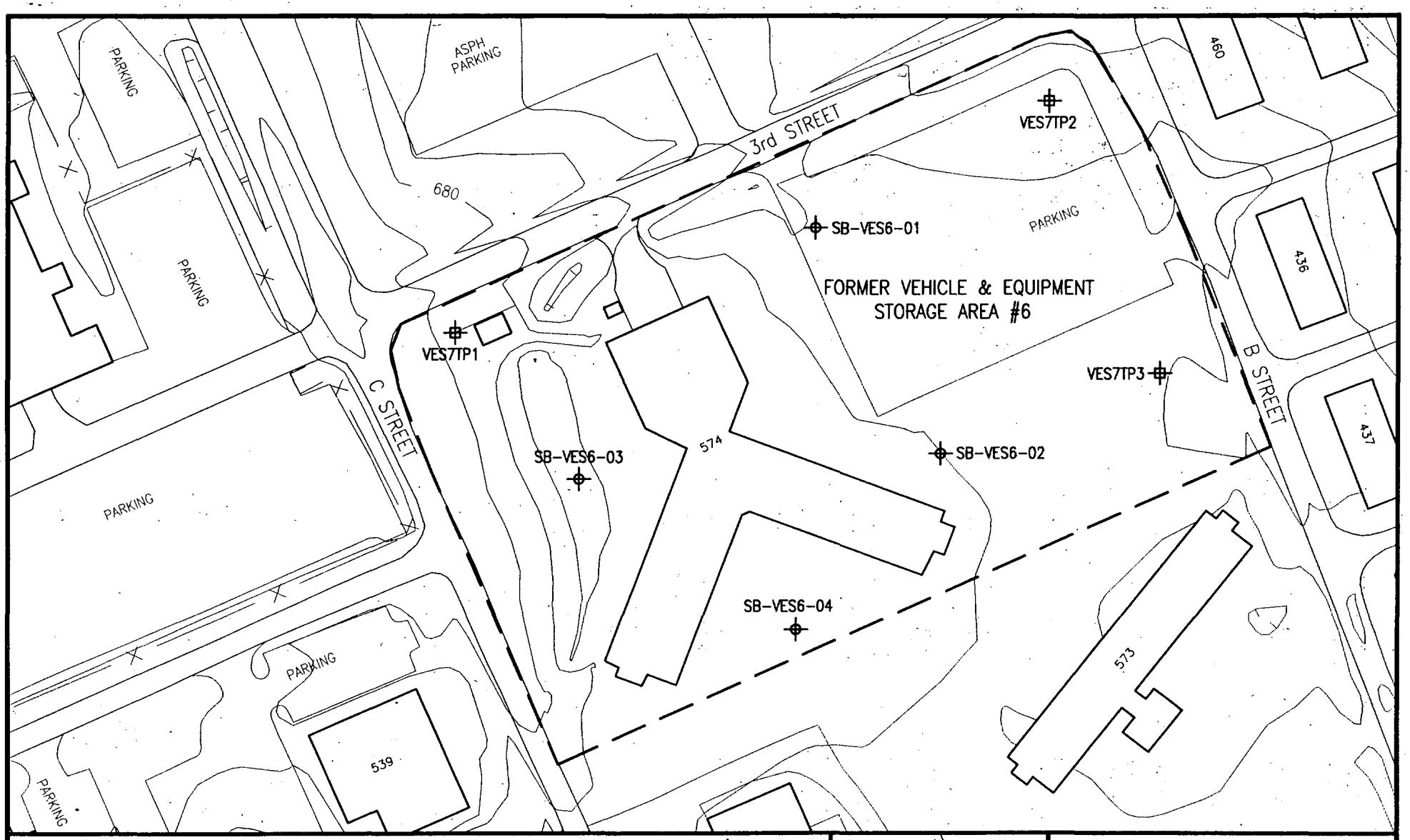
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 128 YARD AREA & VEHICLE EQUIPMENT STORAGE AREA #5 SAMPLE LOCATION MAP
## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-6 | [redacted]-07-36 | [redacted]FTSH_RI[redacted]128-8 | [redacted]000 |



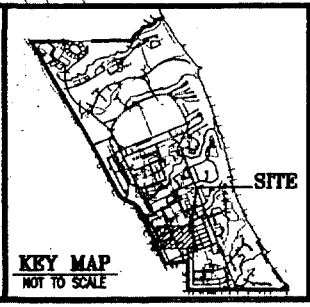

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- FORMER VES AREA BOUNDARY
- SOIL BORING

N

0 50 100

SCALE: 1" = 100'

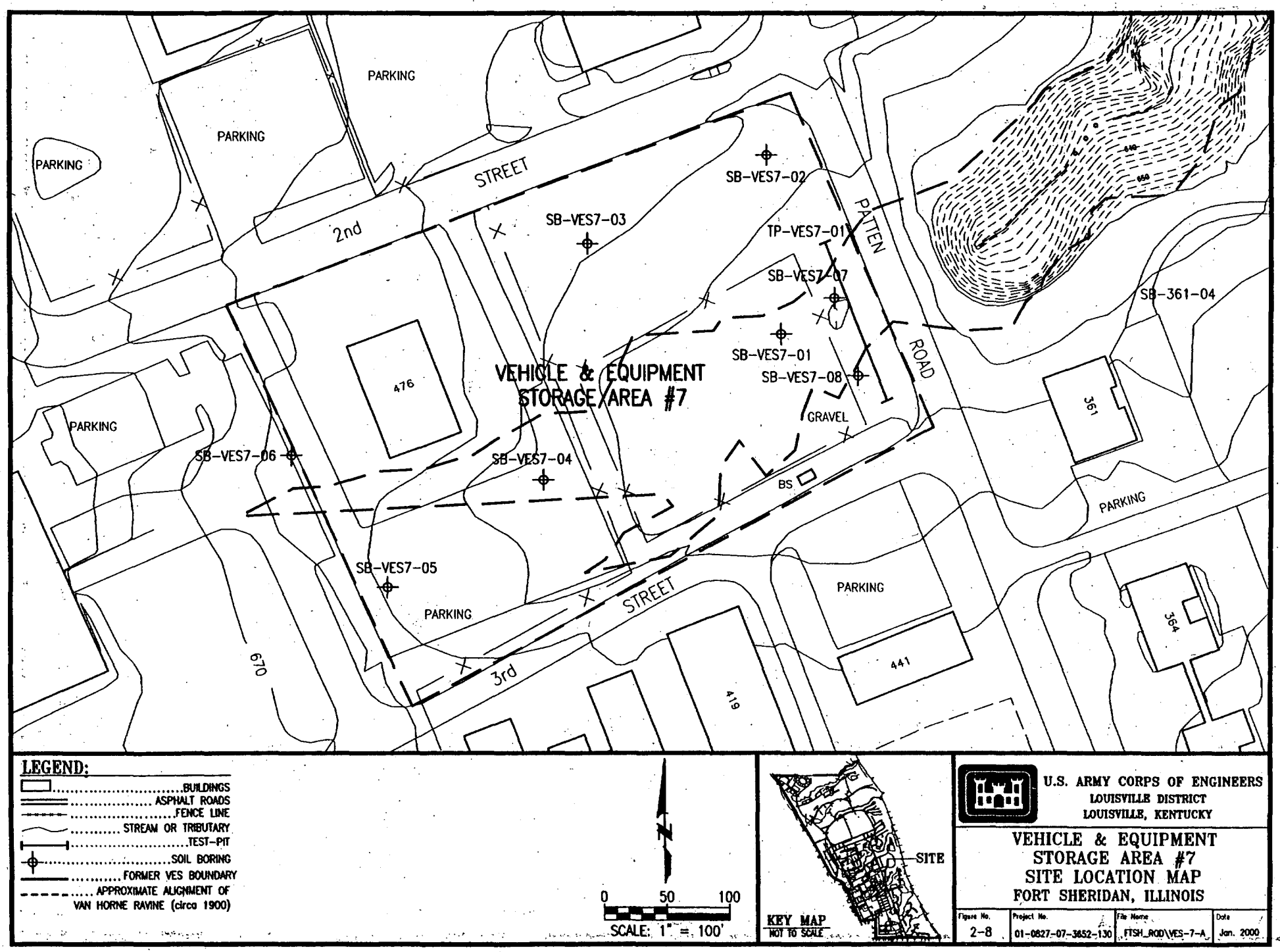


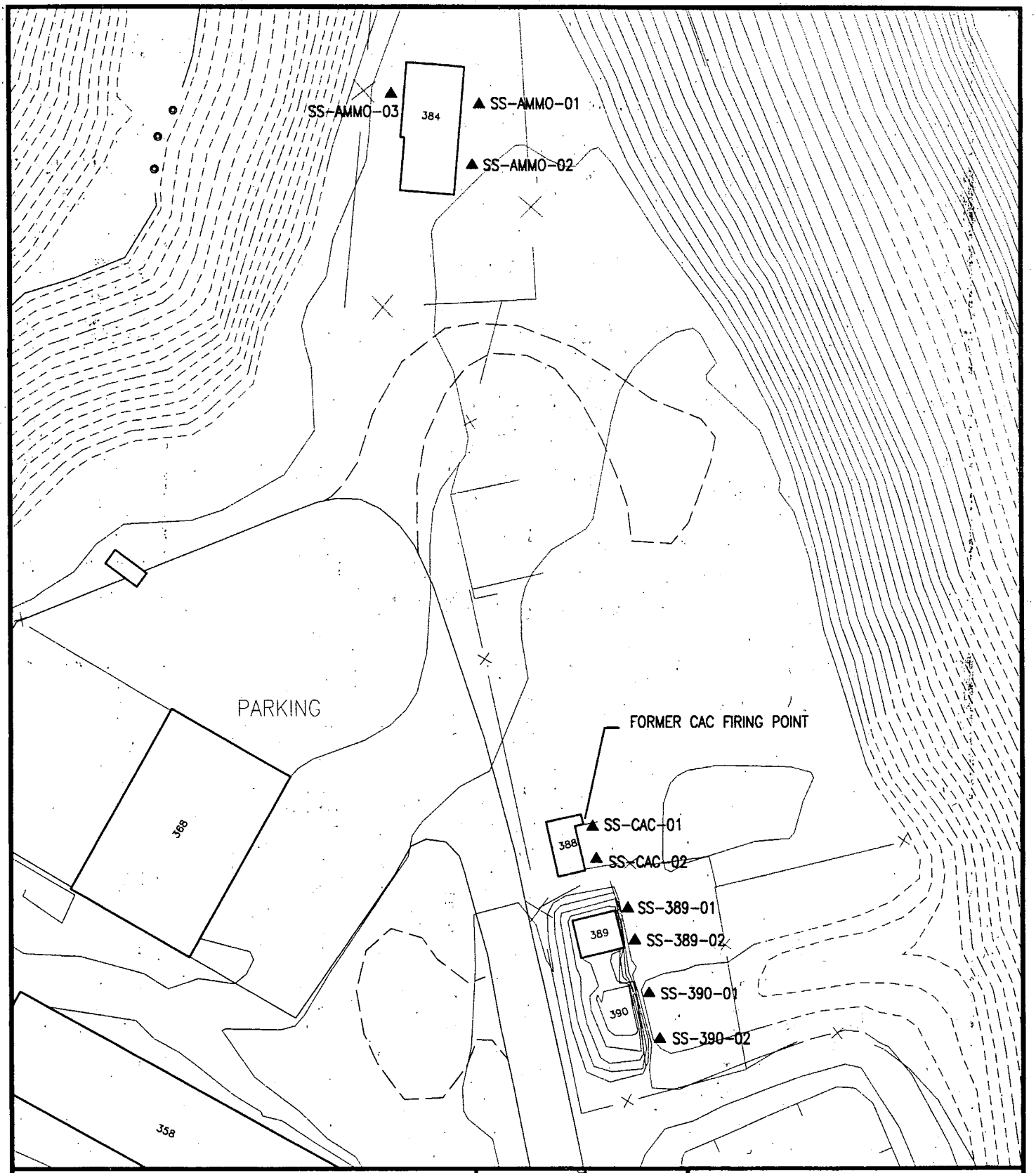

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# FORMER VEHICLE & EQUIPMENT STORAGE AREA #6 SAMPLE LOCATION MAP FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-7 | 01-0827-07-3652-130 | FTSH_ROD\STOR-68 | April 2000 |


PARKING
PARKING
PARKING
STREET
2nd
SB-VES7-02
SB-VES7-03
TP-VES7-01
PATTEN
ROAD
SB-VES7-07
SB-361-04
VEHICLE & EQUIPMENT
STORAGE AREA #7
476
SB-VES7-01
SB-VES7-08
GRAVEL
361
PARKING
SB-VES7-06
SB-VES7-04
BS
PARKING
SB-VES7-05
PARKING
STREET
PARKING
364
670
3rd
441
419
LEGEND:
BUILDINGS
ASPHALT ROADS
FENCE LINE
STREAM OR TRIBUTARY
TEST-PIT
SOIL BORING
FORMER VES BOUNDARY
APPROXIMATE ALIGNMENT OF VAN HORNE RAVINE (circa 1900)
N
0
50
100
SCALE: 1" = 100'
SITE
KEY MAP
NOT TO SCALE
U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY
VEHICLE & EQUIPMENT
STORAGE AREA #7
SITE LOCATION MAP
FORT SHERIDAN, ILLINOIS
Figure No. 2-8
Project No. 01-0827-07-3652-130
File Name FTSH_ROD\VES-7-A
Date Jan. 2000



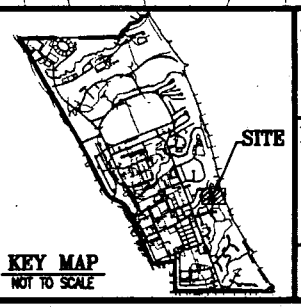

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- SECONDARY ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- ▲ SURFACE SOIL

N

0 30 60

SCALE: 1" = 60'



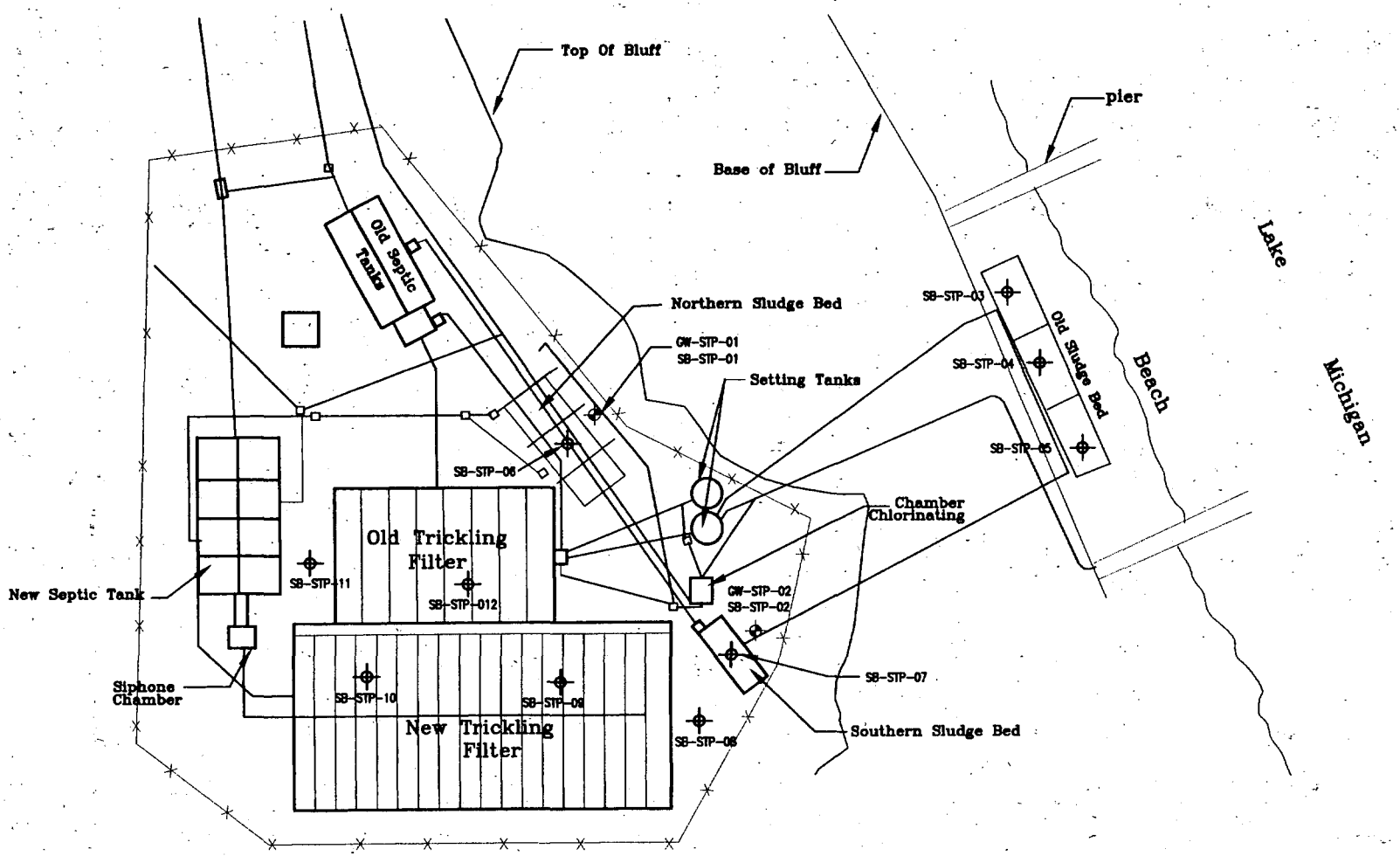

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# FORMER AMMUNITION STORAGE BUILDING 384, 389, 390, AND FORMER CAC FIRING POINT SAMPLE LOCATION MAP

FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-9 | 01-0827-07-3652-130 | FTSH_ROD\AMMUSTOR-A | April 2000 |

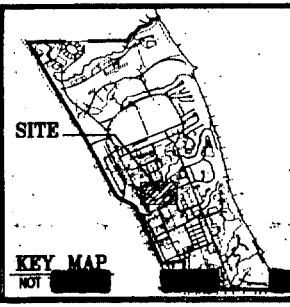



**LEGEND:**

- BUILDINGS
- FENCE LINE
- SOIL BORING
- MONITORING WELL

0 50 100

SCALE: 1" = 100'



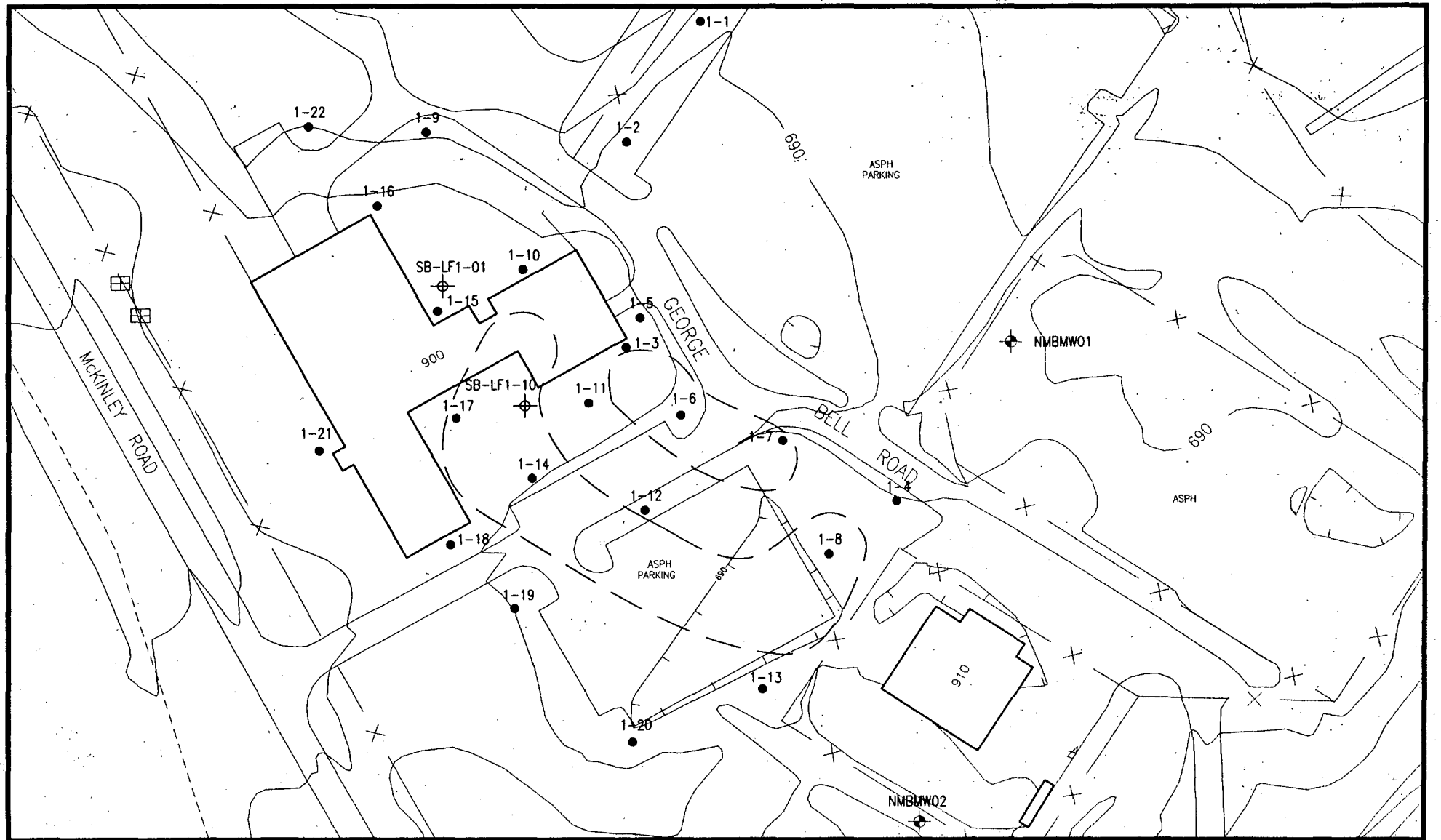

KEY MAP

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# FORMER SEWAGE TREATMENT PLANT/SLUDGE BEDS SAMPLE LOCATION MAP

FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| [redacted]-10 | [redacted]7-07-3[redacted] | FTSH[redacted]AGE-A | [redacted]0 |



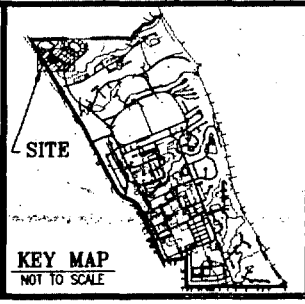

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORING
- MONITORING WELL/PIEZOMETER
- SOIL GAS

N

0 50 100

SCALE: 1" = 100'



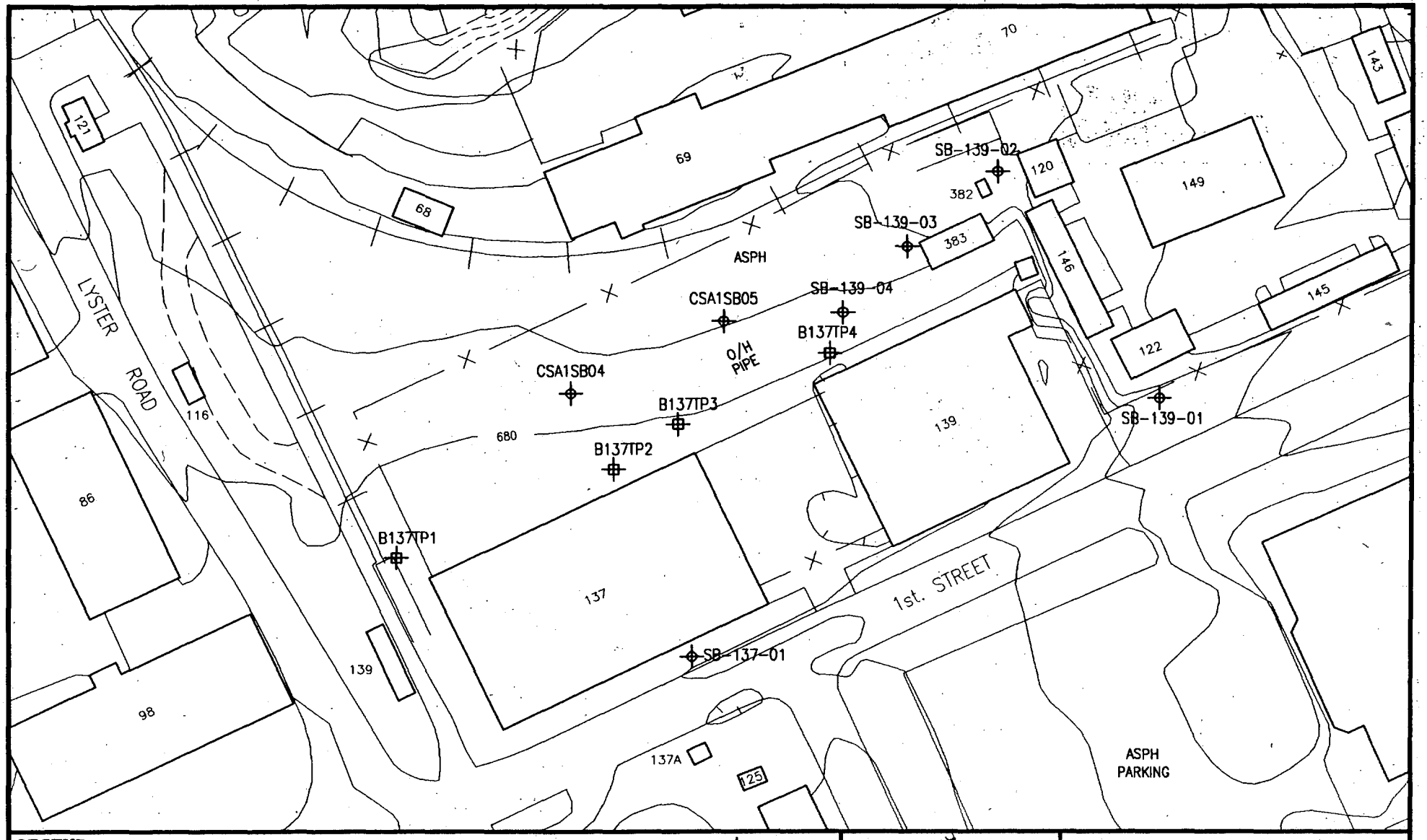

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# NIKE FUELING AREA SAMPLE LOCATION MAP

FORT SHERIDAN, ILLINOIS

| Figure No. | Project No | File Name | Date |
|---|---|---|---|
| 2-11 | 01-0827-07-3652-130 | FTSH_ROD\NIKE-FUEL | Jan. 2000 |




**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- SECONDARY ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- TEST PIT
- SOIL BORING

0 50 100

SCALE: 100'

SITE

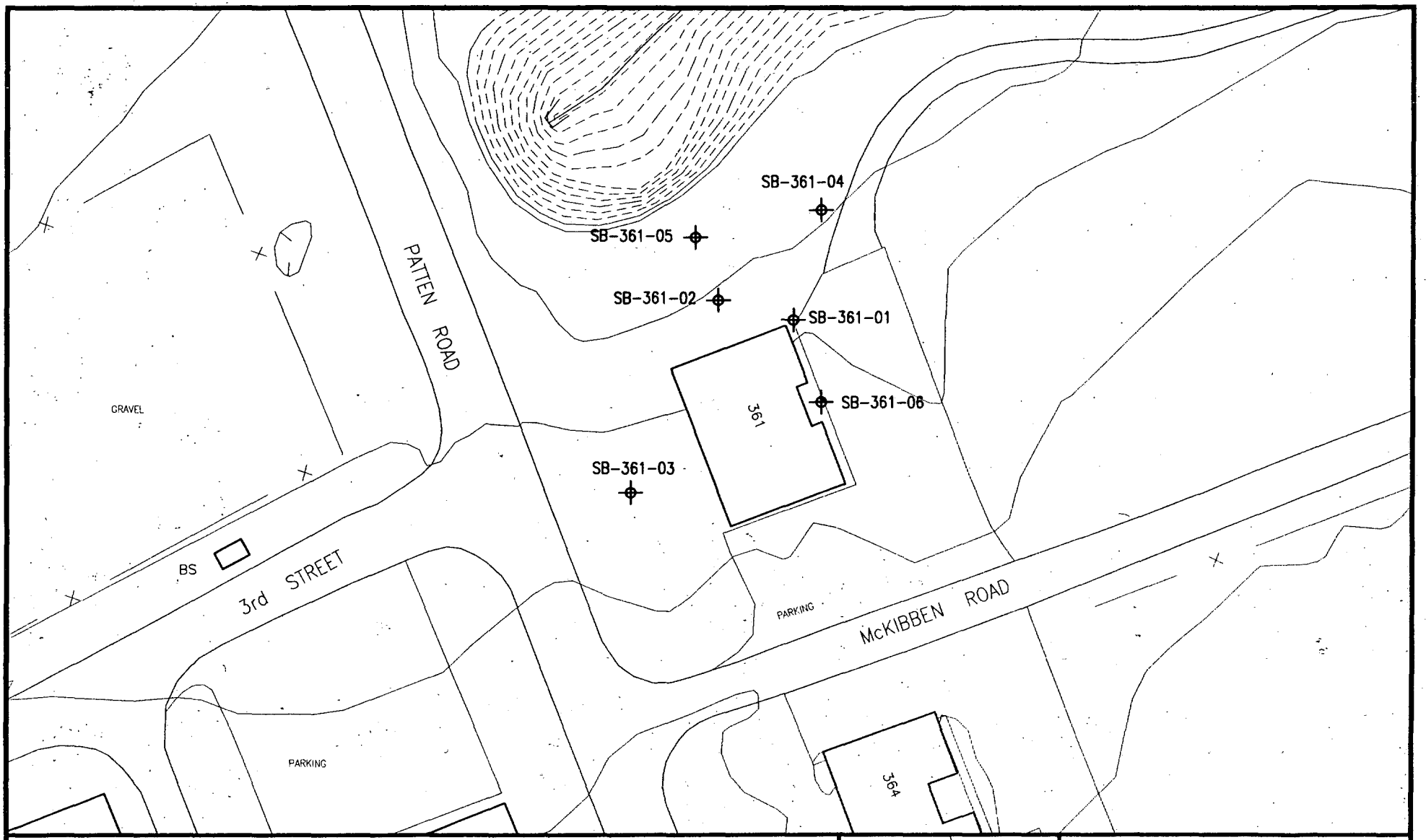
KEY MAP

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 137/139 YARD AREA MACHINE SHOPS SAMPLE LOCATION MAP

FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-12 | [redacted]07-3852 | [redacted]SH_ROD'[redacted]-139-A | [redacted] |



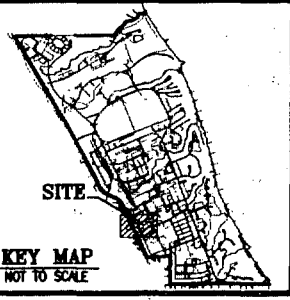

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORING

N

0 30 60

SCALE: 1" = 60'



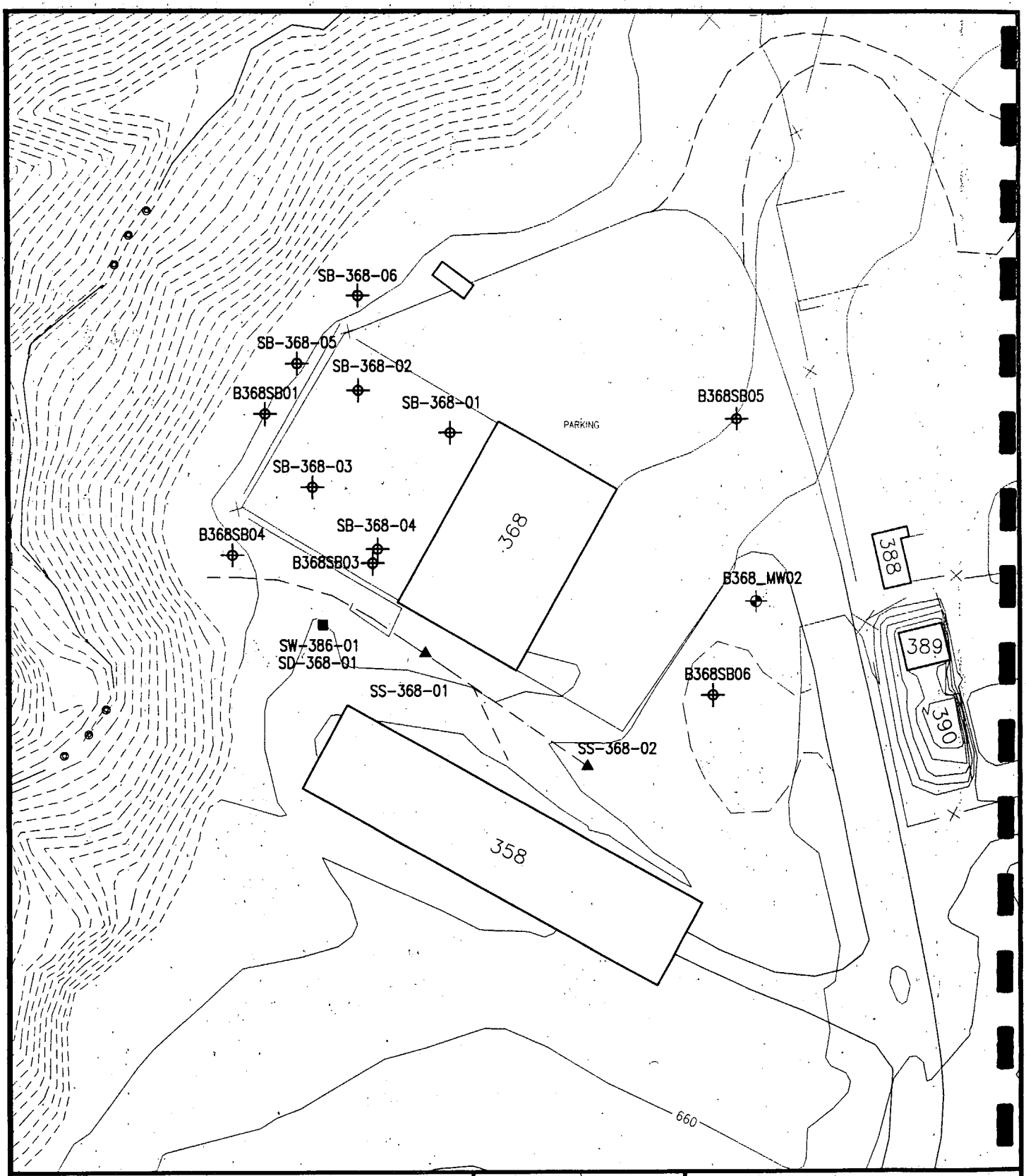

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 361 YARD AREA FORMER PHOTOGRAPHIC SHOP SAMPLE LOCATION MAP

## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-13 | 01-0827-07-3652-130 | FTSH_ROD\BLDG-361-A | April 2000 |



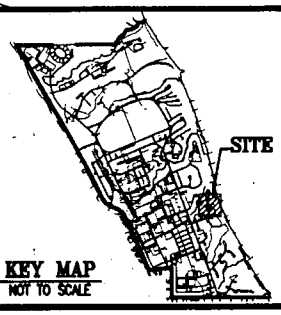

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- SECONDARY ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- MONITORING WELL
- SOIL BORING
- SURFACE SOIL
- SEDIMENT

N

0 30 60

SCALE: 1" = 60'



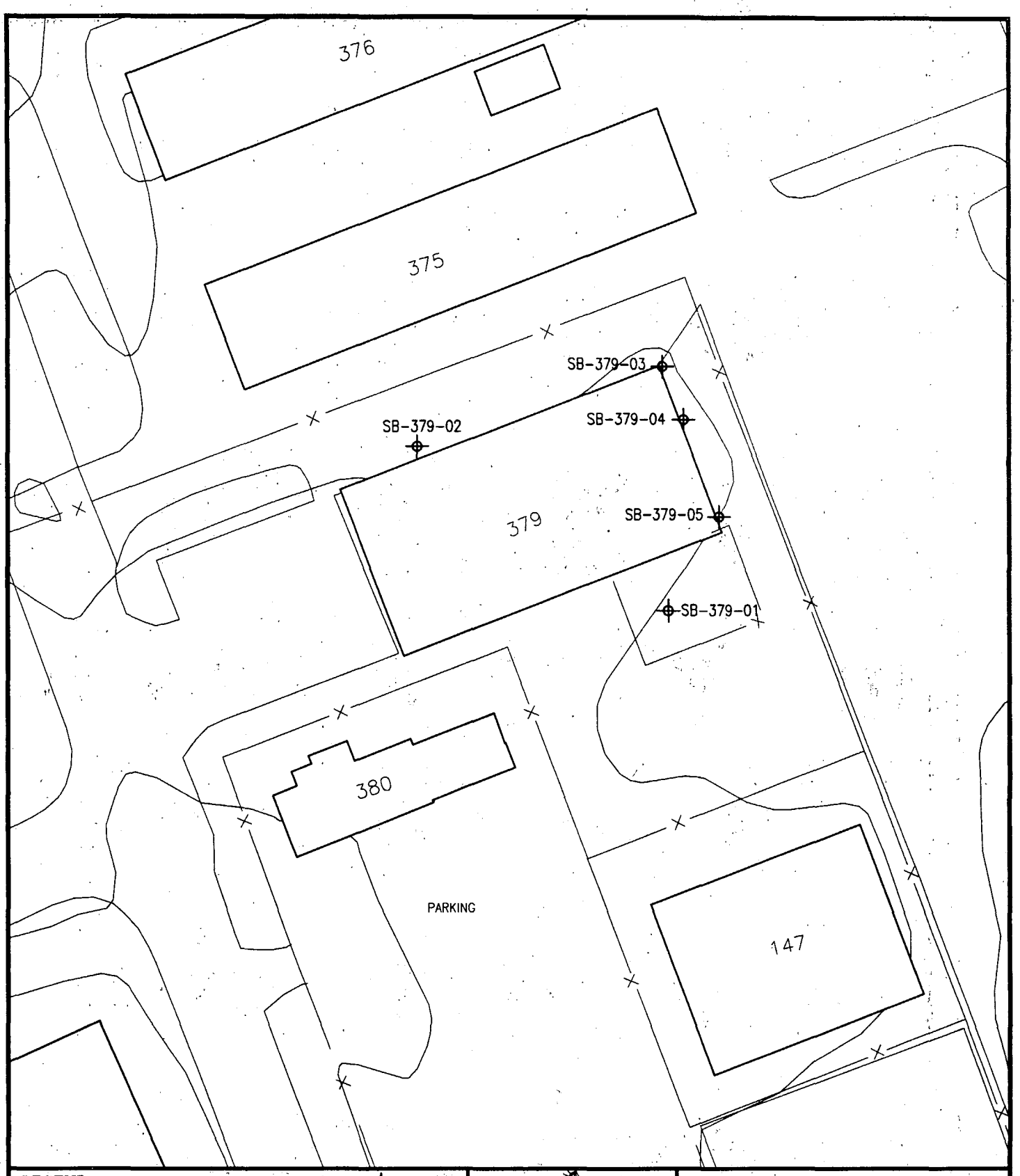

KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 368 YARD AREA AUTO MAINTENANCE SHOP SAMPLE LOCATION MAP

## FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-14 | 01-0827-07-3852-130 | FTSH_R00\BLDG-368-A | April |



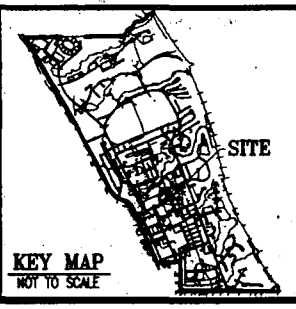

**LEGEND:**

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORINGS

N

0 30 60

SCALE: 1" = 60'

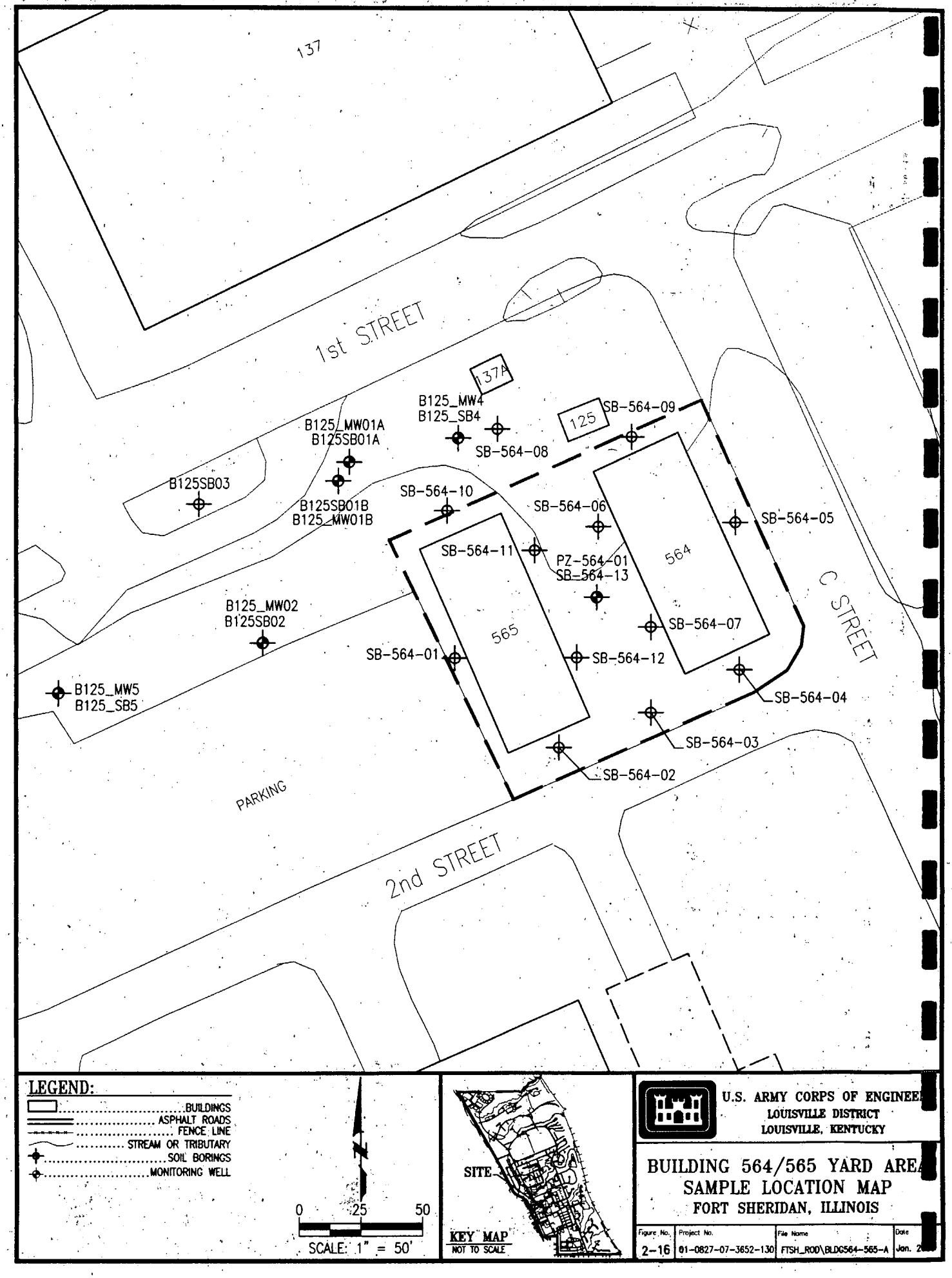



KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 379 YARD AREA ELECTRONIC COMMUNICATIONS REPAIR SHOP SAMPLE LOCATION MAP FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-15 | 01-0827-07-3852-130 | FTSH_ROD\BLDG-379-A | April 2000 |




LEGEND:

- BUILDINGS
- ASPHALT ROADS
- FENCE LINE
- STREAM OR TRIBUTARY
- SOIL BORINGS
- MONITORING WELL

N

0 25 50

SCALE: 1" = 50'




KEY MAP
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
LOUISVILLE, KENTUCKY

# BUILDING 564/565 YARD AREA SAMPLE LOCATION MAP

FORT SHERIDAN, ILLINOIS

| Figure No. | Project No. | File Name | Date |
|---|---|---|---|
| 2-16 | 61-0827-07-3652-130 | FTSH_ROD\BLDG564-565-A | Jan. 2 |

# 3. RESPONSIVENESS SUMMARY

The one oral comment received during the public comment period requested clarification on how the individual constituent risks are considered in calculating total risk at a study area. A statement was added to the Revised Final Proposed Plan and has been added to this Decision Document, which explains that cancer risk and noncancer hazard indices (HIs) are calculated for each constituent of potential concern (COPC). These individual cancer risks and noncancer HIs then are summed across all exposure pathways and media to estimate cumulative site risk.

In addition, although the Illinois Environmental Protection Agency (IEPA) and U.S. Environmental Protection Agency (USEPA) concurred with the no action recommendations for the 23 study areas at the U.S. Department of Defense (DOD) Operable Unit (OU), IEPA noted that the current owners of the DOD OU study areas (i.e., the U.S. Navy and the U.S. Army Reserve) have an obligation, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h)(3), to notify any subsequent owners that these study areas have had releases of hazardous substances and that no actions were taken to address the releases (IEPA 1999). In response, the respective property owners are aware of the CERCLA Section 120(h)(3) requirements and, although mission-related constituents were detected in soil at these study areas, the concentrations of these constituents do not and will not cause unacceptable human or environmental risks; therefore, no action is required.

No other stakeholder and lead agency issues nor technical and legal issues were submitted on the Proposed Plan during the public comment period.

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# 4. REFERENCES

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Bailey, R.C., K.E. Day, R.H. Norris, and T.B. Reynoldson. 1995. "Macroinvertebrate community structure and sediment bioassay results from nearshore areas of North American Great Lakes." *J. Great Lakes Res.* 21(1):42-52.

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ESE. 1992a. *Draft Final Remedial Investigation (RI)/Risk Assessment (RA) Report, Remedial Investigation/Feasibility Study, Fort Sheridan, Illinois*. Prepared for the U.S. Army Toxic and Hazardous Materials Agency, Base Closure Division, Aberdeen Proving Ground. June.

ESE. 1992b. *Report of Findings for Polychlorinated Biphenyls (PCB) Transformer Sampling Conducted at Fort Sheridan, Illinois*, Prepared for the U.S. Army Toxic and Hazardous Materials Agency under contract DAAA15-90-D-0017/0002. June 11.

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ESE. 1997a. *Final Background Sampling and Data Evaluation Report, Fort Sheridan, Illinois*. Prepared for the U.S. Army Environmental Center. May 21.

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ETC (Earth Technology Corporation). 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Sheridan, Lake County, Illinois*. Prepared for the U.S. Army Environmental Center, Aberdeen Proving Ground, Maryland. April.

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Melichar, P. 1996. *Solving the Puzzles of St. Johns (Parts 1-5).* Published in The Tower, vol. III, nos. 1, 2, 4. Fort Sheridan Historic Preservation Society, Highland Park, Illinois.

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SAIC (Science Applications International Corporation). 1999a. *Final Remedial Investigation/Baseline Risk Assessment, DOD Operable Unit, Fort Sheridan, Illinois.* Report submitted to the U.S. Army Corps of Engineers. July.

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# APPENDIX A

# DOD OU ADMINISTRATIVE RECORD INDEX

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# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 1.001.1 | Sanitary Landfill Closure, Fort Sheridan, Illinois | Greeley and Hansen | 1978 Sep 01 | IL EPA |
| 1.002 | Final Design Analysis Sanitary Landfill Closure | Greeley and Hansen | 1980 Feb 01 | US Army Corps of Engineers, Omaha |
| 1.002.1 | Archeological Investigations on the Fort Sheridan Military Reservation, Lake County, Illinois | Essenpreis, P.S. - P/PA Research Inc. | 1980 Feb 01 | Department of the Army Interagency Archeological Services - Atlanta |
| 1.003 | Feasibility Study to Determine the Use of On-site Soils for Landfill Cover Materials | Soil Testing Services, Inc. | 1980 Jun 02 | Benson, Doug - Facilities Engineering, Fort Sheridan, IL |
| 1.004 | Letter-re: Lab Results of Landfill Samples near Wells Ravine Landfills 6 & 7 | Young, R.A. - Young Environmental Services | 1981 Apr 11 | Ketchik, J., Facilities Engineering |
| 1.004.1 | Bluff Erosion Correction Study, Fort Sheridan, Illinois | Spooner Farlow & Associates | 1981 Dec 01 | Benson, Doug - Facilities Engineering, Fort |
| 1.005 | Installation Assessment of Fort Sheridan and Joilet Training Area, Illinois | Chemical Systems Laboratory | 1982 May 01 | USATHAMA |
| 1.005.1 | Memorandum-re: Preliminary Assessment Screening for Building 564, Fort Sheridan, IL | Neitzel, D.D. - Department of the Army | 1993 Sep 07 | Shanks, S - ARCOM |
| 1.006 | Historical Overview of the Nike Missile System | Environmental Science and Engineering | 1984 Dec 01 | USATHAMA |
| 1.007 | Update of the Initial Installation Assessment of Fort Sheridan, Illinois | Environmental Science and Engineering | 1987 Aug 01 | USATHAMA |
| 1.009 | Enhanced Preliminary Assessment Report: Fort Sheridan, Illinois | Argonne National Laboratories | 1989 Oct 01 | USATHAMA |
| 1.009.1.1 | Installation Assessment Army Base Closure Program, Fort Sheridan, Lake County, Illinois | The Bionetics Corp. | 1990 Apr 01 | US EPA |
| 1.009.2 | MOU Between Department of Army and Navy | Secretary of Army and Sec. of Navy | 1991 Aug 08 | |
| 1.009.3 | Report of Findings for PCB Transformer Sampling Conducted at Fort Sheridan, Illinois | Environmental Science and Engineering | 1992 Jun 11 | USATHAMA |
| 1.011 | Environmental Assessment for the Disposal and Reuse of Fort Sheridan, Illinois | Departmetn of the Army | 1993 Sep 01 | |
| 1.011.2 | Fort Sheridan Unexploded Ordnance Survey (50 Acre Parcel) Final Work Plan | IT Corporation | 1993 Oct 14 | US AEC |
| 1.011.5 | Community Environmental Response Facilitation Act (CERFA) Report | The Earth Technology Corporation | 1994 Apr 01 | US AEC |
| 1.012.1 | Fort Sheridan Unexploded Ordnance Survey, Final Technical Report | IT Corporation | 1994 Jul 01 | US AEC |
| 1.012.2 | Letter-re: IEPA Requesting Dept. of Army to Sample Metal Water Tower (south end) | Nussbaum, S.D. - IL EPA | 1994 Nov 07 | Reilly, C. - Fort Sheridan BEC |
| 1.013 | Letter-re: Concept Design Report for Closure Design of Landfills 6 & 7 | Schafer, G.M. - US EPA | 1994 Dec 08 | Reilly, C. - Fort Sheridan BEC |
| 1.014 | Industrial Radiation Historical Data Review, Survey No. 27-83-2859A-95, Fort Sheridan, Illinois, 15 January-30 March 1995 | USACHPPM | 1995 Jan 15 | FORSCOM |
| 1.015.2 | Memorandum-re: Golf Course Sampling, Fort Sheridan | Reilly,C - Fort Sheridan BEC | 1995 Mar 15 | |
| 1.015.5 | Memorandum-re: "Probable UXO" Area, April 1994 CERFA Report | Reilly, C. - Fort Sheridan BEC | 1995 Apr 20 | US AEC |
| 1.016 | Exploratory Trenching Report Landfills 6 and 7 Fort Sheridan, Illinois | Environmental Science and Engineering | 1995 May 01 | US Army Corps of Engineers, Louisville |
| 1.017 | Report of Sanitary Landfill Closure Site Inspection | Greeley and Hansen | 1980 Jun 19 | Fort Sheridan |
| 1.018 | Risk Characterization of Landfill 7 Air Emissions (Volatiles) | US EPA | 1995 Jun 19 | Reilly, C., - Fort Sheridan BEC |
| 1.019 | Letter-re: Proposed Sampling Plan for Surface Soils at Fort Sheridan Landfill 7 | Ross, Jenny - USN, EFA Midwest | 1995 Jul 06 | Reilly, C., - Fort Sheridan BEC |
| 1.020 | Letter-re: Landfill 7 Black Pipe (LF&BP) Sample Results | Lake, Paul T., - IEPA | 1995 Sep 26 | Reilly, C., - Fort Sheridan BEC |
| 1.020.4 | Ordnance, Ammunition and Explosives Archives Search Report Conclusions and Recommendations for Fort Sheridan, Lake County, Illinois | U.S. Army Corps of Engineers, St. Louis District | 1996 Mar 01 | US AEC |
| 1.020.5 | Ordnance, Ammunition and Explosives Archives Search Report Findings for Fort Sheridan, Lake County, Illinois | U.S. Army Corps of Engineers, St. Louis District | 1996 Mar 01 | US AEC |
| 1.021 | Sampling and Analysis Plan, Coal Storage Area 2 Annex | QST Environmental | 1999 Apr 13 | Bob Fileccia, U.S. Army Corps of Engineers, Louisville, KY |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 1.022 | Site Investigation Report for the Coal Storage Area Annex Study Area of the Surplus Operable Unit, Fort Sheridan | QST Environmental | 1999 Aug 10 | Bob Fileccia, U.S. Army Corps of Engineers, Louisville, KY |
| 1.023 | Final Anti-aircraft Artillery Ranges Sampling and Analysis Plan, Fort Sheridan, Illinois | Environmental Science and Engineering, Inc. | 1999 Aug 27 | U.S. Army Environmental Center |
| 1.024 | Final Anti-aircraft Artillery Ranges Site Investigation Report, Surplus Operable Unit, Fort Sheridan, Ilinois | Environmental Science and Engineering, Inc. | 2001 Mar 16 | U.S. Army Environmental Center |
| 1.025.1 | E-mail-re: Fort Sheridan Landfill | Greek, WP - Army Reserve Native American Coordinator | 2001 Oct 24 | Bailliett, A.L. - Army |
| 1.025.2 | E-mail-re: Sheridan Pottery | Greek, WP - Army Reserve Native American Coordinator | 2001 Oct 24 | Bailliett, A.L. - Army |
| | | | | |
| 2.001 | Letter-re: Time Critical Ordnance and Explosive Waste (OEW) Removal Action at Fort Sheridan, IL | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Aug 02 | Schafer, G.M. - US EPA |
| 2.002 | Letter-re: Time Critical Ordnance and Explosive Waste Removal Action at Fort Sheridan, IL | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Aug 02 | Nussbaum, S.D. - IL EPA |
| 2.003 | Explosive Safety Submission for Ordnance Removal and Land Disposal of 38 Acre Parcel at Fort Sheridan, IL | US Army Corps of Engineers, St. Louis District | 1994 Aug 15 | US Army Corps of Engineers, Huntsville Division |
| 2.004 | Letter-re: Proposed Time Critical Removal Action for Ordnance & Explosive Waste at Fort Sheridan, IL | Nussbaum, S.D. - IL EPA | 1994 Aug 17 | Balliett, A.L.-Chief, Environmental Management Division, Fort McCoy |
| 2.005 | Letter-re: Proposed Time-Critical Removal Action for Ordnance & Explosive Waste at Fort Sheridan, IL | Nussbaum, S.D. - IL EPA | 1994 Aug 17 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 2.006 | Letter-re: Draining of Pond to facilitate Time Critical Removal Action for OEW Survey | Nussbaum, S.D. - IL EPA | 1994 Sep 07 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 2.006.1 | Letter-re: Response to Draining of Pond to Facilitate Time Critical Removal Action for OEW Survey | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Sep 22 | Nussbaum, S.D. - IL EPA |
| 2.007 | Letter-re: Proposed Time-Critical Removal Action for Ordnance & Explosive Waste | Nussbaum, S.D. - IL EPA | 1994 Sep 26 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 2.008 | Proposed Time-Critical Removal Action for Ordnance & Explosive Waste | Nussbaum, S.D. - IL EPA | 1994 Sep 30 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 2.009 | Letter-re: Proposed Time-Critical Removal Action for Ordance and Explosive Waste | Schafer, Gary M. - US EPA | 1994 Oct 04 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 2.010 | Letter-re: Postponement of Time Critical Ordnance & Explosive Waste | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Dec 08 | Schafer, G.M. - US EPA |
| 2.011 | Letter-re: Postponement of Time Critical Ordnance and Explosive Waste (OEW) Removal from Fort Sheridan | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Dec 08 | Nussbaum, S.D. - IL EPA |
| 2.013 | Letter-re: Army's Position on Unexploded Ordnance (UXO) | Reilly, C. - Fort Sheridan BEC | 1995 Jul 05 | Lake, Paul T. - IL EPA |
| 2.014 | Letter-re: Army Position on Unexploded Ordnance (UXO) | Lake, Paul T. - IL EPA | 1995 Sep 14 | Reilly, C. - Fort Sheridan BEC |
| 2.015 | Action Memorandum-re: Time Critical Ordnance and Explosives Removal, Former Firing Range, Fort Sheridan, IL | Harold K. Miller, Jr., Colonel, U.S. Army, Commanding Officer | 1996 Mar 12 | |
| 2.016 | Ordnance and Explosive (OE) Site Operations - Addendum 001 to Fort Sheridan Work Plan | HFA (Human Factors Applications, Inc.) | 1996 Mar 18 | US Army Corps of Engineers, Huntsville Division |
| 2.016.5 | On-Scene Coordinator Report. Time Critical Removal Action at Buildings 43 and 368, Fort Sheridan, Illinois | Diversified Technologies Corporation | 1996 Oct 08 | Reilly, C. - Fort Sheridan BEC |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 2.017 | Final Removal Report, Volume I & II, Ordnance & Explosives (OE) Interim Removal and Sampling Action , Fort Sheridan, Illinois (See separate report on shelf Volumes I & II) | Human Factors Applications, Inc. (HFA) | 1997 Mar 27 | US Army Corps of Engineers, Huntsville Division |
| 2.017.5 | Fort Sheridan Landfills 6 and 7 Phase I Interim Remedial Action Leachate Treatment Facility Design Analysis Report (includes drawings) | Environmental Science & Engineering | 1997 Jun 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.017.6 | Fort Sheridan Landfills 6 and 7 Phase I Interim Remedial Action Leachate Treatment Facility Specifications | Environmental Science & Engineering | 1997 Jun 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.018 | Engineering Evaluation/Cost Analysis, Coal Storage Area 3, B42, B43, B77 (see separate report on shelf) | LAW Engineering and Environmental Services, Inc. | 1997 Nov 01 | US Army Corps of Engineers, Louisville District |
| 2.018.1 | Landfills 6 & 7 Phase I Interim Remedial Action Corrected Final Specifications | Environmental Science & Engineering | 1998 Feb 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.018.2 | Landfills 6 & 7 Phase 1 Interim Remedial Action Design Analysis Report, Corrected Final (includes drawings) | Environmental Science & Engineering | 1998 Feb 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.018.3 | Landfill 6 and 7 Interim Remedial Action Phase 1-Landfill Stabilization, Shore Protection | Charles Shabica & Associates | 1998 Feb 24 | U.S. Army Corps of Engineers, Louisville District |
| 2.019 | Removal Action Work Plan, Fort Sheridan, IL. Coal Storage Area 3, B42, B43, B77 (see separate report on shelf) | IT Corporation | 1998 Apr 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.019.08 | Corrected Final Landfills 6 & 7 Phase 1 Interim Remedial Action Leachate Treatment Facility Specifications | Environmental Science & Engineering | 1998 Apr 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.019.09 | Final Removal Report, Ordnance, Ammunition and Explosives Time-Critical Removal Action, Fort Sheridan | Human Factors Applications, Inc. (HFA) | 1998 May 07 | U.S. Army Corps of Engineers, Huntsville |
| 2.019.09.1 | Fort Sheridan Landfills 6 & 7 Interim Remedial Action Leachate Treatment Facility Design Analysis Report, Corrected Final (includes drawings) | Environmental Science & Engineering | 1998 Jun 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.019.09.2 | Addendum to Design Analysis Report, Redesign of Concrete Storm Water Outfall Structure, Fort Sheridan, Landfills 6 and 7, Interim Remedial Action, Fort Sheridan | QST Environmental | 1998 Jun 22 | U.S. Army Corps of Engineers, Louisville District |
| 2.019.09.3 | Final Sampling and Analysis Plan, Interim Remedial Actions at Landfills 6 and 7, Fort Sheridan | Stone and Webster Environmental | 1998 Jul 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.019.09.4 | Amendment No. 1 to Plans and Corrected Final Specifications, Landfills 6 and 7, Interm Remedial Action, Phase 1- Landfill Stabilization | none listed | 1998 Aug 04 | none listed |
| 2.019.1 | Sand Sampling at CSA3, Fort Sheridan, Illinois | QST Environmental | 1999 May 28 | Bob Fileccia, U.S. Army Corps of Engineers, Louisville, KY |
| 2.02 | Final Non-Time-Critical Removal Action Completion Report, Buildings 42, 43, and 77 and Coal Storage Area 3, Fort Sheridan, Illinois | IT Corporation | 1999 Jun 11 | U.S. Army Corps of Engineers, Louisville District |
| 2.020.1 | Volume II, Amendment No. 1, Final Sampling and Analysis Plan Interim Remedial Action at Landfills 6 and 7, Fort Sheridan (Final Amendment No.1 issued May 2000) | Stone and Webster Environmental | 1999 June (Final Amend 2000 May) | U.S. Army Corps of Engineers, Louisville District |
| 2.021 | Chain of Custody forms, Non-Time-Critical Removal Action, Buildings 42, 43, and 77, and Coal Storage Area 3 | IT Corporation / QST Environmental Laboratories | 1998 Mar-Dec | File |
| 2.021.1 | Landfills 6 and 7 Phase 1 Shore Protection Specifications, Interim Remedial Action | Charles Shabica & Associates | 1998 Dec 28 | U.S. Army Corps of Engineers |
| 2.022 | Removal Action Work Plan Addendum, Coal Storage Area Annex, Fort Sheridan, IL. (see spearate report on shelf) | IT Corporation | 1999 Jul 01 | U.S. Army Corps of Engineers, Louisville District |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 2.022.1.1 | Final Non-Time-Critical Removal Action Completion Report Coal Storage Area 3, Buildings 42, 43, and 77, Fort Sheridan, Illinois | IT Corporation | 1999 Jan 00 | U.S. Army Corps of Engineers, Louisville District |
| 2.022.1 | Final Proposed Alternate Construction Methods, Leachate Collection System, Interim Remedial Action at Landfills 6 and 7, Fort Sheridan | Stone and Webster Environmental | 1999 Jul 30 | U.S. Army Corps of Engineers, Louisville District |
| 2.022.2 | Final Leachate Pumping Assessment Report, Interm Remedial Action at Landfills 6 and 7, Fort Sheridan | Stone and Webster Environmental | 1999 Jul 30 | U.S. Army Corps of Engineers, Louisville District |
| 2.023 | Final Non-Time-Critical Removal Action Completion Report Addendum, Coal Storage Area Annex, Fort Sheridan, Illinois | IT Corporation | 1999 Nov 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.023.1 | Landfills 6 and 7 Shore Protection As Built Drawings, Interim Remedial Action | North Central Land Survey Company | 1999 Nov 22 | John Keno Construction Company |
| 2.023.2 | Landfills 6 and 7 Photographs 8/1/2000 through 10/19/2000 | No author | No Date | |
| 2.024 | Final Sampling and Analysis Report, Interim Remedial Action, Landfills 6 and 7, Fort Sheridan | Stone and Webster Engineering | 2001 Jun 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.025 | Stormwater Pollution Prevention Plan for Industrial and Construction Activities at Landfill 7, Fort Sheridan, Illinois | IT Corporation | 2001 Jun 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.026 | Decommisioning of Gas Vents G-1 through GV-4 and LF7-MW-05S and LF7-MW-05D, Landfill 7, Fort Sheridan, Illinois | IT Corporation | 2001 Dec 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.027 | Installation of Dry Well to Remediate Leachate Seep, Landfill 7, Fort Sheridan, Illinois | IT Corporation | 2001 Dec 01 | U.S. Army Corps of Engineers, Louisville District |
| 2.028 | Leachate Sampling from Manhole MH6000 Landfill 7, Fort Sheridan, Illinois | IT Corporation | 2001 Dec 01 | U.S. Army Corps of Engineers, Louisville District |
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| 3.002.2 | Letter-re: Review of Technical Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan for Fort Sheridan | Franz, W.D. - US EPA | 1990 Feb 07 | Jackson, J. - USATHAMA |
| 3.003 | Letter-re: Comments on the Draft Technical Plan and the Draft Sampling Plan | Franz, W.D. - US EPA | 1990 Apr 04 | Fendick, R., USATHAMA |
| 3.005 | Letter-re: Comments regarding the Analytical Methods in Technical Plan | Franz, W.D. - US EPA | 1990 Apr 13 | Fendick, R., USATHAMA |
| 3.007 | Letter-re: Response to Comments | Franz, W.D. - US EPA | 1990 May 07 | Fendick, R., USATHAMA |
| 3.010 | Final Health and Safety Plan, Fort Sheridan, IL | E.C. Jordan Co. | 1990 Jul 01 | USATHAMA |
| 3.011 | Final Quality Assurance Program Plan, Fort Sheridan, IL | E.C. Jordan Co. | 1990 Jul 01 | USATHAMA |
| 3.013 | Final Sampling and Analysis Plan, Fort Sheridan, IL | E.C. Jordan Co. | 1990 Jul 01 | USATHAMA |
| 3.014 | Final Technical Plan, Fort Sheridan, IL | E.C. Jordan Co. | 1990 Jul 01 | USATHAMA |
| 3.015 | Letter-re: Final Technical Plans | Torrisi, Salvatore P., Chief, USATHAMA | 1990 Sep 14 | Denning, T. - IL EPA |
| 3.015.1 | Amendment to Final Technical and Sampling and Analysis Plan for Storage Area Investigations at Fort Sheridan, IL | Environmental Science and Engineering, Inc. | 1990 Sep 18 | USATHAMA |
| 3.015.5 | Letter-re: Request from IL EPA for copies of the following: Sampling and Analysis Plan, Health and Safety Plan, Quality Assurance Program Plan, and Technical Plan for Fort Sheridan | Torrisi, Salvatore P., Chief, USATHAMA | 1990 Oct 25 | Carter, Julia, IL EPA |
| 3.016 | Amendment to Final Technical and Sampling and Analysis Plans for Landfill Investigations, Fort Sheridan, IL | Environmental Science and Engineering, Inc. | 1990 Nov 02 | USATHAMA |
| 3.020 | Letter-re: Review of Amendments to Final Technical and Sampling Analysis Plans for Fort Sheridan, IL | Carter, Julia E. - IL EPA | 1991 Aug 01 | Fendick, R., USATHAMA |

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 3.021.5 | Addendum to Fort Sheridan Site Safety Plan-Part IIB, Field Employees, Unknown Chemical Exposure Prevention (UCEP) | Environmental Science and Engineering, Inc. | 1991 Sep 12 | Fendick, R., USATHAMA |
| 3.022 | Letter-re: Responses to Comments on RI/FS Work Plans | Torrisi, S.P. - USASTHAMA | 1991 Oct 18 | Carter, J. - IL EPA |
| 3.024 | Addendum to Final Quality Assurance Program Plan, Fort Sheridan Remedial Investigation/Feasibility Study, Fort Sheridan, IL | Environmental Science and Engineering, Inc. | 1991 Oct 23 | USATHAMA |
| 3.025 | Addendum to Final Sampling and Analysis Plan Storage Area Investigations for Fort Sheridan Remedial Investigation/Feasibility Study, Fort Sheridan, IL | Environmental Science and Engineering, Inc. | 1991 Oct 23 | USATHAMA |
| 3.026 | Letter-re: Sampling and Analysis Plan (SAP), QAPP, Work Plan, Health and Safety Plan and Community Relations Plan | Carter, J.E. - IL EPA | 1991 Nov 14 | Fendick, R. - USATHAMA |
| 3.027.5 | Letter-re: Fort Sheridan Base Closure | Davis, S.K. - IL EPA | 1992 Apr 02 | Torrisi, S. - USATHAMA |
| 3.027.6 | Letter-re: Responses to the IEPA Comments to the Fort Sheridan Remedial Investigation/Feasibility Study (RI/FS) Work Plans | US AEC | 1992 Apr 06 | Carter, J., IL EPA |
| 3.028 | Draft Final Remedial Investigation (RI)/Risk Assessment (RA) Report Remedial Investigation/Feasibility Study Fort Sheridan IL (3 Volumes) | Environmental Science and Engineering, Inc. | 1992 Jun 01 | USATHAMA |
| 3.030 | Letter-re: Comments on Draft Remedial Investigation/Risk Assessment | Torrisi, S.P. - USATHAMA | 1992 Jun 17 | Choi, S.S., US EPA |
| 3.031 | Letter-re: Review and Comments of the Draft Final Remedial Investigation (RI) Report, including Risk Assessment (RA) | Carter, J.E. - IL EPA | 1992 Jul 27 | Fendick, R., USATHAMA |
| 3.033 | Letter-re: Concerns and recommendations Based on the Draft Final Remedial Investigation(RI) Report and Risk Assessment/Feasibility Study (RA/FS) | Choi, S. - US EPA | 1992 Oct 06 | Fendick, R., USATHAMA |
| 3.035 | Letter-re: Comments on Draft Remedial Investigation/Risk Assessment | Wooten, COL. R.G. - USA EC | 1992 Oct 07 | Choi, S.S., US EPA |
| 3.040 | Responses to Regulatory Agency Comments Regarding Remedial Investigation/Risk Assessment Report | Wooten, COL. R.G. - USA EC | 1993 Feb 09 | Nussbaum, S.D. - IL EPA |
| 3.040.1 | Letter - re: Fort Sheridan (Illinois) Geology Review, RI Comments Review, and RI Recommendations | Groen, J. - WW Engineering & Science | 1993 Jun 25 | Lietzke, T. - ARCS |
| 3.041.1 | Letter-re: IL EPA Comments to Overall Quality Assurance Project Plan | Nussbaum, S.D. - IL EPA | 1993 Aug 15 | Fendick, R. - US AEC |
| 3.042 | Memorandum-re: Review Comments on RI Work Plan and Field Sampling Plan for Fort Sheridan | Watson, R. - RCRA/CERCLA Coordinator | 1993 Oct 12 | Nussbaum, S.D. - IL EPA |
| 3.046 | Letter-re: Review of Draft Final Overall Technical Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, Remedial Investigation/Feasibility Study for Fort Sheridan, IL, August 1993 | Ripley, L.J. - US EPA | 1993 Nov 04 | Stokke, S., HQ Fort McCoy |
| 3.049 | Lake County Health Department Closed Landfill Inspection Report | Pergams, R.; D. DeBennette - Lake County Health Department | 1994 May 11 | IL EPA |
| 3.050.9.1 | SSHASP-Soil, Groundwater, and Landfill Investigations at LF 6&7 | Environmental Science and Engineering | 1994 Jul 01 | USACE, Louisville District |
| 3.053 | Shallow Groundwater Resource Classification, Fort Sheridan, IL | Environmental Science and Engineering | 1994 Oct 25 | USAEC |
| 3.053.1.1 | SSHASP-Landfill Leachate Sampling at Landfill 7 | Environmental Science and Engineering | 1994 Nov 01 | USACE-Louisville District |
| 3.054 | IL EPA comments Regarding Groundwater Classification Report | Nussbaum, S.D. - IL EPA | 1994 Dec 22 | Reilly, C. - Fort Sheridan BEC |
| 3.054.1 | Memorandum-re: Decision Tree for Management of IDW - soil only | Watson, R. - RCRA/CERCLA Coordinator | 1994 Dec 29 | Nussbaum, S.D. - IL EPA |
| 3.054.2 | Letter-re: Investigation Derived Waste | Nussbaum, S.D - IL EPA | 1995 Mar 07 | Reilly, C. - Fort Sheridan BEC |
| 3.055 | Letter-re: Questions Regarding IL EPA's Groundwater Classification Review Comments | Reilly, C. - Fort Sheridan BEC | 1995 Jan 26 | Nussbaum, S.D. - IL EPA |
| 3.056 | Letter-re: Questions Regarding IL EPA Groundwater Classification Document Review Comments | Reilly, C. - Fort Sheridan BEC | 1995 Feb 27 | Nussbaum, S.D. - IL EPA |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
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| 3.057.1.1 | Memorandum for Record: Landfill 6 & 7 Closure, Fort Sheridan | Reilly, C. - Fort Sheridan BEC | 1995 Mar 06 | |
| 3.057.2.2 | Final Overall Quality Assurance Project Plan (QAPP) Remedial Investigation/Feasibility Study Fort Sheridan, Illinois (See separate report on shelf - 2 Volumes) | Environmental Science and Engineering | 1995 Mar 15 | US Army Environmental Center |
| 3.058 | Storm Sewer Outfall Testing at Landfill #7, Fort Sheridan, IL | Ecology Services, Inc. | 1995 Apr 05 | US Army Corps of Engineers |
| 3.064 | Well Abandonment Report Monitoring Wells LF7MW6S and LF7MW6D, Fort Sheridan, IL | Environmental Science and Engineering | 1995 May 10 | US Army Corps of Engineers, Louisville District |
| 3.068 | Letter-re: Golf Course Sampling and Analysis Plan | Environmental Science and Engineering | 1995 Jun 05 | Lechner, Dr. Charles-USAEC |
| 3.068.3 | Final Sampling and Analysis Plan for Background Sampling | Environmental Science and Engineering | 1995 May 26 | Lechner, Dr. Charles-USAEC |
| 3.069 | Fort Sheridan Landfill 6 and 7 Project Information Report Submitted to North Shore Sanitary District | Environmental Science and Engineering | 1995 Jun 07 | North Shore Sanitary District |
| 3.071 | Letter-re: Responses to Comments Regarding the SOP for Determination of ONOPs Using GC/NPD | McKinley, D.K. - Environmental Science and Engineering | 1995 Jun 14 | Thompson, W.O. - US EPA |
| 3.072 | Groundwater Classification Document, Fort Sheridan, IL (See separate report on shelf - Volumes 1 & 2 ) | Environmental Science and Engineering | 1996 Feb 01 | US AEC |
| 3.073.1 | Industrial Radiation Survey No. 27-MH-2859-R1-96 Facility Close-Out and Termination Survey, Fort Sheridan, Illinois. 17 August 95 - 30 May 96. | USACHPPM | 1996 Aug 01 | Reilly, C. - Fort Sheridan BEC |
| 3.073.2 | Final Sampling and Analysis Plan for the Surplus Operable Unit-Fort Sheridan (See separate report on shelf) | Environmental Science and Engineering | No Date | Lechner, Dr. Chuck-USAEC |
| 3.074 | Sewer Cleaning and Testing Report - Eleven Building Locations at Fort Sheridan, Illinois | Ecology Services, Inc. | 1996 Feb 15 | Reilly, C. - Fort Sheridan BEC |
| 3.075 | Radiological Assessment & Survey at Fort Sheridan | IL Dept. of Nuclear Safety | 1996 Mar 11 | Lake, Paul T. - IL EPA |
| 3.076 | Final Data Validation Report - 11 Volume set | ECG, Inc. | 1996 Apr 12 | |
| 3.076.1 | Memorandum-re: Final Data Usability Summary and Resampling Proposal for Fort Sheridan | Wojciechowski, LTC Paul E. | 1996 Apr 12 | Reilly, C. - Fort Sheridan BEC |
| 3.076.5 | Letter-re: USEPA review and comments on: Data Validation Support, ECG, Inc. Surplus Operable Unit, Fort Sheridan, Illinois | Thompson, W. Owen - US EPA | 1996 Sep 23 | Reilly, C. - Fort Sheridan BEC |
| 3.077 | Final Phase III Sampling and Analysis Plan for the Surplus Operable Unit-Fort Sheridan (See separate report on shelf) | Environmental Science and Engineering | 1996 Oct 04 | Lechner, Dr. Chuck-USAEC |
| 3.077.1 | Letter-re: Draft Phase I Data Usability Evaluation, Fort Sheridan, Illinois | Thompson, W. Owen - US EPA | 1996 Oct 28 | Reilly, C. - Fort Sheridan BEC |
| 3.077.2 | Letter-re: Draft Phase I Data Usability Evaluation, Fort Sheridan, Illinois | Environmental Science and Engineering | 1996 Nov 13 | Thompson, W. Owen - US EPA |
| 3.077.4 | Final Revised Technical Evaluation Plan Fort Sheridan RI/FS | Environmental Science and Engineering | 1996 Nov 12 | US AEC |
| 3.077.5 | Industrial Radiation Survey No. 27-MH-2859-R2-97, Nike Missile Facilities Close-Out and Termination Survey, Fort Sheridan, IL, 1 September 1995 - 24 May 1996 | USACHPPM | 1996 Dec 02 | Reilly, C. - Fort Sheridan BEC |
| 3.078 | Phase II-RI/FS DOD OU - Technical Plan - Volume 1 & 2 | Science Applications International Corp | 1997 Jan 01 | Lechner, Dr. Chuck-USAEC |
| 3.079 | Video: Showing Remedial Investigation Field Work-Landfills 3 & 4 Activities | Environmental Science and Engineering | 1997 Mar 01 | Reilly, C. - Fort Sheridan BEC |
| 3.079.1 | Letter-re: Industrial Radiation Close-Out and Termination Survey Report, Nike Missle Facilities | Thompson, W. Owen, USEPA | 1997 Apr 30 | Reilly, C. - Fort Sheridan BEC |
| 3.080 | Final Background Sampling and Data Evaluation Report, Fort Sheridan | Environmental Science and Engineering | 1997 May 21 | US AEC |
| 3.080.1 | Chemical Analytical Data (With NFG Qualifiers)Background Sampling Locations, Fort Sheridan | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 3.081 | Final Data Validation Report #1 - 3 Volume set | ECG, Inc. | 1997 Apr 30 | US AEC |
| 3.082 | Final Data Validation Report #2 - 3 Volume set | ECG, Inc. | 1997 May 19 | US AEC |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 3.083 | Final Data Validation Report #3 - 3 Volume set | ECG, Inc. | 1997 Jun 06 | US AEC |
| 3.084 | Phase II RI/FS DoD OU - Technical Plan Addendum | Science Applications International Corp. | 1997 Jun 01 | US AEC |
| 3.084.5 | Soil Sampling - PCB Analysis at Building 913-transformer pad, and at pole | Day, Paul, DTC | 1997 Jul 01 | Reilly, C. - Fort Sheridan BEC |
| 3.085 | Letter-re: evaluation of available information for Landfills 3 & 4 OU | Reilly, C. - Fort Sheridan BEC | 1997 Jul 11 | Lake, Paul - Illinois EPA & Thompson, Owen-USEPA |
| 3.086 | Final Remedial Investigation/Baseline Risk Assessment for Landfills 3 & 4 Operable Unit, 4-Volumes | QST Environmental Inc. | 1997 Jul 18 | US AEC |
| 3.086.1 | Chemical Analytical Data (With NFG Qualifiers) Landfills 3 and 4 Operable Unit, Fort Sheridan | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 3.086.2 | Chemical Analytical Data (With NFG Qualifiers) Asphaltic Baseline Sampling Locations, Fort Sheridan | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 3.087 | Final Data Validation Report #4 - 3 Volume set | ECG, Inc. | 1997 Jul 21 | US AEC |
| 3.088 | Letter-re: Industrial Radiation Close-Out and Termination Survey Report for the Nike Missile Facilities at Fort Sheridan | Lake, Paul T., Illinois EPA | 1997 Jul 31 | Reilly, C. - Fort Sheridan BEC |
| 3.090 | Letter-re: Final Data Validation Report #4, Fort Sheridan Continuing Data Validation Support | Thompson, W. Owen, USEPA | 1997 Sep 08 | Reilly, C. - Fort Sheridan BEC |
| 3.090.1 | Letter-re: Verification Sampling and Analysis -Surplus OU-Fort Sheridan, Illinois | Manikas, Christopher S., SAIC | 1997 Sep 08 | Fileccia, Robert - USACE, Louisville District |
| 3.091 | Letter-re: Fort Sheridan Continuing Data Validation Support, Final Data Validation Report #2, and Final Data Validation Report #3 | Thompson, W. Owen, USEPA | 1997 Sep 22 | Reilly, C. - Fort Sheridan BEC |
| 3.092 | Letter-re: Fort Sheridan RI Data Validation Responses to Comments, August 7, 1997 | Thompson, W. Owen, USEPA | 1997 Oct 21 | Reilly, C. - Fort Sheridan BEC |
| 3.093 | Final Sampling Results and Data Evaluation Report for Miscellaneous Surplus Operable Unit Study Areas, Fort Sheridan, Illinois (3-Volumes) | QST Environmental Inc. | 1997 Nov 07 | USAEC, Base Closure Division |
| 3.093.1 | Chemical Analytical Data (With NFG Qualifiers)Miscellaneous Study Areas | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 3.093.2 | Chemical Analytical Data (With NFG Qualifiers) Surplus OU | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 3.094 | Verification Sampling Results, Surplus Operable Unit, Fort Sheridan, Illinois | Science Applications International Corp. | 1997 Nov 01 | USACE - Louisville District |
| 3.094.1 | Letter-re: Final VOC Data Usability, Surplus and DoD Operable Units, Ft. Sheridan | Reilly, C. - Fort Sheridan BEC | 1997 Dec 03 | Lake, Paul - Illinois EPA & Thompson, Owen-USEPA |
| 3.095 | Letter-re: Reply to Responses to Comments on the "Draft Final Data Evaluation Report and Technical Memorandum for Miscellaneous Surplus OU Study Areas, Fort Sheridan, Illinois, Fort Sheridan BRAC Cleanup Team, November 7, 1997. | Thompson, W. Owen, USEPA | 1997 Dec 03 | Reilly, C. - Fort Sheridan BEC |
| 3.096 | Letter-re: Response to Owen Thompson, USEPA letter dated December 3, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Dec 09 | Thompson, W. Owen, USEPA |
| 3.097 | MEMO FOR RECORD: Removal and Replacement of Leaking PCB Transformer PM427 | Day, Paul, DTC | 1997 Dec 19 | Reilly, C. - Fort Sheridan BEC |
| 3.098 | Final 38-Acre Parcel Fill Area, Sampling and Analysis Plan, Fort Sheridan, Illinois | QST Environmental Inc. | 1998 Feb 16 | USAEC |
| 3.099 | Final Remedial Investigation/Baseline Risk Assessment for the Ravines and Beach Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois (3 volumes, see separate report on shelf) | QST Environmental, Inc. | 1998 Apr 13 | U.S. Army Environmental Center |
| 3.100 | Final Sampling and Analysis Plan for the Supplemental Investigation at Building 172, Surplus Operable Unit, Fort Sheridan, Illinois | QST Environmental, Inc. | 1998 May 01 | U.S. Army Environmental Center |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 3.101 | Explosives Analytical Results, water samples, Highland Park Water Treatment Plant | Andrew G. Weitz, QST Environmental, Inc. | 1998 Jul 28 | |
| 3.110 | Final Report of Limited Soil Investigation, Building 172 (see separate report on shelf) | LAW Engineering and Environmental | 1998 Aug 01 | U.S. Army Corps of Engineers |
| 3.110.1 | Final Data Validation Report #5 | ECG, Inc. | 1998 Dec 18 | USAEC |
| 3.111 | Final Remedial Investigation/Baseline Risk ASsessment for the LF2/SARN/38-Acre Parcel Fill Area of the Surplus Operable Unit, Fort Sheridan, Illinois (3 volumes) | QST Environmental | 1999 Jan 13 | USAEC |
| 3.112 | Explosives Analytical Results, water samples, Highland Park Water Treatment Plant and Highwood water plant | Gordon Lane, Quanterra, Inc. | 1999 Jan 18 | Scott George, QST Environmental |
| 3.113 | Final Post Removal Action Risk Evaluation for Building 42, Building 43, Coal Storage Area 3, and Building 77 of the Surplus Operable Unit, Fort Sheridan, Illinois | QST Environmental, Inc. | 1999 Jun 14 | U.S. Army Environmental Center |
| 3.113.1 | Letter to Mr. Robert Fileccia, RE: Final Remedial Investigation/Baseline Risk Assessment for the DOD Operable Unit, Fort Sheridan, Illinois | Christopher Manikas, SAIC | 1999 Jul 28 | Mr. Rober Fileccia, U.S. Army Corps of Engineers |
| 3.113.1.1 | Final Remedial Investigation/Baseline Risk Assessment Report, DOD Operable Unit, Fort Sheridan, Illinois | SAIC | 1999 Jul 28 | U.S. Army Corps of Engineers |
| 3.113.2 | Letter to Ms. Colleen Reilly, RE: Final RI/BRA for the DOD Operable Unit, Fort Sheridan, SAIC, Inc., July 28, 1999 | Owen Thompson, USEPA | 1999 Sep 23 | Ms. Colleen Reilly, Fort Sheridan |
| 3.114 | Final Post Removal Action Risk Evaluation for Coal Storage Area Annex Study Area of the Surplus Operable Unit, Fort Sheridan | Environmental Science and Engineering | 1999 Nov 01 | U.S. Army Environmental Center |
| 3.115 | Response to EPA Follow-Up Comments Dated September 23, 1999 | SAIC | 1999 Oct 01 | Owen Thompson, USEPA |
| 3.116 | Response to IEPA Comments, Final Post Removal Risk Evalaution, Coal Storage Area Annex Study Area | Fort Sheridan | 1999 Dec 03 | IEPA |
| 3.116.1 | Phase III Technical Plan Addendum, Remedial Investigation/Baseline Risk Assessment Report, DOD Operable Unit, Fort Sheridan, Illinois | SAIC | 2000 May 08 | U.S. Army Corps of Engineers, Louisville District |
| 3.117 | Groundwater Flow Model, Landfills 6 and 7, Fort Sheridan | RMT, Inc. | 2000 Sep 01 | Stone and Webster Environmental Technology |
| 3.118 | Remedial Investigation/Baseline Risk Assessment Report Addeundum, DOD Operable Unit, Fort Sheridan, Illinois (3 volumes) | SAIC | 2001 Apr 01 | U.S. Army Corps of Engineers, Louisville District |
| 3.119.1 | Memorandum-re: Jane's Ravine Study Area, Preliminary Draft | Curtis, R.S. - U.S. Army Corps of Engineers, Louisville District | 2001 Nov 13 | Janss, T. - Fort Sheridan BEC |
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| 4.000.0 | Target Chemical/Applicable or Relevant and Appropriate Requirements (ARARS), Determination Report, Fort Sheridan, Illinois, Draft | Environmental Science and Engineering | 1991 Jun 27 | U.S. Army Toxic and Hazardous Materials Agency |
| 4.003.1 | Predesign Investigation Report Landfill 6 & 7 | Environmental Science and Engineering | 1994 Jul 01 | USACE - Louisville District |
| 4.005 | Concept Design Evaluation Closure Design Landfills 6 & 7, Fort Sheridan, IL | Environmental Science and Engineering | 1994 Sep 06 | USACE - Louisville District |
| 4.007.1 | Concept Design Report, Closure Design, Landfills 6 & 7 | Environmental Science and Engineering | 1994 Oct 03 | USACE - Louisville District |
| 4.009 | Letter-re: Landfill 6 & 7 Storm Sewer Re-Route, Fort Sheridan | Reilly, C. - Fort Sheridan BEC | 1995 Mar 29 | |
| 4.010.1 | Letter-re: Pre-Treatment Requirements for on-site treatment prior to discharge to POTW | Nussbaum, S.D. - IL EPA | 1995 Mar 08 | Reilly, C., - Fort Sheridan BEC |
| 4.012 | Stormwater Calculation for Landfills 6 & 7, Fort Sheridan, IL | Environmental Science and Engineering | 1995 Apr 05 | Fileccia, B. - US Army Corps of Engineers |

# Fort Sheridan
# Administrative Record

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| 4.013 | Letter-re: Fort Sheridan Landfills 6 & 7; Stormwater Modifications | Ingram, W. - Environmental Science and Engineering | 1995 Apr 13 | Schultz, M. - Navy Public Works Center |
| 4.014.1.1 | Gas Vent Liquids Sampling Landfill 7 | Environmental Science and Engineering | 1995 May 01 | USACE - Louisville District |
| 4.014.1.2 | Letter-re: Excavation of Landfill 6 & 7 | Kuhn, Michael F., Lake County Health Dept. | 1995 Jul 13 | Hopkins, Bill - Ft. Sheridan |
| 4.015.1 | Landfill 7 Cover Investigation Report | Environmental Science and Engineering | 1996 Jan 01 | USACE - Louisville District |
| 4.016 | Letter-re: Comments New Storm Drain Alignments LF 6 & 7 | Schulz, Mark - US Navy EFA | 1996 Jan 04 | Reilly, C., - Fort Sheridan BEC |
| 4.017 | Letter-re: Comments on Landfills 6 & 7 Interim Draft Focused Feasibility Study (FS) | Kuhn, Michael F., Lake County Health Dept. | 1996 Jan 19 | Reilly, C., - Fort Sheridan BEC |
| 4.018 | Memorandum-re: Responses to Comments on LF 6 & 7 Draft FS | Lee, MAJ. Arthur P. - USACHPPM | 1996 Jun 07 | USACE - Louisville District |
| 4.019 | Landfills 6 & 7 Interim Action Final Focused Feasibility Study (See separate report on shelf) | Environmental Science and Engineering | 1996 Jul 02 | USACE - Louisville District |
| 4.020 | Responses to Comments on LF 6 & 7 Draft Final Focused FS | Environmental Science and Engineering | 1996 Jul 10 | USACE - Louisville District |
| 4.021 | Fort Sheridan Feasibility Study, DOD Operable Unit, Fort Sheridan, Illinois, Draft Final (2 Volumes) | SAIC | 2001 Apr 01 | USACE - Louisville District |
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| 5.001 | Action Memorandum, Time-Critical Removal Action, Buildings 43 and 368, Fort Sheridan | Harold K. Miller, Colonel, U.S. Army, Commanding Officer | 1995 | File |
| 5.002 | Proposed Plan Landfills 6 & 7 Interim Action | US Army, Fort Sheridan, IL -BRAC Office | 1996 Aug 01 | File |
| 5.003 | Decision Document (DD) for Interim Source Control Action for Landfills 6 and 7 at Fort Sheridan, Illinois (See separate report on shelf) | Environmental Science and Engineering | 1997 Apr 22 | USACE - Louisville District |
| 5.003.1 | Final Fort Sheridan Historic District Transfer Parcel Environmental Baseline Survey (EBS), Fort Sheridan Base Realignment and Closlure Surplus Property | Diversified Technologies Corp. | 1997 May 01 | Fort Sheridan BRAC Environmental Office |
| 5.003.1.1 | Chemical Analytical Data (With NFG Qualifiers) Fort Sheridan Historic District Transfer Parcel EBS May, 1997, Fort Sheridan | QST Environmental Inc. | 1998 Jan 30 | US AEC |
| 5.004 | Final Proposed Remedial Action Plan Landfills 3 & 4 Operable Unit | QST Environmental Inc. | 1997 Jul 22 | US AEC |
| 5.005 | Final Decision Document for Landfills 3 & 4 Operable Unit | QST Environmental Inc. | 1997 Oct 22 | US AEC |
| 5.006 | Final Technical Memorandum for Miscellaneous Surplus OU Study Areas, Fort Sheridan, Illinois | BRAC Cleanup Team | 1997 Nov 07 | File |
| 5.007 | Letter-re: Response to IEPA Comment on Fort Sheridan Historic District and Golf Course Transfer Parcels (November 18, 1997) | Fort Sheridan BRAC Office | 1997 Nov 25 | IL EPA |
| 5.008 | Action Memorandum Non-Time Critical Removal Action Coal Storage Area 3, Building 42, Building 43, and Building 77 Surplus Operable Unit, Fort Sheridan, Illinois | Higgins, Col. Roy L., U.S. Army | 1998 Mar 03 | |
| 5.009 | Final Proposed Remedial Action Plan for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois (see shelf for separate report) | QST Environmental Inc. | 1998 Jun 10 | USAEC |
| 5.010 | Final Decision Document for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois | QST Environmental Inc. | 1998 Sep 09 | USAEC |
| 5.011 | Final Follow-on Investigation Report for the Building 172 Study Area of the Surplus Operable Unit, Fort Sheridan, Illinois | QST Environmental, Inc. | 1998 Oct 14 | USAEC |
| 5.012 | Final Proposed Remedial Action Plan for the LF2/SARN/38-Acre Parcel Fill Area of the Surplus Operable Unit, Fort Sheridan, Illinois (see shelf for separate report) | QST Environmental Inc. | 1999 Mar 01 | USAEC |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 5.012.1 | Final Decision Document for the LF2/SARN/38-Acre Parcel Fill Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois | QST Environmental, Inc. | 1999 Jun 08 | USAEC |
| 5.013 | No Further Response Action Decision Paper, Building 42, Building 43, Building 77, and Coal Storage Area 3, Fort Sheridan | Fort Sheridan BRAC Cleanup Team | 1999 Jun 01 | File |
| 5.014 | Supplemental Action Memorandum, Change in the Scope of Response Action, Non-Time-Critical Removal Action, Coal Storage Area 3, Building 42, Building 43, and Buildin 77, Surplus OU, Fort Sheridan | Colonel Roy L. Higgins, Commander, Fort McCoy | 1999 Jun 01 | File |
| 5.015 | Final Decision Document for the LF2/SARN/38-Acre Parcel Fill Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois (see report on shelf) | QST Environmental, Inc. | 1999 Jun 08 | USAEC |
| 5.015.1 | Explanation of Signficant Differences to the Decision Document for Interim Source Control Action, Landfills 6 and 7, Fort Sheridan | Fort Sheridan | 1999 Sep 01 | public |
| 5.016 | Final No Further Response Action Decision Paper for the Coal Storage Area Annex Study Area, Surplus Operable Unit, Fort Sheridan | Fort Sheridan | 1999 Nov 01 | BRAC Cleanup Team |
| 5.017 | Revised Final Proposed Remedial Action Plan, No-Action Sites, DOD Operable Unit, Fort Sheridan | SAIC | 1999 Dec 30 | U.S. Army Corps of Engineers |
| 5.018 | IEPA Concurrence letter, Draft Decision Document for No Action Study Areas, DOD Operable Unit, Ft. Sheridan, Illionois | IEPA | 2000 Jul 14 | Colonel Roy. Higgins |
| 5.019 | Final Amendment to the Final Technical Memorandum for Miscellaneous Surplus OU Study Areas, Coal Storage Area 1, Fort Sheridan, IL | Fort Sheridan | 2001 Jun 18 | File |
| 5.020 | Explanation of Signficant Differences to the Decision Document for Interim Source Control Action, Landfills 6 and 7, Fort Sheridan | Fort Sheridan | 2002 Aug 01 | public |
| | | | | |
| 6.004 | Letter-re:Closure and Environmental Investigations of Fort Sheridan | Torrisi, S.P. - USATHAMA | 1990 Feb 01 | Denning, T. - IL EPA |
| 6.005.1 | Letter-re: US Army - Fort Sheridan, IL -Superfund/Technical | Child, W.C. - IL EPA | 1992 Apr 16 | Walker, L.D. - Department of the Army |
| 6.006.1 | Letter-re: Fort Sheridan, IL - Developing a Final Remedial Investigation/Feasibility Study (RI/FS) | Walker, L.D. - Department of the Army | 1992 May 29 | Child, W.C. - IL EPA |
| 6.007 | Letter-re: Discussions Regarding Issues At Fort Sheridan | Davis, S.K. - IL EPA | 1993 May 12 | Glass, COL. J.D. - US Army Corps of Engineers |
| 6.008 | Memorandum-re: Base Closure, Fort Sheridan, Observations of the Site Visit on 27 Apr 1993 | Ripley, L.J. - US EPA | 1993 May 12 | Fendick, R. - US AEC |
| 6.009 | Letter-re: Resolution of Problems at Fort Sheridan | Wooten, COL. R.G. - USAEC | 1993 May 20 | Gade, M. - IL EPA |
| 6.013 | BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 8-9, 1994 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Feb 16 | Fort Sheridan BCT |
| 6.014 | BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 17-18, 1994 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy | 1994 Feb 25 | Fort Sheridan BCT |
| 6.015 | Letter-re: Minutes of Telephone Conversation on 18 Apr 1994; Re: OQAPP | Schafer, G.M. - US EPA | 1994 Apr 19 | Nussbaum, S.D. - IL EPA |
| 6.018 | Letter-re: BRAC Environmental Restoration Project at Fort Sheridan | Wojciechowski, LTC P.E. - USAEC | 1994 Jul 11 | Ayers, T. - IL EPA |
| 6.020 | Endpoint for Agenda Items, Army-IEPA Fort Sheridan Meeting, August 18, 1994 | Fendick, R. - USAEC | 1994 Aug 23 | Nussbaum, S.D. - IL EPA |
| 6.026 | Letter-re: Comments to Minutes of Nov. 3, 1994, Conference Call Regarding Fort Sheridan OQAPP Comments | Nussbaum, S.D. - IL EPA | 1994 Nov 14 | Lechner, C.A. - USAEC |
| 6.028.1 | BRAC Cleanup Team (BCT) Meeting Minutes - Dec. 5-6, 1994 | Reilly, C. - Fort Sheridan BEC | 1994 Dec 05 | BRAC Cleanup Team |
| 6.029 | BRAC Cleanup Team (BCT) Meeting Minutes - Jan. 18, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Jan 30 | BRAC Cleanup Team |

# Fort Sheridan
# Administrative Record

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 6.030 | Memorandum-re: Operable Unit Strategy, Fort Sheridan, IL | Fort Sheridan BCT | 1995 Feb 01 | Fort Sheridan BCT |
| 6.031 | BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 3, 1995 | Lechner, C.A. - US AEC | 1995 Feb 03 | Fort Sheridan BCT |
| 6.032.1 | BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 1-2, 1995, Springfield, IL | Reilly, C. - Fort Sheridan BEC | 1995 Mar 01 | Fort Sheridan BCT |
| 6.035 | Memorandum-re: Landfill 6 & 7 Storm Sewer Re-Route, Fort Sheridan | Reilly, C. - Fort Sheridan BEC | 1995 Mar 29 | Fort Sheridan BCT |
| 6.035.1 | BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 29, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Mar 29 | Fort Sheridan BCT |
| 6.035.5 | BRAC Cleanup Team (BCT) Meeting Minutes - Apr. 18, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Apr 18 | Fort Sheridan BCT |
| 6.035.6 | Letter-re: Possible Unexploded Ordnance (UXO) on U.S. Navy property at Fort Sheridan | Reilly, C. - Fort Sheridan BEC | 1995 Apr 20 | Schultz, Mark-Navy Public Works |
| 6.036 | Summary of Meeting, Illinois EPA | Environmental Science and Engineering | 1995 Apr 29 | |
| 6.037.5 | BRAC Cleanup Team (BCT) Meeting Minutes - May 16-17, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 May 16 | Fort Sheridan BCT |
| 6.038 | BRAC Cleanup Team (BCT) Meeting Minutes - June 20-21, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Jun 20 | Fort Sheridan BCT |
| 6.039 | BRAC Cleanup Team (BCT) Meeting Minutes - July 18-19, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Jun 18 | Fort Sheridan BCT |
| 6.040 | BRAC Cleanup Team (BCT) Meeting Minutes - Aug. 15-16, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Aug 15 | Fort Sheridan BCT |
| 6.040.1 | Letter-re: BRAC Cleanup Team (BCT) Meeting Minutes - Aug. 15-16, 1995 | Lake, Paul T., Illinois EPA | 1995 Sep 27 | Reilly, C., - Fort Sheridan BEC |
| 6.041 | BRAC Cleanup Team (BCT) Meeting Minutes - Aug. 15-16, 1995 (Revised) | Reilly, C. - Fort Sheridan BEC | 1995 Oct 10 | Fort Sheridan BCT |
| 6.043 | BRAC Cleanup Team (BCT) Meeting Minutes - Oct. 24-25, 1995 | Reilly, C. - Fort Sheridan BEC | 1995 Oct 25 | Fort Sheridan BCT |
| 6.044 | BRAC Cleanup Team (BCT) Meeting Minutes - Jan. 9, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Jan 09 | Fort Sheridan BCT |
| 6.045 | BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 20-21, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Feb 20 | Fort Sheridan BCT |
| 6.046 | Final Meeting Minutes Landfills 6 & 7 Focused FS | BRAC Office - Fort Sheridan | 1996 Mar 06 | |
| 6.047 | BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 19-20, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Mar 19 | Fort Sheridan BCT |
| 6.048 | BRAC Cleanup Team (BCT) Meeting Minutes - Apr. 23-24, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Apr 23 | Fort Sheridan BCT |
| 6.049 | BRAC Cleanup Team (BCT) Meeting Minutes - May 28-29, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 May 28 | Fort Sheridan BCT |
| 6.050 | BRAC Cleanup Team (BCT) Meeting Minutes - June 18, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Jun 18 | Fort Sheridan BCT |
| 6.050.1 | BRAC Cleanup Team (BCT) Meeting Minutes - July 24, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Jun 24 | Fort Sheridan BCT |
| 6.050.2 | BRAC Cleanup Team (BCT) Meeting Minutes - August 22, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Aug 22 | Fort Sheridan BCT |
| 6.051 | Memorandum-re: BRAC Cleanup Team (BCT) Meeting and Conference Call Regarding Background Sampling and Data Evaluation | Reilly, C. - Fort Sheridan BEC | 1996 Aug 28 | Fort Sheridan BCT |
| 6.052 | BRAC Cleanup Team (BCT) Meeting Minutes - September 25-26, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Sep 25 | Fort Sheridan BCT |
| 6.053 | BRAC Cleanup Team (BCT) Updated Meeting Minutes - October 23-24, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Oct 23 | Fort Sheridan BCT |
| 6.054 | BRAC Cleanup Team (BCT) Meeting Minutes - November 20-21, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Nov 20 | Fort Sheridan BCT |
| 6.055 | BRAC Cleanup Team (BCT) Meeting Minutes - December 18-19, 1996 | Reilly, C. - Fort Sheridan BEC | 1996 Dec 18 | Fort Sheridan BCT |
| 6.056 | BRAC Cleanup Team (BCT) Meeting Minutes - January 22-23, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Jan 22 | Fort Sheridan BCT |
| 6.057 | BRAC Cleanup Team (BCT) Meeting Minutes - February 26-27, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Feb 26 | Fort Sheridan BCT |
| 6.058 | BRAC Cleanup Team (BCT) Meeting Minutes - March 26-27, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Mar 26 | Fort Sheridan BCT |
| 6.059 | BRAC Cleanup Team (BCT) Meeting Minutes - April 23-24, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Apr 23 | Fort Sheridan BCT |
| 6.060 | BRAC Cleanup Team (BCT) Meeting Minutes - May 28-29, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 May 28 | Fort Sheridan BCT |
| 6.061 | BRAC Cleanup Team (BCT) Meeting Minutes - June 18-19, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Jun 19 | Fort Sheridan BCT |
| 6.062 | BRAC Cleanup Team (BCT) Meeting Minutes - July 23, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Jul 23 | Fort Sheridan BCT |
| 6.063 | BRAC Cleanup Team (BCT) Meeting Minutes - August 27, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Aug 27 | Fort Sheridan BCT |
| 6.064 | BRAC Cleanup Team (BCT) Meeting Minutes - September 24, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Sep 24 | Fort Sheridan BCT |
| 6.065 | BRAC Cleanup Team (BCT) Meeting Minutes - October 22, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Oct 22 | Fort Sheridan BCT |
| 6.066 | BRAC Cleanup Team (BCT) Meeting Minutes - Dec 5, 1997 | Reilly, C. - Fort Sheridan BEC | 1997 Dec 05 | Fort Sheridan BCT |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 6.067 | BRAC Cleanup Team (BCT) Meeting Minutes - Feb 4, 1998 | Reilly, C. - Fort Sheridan BEC | 1998 Feb 04 | Fort Sheridan BCT |
| 6.068 | BRAC Cleanup Team (BCT) Meeting Minutes - March 24, 1998 | Reilly, C. - Fort Sheridan BEC | 1998 Mar 24 | Fort Sheridan BCT |
| 6.069 | BRAC Cleanup Team (BCT) Meeting Minutes - April 29, 1998 | Reilly, C. - Fort Sheridan BEC | 1998 Apr 29 | Fort Sheridan BCT |
| 6.070 | BRAC Cleanup Team (BCT) Meeting Minutes - May 28, 1998 | Reilly,C - Fort Sheridan BEC | 1998 May 28 | Fort Sheridan BCT |
| 6.071 | BRAC Cleanup Team (BCT) Meeting Minutes - June 25, 1998 | Reilly,C - Fort Sheridan BEC | 1998 Jun 25 | Fort Sheridan BCT |
| 6.072 | BRAC Cleanup Team (BCT) Meeting Minutes - August 19, 1998 | Reilly,C - Fort Sheridan BEC | 1998 Aug 19 | Fort Sheridan BCT |
| 6.073 | BRAC Cleanup Team (BCT) Meeting Minutes - Sept. 28, 1998 | Reilly,C - Fort Sheridan BEC | 1998 Sep 28 | Fort Sheridan BCT |
| 6.074 | BRAC Cleanup Team (BCT) Meeting Minutes - Nov 5, 1998 | Reilly,C - Fort Sheridan BEC | 1998 Nov 05 | Fort Sheridan BCT |
| 6.075 | BRAC Cleanup Team (BCT) Meeting Minutes - Dec 7, 1998 | Reilly,C - Fort Sheridan BEC | 1998 Dec 07 | Fort Sheridan BCT |
| 6.076 | BRAC Cleanup Team (BCT) Meeting Minutes - Jan 14, 1999 | Reilly,C - Fort Sheridan BEC | 1999 Jan 14 | Fort Sheridan BCT |
| 6.077 | BRAC Cleanup Team (BCT) Meeting Minutes - Mar 3, 1999 | Reilly,C - Fort Sheridan BEC | 1999 Mar 03 | Fort Sheridan BCT |
| 6.078 | BRAC Cleanup Team (BCT) Meeting Minutes- Apr 27, 1999 | Reilly,C - Fort Sheridan BEC | 1999 Apr 27 | Fort Sheridan BCT |
| 6.079 | BRAC Cleanup Team (BCT) Meeting Minutes- Jun 3 1999 | Reilly,C - Fort Sheridan BEC | 1999 Jun 03 | Fort Sheridan BCT |
| 6.080 | Letter RE: Explanation of Significant Differences (ESD), Interim Remedial Action at Landfills 6 and 7 | Paul Lake, IL EPA | 1999 Sep 09 | Colleen Reilly, Fort Sheridan |
| 6.081 | Letter RE: Draft Explanation of Significant Differences (ESD), to the Decision Document for Interim Source Control Action, Landfills 6 and 7, Fort Sheridan | Owen Thompson, USEPA | 1999 Sep 14 | Colleen Reilly, Fort Sheridan |
| 6.082 | BRAC Cleanup Team Meeting Minutes- July 29, 1999 | Reilly,C - Fort Sheridan BEC | 1999 Jul 29 | Colleen Reilly, Fort Sheridan |
| 6.083 | BRAC Cleanup Team Meeting Minutes- Nov 3, 1999 | Reilly, C- Fort Sheridan BEC | 1999 Nov 03 | Colleen Reilly, Fort Sheridan |
| 6.084 | BRAC Cleanup Team Meeting Minutes- Jan 20, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Jan 20 | Colleen Reilly, Fort Sheridan |
| 6.085 | Landfills 6 and 7 Hydrogeology Meeting Minutes, Jan 21, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Jan 21 | Colleen Reilly, Fort Sheridan |
| 6.086 | BRAC Cleanup Team Meeting Minutes- April 11, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Apr 11 | Colleen Reilly, Fort Sheridan |
| 6.087 | BRAC Cleanup Team Meeting Minutes- July 12, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Jun 12 | Colleen Reilly, Fort Sheridan |
| 6.088 | BRAC Cleanup Team Meeting Minutes - Sept 12, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Sep 12 | Colleen Reilly, Fort Sheridan |
| 6.089 | BRAC Cleanup Team Meeting Minutes - Oct 19, 2000 | Reilly, C- Fort Sheridan BEC | 2000 Oct 19 | Colleen Reilly, Fort Sheridan |
| 6.090 | BRAC Cleanup Team (BCT) Meeting Minutes - January 25, 2001 | Reilly,C - Fort Sheridan BEC | 2001 Jan 25 | Fort Sheridan BCT |
| 6.091 | BRAC Cleanup Team (BCT) Meeting Minutes - Mar 20, 2001 | Reilly,C - Fort Sheridan BEC | 2001 Mar 20 | Fort Sheridan BCT |
| | | | | |
| 7.001 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Steadman, P.R. - IL EPA | 1977 Feb 07 | US Army - Fort Sheridan |
| 7.002 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Child, W.C. - IL EPA | 1977 Mar 16 | Simpson, LTC US Army - Fort Sheridan |
| 7.003 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Petrilli, J.F. - IL EPA | 1977 Dec 28 | Simpson, LTC US Army - Fort Sheridan |
| 7.004 | Inspection Report, Solid Waste Landfill, Fort Sheridan | IL EPA | 1978 Feb 28 | US Army - Fort Sheridan |
| 7.005 | Letter-re: Inspection of Solid Waste Disposal Facility | Petrilli, J.F. - IL EPA | 1978 Mar 14 | Simpson, LTC, US Army - Fort Sheridan |
| 7.006 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Wengrow, R. - IL EPA | 1978 May 23 | US Army - Fort Sheridan |
| 7.007 | Letter-re: Inspection of Solid Waste Disposal Facility | Bechley, K.P. - IL EPA | 1978 Jun 06 | Simpson - LTC , US Army- Fort Sheridan |
| 7.009 | Inspection Report, Solid Waste Landfill ,Fort Sheridan | IL EPA | 1979 Jan 12 | US Army - Fort Sheridan |
| 7.010 | Memorandum-re: Inspection of Fort Sheridan and Discussion of Permit and Closure Requirements | Bechley, K.P. - IL EPA | 1979 Jan 19 | Division File |

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 7.011 | Letter-re: Inspection of Solid Waste Disposal Facility | Bechley, K.P. - IL EPA | 1979 Jan 30 | Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering |
| 7.012 | Letter-re: Violations Noted During Inspection of Sanitary Landfill | Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering | 1979 Feb 28 | Bechely, K.P., IL EPA |
| 7.013 | Application for Permit to Operate a Solid Waste Management Site - Wells Ravine Landfill | Director Facilities Engineering | 1979 Apr 04 | IL EPA |
| 7.014 | Letter-re: Permit Application for Wells Ravine Landfill | Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering | 1979 Jun 21 | Smith, S.A., IL EPA |
| 7.015 | Letter-re: Permit Granted to US Army - Fort Sheridan to Develop a Solid Waste Disposal Site - Wells Ravine Landfill | Cavanagh, T.E. Jr. - IL EPA | 1979 Sep 04 | Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering |
| 7.016 | Letter-re: Development of Solid Waste Disposal Site | Cavanagh, T.E. Jr. - IL EPA | 1979 Dec 19 | Director of Facilities Engineering |
| 7.017 | Lab Analysis Data from Inspection to Obtain Landfill Operating Permit | Ketchick, J: - Environmental Engineer | 1980 Apr 22 | Ayers, T.G., IL EPA |
| 7.018 | Inspection Report, Solid Waste Landfill, Fort Sheridan | JAS, IL EPA | 1980 Jun 11 | Ketchik, J., US Army - Fort Sheridan |
| 7.019 | Letter-re: Permit for Wells Ravine Landfill Granted | Cavanagh, T.E. Jr. - IL EPA | 1980 Jun 26 | Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering |
| 7.020 | Inspection Report, Solid Waste Landfill, Fort Sheridan | IL EPA | 1980 Dec 23 | US Army - Fort Sheridan |
| 7.021 | Letter-re: Failure to Submit Groundwater Sampling Results for Landfill Monitoring Program | Piskin, R. - IL EPA | 1981 Mar 04 | Gerdes, J., US Army - Fort Sheridan |
| 7.023 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Shane, D. - IL EPA | 1981 May 26 | US Army - Fort Sheridan |
| 7.024 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Shane, D. - IL EPA | 1981 Jun 05 | US Army - Fort Sheridan |
| 7.025 | Inspection Report, Solid Waste Landfill, Fort Sheridan | IL EPA | 1981 Jul 20 | US Army - Fort Sheridan |
| 7.026 | Inspection Report, Solid Waste Landfill, Fort Sheridan | IL EPA | 1981 Sep 22 | US Army - Fort Sheridan |
| 7.027 | Inspection Report, Solid Waste Landfill, Fort Sheridan | Evans, J. - IL EPA | 1981 Nov 06 | Ketchik, J. - US Army - Fort Sheridan |
| 7.028 | Letter-re: Inspection of Landfill | Bechley, K.P. - IL EPA | 1981 Dec 30 | Ketchik, J. - US Army - Fort Sheridan |
| 7.029 | Letter-re: Failure to Submit Groundwater Monitoring Results | Nechvatal, M.F. - IL EPA | 1982 May 28 | Gerdes, J., US Army - Fort Sheridan |
| 7.030 | Inspection Report, Solid Waste Landfill Fort Sheridan | IL EPA | 1982 Jun 21 | US Army - Fort Sheridan |
| 7.031 | Letter-re: Failure to Submit Groundwater Monitoring Results | Nechvatal, M.F. - IL EPA | 1983 Aug 24 | Gerdes, J., US Army - Fort Sheridan |
| 7.032 | Letter-re: Failure to Submit Groundwater Monitoring Results | Haney, M.A., IL EPA | 1983 Nov 03 | Gerdes, J., US Army - Fort Sheridan |
| 7.033 | Letter-re: Failure to Submit Groundwater Monitoring Results | Haney, M.A., IL EPA | 1984 Feb 07 | Gerdes, J., US Army - Fort Sheridan |
| 7.034 | Letter-re: Non-Compliance of the Monitoring Program | Haney, M.A., IL EPA | 1984 Sep 19 | Gerdes, J., US Army - Fort Sheridan |
| 7.036 | Letter-re: Finalization of Groundwater Monitoring Requirements for Fort Sheridan-Wells Ravine Landfill | Nechvatal, M.F. - IL EPA | 1985 Mar 05 | Dean, LTC D.A., Director of Facilities Engineering |
| 7.037 | Letter-re: Initiation of Modification of Groundwater Monitoring System | Dean, LTC D.A. - Director of Engineering and Housing | 1985 Apr 03 | Davis, S., IL EPA |
| 7.038 | Letter-re: Groundwater Sampling Using Leachate at Landfill | Brill, J.S., Director of Engineering and Housing, US Army Fort Sheridan | 1986 May 06 | Haney, M., IL EPA |
| 7.038.1 | Quarterly Analysis Reports for Water Monitoring Program on Landfill Closure - April 1981 thru June 1986 | Dougherty, LTC M.F. - DEH | 1981 Apr - 1986 Jun | Piskin, R., IL EPA |
| 7.039 | Inspection Report Solid Waste Landfill Fort Sheridan | Marvel, T.J. - IL EPA | 1988 Apr 14 | US Army Fort Sheridan |
| 7.040 | Memorandum-re: Landfill Closure Certification Inspection for Wells Ravine Landfill | Marvel, T.J. - IL EPA | 1988 May 17 | Savage, G., IL EPA |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 7.041 | RCRA Inspection of Fort Sheridan | Boyle, J.M. - IL EPA | 1988 May 20 | Talbot, D.L., LTC - Fort Sheridan |
| 7.042 | Letter-re: Response to Compliance Inquiry Letter Concerning Landfill | Talbott, LTC D.L. - DEH | 1988 Jun 21 | Savage, G.D., IL EPA |
| 7.043 | Memorandum-re: Current Status of Monitoring Requirements for Landfill | Rogers, K. - IL EPA | 1988 Dec 08 | Division File |
| 7.044.1 | Finding of Suitability to Lease Golf Course Parces, Fort Sherian, Illinois | Walker, L.D. - Department of the Army | 1994 May 04 | |
| 7.044.1.1 | Letter-re: Current Actions taken for Closure of Landfill 7 | Reilly, C.-BEC, and Schultz, Mark - Navy PWC | 1995 Nov 28 | Kallis, Chris - IL EPA |
| 7.045 | Finding of Suitability to Lease (FOSL) Historic District Lease Parcel, Updated Final | | 1997 Oct 01 | |
| 7.046 | Finding of Suitability to Transfer (FOST) Historic District Transfer Parcel, Final | | 1997 Oct 01 | |
| 7.047 | Finding of Suitability to Transfer (FOST) Historic District, Landfills 3 & 4 and Miscellaneous Study Areas, Final | | 1997 Dec 01 | |
| 7.048 | Finding of Suitability to Transfer (FOST) Golf Course Transfer Parcel, Final | | 1997 Dec 01 | |
| 7.049 | Finding of Suitability to Transfer (FOST) Miscellaneous Golf Course Study Area Parcels, Final | | 1998 Nov 01 | |
| 7.050 | Finding of Suitability to Transfer (FOST) Former Coal Storage Area and Blacksmith's Shop Parcels, Final | | 1999 Jun 01 | |
| 7.051 | Finding of Suitability to Transfer (FOST) Landfill 2/38-Acre Parcel, Final. | | 1999 Aug 01 | |
| 7.052 | Finding to Suitability to Transfer (FOST) Coal Storage Area Annex Parcel, Final | | 1999 Dec 01 | |
| 7.053 | Letter-re: Alan Bailliett's involvement with Fort Sheridan, the Guaranteed Fixed-Price Remediation (GFPR) Contract, and Description of Roles and Responsibilities under the GFPR | Bailliett, A.L - Fort Sheridan BRAC Environmental Coordinator | 2001 Dec 14 | Thompson, W.O. - US EPA |
| 7.054 | Letter-re: Exempt from Public Disclosure Claim: Draft Documents Dated January 1, 2002 through December 31. 2002 | Bailliett, A.L - Fort Sheridan BRAC Environmental Coordinator | 2002 Feb 19 | Dura, M. - Illinois EPA |
| | | | | |
| 8.001.1 | Memorandum-re: Status of Vinyl Chloride Assessment | Cogliano, James - USEPA | 1989 Sep 29 | Den, Arnold - USEPA, Region 9 |
| 8.004.0.1 | Letter-re: Report on Gas Vent Liquids Sampling Landfill 7 | Schultz, Mark - U.S. Navy Public Works Center | 1995 Mar 31 | Reilly, C. - Fort Sheridan BEC |
| 8.004.0.2 | Letter-re: Gas Vent Liquids Sampling Landfill 7 | Reilly, C., Fort Sheridan BEC | 1995 Apr 25 | Schulz, Mark - U.S. Navy Public Works |
| 8.004.0.3 | Letter-re: Landfill 7 Seep Repair | Rave, Peter A. - USACE | 1995 Jun 12 | Saltzman, Rob - Ecology Services, Inc. |
| 8.005.1 | Final Report Outdoor Sampling Landfill 7 | USACHPPM | 1995 Jul 01 | |
| 8.006 | Addendum, Indoor Air Quality Study and Odor Investigation Landfill 7 | USACHPPM | 1995 Jul 01 | Reilly, C. - Fort Sheridan BEC |
| 8.007 | Letter-re: Draft Indoor Air Quality Study and Odor Investigation Report | Reilly, C. - Fort Sheridan BEC | 1995 Oct 20 | Schulz, Mark - U.S. Navy Public Works Center |
| 8.008 | Memorandum-re: Final Report Outdoor Sampling Landfill 7, July - August 1995 | Lee, Maj. Arthur P. | 1996 Apr 30 | Reilly, C. - Fort Sheridan BEC |
| | | | | |
| 9.001 | Selected Legally Protected Animals | U.S. Army Engineer Waterways Experiment Station | 1975 Jun 01 | U.S. Army |
| 9.002 | Illinois List of Endangered and Threatened Vertebrate Species | Illinois Department of Conservation | 1978 | Administrative Order |
| | | | | |
| 10.014 | Fort Sheridan Concept Plan - Overview | Johnson Johnson & Roy/Inc. | 1994 Sep 30 | The Fort Sheridan Joint Planning Committee |

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 10.015 | Fact Sheet: Environmental Program, Fort Sheridan, Illinois | US AEC | 1995 Jan 06 | Fort Sheridan Restoration Advisory Board |
| 10.015.0.1 | Fact Sheet: Restoration Advisory Board | US Army Fort Sheridan BRAC Office | 1995 Jan 01 | |
| 10.016 | Summary of the January 17, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Jan 31 | Fort Sheridan Restoration Advisory Board |
| 10.017 | Letter-re: Conceptual Land Use Plan Completion | Johnson, P.W. - Deputy Assistant Secretary of the Army | 1995 Feb 03 | King, K., Joint Planning Committee Executive Administrator, Fort Sheridan |
| 10.019 | Summary of the February 21, 1995 Restoration Advisory Board meeting | Reilly, C. - Fort Sheridan BEC | 1995 Mar 13 | Fort Sheridan Restoration Advisory Board Members |
| 10.022 | Summary of the March 28, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Apr 11 | Fort Sheridan Restoration Advisory Board Members |
| 10.023 | Summary of the April 18, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 May 05 | Fort Sheridan Restoration Advisory Board Members |
| 10.024 | Summary of the May 16, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Jun 06 | Fort Sheridan Restoration Advisory Board Members |
| 10.025 | Summary of the June 20, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Jul 06 | Fort Sheridan Restoration Advisory Board Members |
| 10.026 | Summary of the July 18, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Aug 02 | Fort Sheridan Restoration Advisory Board Members |
| 10.027 | Revised Summary of the August 15, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Sep 06 | Fort Sheridan Restoration Advisory Board Members |
| 10.028 | Quarterly Newsletter: Environmental Update, Issue #1- Fort Sheridan | U.S. Army, Fort Sheridan | 1995 Fall | |
| 10.029 | Summary of the September 19, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Oct 03 | Fort Sheridan Restoration Advisory Board Members |
| 10.030 | Updated Final: Community Relations Plan (CRP) Fort Sheridan, Illinois (see shelf for report) | Dames & Moore, Inc.:(Updated by Fort Sheridan BRAC Office | 1995 Oct 01 | USAEC |
| 10.031 | Summary of the October 24, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Nov 10 | Fort Sheridan Restoration Advisory Board Members |
| 10.032 | Newsletter: Environmental Update | PWC/EFA Environmental Office, Great Lakes | 1995 Nov 10 | |
| 10.033 | Summary of the December 7, 1995 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1995 Dec 21 | Fort Sheridan Restoration Advisory Board Members |
| 10.034 | Quarterly Newsletter: Environmental Update, Issue #2 - Fort Sheridan | U.S. Army, Fort Sheridan | 1995 Winter | |
| 10.035 | Summary of the January 9, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Jan 30 | Fort Sheridan Restoration Advisory Board Members |
| 10.036 | Newsletter: Environmental Update | PWC/EFA Environmental Office, Great Lakes | 1996 Feb 01 | |
| 10.037 | Public Notice-Re: UXO Time Critical Removal Action | Garcia, Josephine | 1996 Mar 25 | |
| 10.038 | Letter-re: Ordnance Removal at Fort Sheridan, IL | Reilly, C. - Fort Sheridan BEC | 1996 Mar 26 | Local Residents |
| 10.039 | Fact Sheet: Ordnance Survey and Removal 38-Acre Former Firing Range | U.S. Army, Fort Sheridan | 1996 Mar 26 | |
| 10.040 | Summary of the February 20, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Apr 02 | Fort Sheridan Restoration Advisory Board Members |
| 10.041 | Quarterly Newsletter: Environmental Update, Issue #3 - Fort Sheridan | U.S. Army, Fort Sheridan | 1996 Spring | |
| 10.042 | Updated Summary of the March 19, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Apr 09 | Fort Sheridan Restoration Advisory Board Members |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC.NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 10.043 | Summary of the April 23, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 May 16 | Fort Sheridan Restoration Advisory Board Members |
| 10.044 | Summary of the May 28, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Jun 10 | Fort Sheridan Restoration Advisory Board Members |
| 10.045 | Fact Sheet: Excavation Alternative - Landfills 6 & 7 Interim Action | U.S. Army - Fort Sheridan | 1996 Jul 01 | |
| 10.046 | Letter-re: Copy of Focused Feasibility Study for Landfills 6 & 7 | Reilly, C. - Fort Sheridan BEC | 1996 Jul 08 | Rooney, M.- Highwood City Administrator; Limardi, D. - Highland Park City Manager; Kiely, R. - Lake Forest City Manager |
| 10.047 | Summary of the June 18, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Jul 11 | Fort Sheridan Restoration Advisory Board Members |
| 10.048 | Fact Sheet: Landfills 6 & 7 Cleanup Action | U.S. Army - Fort Sheridan | 1996 Aug | |
| 10.049 | Public Notice-Re: Announcement of Proposed Plan/Comment Period for Landfills 6 & 7 | U.S. Army, Fort Sheridan | 1996 Aug 07 | |
| 10.050 | Oral Comments from Public Meeting-re: LF 6 & 7 Preferred Alternative Plan | Sonntag Reporting Service, Ltd. | 1996 Aug 21 | |
| 10.051 | Summary of the July 24, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Sep 04 | Fort Sheridan Restoration Advisory Board Members |
| 10.053 | Public Comments on the Proposed Plan Landfills 6 and 7 | U.S. Army, Fort Sheridan | 1996 Sep 07 | |
| 10.055 | Summary of the September 25, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Oct 15 | Fort Sheridan Restoration Advisory Board Members |
| 10.056 | Summary of the October 23, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Nov 11 | Fort Sheridan Restoration Advisory Board Members |
| 10.057 | Quarterly Newsletter: Environmental Update, Issue #4 - Fort Sheridan | U.S. Army, Fort Sheridan | 1996 Nov 01 | |
| 10.058 | Summary of the November 20, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1996 Dec 09 | Fort Sheridan Restoration Advisory Board Members |
| 10.059 | Summary of the December 18, 1996 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Jan 08 | Fort Sheridan Restoration Advisory Board Members |
| 10.060 | Summary of the January 22, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Feb 05 | Fort Sheridan Restoration Advisory Board Members |
| 10.061 | Summary of the February 26, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Mar 17 | Fort Sheridan Restoration Advisory Board Members |
| 10.061.5 | Quarterly Newsletter: Environmental Update, Issue #5 - Fort Sheridan | U.S. Army, Fort Sheridan | 1997 Mar 01 | |
| 10.062 | Summary of the March 26, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Apr 11 | Fort Sheridan Restoration Advisory Board Members |
| 10.063 | Summary of the April 23, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 May 21 | Fort Sheridan Restoration Advisory Board Members |
| 10.064 | Summary of the May 28, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Jul 09 | Fort Sheridan Restoration Advisory Board Members |
| 10.065 | Public Notice-Re: Announcement of Landfill 3 & 4 Proposed Plan | U.S. Army, Fort Sheridan | 1997 Jul 21 | |
| 10.066 | Public Notice-Re: Cleanup Decision for Fort Sheridan Landfills 6 & 7 | U.S. Army, Fort Sheridan | 1997 Aug 18 | |
| 10.067 | Fact Sheet: Cleanup Action at Landfills 6 & 7 Initial Construction Activities | U.S. Army, Fort Sheridan | 1997 Aug 01 | |
| 10.068 | Summary of the July 23, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Aug 18 | Fort Sheridan Restoration Advisory Board Members |
| 10.069 | Quarterly Newsletter: Environmental Update, Issue #6 - Fort Sheridan | U.S. Army, Fort Sheridan | 1997 Sep 01 | |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 10.070 | Summary of the August 27, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Sep 15 | Fort Sheridan Restoration Advisory Board Members |
| 10.071 | Summary of the September 24, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Oct 15 | Fort Sheridan Restoration Advisory Board Members |
| 10.072 | Public Notice-Re: Cleanup Decision for Fort Sheridan Landfills 3 & 4 | U.S. Army, Fort Sheridan | 1997 Nov 10 | |
| 10.073 | Fact Sheet: Former Coal Storage Area and Blacksmith's Shop - Proposed Cleanup Actions | U.S. Army, Fort Sheridan | 1997 Nov 01 | |
| 10.074 | Summary of the October 22, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1997 Nov 19 | Fort Sheridan Restoration Advisory Board Members |
| 10.075 | Public Notice-Re: Cleanup Proposal for Former Coal Storage Area and Blacksmith's Shop | U.S. Army, Fort Sheridan | 1997 Nov 26 | |
| 10.076 | Summary of the December 4, 1997 Restoration Advisory Board Meeting | Reilly, C. - Fort Sheridan BEC | 1998 Jan 12 | Fort Sheridan Restoration Advisory Board Members |
| 10.076.1 | Quarterly Newsletter: Environmental Update, Issue #7 - Fort Sheridan | U.S. Army, Fort Sheridan | 1998 Feb 01 | |
| 10.077 | Summary of the February 4, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Mar 04 | Fort Sheridan Restoration Advisory Board Members |
| 10.078 | Summary of the March 24, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 May 28 | Fort Sheridan Restoration Advisory Board Members |
| 10.078.1 | Summary of the May 28, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Jun 10 | Fort Sheridan Restoration Advisory Board Members |
| 10.079 | Public Notice- RE: Army Proposes No Cleanup Required for Fort Sheridan Ravines and Beach Area Study Areas | U.S. Army, Fort Sheridan | 1998 Jun 11 | |
| 10.080 | Summary of the June 17, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Jul 14 | Fort Sheridan Restoration Advisory Board Members |
| 10.081 | Summary of the July 21, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Sep 09 | Fort Sheridan Restoration Advisory Board Members |
| 10.082 | Public Notice- RE: Army Announces No Cleanup Required for Ft. Sheridan Ravines and Beach Area Study Areas | U.S. Army- Fort Sheridan | 1998 Oct 15 | |
| 10.082.1 | Summary of the September 28, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Oct 28 | Fort Sheridan Restoration Advisory Board Members |
| 10.083 | Letter to Highland Park Water Treatment Plant, RE: Artillery Ranges and drinking water | Reilly, C- Fort Sheridan BEC | 1998 Nov 02 | Quafisheh, Nabil, Lab Supervisor, City of Highland Park |
| 10.084 | Letter to Steven Pollack, RE: USEPA's Preliminary Assessment, Ft. Sheridan Artillery Ranges | Muno, William, U.S. Environmental Protection Agency | 1998 Dec 15 | Pollack, Steven |
| 10.085 | Summary of the November 5, 1998 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1998 Dec 16 | Fort Sheridan Restoration Advisory Board Members |
| 10.085.1 | Quarterly Newsletter: Environmental Update, Issue #8 - Fort Sheridan | U.S. Army, Fort Sheridan | 1999 Feb 01 | |
| 10.086 | Public Notice- RE: Army Announces No Cleanup Required for Ft. Sheridan Landfill 2/Small Arms Range/38-acre Parcel Fill Area Study Areas | U.S. Army- Fort Sheridan | 1999 Feb 25 | |
| 10.087 | Summary of the January 14, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 Feb 17 | Fort Sheridan Restoration Advisory Board Members |
| 10.088 | Summary of the March 3, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 Apr 08 | Fort Sheridan Restoration Advisory Board Members |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 10.089 | Summary of the April 27, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 May 19 | Fort Sheridan Restoration Advisory Board Members |
| 10.090 | Summary of the June 3, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 Jul 14 | Fort Sheridan Restoration Advisory Board Members |
| 10.090.1 | Summary of the July 29, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 Aug 24 | Fort Sheridan Restoration Advisory Board Members |
| 10.091 | Quarterly Newsletter: Environmental Update, Issue #9- Fort Sheridan | U.S. Army, Fort Sheridan | 1999 Aug 01 | |
| 10.092 | Fort Sheridan Community Assessment | Equinox Environmental Consultants | 1999 Sep 09 | BRAC Environmental Office, Fort Sheridan |
| 10.094 | Public Notice- RE: Army Announces Availability of Explanation of Signficant Differences for the Landfills 6 and 7 Restoration Project | U.S. Army - Fort Sheridan | 1999 Sep 28 | public |
| 10.094.1 | Summary of the Sep 1, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 1999 Oct 22 | Fort Sheridan Restoration Advisory Board Members |
| 10.095 | Public Notice-RE: Army Proposes No Action for 24 Fort Sheridan Army Reserve and Navy Study Areas | U.S. Army - Fort Sheridan | 1999 Nov 10 | public |
| 10.096 | Summary of the Nov 3, 1999 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2000 Jan 20 | Fort Sheridan Restoration Advisory Board Members |
| 10.097 | Summary of the Jan 20, 2000 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2000 Mar 28 | Fort Sheridan Restoration Advisory Board Members |
| 10.098 | Summary of the April 11, 2000 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2000 May 23 | Fort Sheridan Restoration Advisory Board Members |
| 10.099 | Summary of the June 13, 2000 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2000 Jul 20 | Fort Sheridan Restoration Advisory Board Members |
| 10.1 | Summary of the September 12, 2000 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2000 Oct 17 | Fort Sheridan Restoration Advisory Board Members |
| 10.2 | Youth Center Playground Sampling Results, Town Hall Meeting, Question and Answer Fact Sheet | Fort Sheridan | 2000 Oct 25 | public |
| 10.3 | Summary of the October 19, 2000 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2001 Jan 03 | Fort Sheridan Restoration Advisory Board Members |
| 10.4 | Newsletter: Environmental Update | Fort Sheridan | 2001 Winter | public |
| 10.5 | Installation Technical Assistance for Public Participation (TAPP) Report, Fort Sheridan, IL | Colleen Reilly | 2002 Feb 01 | public |
| 10.6 | Summary of the January 25, 2001 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2001 Feb 27 | Fort Sheridan Restoration Advisory Board Members |
| 10.7 | U.S. Army Responses To the Fort Sheridan Restoration Advisory Board's Recommendations Related to the Design of Interim Remedial Measures, Landfills 6 and 7, Fort Sheridan, Illinois (recommendations provided in the summary report of the TAPP Workshop) | U.S. Army | 2001 Mar 15 | Restoration Advisory Board members |
| 10.7.1 | Summary of the March 20, 2001 Restoration Advisory Board Meeting | Reilly, C.- Fort Sheridan BEC | 2001 Mar 20 | Public |
| 10.8 | Public Notice- RE: Army Announces Availability of Explanation of Signficant Differences for the Landfills 6 and 7 Restoration Project | U.S. Army - Fort Sheridan | 2001 Aug 22 | Public |
| 10.9 | Presentation from the November 15, 2001 Restoration Advisory Board Meeting | Bergquist, T. KEMRON | 2001 Nov 30 | Janss, T. - Fort Sheridan BEC |
| | | | | |

# Fort Sheridan
# Administrative Record

*March 2002*

| DOC NO | DOCUMENT TITLE | AUTHOR | DATE | RECIPIENT |
|---|---|---|---|---|
| 11.001 | Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (Interim Final) | Office of Emergency and Remedial Response, US EPA | 1988 Oct 01 | |
| 11.002 | Guidance on Preparing Superfund Decision Documents: The Proposed Plan, The Record of Decision, Explanation of Significant Differences, The Record of Decision Amendment (Interim Final) | Office of Emergency and Remedial Response, US EPA | 1989 Jul 01 | |
| 11.003 | Influence of Casing Materials on Trace-Level chemical in Well Water | Parker, L.V.; A.D. Hewitt; T.F. Jenkins | 1990 Spring | |
| 11.006 | CERCLA Site Discharges to POTWs-Guidance Manual | US EPA | 1990 Aug 01 | |
| 11.007 | Technical Policy #14: Soil Volatile Sampling Procedures | Davis, S.; Otto, S.; Reside, G.; Rowe, G.T.; Tin, A.; -IL EPA | 1990 Dec 17 | Fendick, R., USATHAMA |
| 11.009 | Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs | US EPA | 1991 Apr 01 | |
| 11.010 | Executive Order12580, Superfund Implementation | Office of the President | 1991 Oct 22 | |
| 11.012 | Superfund Information Repositories and Administrative Records | US EPA | 1992 Aug 01 | |
| 11.013 | Guidance for Establishing the Basis for Cleanup Objectives | IL EPA | 1992 Dec 01 | |
| 11.014 | Certification of Adopted Amendments | Illinois Dept. of Public Health | 1993 Feb 01 | |
| 11.015 | Administrative Procedure #26 - Procedure for Determination of a Class II Groundwater | Liss, K.; Young, H.; - IL EPA | 1993 Mar 24 | |
| 11.016 | Soil Volatile Sampling Procedures | IL EPA | 1993 Apr 15 | |
| 11.016.1 | Presumptive Remedy for CERCLA Municipal Landfill Sites | US EPA | 1993 Sep 01 | |
| 11.018 | Region IX Preliminary Remediation Goals (PRGs) First Half of 1994 | US EPA | 1994 Feb 01 | US AEC |
| 11.019 | Memorandum-re: Military Base Closures, Guidance on EPA Concurrence in the Identification of Uncontaminated Parcels under CERCLA Section 120 (h) (4) | Laws, E.P.; - US EPA | 1994 Apr 19 | |
| 11.020 | Administrative Procedure #11-Monitor Well Design Criteria | US EPA | 1993 Dec 14 | |
| 11.020.1 | Illinois Lead Poisoning Prevention Code, 77 Ill. Adm. Code 845 | | 1994 Dec 31 | |
| 11.021 | Memorandum-re: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities | Laws, E.P. - US EPA | 1994 Jul 14 | US EPA - Regional Administrators I-X |
| 11.023 | Soil Remediation Methodology Objectives | IL EPA | 1994 Nov 14 | |
| 11.024 | Letter-re: Illinois Register reflecting promulgated Changes to 35 Illinois Administrative Code (IAC) 620 Regulations | Nussbaum, S.D. - IL EPA | 1994 Nov 23 | Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy |
| 11.025 | Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills (Interim Guidance) | US EPA | 1996 Apr 01 | |
| 11.026 | Control of Water Infiltration into Near Surface LLW Disposal Units, NUREG/CR-4918 | U.S. Nuclear Regulatory Commission | 1996 Aug 01 | |
| | | | | |
| Please Note: Guidance documents, statutes, and regulations listed as bibliographic sources might not be listed separately in the index. | | | | |
| These documents are publicly available through IEPA, USEPA and/or public libraries. | | | | |
| | | | | |
| Publicly available technical literature listed as bibliographic sources might not be listed separately in the index. | | | | |

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# APPENDIX B

# CONCURRENCE LETTERS FROM USEPA AND IEPA

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

GEORGE H. RYAN, GOVERNOR RENEE CIPRIANO, DIRECTOR

(217) 557-8155
(FAX) 782-3258

January 8, 2003

Headquarters, Forces Command
Deputy Chief of Staff, G1
Attn: AFG1-BC (Victor Bonilla)
1777 Hardee Avenue, SW
Fort McPherson, Georgia 30330-1062

Re: Final Decision Document for the No Action Study Areas, DOD Operable Unit, Fort Sheridan, Illinois Dated June 2002

0970555001/Lake
Fort Sheridan (BRAC)
Superfund/Technical

Dear Mr. Bonilla:

The Illinois Environmental Protection Agency (Illinois EPA or Agency) is in receipt of the two signature pages for the Final Decision Document for the No Action Study Areas, DOD Operable Unit, Fort Sheridan, Illinois, which was dated June 2002 and received on October 29, 2002. Illinois EPA has reviewed the subject document and concurs that no further remedial action is required at the 23 study areas on the DOD Operable Unit listed in the No Action Decision Document. Illinois EPA (Director Cipriano) has signed the submitted signature pages and is herein returning those signed pages to the Army for inclusion in the Final Report.

As was noted previously by U.S EPA in a letter dated October 24, 2002, the findings of the subject document were limited to the potential environmental releases caused by the Department of the Army prior to base closure in 1993. Illinois EPA concurrence, therefore, is limited to the sampling and investigation performed under the Remedial Investigation (RI) for the DOD Operable Unit. This concurrence does not cover any possible releases caused by the Army Reserve or Navy since the RI sampling was completed.

If you have any questions regarding this correspondence, you may contact me at 217/557-8155 or via e-mail at Brian.Conrath@epa.state.il.us.

Sincerely,

Brian A. Conrath

Brian A. Conrath
Remedial Project Manager
Federal Facilities Unit
Federal Site Remediation Section
Bureau of Land

BAC:RAC:H:\fortsh\23NADDsigpg.let

cc: Owen Thompson, USEPA (HSRL-5J)
Mark Shultz, US Navy - EFA Midwest
✓Kurt Thomsen, Fort Sheridan EC
Chris Boes, USAEC
Kurt Zacharias, US Army Reserve

5.018

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

(217) 782-3397

THOMAS V. SKINNER, DIRECTOR

July 14, 2000

Colonel Roy L. Higgins, USA
Commander Fort McCoy
100 East Headquarters Road
Fort McCoy, Wisconsin 54656-5263

Re: 0970555001/Lake Co.
Fort Sheridan (BRAC)
Superfund/Technical

Colonel Higgins:

The Illinois Environmental Protection Agency ("Illinois EPA") has completed its review of the the *Draft Decision Document for the No Action Study Areas on the Department of Defense (DOD) Operable Unit (OU), Fort Sheridan, Illinois.* The Army has determined that No Response Action is necessary for the 24 study areas listed below:

- Shenck Ravine Fill
- Vehicle and Equipment Storage Area (VES) #3
- VES #4
- VES #5
- VES #6
- VES #7
- VES #8
- Boles Loop Drain
- Ammunition Storage Building 384
- Ammunition Storage Building 389
- Ammunition Storage Building 390
- Coastal Artillery Corps Firing Point
- Former Sewage Treatment Plant (STP)/ Sludge Beds
- Former Incinerator
- Former NIKE Missile Control and Fueling Area
- Building 128 Yard Area
- Building 137/139 Yard Area - Machine Shops
- Building 142 Administration
- Building 361 Yard Area - Photographic Shop
- Building 368 Yard Area - Auto Maintenance Shop
- Building 377 Yard Area
- Building 379 Yard Area - Electronic Communications Repair Shop
- Building 564/565 Yard Area
- Building 902 Yard Area - Maintenance Shop

After careful review of the results of the Remedial Investigation and Baseline Risk Assessment, Illinois EPA concurs with the U.S. Department of Army finding that chemical constituents detected in environmental media at the 24 no action study areas on the DOD OU are present at levels that do not add significant risk to human or ecological receptors above risks associated with naturally occurring or anthropogenic background concentrations found at Ft. Sheridan.

Illinois EPA is pleased that the Fort Sheridan project team has reached this significant milestone after a decade of study and cleanup. We look forward to completing environmental restoration activities on the DOD OU in the same spirit of cooperation that has led to this determination.

Sincerely,

Thomas V. Skinner,
Director

WCC:GPK:CLS:SDN:ptl:h:\fortsh\apprnapp.dir

cc: Colleen Reilly, Ft. Sheridan BEC
Owen Thompson, USEPA
Leonard Gunnel, USACE-Louisville
Jenny Berman Ross, US Navy - EFA Midwest
Mona Reints, US Army Reserve
Chris Manikas, SAIC
Chuck Lechner, USAEC

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: SRF-5J

October 12, 2001

Alan L. Balliett,
Ft. Sheridan BRAC Environmental Coordinator
Headquarters, Ft. McCoy
Attn: AFRC-FM-SSE
2171 S. 8th Avenue
Ft. McCoy, WI 54656-5136

RE: Army Responses to U.S. EPA Additional Comments (dated August 25, 1998) on Final Data Validation Report #5 (dated December 18, 1998)
Ft. Sheridan, Illinois
Department of the Army, Ft. McCoy, WI, August 24, 2001

Dear Mr. Balliett:

We have completed our review of the subject document, transmitted to us by Colleen Reilly, former Ft. Sheridan BRAC Environmental Coordinator, on August 24, 2001.

Mike Chrystof (our staff chemist) and I met with Colleen and Dr. Chuck Lechner of the Army Environmental Center, at Ft. Sheridan on May 23, 2001 to go over the Army's draft responses. We were impressed with the quality of work done by Colleen and Chuck on the validation problems and we left the meeting with a general agreement on the approach taken. The written responses formalize the results of their work.

The responses are complete, comprehensive and satisfactory. Potential impacts on the risk assessment have been explained and well documented. We think that if anyone questions the validity of this data in the future, the study should enable you to defend your decisions without having to do costly re-sampling and analysis.

It's unfortunate that this exercise was necessary and caused a two-year delay, but given the circumstances it was a very fine piece of work. We now have no objection to you moving ahead with the No Action Decision Document based on these data.

Please call me at 312 886-4843 if you have any questions.

Sincerely yours,

W. Owen Thompson
Remedial Project Manager

cc: Brian Conrath, Illinois EPA
Steve Janss, Versar, Inc., Ft. Sheridan On-site Env. Coor.
Chuck Lechner, U.S. AEC
Lisa Jones-Bateman, SAIC
Tara O'Leary, U.S. AEC Louisville District
Kurt Zaccharias, U.S. Army Reserve Support Command
Daniel M. Fleming, Navy Great Lakes EFA Midwest
Mike Chrystof, U.S. EPA