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Revision 1

North Slope Investigation Report

Prepared for the U.S. Department of Energy
Office of Environmental Restoration and
Waste Management



Westinghouse
Hanford Company Richland, Washington

Hanford Operations and Engineering Contractor for the
U.S. Department of Energy under Contract DE-AC06-87RL10930

Approved for Public Release

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North Slope Investigation Report

Richard C. Roos

Date Published
September 1990

Prepared for the U.S. Department of Energy
Office of Environmental Restoration and
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Hanford Company**

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ABSTRACT

Approximately 190 square miles of the 570-square-mile Hanford Site is north and east of the Columbia River (referred to as the North Slope). This land was used as a controlled buffer zone and for defense of the Hanford Site. The area still has physical evidence of past military activities. The area was homesteaded from the late 1800's until government control.

In response to safety and environmental concerns reported from Washington Department of Ecology and the public to the U.S. Department of Energy, Richland Operations Office, the North Slope area was investigated between December 1989 and April 1990. The investigation was limited to surface observation and comprised:

- review of historic records
- interviews with people knowledgeable of the area
- aerial search
- ground search.

Although information gathered will be used in planning operable unit investigations under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), this investigation was not conducted as part of a CERCLA or a Resource Conservation and Recovery Act of 1976 (RCRA) study. However, the North Slope area will be included in the remedial investigation/feasibility study for the 100-IU-3 operable unit.

This investigation was used to develop an inventory of sites containing potential hazards on the North Slope and to verify whether there are any imminent safety or environmental threat(s) to the public. Potential safety hazards include open cisterns, pits, and military target areas.

The cisterns and pits have been fenced and posted to limit the potential hazard. The military practice areas posed a potential problem because of the possibility of nonexploded rounds or "duds" in the area. Target areas were investigated by the U.S. Army Explosive Ordnance Division (EOD), Department of the Army, 53rd Ordnance Detachment, and the Seattle District Corps of Engineers (COE). The EOD found no unexploded ordnance (WHC 1990) and the COE concurred in their finding and stated that nothing observed could be regarded as a significant public hazard.

Other sites in the North Slope include military encampments, motor pools, and landfills associated with military and homestead sites. These sites do not pose any immediate threat to public health or the environment. Initial reports of an ammunition dump and dioxin on the North Slope were investigated, but no site or evidence of a site was found. A site containing disposed 2,4-D is known on the North Slope, and has been identified as a waste management unit to be investigated/remediated as part of the 100-IU-3 operable unit.

This investigation determined that no imminent safety or environmental threats exist to the human population that may access the North Slope area.

ABSTRACT

Approximately 100 square miles of the 520-acre area Hanford 210 is north and east of the Columbia River (referred to as the North Slope). This land was used as a controlled buffer zone and for testing of the Hanford Site. The area still has physical evidence of past military activities. The area was transferred from the 1950's until government control.

In response to safety and environmental concerns reported from Washington Department of Ecology and the public to the U.S. Department of Energy, Technical Operations Office, the North Slope area was investigated between December 1989 and April 1990. The investigation was limited to surface observation and sampling:

- a review of historic records
- interviews with people knowledgeable of the area
- aerial search
- ground search

Although information gathered will be used in planning remedial investigations under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and Superfund, the investigation was not conducted as part of a CERCLA or a Resource Conservation and Recovery Act of 1976 (RCRA) study. However, the North Slope area is included in the remedial investigation/feasibility study for the 100-U-3 operable unit.

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This investigation was used to develop an inventory of sites containing potential hazards on the North Slope and to verify whether there are any imminent safety or environmental threat(s) to the public. Potential safety hazards include open ditches, pits, and military target areas.

The ditches and pits have been fenced and posted to limit the potential hazard. The military practice areas posed a potential problem because of the possibility of unexploded rounds or "duds" in the area. Field areas were investigated by the U.S. Army Explosive Ordnance Division (EOD), Department of the Army, 23rd Ordnance Detachment, and the 23rd Military Corps of Engineers (MCE). The EOD found no unexploded ordnance (UXO) and the MCE concurred in their finding and stated that nothing covered could be regarded as a significant public hazard.

Other sites in the North Slope include military encampments, roads, pits, and landfills associated with military and historical sites. There were no sites with immediate threat to public health or the environment. Initial reports of an ammunition dump and dioxin on the North Slope were investigated, but no site or evidence of a site was found. A site containing 6 aged 5.4-1 is located on the North Slope, and has been identified as a waste management unit to be investigated/feasibility study of the 100-U-3 operable unit.

This investigation determined that no imminent safety or environmental hazard exist to the town population that may occur on the North Slope area.

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FIGURE:

1. North Slope Area Map depicting site investigation locations 1

TABLE:

1. Summary of sites identified 1

APPENDICES:

- A. WASTE INFORMATION DATA SYSTEM ON THE NORTH SLOPE A-1
- B. NOTES ON INDIVIDUAL NORTH SLOPE SITES B-1
- C. SUMMARY OF SITES INVESTIGATED AND SITE-SPECIFIC RECOMMENDATIONS C-1

1.0 INTRODUCTION

The U.S. Department of Energy (DOE) owns 570 square miles of land designated as the Hanford Site. Approximately 190 square miles of the Hanford Site lies north and east of the Columbia River (hereinafter referred to as the North Slope). The North Slope was used as a controlled buffer zone and for defense of the Hanford Site.

The history of the North Slope area includes homesteading from the late 1800's until government control of the area began in the early 1940's. After government acquisition of the land, the area was used for military defense of the Hanford Site. Defensive positions on the North Slope area originally consisted of seven anti-aircraft gun positions. These were replaced in the 1950's with three NIKE missile positions. Since approximately 1960, there has been no permanent military installation at the Hanford Site. However, the area has been used for military training maneuvers by the U.S. Army as an extension of the Yakima Firing Center.

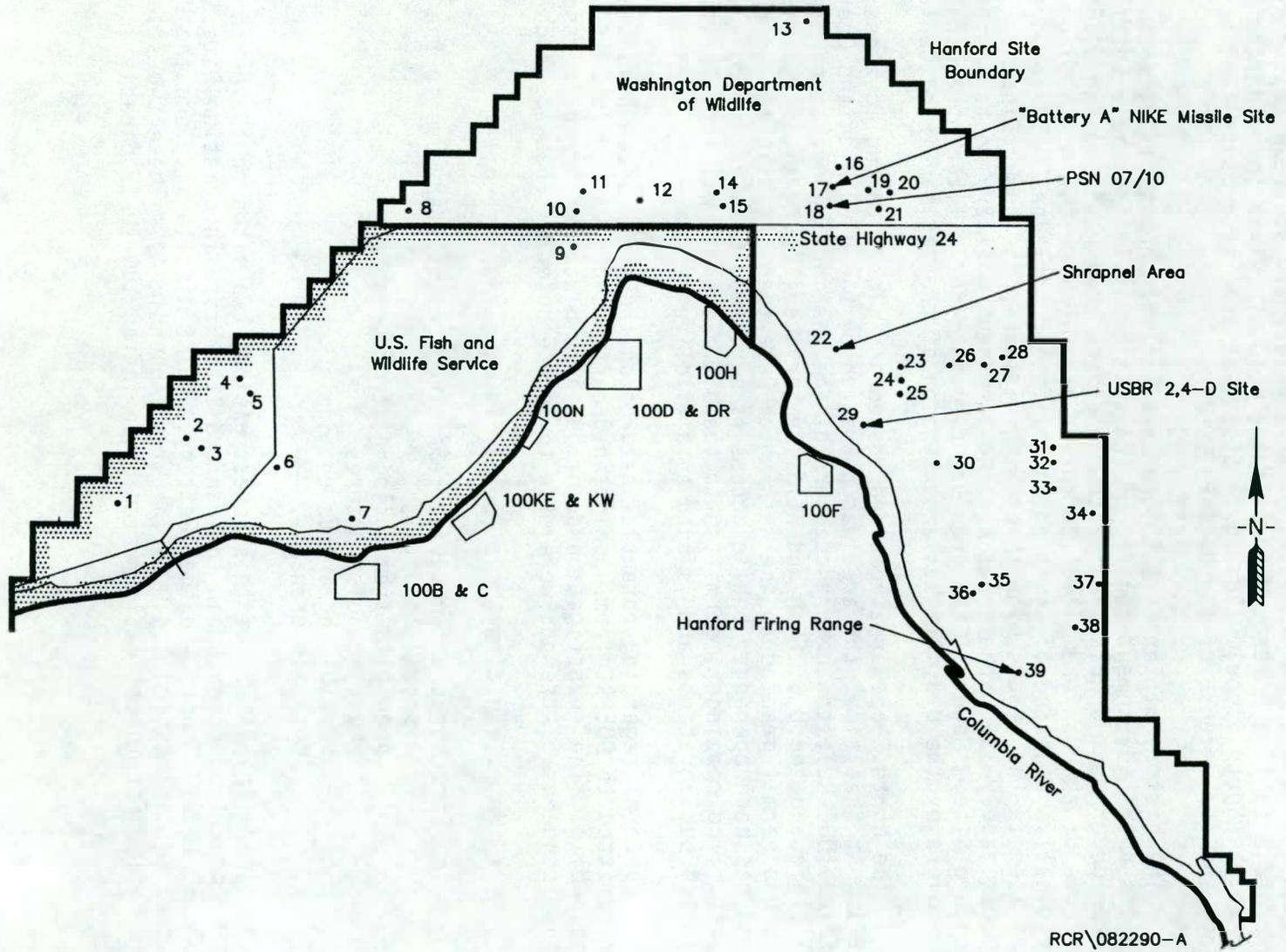
The North Slope area remained unused and closed to public access until 1971. At that time, the area was permitted by the DOE, Richland Operations Office (DOE-RL), to the predecessors of the Washington Department of Wildlife and the U.S. Fish and Wildlife Service (Figure 1). As a result of the use permit granted to the Washington Department of Wildlife, much of the land has been opened to public access as a recreation area during daylight hours. The remainder, permitted to the U.S. Fish and Wildlife Service, has limited public access and is used as a wildlife refuge.

Concerns regarding potential hazards on the North Slope have been transmitted to DOE-RL from Washington Department of Ecology (WHC 1990) and the public. The investigation described herein was performed in response to those concerns. Attempts were made to locate potential hazards such as:

- Homestead structures (primarily exposed cisterns)
- Structures and material remaining from military use in the area:
 - disposal landfills
 - open pits from building structures
 - underground structures
 - possible hazardous chemicals
 - possible ordnance.

Before initiation of this investigation, two sites on the North Slope were formally documented in the Hanford Site Waste Information Data System (DOE-RL 1989). These are the "Battery A" NIKE missile site and the U.S. Bureau of Reclamation 2,4-D burial site (Appendix A). These two sites are identified for investigation/remediation in the 100-IU-3 operable unit (WHC 1989b).

Figure 1. North Slope Area Map Depicting Site Investigation Locations.



2.0 OBJECTIVES

The objectives of the North Slope investigation were to assess potential health, safety, and environmental concerns and the need for corrective action in the North Slope area. This inventory of suspected hazardous sites allows DOE-RL and Westinghouse Hanford Company to assess risks and prioritize efforts regarding corrective action on the North Slope.

3.0 SCOPE

This document reports investigation of the North Slope to provide (1) an inventory of sites, (2) information on current site conditions, and (3) an assessment of risk to the public who may enter the area. Investigation was limited to visual observation only. Therefore, recommendations in this report must be recognized as based only on evidence observable from the surface. No subsurface investigations were made.

Subsequent study and actions are to be part of the remedial investigation/feasibility study (RI/FS) for 100-IU-3 as required by the Hanford Federal Facility Agreement and Consent Order (Ecology et al. 1989). Actions will be based on findings presented in this report and subsequent investigation including subsurface sampling and characterization.

Information has been gathered from a variety of sources. This information has been related, whenever possible, to a location in the field. Considerable time was spent in a ground search of the North Slope. This search was conducted over many miles, on foot, in off-road vehicles, and from aircraft. The ground search concentrated on known site areas and specific areas of suspected historical activity.

Some corrective action activity has been initiated, including fencing of some physical hazards and investigation of sites of potential explosives. These actions were undertaken when hazards appeared to represent a threat to safety. The actions initiated during this investigation were not intended to replace RI/FS activities on evaluation, planning, and appropriate corrective action.

4.0 INVESTIGATION PLAN

The plan for this investigation of the North Slope consisted of several activities:

- Gathering information from persons and historical records
- Verifying information gathered from various sources
- Conducting ground searches and an aerial survey of areas considered most likely to be impacted by past uses.

4.1 SITE DOCUMENTATION

When a site was located, a ground survey was conducted by physically walking the site. This was typically followed by a perimeter search in an expanding spiral until no evidence of past disturbance or potential hazards could be found. Photographs were taken of the site, and areas of potential hazard were documented in a field notebook. Notes on each site are presented in Appendix B.

As sites were documented, field personnel made an initial evaluation regarding the threat posed to health, safety, or the environment. The evaluation was based on conditions observed and did not include sampling or excavation. If the threat was judged to be imminent, immediate corrective action was taken as appropriate. Initial evaluation of the threat level was a field decision guided by the following:

- potential for explosion
- potential for release of hazardous materials to the environment
- potential for deteriorating conditions with time (e.g., a full drum of liquid that may rupture if not properly disposed of)
- potential for physical injury.

Ordnance experts were called in for investigation of three sites on the North Slope; PSN 07/10, Shrapnel Area, and Hanford Firing Range. Evidence (shrapnel, nonexplosive small caliber spent rounds) found during this investigation identified these sites as potentially containing military ordnance.

4.2 INFORMATION GATHERING

4.2.1 Historical Records Survey

Historical records are available that give insight to land uses during a number of time periods. Records are available with information about pre-Hanford settlement, military activities, and Hanford Site cleanup efforts. Records used in this search include:

- Hanford historical files
- U.S. Army Corps of Engineers records
- Douglas, Grant, and Franklin counties property ownership transfer records
- U.S. Bureau of Reclamation survey records
- Personal histories of past residents of the site.

4.2.2 Information from People Knowledgeable About the Area

Information was gathered from the following groups of people:

- Ranchers with grazing agreements on the North Slope
- Former residents of the area
- Professionals working in the area
- Persons who use the area for recreation.

4.2.3 Information Known but Not Recorded

Some information was known about sites on the North Slope but not formally documented until this project began. As this information was gathered, sites were documented and will be evaluated for inclusion in the Waste Information Data System (DOE-RL 1989) per Westinghouse Hanford procedures (WHC 1989a, EII 1.10).

4.3 SITE VERIFICATION AND DOCUMENTATION

When available information was gathered on a suspected site, an attempt was made to verify the site in the field. Field verification included:

- Locating the site to confirm existence and location
- Documenting current site conditions
- Identifying site location on a map for future reference.

5.0 INVESTIGATION FINDINGS

The majority of sites identified in this investigation can be categorized as associated with either military or homestead activity. Within these categories, findings from site to site are generally similar. Table 1 is a summary of the sites identified in this investigation.

5.1 MILITARY SITES

Evidence of a number of old military sites was found on the North Slope. Military records kept by the U.S. Army Corps of Engineers identify three NIKE missile sites and seven camps or anti-aircraft sites.

Sites may have different operating functions, however, the typical military site on the North Slope consists of several reinforced-concrete foundation pads, scattered bottles and metal cans, and a disposal area. Above-ground structures have been demolished and removed. Exceptions are five water well structures made of reinforced-concrete. They are 2 to 3 ft

tall and extend underground into chambers approximately 6 by 8 by 10 ft deep. These structures usually have metal covers that can be opened. The well shaft is located in the floor of the chamber. Other underground structures have been destroyed or filled in. Exceptions are two rooms at the radar site and a few small structures at the other site. These are noted in Appendix B.

Originally, well covers were locked by Hanford Site contractors to prevent unauthorized access. After the public was allowed in the area for recreation, curious persons began to cut locks and latches off the wells to open the doors. Efforts at opening the covers have been so persistent that securing the doors with locks has been ineffective.

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Reports from personnel assigned to military units at and near the North Slope indicate that there was no centralized refuse disposal system in operation for military sites on the North Slope. Each site maintained an individual landfill. Investigation of debris at the surface of disposal areas reveals the typical range of military camp items (e.g., food cans and bottles, motor pool refuse, office and personal supplies). Personnel in nearby military units report that no controls were kept on materials disposed of in the landfills.

Typically, small amounts of refuse can be found in the vicinity of the military sites. This includes oil and lubricant cans ranging in size from 1 quart to 5 gallons. Only a few cans were found to have oil in them. These cans have collected dust, plant debris, and insect bodies so that no free liquid remains. Paint cans also are common and some are partially full of dried paint. Several empty 1-gal solvent cans have been found. Nothing was found at the surface of any landfill that was considered an imminent hazard to personnel or the environment.

At essentially every military site, scraps of asbestos-transite siding from building structures remain. Pieces are generally small, apparently overlooked as materials were being removed from the sites for disposal. Personnel associated with site cleanup in the mid-1970's indicate that building structures were knocked down and buried in pits near the original building locations. Significant quantities of siding materials containing asbestos may be buried near each of the military locations.

While the military was stationed on the North Slope, a main-site motor pool was located across the Columbia River where the main Hanford Site construction and operations were occurring. Major repairs and nonroutine vehicle requirements were completed at this location. Each military site was also reported to have had its own smaller motor pool. Routine maintenance was performed, indicating the potential for used motor oil, solvents, and antifreeze at the sites. Reports indicate that standard procedure at that time was to use used oil for dust control on roads.

Some military sites have maintenance areas with sunken pits for convenient access by mechanics to the underside of vehicles. These grease pits may have had dry wells for solvent and oil disposal. However, they have been filled with soil, so this possibility could not be verified.

Table 1. Summary of Sites Identified. (Sheet 1 of 3)

Site Name	Map Location Number	Primary Potential Hazards	Element of Concern	Additional Effort Recommended	Interim Corrective Action Taken	Recommended Action
Construction	28	Physical	Used lumber	Yes	None	Defer*
H-06C	13	Environmental	Landfill	Yes	None	Defer*
H-06L	17	Env./physical	Landfill/excavation	Yes	Fence	Defer*
H-12C	26	Env./physical	Landfill/well	Yes	None	Defer*
H-12L	23	Env./physical	Landfill/excavation	Yes	Backfill	Defer*
H-12R	25	Physical	Used lumber	Yes	None	Defer*
H-81R	3	Env./physical (empty)	Buried drums	Yes	None	Defer*
H-83C	2	Env./physical	Landfill/well	Yes	None	Defer*
H-83L	4	Env./physical	Landfill/well	Yes	None	Defer*
Igloo Site	12	None identified	None	No	None	NFA
PSN 01	11	Env./physical	Landfill/well	Yes	None	Defer*
PSN 04	14	Env./physical	Landfill/well	Yes	None	Defer*
PSN 07/10	18	Env./physical	Buried drum/ practice landmines	Yes	Explosive investigation	Defer*
PSN 12/14	27	Env./physical	Landfill/well	Yes	None	Defer*
PSN 72/82	1	Env./physical	Landfill/buried structure	Yes	None	Defer*
PSN 80	5	None identified	None	Yes	None	Defer*
PSN 90	8	Environmental	Grease pit	Yes	None	Defer*
Radar Site	15	Physical	Buried structures	Yes	Fencing	**
Shrapnel Site	22	Physical	Military ordnance	Yes	Explosive investigation	Semiannual inspection

Table 1. Summary of Sites Identified. (Sheet 2 of 3)

Site Name	Map Location Number	Primary Potential Hazards	Element of Concern	Additional Effort Recommended	Interim Corrective Action Taken	Recommended Action
12-3 Cistern	33	Physical	Cistern	Yes	Fencing	Defer*
Clay Pit Cistern	19	Physical	Cistern	Yes	None	**
Cow Camp Cistern	20	Physical	Cistern	No	None	NFA
Homestead Cistern	21	Physical	Cistern	No	None	NFA
Overlook Cistern	36	Physical	Cistern	Yes	Fencing	**
Power Lane Cistern	31	Physical	Cistern	Yes	Fencing	**
Stock Tank Cistern	32	Physical	Structure	No	None	Defer*
Wagon Road Cistern	30	Physical	Cistern	Yes	Fencing	**
Wasteway Cistern	16	Physical	Cistern	Yes	None	**
Dune Homestead	34	None identified	None	No	None	NFA
Lonetree Homestead	38	None identified	None	No	None	NFA
2,4-D Burial Site	29	Environmental	2,4-D	Yes	None	Defer*
Asbestos Pipe Site	24	Health	Asbestos	Yes	None	Defer*

Table 1. Summary of Sites Identified. (Sheet 3 of 3)

Site Name	Map Location Number	Primary Potential Hazards	Element of Concern	Additional Effort Recommended	Interim Corrective Action Taken	Recommended Action
Asphalt Batch Plant	9	None identified	None	No	None	NFA
Coyote Bait Can	35	None identified	None	No	None	NFA
Coyote Bait Station	37	None identified	None	No	None	NFA
Gravel Pit 47	6	None identified	None	No	None	NFA
Gravel Pit 56	10	None identified	None	No	None	NFA
Hanford Firing Range	39	Physical	Military ordnance	Yes	Explosive investigation	Defer*
Wahluke Schoolhouse	7	None identified	None	No	None	NFA

*Work will be performed as part of the 100-IU-3 operable unit investigation.

**Sites that are deep enough to make exit difficult (more than ordinary tripping hazard) have been fenced.

NFA = no further action recommended.

In addition to the several military camps, three sites were found or reported that are not similar to those described previously (also shown in Appendix B): (1) an area of shrapnel concentration; (2) a practice firing range, and (3) a reported bombing range. These potential ordnance sites were investigated by personnel from the U.S. Army Explosive Ordnance Division (EOD), Department of the Army, 53rd Ordnance Detachment, with assistance from the Hanford Site Patrol, and Westinghouse Hanford Environmental Engineering Group. The EOD performed a records search, conducted personal interviews, conducted walkthroughs of the area, and swept the area with mine-detecting equipment, where appropriate. No unexploded ordnance was located during these investigations (WHC 1990). The Seattle District Corps of Engineers (COE) also investigated the area and found nothing constituting a significant public hazard (WHC 1990).

5.2 HOMESTEAD SITES

Data indicate the entire area included in the North Slope was homesteaded at some time since the late 1800's. The North Slope area was used for orchards and row crops near the river, wheat on the high ground away from the river, and as a grazing area where soil conditions would not allow the raising of crops.

As with military and other sites on the North Slope, homestead structures such as homes and outbuildings were leveled and removed during the mid-1970's. Typically, homestead locations can be identified by scattered cans, bottle shards, and pieces of lumber. Occasionally, a section of fence line remains near the homesite.

Many homestead sites are located within the 190 square miles of the North Slope. Relatively few have been noted in this study. Sites identified in this report have either a remaining cistern or an identifiable garbage disposal pit.

Cisterns are structures for storing water for domestic and livestock use. They are concrete or mortar lined and range in size from 3 to 10 ft in diameter and 4 to 14 ft deep. Water was hauled from the river or a spring and stored in the cistern.

Those cisterns that are largely intact may represent a physical hazard to persons and/or livestock. A person or animal falling into one of the larger cisterns may be injured, and the sheer walls may make escape without assistance difficult. As cisterns are identified, the location is communicated to DOE-RL and the Washington Department of Wildlife. The Washington Department of Wildlife agreed to fence and post warnings at these sites. No cisterns have been located during this investigation on land permitted to the U.S. Fish and Wildlife Service.

No specific hazards have been found associated with homestead garbage pits. One former resident indicated that, money was scarce, and canned goods were expensive and, consequently, rarely purchased. Most goods came in paper containers. Anything that could be reused was, and the few items that could not be reused were burned.

In the orchard areas, pesticides were used. Pesticides included lime, sulfur, and lead arsenate. In latter years, dichlorodiphenyltrichloroethane (DDT) and other pesticides may have been used. No areas have been found that are suspected of being pesticide disposal areas associated with home-stead activity. The 2,4-D burial sites, resulting from the U.S. Bureau of Reclamation work in the 1960's, is documented in the Hanford Site Waste Information Data System (DOE-RL 1989).

6.0 CONCLUSIONS

As a result of the North Slope investigation, the following interim corrective actions have been taken. Large, unfenced cisterns have been fenced and posted. Sites potentially containing military ordnance have been investigated by the U.S. Army Corps of Engineers and the U.S. Army Explosive Ordnance Division and found to have no immediate risk. No further imminent threats to human health and safety or the environment have been identified that require additional corrective action.

7.0 RECOMMENDATIONS

Sites on the North Slope not currently in the 100-IU-3 should be included in this operable unit for appropriate characterization and remediation. The boundary of 100-IU-3 should be expanded to include all North Slope sites. Inclusion in the operable unit would allow this work to be accomplished in a carefully controlled manner, and prioritized so that resources, including finances, equipment, and manpower may be optimized in the cleanup effort of the entire Hanford Site.

Topographic relief, vegetation, and the passage of time all serve to obscure sites of potential interest. Sites may exist on the North Slope that were not located or investigated during this investigation. Changing vegetation and erosional patterns may expose additional sites that should be investigated such as homesteads or military bivouacs.

Based on field observations and interviews with persons present at the time, there is evidence that antiaircraft batteries were fired at least once. This firing leaves a potential for unexploded rounds on the North Slope. No dud rounds were found by the EOD or by Westinghouse Hanford on the North Slope, but the possibility cannot be completely dismissed. Areas known to contain shrapnel should be investigated periodically to detect duds that could be exposed by erosion.

The recent investigation has evaluated available information. As additional information is discovered and, as erosional and ecological patterns change the North Slope, additional sites may be encountered. New sites should be documented and added to the data base of information and should be used for planning and implementing characterization and cleanup of this area.

Additional investigation activities are recommended which should be implemented as part of the remedial investigations conducted for the 100-IU-3 operable unit in the North Slope within its scheduled order of priority as defined by the Hanford Federal Facility Agreement and Consent Order (Ecology et al. 1989). These site-specific recommendations are contained in Appendix C.

8.0 REFERENCES

- DOE-RL, 1989, Hanford Site Waste Information Data System, U.S. Department of Energy-Richland Operations Office, Richland, Washington.
- Ecology, EPA, and DOE, 1989, Hanford Federal Facility Agreement and Consent Order, Washington Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.
- WHC, 1989a, Environmental Investigations and Site Characterization Manual, WHC-CM-7-7, Westinghouse Hanford Company, Richland, Washington.
- WHC, 1989b, Preliminary Operable Units Designation Project, WHC-EP-0216, Westinghouse Hanford Company, Richland, Washington.
- WHC, 1990, Letters Supporting North Slope Investigation, WHC-MR-0179, Westinghouse Hanford Company, Richland, Washington.

APPENDIX A

**WASTE INFORMATION DATA SYSTEM
ON THE NORTH SLOPE**

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Waste Information Data System
General Summary Report
April 13, 1990

SITE NAME: USBR 2,4-D Burial Site
ALIAS NAMES: None

SITE TYPE: Landfill
WASTE CATEGORY: Hazardous Waste

OPERABLE UNIT: 100-IU-3
REGULATORY AUTHORITY: Undefined

STATUS: Inactive
SERVICE DATES: From 1966 to 1967

COORDINATES: N75000 W10000
LOCATION: 600 Area.

REFERENCE DRAWINGS: H-3-57210, M-6000 #1

SITE AREA: 4,800.00 square feet

ELEVATIONS and DEPTHS: Ground: 700.00 feet above MSL
Water Table: 350.00 feet below grade
Site Depth: 4.00 feet below grade

WASTE VOLUME RECEIVED: cubic meters
CONTAMINATED SOIL VOLUME: cubic meters
OVERBURDEN SOIL VOLUME: cubic meters

SITE DESCRIPTIONS:
Burial ground, 400 ft long trench, 12 ft wide by 4 ft deep, covered with
4 ft of soil.

WASTE DESCRIPTION:
In 1966, 2,4-D contaminated soil was generated from leaking storage
tanks at a USBR Station in Eltopia, WA. The burial consisted of 900 gal
of 2,4-D that had leaked into 50 yd of soil. A second burial in 1967
consisted of the ten leaking tanks themselves, which were flattened and
buried in the same location.

Waste Information Data System
General Summary Report
April 13, 1990

SITE NAME: Wahluke Slope Nike Missile Base
ALIAS NAMES: None

SITE TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Nonhazardous/Nonradiation

OPERABLE UNIT: 100-IU-3
REGULATORY AUTHORITY: Undefined

STATUS: Inactive
SERVICE DATES:

COORDINATES: N515000 W20000
LOCATION:

SITE AREA:

ELEVATIONS and DEPTHS: Ground: feet above MSL
Water Table: feet below grade
Site Depth: feet below grade

WASTE VOLUME RECEIVED: cubic meters
CONTAMINATED SOIL VOLUME: cubic meters
OVERBURDEN SOIL VOLUME: cubic meters

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APPENDIX B

NOTES ON INDIVIDUAL NORTH SLOPE SITES

9313044.2658

Site Name MIL - Construction Dump

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
DSL

Date 1 / 25 / 90
Time 1049

Site Location: Area near corner of sections 13/24, T 14N R 27E, and sections 18/19, T 14N R 28E. About 2/3 mi north and east of PSN 12/14

Coordinates: 186° from Observatory Peak (Rattlesnake)
313 from H-06C

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is an area of demolished wooden military buildings. Considerable debris from building structures is present. The greatest amount of debris is concentrated within a 2 acre area, however, some building remains and trash are found over a large area extending roughly east-west. Many 1-gal and 5-gal oil cans are in the area. Lubricant cans and automobile parts suggest that trash may have come in part from a military motor pool. No specific areas of environmental concern were identified in the preliminary investigation. General construction debris such as boards with nails may pose a hazard to persons or animals.

Documentation: None Attached
 Contact: _____

9313044-2659

Site Name MIL - H-06C

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
ARJ

Date 1 / 5 / 90
Time 1115

Site Location: NE 1/4 of NW 1/4 Section 16, T 15N R 27E. End of road at summit of Saddle Mountains. Access through PSN 04.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input checked="" type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Control center for "Battery A" NIKE missile site. Remaining on site is a few concrete foundation pads. A leveled area on the north side of the access road may indicate the disposal area for the site. Little trash remains around the area. Over the cliff, in the "saddle" are a few 5-and 55-gal drums and a small quantity of other garbage.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineers Maps

93130-44.2660

Site Name MIL - H-06L

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 1 / 24 / 90
Time 1504

Site Location: NW 1/4 Section 34, T 15N R 27E. One mi north of Hwy 24 at mile marker 62 1/2. Access through PSN 07/10.

Coordinates: 327° from H-06C
178° from Observatory Peak (Rattlesnake Mtn)
169° from Radio Peak (Gable Mtn)

Indications of Problem:	<input checked="" type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is the launch location for "Battery A" NIKE missile installation. All structures have been leveled to the ground. Foundations remain as well as roadways, parking areas, and drainage structures.

The entrance to the underground structure (filled with soil to prevent entrance) has been partially excavated. It does not appear, however, that entry is possible at this time. Potential hazard from the opening appear to be from tripping and the exposed reinforcing steel. This location is fenced and posted.

Similar sites contain an acid pit used for disposal of acids used in maintenance operations. Concern has been raised by the lack of vegetative growth on soil berms at another missile site. Soil at H-06L is also largely barren; this appears to be due to the fact that only a relatively thin layer of soil overlays asphalt and concrete pads. Insufficient soil may exist to support plant growth during the hot, dry summer. Report from personnel stationed at the site indicates that removal of vegetation from soil berms was a major activity. This may indicate that persistent herbicides may not have been used.

One underground storage tank was located at this site. Approximate location is known; however, no evidence remains of the tank. Removal during excess operations is likely.

A 55-gal barrel is buried to the rim at the perimeter of the site. Function is unknown.

1997-11-06-16

Barracks location for H-06L is at the site named PSN 07/10. The barracks area is described under the heading PSN 07/10.

Documentation:

None Attached
 Contact: U.S. Army Corps of Engineers maps

9313044.2662

Site Name MIL - H-06L Dump

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RMM

Date 2 / 2 / 90
Time 1205

Site Location: N 1/2 of SE 1/4 Section 34, T 15N R 27E. East of position H-06L about 1 mi, 200 yd east of White Bluffs Wasteway, and 1/4 to 1/2 mi north of HWY 24.

Coordinates: 318° from H-06C
244° from H-06L (southern tree)
179° from Observatory Peak (Rattlesnake)
171° from Radio Peak (Gable Mtn)

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is approximately 2 to 3 acres in size. Disturbance of the soil is apparent. Inspection of the site shows a variety of materials exposed at the surface: paint cans, construction materials, asbestos siding, an asbestos brake pad. The site was used by the military at H-06L and possible other nearby locations for disposal.

Documentation: None Attached
 Contact: KWK

9313044.2663

Site Name MIL - H-12C

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RPH

Date 12/22/89
Time 1310

Site Location: NW 1/4 Section 24 T 14N R 27E. About 1/4 mi east of the corner of sections 13, 14, 23, 24. At road terminus west of PSN 12/14, and about 3 mi east of White Bluffs landing.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: This site is the control center for the "Battery B" NIKE missile site. No environmental concerns of a serious nature were observed. One 5-gal can of military lubricant was found containing a small amount of contents, but bodies of beetles had largely soaked up the liquid so that no free product remained. No evidence was found of underground storage tank locations.

Communication wire lead from the site, apparently to the launch site, H-12L. A trench was bulldozed to the north of the site. Observation indicated no evidence of buried materials in the trench, but several paint cans and some lubricant cans were nearby.

The U.S. Army Corps of Engineers personnel suspect that position H-12R, the radar station associated with this NIKE position is collocated with the control center H-12C. No evidence was found to confirm or refute this.

Some reinforcing bar was exposed around the building foundation. This may pose a physical hazard to inattentive persons in the area.

Documentation: None Attached
 Contact: Maps of military activity

1992 AUG 13

Site Name MIL - H-12L

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RMM

Date 1 / 5 / 90
Time 0925

Site Location: SW 1/4 of NW 1/4 Section 23, T 14N R 27E. Approximately 1/2 mi east of intersection to White Bluffs landing.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site is the launch area for "Battery B" NIKE missile site. Buildings have been removed so that only concrete foundation pads remain. The underground storage area was filled with soil during the 1974 to 1975 cleanup effort. The entrance to the underground area has been partially excavated. Another area has been excavated to a depth of 3 to 4 ft. This site is apparently an electrical access port. These excavations may pose a hazard to vehicular traffic in the area. Neither site is fenced.

An underground storage tank was probably on site during operation. The general location is known, but no evidence of the tank remains.

A large soil depression is at the northwest corner of the site. Soil disturbance suggests that this depression may have been used for disposal.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineer maps

9313044-2665

Site Name MIL - H-12R

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 02/08/90
DSL Time 1039

Site Location: NE 1/4 of SW 1/4, Section 23, T 14N R 27E.

Coordinates: 327° from H-06C
34° from H-12C
184° from Observatory Peak (Rattlesnake)

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site is a gravel road intersecting the paved access road to H-12C and PSN 12/14. Gravel road intersects access road opposite intersection of road to H-12L. In other words, this position is south of H-12L and directly beneath the White Bluffs power lines.

A gravel road forms a perimeter of the site. Remains are present of several wood frame structures. Many piles of domestic garbage can be found. Several 5-gal oil cans and some 55-gal drums are present. Automobile parts are also at the site. I have called the site H-12R because concrete footings approximately 18 by 10 in. are present at the east and west ends of the site. The arrangement of the footings suggest some sort of tower may have been bolted in place at these locations. Some doubt exists whether this is indeed a radar site. Generally, radar was placed in a high location, and this is in a low spot. Also, military maps show H-12R to be nearer PSN 12/14.

The site is approximately 1/3 mi long by 300 yd wide, is underneath the power line, and the axis runs east-west. General layout of this site is similar to Radar and PSN 80 sites. No evidence was found of underground structures at this site.

Documentation: None Attached
 Contact: _____

9997-1-06186

Site Name MIL - H-81R

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 3/21/90
JGL Time 1521

Site Location: N 1/2 of SW 1/4 Section 28, T 14N R 25E.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input checked="" type="checkbox"/> Other	

Site Narrative: Little remains of the site. Partial foundation pads are present. A large disturbed area on the west side of the site may indicate the disposal area. A small soil berm near the south-east corner of the site contains some refuse, including batteries and bottles.

A 55-gal drum is buried so that the top is flush with the ground near the north west end of the site. This has been referred to as a "snake trap," but function is unknown. A photograph of the interior of the drum shows no snakes.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineers maps

9313044-2667

Site Name MIL - H-83C

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CEH

Date 3/15/90
Time 1152

Site Location: SW 1/4 of NW 1/4 Section 28, T 14N R 25E. 1/4 mi north of main east-west access road, near top of bluff.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input checked="" type="checkbox"/> Other--U.S. Army Corps of Engineers maps	

Site Narrative: Site is the control center for "Battery C" NIKE missile site. A well structure remains on the site, but it has been mostly filled with soil. A small pit was found (approximately 4 by 1.5 ft) containing several hundred rounds of fired 30/06 blank ammunition along with steel links for belt fed automatic weapons. Several tires are found near the bluff.

A small trench west to the site may indicate a disposal area.

Documentation: None Attached
 Contact: COE maps

8997-4-08136

Site Name MIL - H-83L

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KJK

Date 3 / 27 / 90
Time 1005

Site Location: SW 1/4 Section 16, T 14N R 25E. Site is at the end of paved access road.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Actual launch site is separated from barracks location by approximately 1/4 mi. Buildings and above-ground structures have been removed. Underground structures have been filled with the exception of a well structure. Some possible disposal areas exist west of the site, and a large disposal area exists north of the site. The area north of the site appears to contain materials from practice maneuvers from the 1960's. No actual burial trenches were identified to the north. An area of approximately 50 acres has an unusual amount of trash scattered about, indicating probable disposal sites.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineers maps

9313044-2669

9313044-2669

Site Name MIL - Igloo Site

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KJK

Date 02/09/90
Time 1308

Site Location: SE 1/4 of NW 1/4 Section 35 T 15N R 26E. Site is approx. 1/2 mi north of Hwy 24 at about mile marker 57 1/2.

Coordinates: 142° from Radio Peak
166° from Observatory Peak (Rattlesnake)
193° from 100B Reactor

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Area around Igloo site shows no indication of hazard. Area is generally clean with exception of several broken boxes for ammunition for 4.7-in. guns.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineers maps

0292-A-03136
931304-2670

Site Name MIL - PSN 01

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KJK

Date 2/14/90
Time 1534

Site Location: W 1/2 of SE 1/4 Section 28, T 15N R 26E. Approximately 1 mi north of Hwy 24 at mile marker 56.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is an anti-aircraft site. Well structure is intact and could pose an attractive nuisance. Several areas appear to be disposal areas to the west, south, and north of the main area with trees.

Documentation: None Attached
 Contact: U.S. Army corps of Engineer maps

9313044-2671

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 02/08/90
DSL Time 1355

Site Location: SE 1/4 of NW 1/4 Section 32, T 15N R 27E

Coordinates: 2° from H-06C
174° from H-12C (poplar)
184° from Observatory Peak (Rattlesnake)

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site is an old AAA site. Antiaircraft gun doughnuts are located north of tree and well complex. Cat scars north and south of the tree complex indicate possibility of buried disposal sites. Construction material and garbage in the gully to the southeast also indicate potential disposal locations.

Well is marked as contaminated. A report has been received indicating that the well is contaminated with pesticide. At least four 5-gal containers are present around site. Bright yellow color and absence of labels suggest possible pesticide containers. Origin is unknown. Indications are that the well was dry at the time of the investigation.

East of trees is a small gully. In the gully approximately 350 yd NE are several blue plastic 55-gal drums. Six drums are complete and have a hole cut in the top approximately 8 by 10 in. Three drums have been cut in half. This general type of drum is often used to make animal feed and water troughs. All drums appear empty. These appear to be clean drums used for livestock.

Drums were marked "Sterling Imaging Inc, Pasco WA." A check with the company indicated that barrels probably contained photographic fixative, primarily acetic acid. Contents listed as: ammonia diethiosulfate, sodium sulfite, acetic acid.

Documentation: None Attached
 Contact: Stirling Imaging

Site Name MIL - PSN 07/10

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 1/24/90
Time 1239

Site Location: NE 1/4 of SW 1/4 Section 34, T 15N R 27E. 400 yd North of HWY 24 at mile marker 62 1/2.

Coordinates: 327° from H-06C
169° from Radio Peak (Gable Mtn)
177° from Observatory Peak (Rattlesnake)

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site is marked on U.S. Army maps as an antiaircraft gun location. It also served as a barracks location for personnel at H-06L. locations of some significance have been found in the area of this site. Sites associated with PSN 07/10 include:

French drain, made by welding two 55-gal steel barrels together to make a cylinder approximately 6 ft long and burying this vertically with the top at ground level. A 4-in. diameter metal pipe enters the barrel through the side, about 3 ft underground. Nature of what was drained to the barrels could not be determined. Drain is located 350° from northwestern-most locust tree at PSN 07/10 (30 yd) and 109° from southwestern-most locust tree.

A motor pool grease pit is located near the north west corner of the facility. Potential exists for used oil and solvents to be disposed on site.

Wooden underground structure, roof made of railroad ties covered with soil. Walls are made of boards. Structure is approximately 3 ft by 8 ft by 18 in. deep. It is unknown if the structure extends significantly beyond 18 in. and has been filled in. Structure is located 334° from northwestern-most locust tree, and 61° from southern-most locust tree. Structure is about 75 yd from the paved road on the west side of PSN 07/10.

A concrete lined pit. Pit is approximately 3 ft long by 15 in. wide by 3 ft deep. It is nearly rectangular, but one corner is cut off, making a nonsymmetrical pentagon. Pit is located 319° from northwestern-most locust tree, 40° from southern-most locust tree, 327° from H-06C, 178° from observatory peak, and 169° from radio peak.

A mess hall is located near the east side of the complex. A grease trap and drain to the soil is associated with this structure.

Practice land mines have been found near this location. This is described as Land Mine Site.

A homestead cistern is located north west of the site. The cistern is mostly caved in, consequently poses little real hazard.

Documentation:

None Attached
 Contact: KWK, U.S. Army Corps of Engineer maps.

9313044.2674

Site Name MIL - Land Mine Site (PSN 07/10)

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CBG

Date 11/16/89
Time 1000

Site Location: About 300 yd North of Highway 24, at about mile marker 23 1/2. About 250 yd west of access road to PSN 07/10.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other--Report from witness

Site Description: Suspected mine field. Area is about 100 by 100 yd, surrounded by short posts about 18 in. tall. Two practice antitank mines were found on the ground surface on 14 September 1989. It was noted by a witness at that time that a nearby area appeared to be a mine field. The suspected mine field was swept by EOD and no evidence of mines were found.

The EOD personnel mentioned that when the mines were recovered on September 14, they did not appear to have been in place for many years. Also, the condition of the mines suggested that they had been on the ground exposed to weather for only 2 to 3 yr.

Documentation: None Attached
 Contact: _____

9313044-2675

Site Name MIL - PSN 12/14

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 12/22/89
RPH Time 1433

Site Location: NW 1/4 of NE 1/4, Section 24, T14N R27E. As mapped at terminus of road leading east from White Bluffs landing.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Antiaircraft gun site associated with NIKE missile position 12. No significant environmental or health threats were observed. No indications of underground storage tanks were found.

Indications were found of one small burial site with some metal scraps, and old paint-type cans. The area was on the southern edge of the position and appeared to be less than 8 ft in diameter. A large dump site is located southeast of PSN 12/14 a few hundred yards. Most trash is apparent in large sand blowouts. This consists mainly of commissary type garbage: food cans, condiment and beer bottles. Miscellaneous items are present including pieces of a wringer washing machine, water tank and water heater, some solvent-type cans about 1-gal size. In a shallow gully near the east end of the garbage area are some packing boxes for big gun shells. Markings on packing tube lids were "120 M." Size was consistent with objects approximately 120 mm in diameter and 1/2 m long. All boxes and packing tubes were previously destroyed and can be confirmed empty.

The well at this position is open and may present an attractive nuisance due to the underground structure accessible. A small room about 8 by 8 ft is open underground.

Documentation: None Attached
 Contact: Maps of military activities

9313014-2676

Site Name MIL - PSN 72/82

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CEH

Date 3/13/90
Time 1049

Site Location: SW 1/4 Section 31, T 14N R 25E. PSN 72/82 is located on both sides of the small highway heading north from Vernita Bridge. Location is around a group of trees at the top of the hill north of Vernita Bridge.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: A few small disposal pits are located in the area west of the road. Some 5-gal and 1-quart oil cans are found both in the disposal pits and in small piles around the area. Packing materials from 4.7-in. gun shells is found in one pit.

Two plywood boxes are at this site. Boxes are approximately 2 by 4 ft and are buried approximately 18 in. deep. The top of the box is flush with the ground. One box contained empty 5-gal cans of lubricant and was covered with a plywood lid.

At the northeast corner of the site is a small firing range that was used for practice using 22-caliber firearms.

Gun emplacements and all above ground structures have been leveled and removed.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineer maps

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KJK

Date 3/22/90
Time 1258

Site Location: SW 1/4 of SE 1/4, and SE 1/4 of SW 1/4 Section 16, T 14N R 25E. Site is approximately 600 yd east of H-83L, and north of the access road to the NIKE site.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site is similar in general layout to Radar and H-12R sites. Site is approximately 1/3 mi by 400 yd and bounded by a gravel road. At two locations, a set of four small concrete pads were found with bolts imbedded for bolting something onto. A third set of concrete pads is suspected but not located.

A few building locations were identified, but only one concrete foundation pad was found. No obvious disposal pits were identified.

This location coincides with army location maps identifying PSN 80. However, the layout of this position does not coincide with other antiaircraft positions.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineer maps

8297 H08166
9313044 2678

Site Name MIL - PSN 90

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 3/27/90
Time 1005

Site Location: NW 1/4 of Section 1, T 14N R 25E. Just north of HWY 24.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: An anti-aircraft site. Well structure has been removed. A grease pit and oil rack are at the site. Potential exists for disposal of used oil and solvents. The oil rack has been used in recent years, and a small quantity of oil spilled on the ground. A well at the site is usable, and the site is reported to be used by the Bureau of Reclamation as a base for some field operations.

Several concrete foundation pads remain in the area. The disposal site for this position may be across HWY 24.

Documentation: None Attached
 Contact: U.S. Army Corps of Engineers maps

9313044.2679

Site Name MIL - PSN 90 Disposal Site

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 3/27/90
Time 1005

Site Location: W1/2 of Section 1, T 14N R 25E. South of HWY 24,
opposite PSN 90.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input checked="" type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: An old dumping ground, contains some military equipment such as tent parts an electronic parts. Also at this location are automobile parts. Several small pits are on site, some with trash in them. One excavation, approximately 10 by 15 by 4 ft deep had old sand bag material around the perimeter.

Documentation: None Attached
 Contact: _____

0892-4403136

Site Name MIL - Radar Site

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 01/25/90
DSL Time 1342

Site Location: NE 1/4 of SW 1/4 of Section 32, T 15N R 27E

Coordinates: 173° from Observatory Peak (Rattlesnake)
159° from radio peak
359° from H-06C
1/2 to 1/4 mi 300° from PSN 04

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site consists of two wooden framed underground rooms at separate locations. Rooms have an opening at the top approximately 12 by 12 in. Observation through the hole show the rooms to be roughly 10 by 10 by 10 ft. An excavation is in the area approximately 15 by 20 by 4 ft deep indicates location of a third room that has been demolished. At least two partially buried wooden boxes are nearby. Boxes are 2 1/2 ft long by 10 in. wide by 18 in. deep.

To the north west of each "room" is a set of concrete pads approximately 10 by 18 in. Bolts protrude from the pads to bolt something to, possible radar towers or large guns. Function and time frame of this site is unclear. This site is similar in general layout to PSN 80 and H-12R except the other two sites do not contain underground structures.

Documentation: None Attached
 Contact: _____

Site Name MIL - Shrapnel Site 1

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CBG

Date 11/16/89
Time 1200

Site Location: NW 1/4 of Section 22, T 14N R 27E. Sand dunes 1/2 mi north of White Bluffs boat landing road, west of old highway.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other--Report of shrapnel in the area.

Site Description: Shrapnel was originally reported by a person visiting the recreation area. Location of findings is in an area of active sand dune and blowout activity. Report of shrapnel was confirmed, and area investigated by U.S. Army Explosive Ordnance Division (EOD) from the Yakima Firing Center. The EOD was assisted by personnel from Westinghouse Hanford Patrol and Environmental Engineering Group.

Shrapnel found by EOD personnel was thought to be from 175-mm rounds. This assumption is based upon the length of the rotating ring. The EOD personnel indicated that the area did not appear consistent with an impact zone. Indications that the area was not an impact zone include:

- No explosion craters were found
- Relatively little shrapnel is found
- Only relatively small pieces have been found
- No targets are in the area (artillery personnel like to shoot at targets)
- Given the frequent recreational use of the area, nobody has found a shell, or a large piece of a shell.

The EOD personnel suggested that the area may be a demolition area, where old or dud rounds were disposed of by blowing them up.

2892 4403136

Additional field investigations and reports from persons familiar with the anti-aircraft batteries indicate that shrapnel may result from test firing at the batteries. An area of shrapnel may be found in the vicinity of each anti-aircraft site. Although confirmation is not available, persons familiar with the anti-aircraft batteries indicate that dud rounds would have been located and removed.

Documentation:

 X None Attached
 Contact: _____

9313014.2683

Site Name MIL - Shrapnel Site 2

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 01/12/90
SGW Time 1032

Site Location: W 1/2 of NW 1/4, Section 8, T 14N R 28E

Coordinates: 278° from Power pole 12-3 (approximately 300 yd)
193° from Observatory Peak - (Rattlesnake)
66° from Concrete outfall - metal fuse part

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other--Scattered shrapnel in area

Site Narrative: Two pieces of aluminum or magnesium have been found in this area. One piece is a section of nose cone from a projectile. The other piece is not specifically identified, but metal type and gauge is consistent with parts of munitions found in shrapnel areas. No iron or steel shrapnel has been found near this location. However, soil in this area is stabilized by vegetation, and heavy material may not have been exposed on the surface by erosion.

Documentation: None Attached
 Contact: _____

9313044.2684

Site Name MIL - Shrapnel Site 3

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
MRC

Date 1/12/90
Time 1123

Site Location: N1/2 of SW 1/4 Section 2, T 14N R 26E

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other--Scattered shrapnel in area

Site Narrative: Two pieces of iron or steel shrapnel have been found in this area. Soil in this area is generally stabilized by vegetation. Shrapnel was found in a small area of sand dune activity. This area is south, between PSN 01 and PSN 04.

Documentation: None Attached
 Contact: _____

9313044.2685

Site Name MIL - Bridge Disposal Area

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CEH

Date 3/13/90
Time 1049

Site Location: SE 1/4 of SW 1/4 Section 31, T14N R 25E. Site is at the top of the hill north of Vernita Bridge. Area of concern is at the head of a small valley. Valley runs directly toward bridge.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: It is unclear if this site is a building location or a dump site for demolished building structures. It is also not clear if the origin is from the military or homestead activity. Best guess is that this area is a disposal area from the military.

At this location are remains of three or four wood frame structures. Some metal roofing material is present, window screen, railroad ties and structural lumber. Also at the site is general trash that appears to be of military origin. Trash includes personal items (tooth brushes, razors), bottles, and cans. Military oil cans are on site. It could not be determined if trash was in a pile on top of the ground, or exposed from a larger, underground pit.

Documentation: None Attached
 Contact: _____

9897-1403133
9313044-2686

Site Name HOMESTEAD - Cistern 12-3

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 02/06/90
CDK Time 1211

Site Location: SW 1/4 of NW 1/4, Section 8, T 13N R 28E

Coordinates: 196° from Observatory Peak (Rattlesnake)
318° from H-06C
319° from pole #12-2-L
204° from pole #12-3-L

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Cistern is approximately 6 ft in diameter by 9 ft deep and partially covered with wood. Some household items are nearby such as broken hoe, cans, barrel hoops. The cistern is in an area of mature sagebrush which suggests that the land was not cleared for agriculture.

The nose piece for an explosive projectile was found in the area. This is the second piece of aluminum shrapnel found at this general area. Piece was found approximately 100 yd east of power road, between poles 12-2 and 12-1.

Documentation: None Attached
 Contact: _____

9313044.2687

Site Name HOMESTEAD - Clay Pit Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CEH

Date 02/20/90
Time 11:48

Site Location: SE 1/4 of NE 1/4 Section 27, T15N R 27E. Located approximately 400 yd south and west of the clay pit used for lining irrigation canals.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Clay pit cistern located southwest of clay pit. Cistern is concrete lined, approximately 4 ft in diameter and filled with tumble weeds and junk nearly to the top.

Documentation: None Attached
 Contact: _____

9313044.2688

Site Name HOMESTEAD - Cow Camp Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RMM

Date 2/2/90
Time 1023

Site Location: SE 1/4 OF NE 1/4 OF Section 26 T 15N R 27E. About 1 mi east of the clay pit, 1/4 mi south of the canal.

Coordinates: 174° from Radio Peak (Gable Mtn)
212° from 105-N
272° from Wahluke Relay

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Site appears to be an old homestead with an open, unfenced cistern. Cistern is round, approximately 4 ft in diameter, and concrete lined. It is filled with trash to within 12 in. of the top. Trash includes an unknown number of empty 1-gal "Warbex" cans, an externally applied pesticide for delousing cattle. Several small, clear bottles were present. Bottles were approximately 200 ml, with a narrow neck, and appear to be livestock antibiotic vials. Other domestic garbage was present.

Documentation: None Attached
 Contact: _____

Site Name HOMESTEAD - Homestead Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RPH

Date 12/22/89
Time 1524

Site Location: SW 1/4 of SW 1/4 of Section 20 T 14N R 28 E

Coordinates: 174° from Radio Peak
212° from 105 Bldg. 100N
272° from Wahluke relay

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Approximately 50 yd east of power line road, at second pole south of intersection of power line (north-south) with power lines (east-west) from white bluffs. Cistern is in very good shape, 5 to 6 ft in diameter and 4 to 5 ft deep. An old wire fence is piled up around the cistern, making accidental falling unlikely.

Documentation: None Attached
 Contact: _____

0692-410316
931914-2690

Site Name HOMESTEAD - Overlook Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RMM

Date 1/16/90
Time 1327

Site Location: Extreme SW corner of section 18, T 13N R 28E. 60 yd west of wood pole power line between pole 13 - 10 and 13 - 11. Site is approximately 1/4 mi north of the location that the line goes over the bluff to the river.

Coordinates: 323° from H-12C
198° from Observatory Peak (Rattlesnake)

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: An old homestead site with two unfenced cisterns. One cistern is approximately 8 ft across by 14 ft deep; the other is 3.5 ft across by 4 ft deep. A few cans and pieces of metal trash indicate the location of a trash disposal area.

Documentation: None Attached
 Contact: _____

1697-4408166
9313044 2691

Site Name HOMESTEAD - Power Line Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RPH

Date 12/22/89
Time 1524

Site Location: SW 1/4 of section 20, T 14N R 28E. About 50 yd east of power line road at second pole south of intersection of north-south power line and east-west power line (from White Bluffs). Guess 8 to 10 mi east of White Bluffs ferry.

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Cistern is in very good shape, 5 to 6 ft in diameter and 4 to 5 ft deep. The sides of the cistern are concrete, which appears to be about 1 in. thick. The cistern is partially filled with old metal food cans. There are many cans and broken bottles are in the area. The immediate area around the cistern has been fenced-off with old fencing wire and bailing wire. It is likely that homestead buildings were in the area, but no foundations or structures remain obvious.

Documentation: None Attached
 Contact: _____

9313014 2692

Site Name HOMESTEAD - Stock Tank Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 1/10/90
Time 1544

Site Location: NW 1/4 of SW 1/4 Section 29, T 14N R 28E. Power line road ends at the Wahluke Branch Wasteway. Near end of road, a large sand dune is east of the road. Cistern is at the southwest end of dune.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: A barbed wire corral encloses part of the sand dune. At the southwest corner of the corral is a concrete stock tank approximately 12 by 12 by 4 ft deep. The top of the tank is approximately 2 ft above the ground surface, making accidental falling in unlikely. A cased well is just north of the stock tank.

Many metal cans are in the vicinity, as well as lumber and timbers used for fencing and corrals. A homestead structure was not found.

Documentation: None Attached
 Contact: _____

9313044-2693

Site Name HOMESTEAD - Wagon Road Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR Date 02/06/90
CDK Time 1036

Site Location: NW 1/4 of NE 1/4, Section 6 T 13N R 28E

Coordinates: 318° from H-06C
299° from Wahluke Relay
193° from Observatory Peak (Rattlesnake)
65° from Pole 10-8

Indications of Problem: Plant Stress Soil Discoloration
 Pipes in Ground Old Building Site Soil Depression
 Soil Disturbance Trash Pile Documentation
 Road Terminus Other

Site Narrative: Little remains at this homestead site--some barrel hoops, wire, etc. The cistern remains and is approximately 9 ft in diameter. It is filled in to approximately 6 ft deep. The site is fenced, but warning signs have blown away. A possible disposal pit or outhouse location is approximately 30 yd east of cistern. Cistern is in an area of once-cleared land approximately 80 acres. An old wagon road runs through the area.

Documentation: None Attached
 Contact: _____

Site Name HOMESTEAD - Wasteway Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
DSL

Date 01/25/89
Time 1111

Site Location: SE 1/4 Section 22, T 15N R 27E

Coordinates: 304° from H-06C
178° from Observatory Peak (Rattlesnake)
197° from Wasteway Block Building (100 yd)

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input checked="" type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Cistern is mostly destroyed and filled in. One wall is approximately 4 ft high and could pose a hazard to vehicles. Homestead trash in the area suggests possible disposal site.

Documentation: None Attached
 Contact: _____

5697410366
9330442695

Site Name HOMESTEAD - Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 02/21/90
Time 1345

Coordinates: 305° from H-06C
179° from Observatory Peak (Rattlesnake)
95° from Quarter section marker
26/35 T 15N R 27E

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Cistern is approximately 5 ft in diameter, mostly filled with soil and trash.

Documentation: None Attached
 Contact: _____

9313044.2696

Site Name HOMESTEAD - Cistern

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 02/21/90
Time

Coordinates: 302° from H-06C
180° from Observatory Peak (Rattlesnake)
219° from quarter section marker
26/35 T 15N R 27E

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Cistern is approximately 5 ft wide and mostly filled with trash and tumbleweeds. Lumber in area indicated homestead.

Documentation: None Attached
 Contact: _____

93/30-4-2697

Site Name HOMESTEAD - Dune Homestead

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CDK

Date 2/6/90
Time 1432

Site Location: SW 1/4 of NE 1/4 Section 32, T 14N R 28E.

Coordinates: 192° from Observatory Peak (Rattlesnake)
214° from Radio Peak
309° from H-06C

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Domestic trash disposal area 100 yd SW of trees. Barn or shed location 500 yd SW of trees. Parts of a flour mill found. Also parts of a carriage top and harness found. No cistern was located.

Documentation: None Attached
 Contact: _____

9313044-2698

Site Name HOMESTEAD - Lonetree Homestead

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CDK

Date 1/30/90
Time 1144

Site Location: SE 1/4 of NW 1/4 Section 20, T13 N R 28E. Approximately 1/2 to 2/3 mi from "Savage" triangulation post on azimuth of 26.5°.

Coordinates: 320° from H-06C
200° from Observatory Peak (Rattlesnake)
206.5° from Savage Corner Post

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: One lone living cherry tree indicates the location of a homestead. No above-ground structures remain. Three small dead trees are on the site, and several metal cans and some broken glass indicate the location of a garbage pit. An old wagon road runs just south of the site.

Documentation: None Attached
 Contact: _____

6692 H-03135

Site Name OTHER - 2,4-D Burial Site

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KAW

Date 12/19/89
Time 1028

Site Location: SE 1/4 of NW 1/4 Section 35, T 14N R 27E. Site is at the foot of very tall sand hills that parallel the river.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input checked="" type="checkbox"/> Other--Signs at site	

Site Narrative: Signs at the north and south end mark location of the site. No evidence of the site is found on the surface. Vegetation appears normal for the area. Surface of site is stabilized by vegetation.

Documentation: None Attached
 Contact: WIDS

93/30/4.2700

Site Name OTHER - Asbestos Pipe Site

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RPH

Date 12/22/89
Time 1158

Site Location: SW 1/4 of NW 1/4 Section 23, T 14N R 27E. 400 yd North of HWY 24 at mile marker 62 1/2.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is a sand blowout. Exposed at the surface are several pieces of concrete/asbestos pipe. A small amount of other construction trash is present such as pieces of concrete. No building locations are apparent at this location. Approximately 1/4 mi north of this site is the NIKE missile site H-12L. Demolition activities at H-12L are the most likely origin of the pipe material at this site.

Documentation: None Attached
 Contact: _____

9313044.2701

Site Name OTHER - Asphalt Batch Plant

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 3/30/90
Time 1215

Site Location: SE 1/4 of NE 1/4 Section 4, T 14N R 26E. Approximately 1/4 mi south of HWY 24, at mile marker 56.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input checked="" type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Site is a graveled area, approximately 2 acres in size. Several small piles of asphalt and gravel are present on site. Also an area 15 by 15 ft where concrete was dumped for disposal. Two pits are on site, 25 by 5 by 3 ft deep. No trash or disposed items were observed in the pits.

The area has the appearance of being used as a temporary location for mixing asphalt for paving operations.

Documentation: None Attached
 Contact: _____

2023-11-06 13:56

Site Name OTHER - Coyote Bait Can

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RMM

Date 1/16/90
Time 1245

Site Location: SW 1/4 Section 18, T 13N R 28E. Between power pole 13-7 and 13-8, about 100 yd west of the Hanford Site power line. Approximately 3/4 mi north of the location where the line goes over the bluff to the river.

Coordinates: 324° from H-12C
239° from Radio Peak (Gable Mtn)
195° from Observatory Peak (Rattlesnake)

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input checked="" type="checkbox"/> Other	

Site Narrative: Military ammunition container, approximately 5-gal, heavy gauge, rust-resistant metal. Can is square shaped, approximately 12 by 12 by 18 in. deep. Top has a vault type closure, and has "BAIT CAN" handwritten on top in indelible marker. Container is stamped "40 mm MK 1 MOD 8." Can is one-third buried in the ground. Bottom of the can is filled with plant litter and some insect bodies. The contents appear to be greasy or oily.

An anchor stake for a leg-hold trap is nearby, indicating that the can is probably in place as part of a coyote trapping operation, and not of direct military origin. A 5-gal fuel-type can is also nearby. This can is dry and rusted.

Documentation: None Attached
 Contact: _____

Site Name OTHER - Coyote Bait Station

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
SGW

Date 1/12/90
Time 1445

Site Location: SE 1/4 of NE 1/4 Section 17, T 13N R 28E. Near eastern perimeter of Hanford site, 2 1/2 or 3 mi north of the White Bluffs, overlooking the river.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input checked="" type="checkbox"/> Other--Bones of many animals	

Site Narrative: Many bones of animals are concentrated in an area approximately 10 acres in size. Fifty coyote skulls were counted. Bones of large animals were also present. Indications are that this is an old poison bait station. Bones appear to be many years old.

Reports from past residents of the area indicate one locally well-known trapper would commonly poison the carcass of a horse. Pelts of coyotes killed by the poison bait would be marketed. Findings at this site are consistent with these reports.

Documentation: None Attached
 Contact: _____

Site Name Gravel Pit #47

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
JGL

Date 3/30/90
Time 0932

Site Location: South of HWY 24 about 1/4 mile, at mile marker 47.
Approximately 3 miles east of Vernita Bridge.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input checked="" type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: Two gravel pits are present at this site, and are apparently still in use. The smaller of the two pits (east side) has a pile of trash in it. Trash includes many cans and bottles, fencing wire, and spools from wire bundles. Two military paint cans, and a one quart oil can are present.

Documentation: None Attached
 Contact: _____

9313014-2705

Site Name OTHER - Gravel Pit - 56

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
KJK

Date 02/09/90
Time 1416

Site Location: SE 1/4 Section 33, T 15N R 26E. 200 yd north of Hwy 24 at mile marker 56.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input checked="" type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: No evidence of dumping was found at this location. Some strands of insulated wires were present, but appeared to be associated with military communication. Some pits are present that look like disposal pits, but no sign of trash or dumping can be found.

Documentation: None Attached
 Contact: _____

9313014.2706
9027 4-DEC-85

Site Name OTHER - Hanford Firing Range

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
CBG

Date 11/16/89
Time 1100

Site Location: N 1/2 Section 30, T 13N R 28E. East of the Columbia River against bluff. Across from the Hanford Townsite.

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input checked="" type="checkbox"/> Soil Disturbance	<input checked="" type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Description: A bench has been cut out of the bluff about 100 yd long. Some 55-gal drums have been placed along the base of the bluff and along the bench. The barrels served as targets for 30- and 50-caliber and 37-mm rounds. This site served as a small arms firing range for Du Pont* and General Electric security forces until early 1950's. A burial trench several hundred yards west of the range contained metal boxes for 55-caliber rounds, 50-caliber brass, links from 50-caliber machine gun belts, and packing tubes for 37-mm rounds.

Several 30- and 50-caliber bullets had been found at the site. A few practice (nonexplosive) 37-mm projectiles have also been found. Reports indicate that two 37-mm rounds were found in the bullet impact area. One was determined by the finder to be a solid round (nonexplosive). The other one appeared different and was feared to be high explosive. The questionable round was reportedly reburied under the pile of soil excavated from the hill.

The soil pile described was excavated by U.S. Army Explosive Ordnance Division (EOD) personnel; however, no 37-mm round was found. Shallow excavation into the bullet impact zone produced three, 37-mm rounds. All three were confirmed by EOD to be nonexplosive solid rounds.

The EOD personnel found no evidence to suggest that the range had been used as a target for explosive rounds. Indications were:

- Lack of impact craters
- Lack of shrapnel
- Targets had not been blown apart, only holes punctured in them.

A second target area approximately 1/4 mi south of the main area was investigated by Westinghouse Hanford and U.S. Army Corps of Engineers personnel. Small pieces of shrapnel were located, indicating possible

*Du Pont de Nemours E.I., Co.

9313044-2707

impact of explosive rounds. Persons familiar with the 37-mm rounds used at this time indicate that a nonexplosive round would fragment upon impact with a hard object such as a rock. It is unknown if fragments result from explosion or impact.

Documentation:

None Attached
 Contact: BJR

9313044.2708

Site Name OTHER - Wahluke Schoolhouse

NORTH SLOPE
Suspect Site Field Data Sheet

Investigators: RCR
RW

Date 12/27/89
Time 0933

Site Location: NE 1/4 of NE 1/4 Section 3, T 13N R 25E. North of
Columbia River, across from B-C reactors

Coordinates: 129° from Stack at B Reactor (West corner of
water inlet structure on river)
96° from Table Rock - Gable Mountain
70° from K-East reactor

Indications of Problem:	<input type="checkbox"/> Plant Stress	<input type="checkbox"/> Soil Discoloration
<input type="checkbox"/> Pipes in Ground	<input checked="" type="checkbox"/> Old Building Site	<input type="checkbox"/> Soil Depression
<input type="checkbox"/> Soil Disturbance	<input type="checkbox"/> Trash Pile	<input type="checkbox"/> Documentation
<input type="checkbox"/> Road Terminus	<input type="checkbox"/> Other	

Site Narrative: The schoolhouse structure has been removed except for the steps. Steps have been preserved apparently because of a USGS survey marker imbedded in the top step. Marker indicates 469 ft above sea level. A level spot 50 yd north and east of the schoolhouse may indicate the location of a second building.

A survey of the immediate area indicated nothing that appeared hazardous to health, safety, or the environment.

Documentation: None Attached
 Contact: RW or DW

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APPENDIX C

SUMMARY OF SITES INVESTIGATED AND
SITE-SPECIFIC RECOMMENDATIONS

Sites in this section are listed in alphabetical order under the headings: "Military Sites," "Homestead Sites," and "Other Sites." The names of military sites are in most cases taken from U.S. Army Corps of Engineers records. Some of the military names are based on references to locations in records. Site designations not specifically identified are noted. Other site names are based on field observations. A total of 22 military sites, 12 homestead sites, and 8 other sites are discussed.

A brief narrative description of each site is included in this section. The existence of some alleged sites could not be verified by field investigation and probably do not exist (e.g., an underground military warehouse has been reported but could not be located.) Recommendations are included for specific sites that may require additional investigation. No immediate threat to human health and safety or the environment was identified that require immediate action. Additional investigations should be included in the respective operable unit remedial investigation and feasibility study.

The summary for each investigated site is followed by a parenthetical number that corresponds to the map shown as Figure 1. Appendix B contains field notes for investigated sites.

C.1 MILITARY SITES

Ammunition Dump--Two reports have been received of an ammunition dump possibly existing on the North Slope. Confirmation of these reports has been a major effort in this investigation. However, no evidence of such a site has been found.

Bombing Range--Two practice bombing ranges have been reported on the North Slope. One is reported to be between East White Bluffs ferry landing and H-06C (the NIKE control center at the summit of the Saddle Mountains, Number 12 on Figure 1). No evidence has been found to confirm this bombing range. The second range is reported to have been along what is now the Wahluke Branch Wasteway. This range was located, but is approximately 3 1/2 miles east of DOE-owned land. Only nonexplosive practice bombs were located at this site.

Recommendations: No hazards were identified, and no further action is recommended.

Construction Dump-(28)--This dump appears to be an area used for the disposal of building structures and general trash remaining from military sites. Several empty lubricant cans were found at the site. Used construction materials may represent a hazard to persons walking or driving across them.

Recommendations: This site should be evaluated by experienced safety personnel to assess the risk posed by the remaining construction materials. If appropriate, construction materials should be cleaned up. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

H-06C-(13)--This is the control center for the "Battery A" NIKE missile site. A graded area of approximately 1/2 acre indicates the possible location of a landfill used for the disposal of building structures. Concrete foundation pads are the only remains on the site. No evidence of environmental contamination was discovered during this investigation.

Recommendations: Future characterization of the landfill is recommended as part of the 100-IU-3 operable unit.

H-06L-(17)--This is the launch site for the "Battery A" NIKE missile site. The underground structure has been partially excavated but is fenced and posted with the warning, "DANGER." Associated with this facility was a pit used for disposal of acid and as an underground fuel tank.

Recommendations: The excavation should be backfilled. The possible location of an underground diesel fuel tank should be investigated and the acid pit sampled as part of the 100-IU-3 operable unit investigation.

H-12C-(26)--This is the control center for the "Battery B" NIKE missile site. A small excavated area is the probable location of demolished structures. Several paint cans remain at the site.

Recommendations: Future characterization is recommended at the landfill as part of the 100-IU-3 operable unit investigation.

H-12L-(23)--This is the launch site for the "Battery B" NIKE missile site. Two underground structures have been partially excavated and may pose a physical hazard to vehicular traffic. One excavation has been backfilled. A pit for disposal of acid, and an underground fuel tank were associated with this facility. A possible landfill area is located near this site.

Recommendations: The possible location of an underground diesel fuel tank should be investigated and the acid pit sampled. Future characterization is recommended at the landfill, as part of the 100-IU-3 operable unit investigation. The second excavation should be backfilled.

H-12R-(25)--Actual use of this area is uncertain. This location does not coincide with the military maps of H-12R, but concrete footings at the site suggest that towers (possibly radar towers) were present. Two other sites, Radar Site and PSN 80 have similar layouts. The exact function of all three sites is not known. The primary hazard at this site is construction debris.

Recommendations: This site should be evaluated by experienced safety personnel to assess risk posed by the remaining construction materials. Construction material should be cleaned up, if appropriate. Additional site investigation should take place, as part of the 100-IU-3 operable unit investigation, to locate a landfill area if present at the site.

H-81R-(3)--This site corresponds to site H-81R on military maps. Little remains on the ground surface except graveled roads. One small berm apparently covers items disposed of including radio batteries and bottles. A "snake trap," consisting of a 55-gal drum buried in the ground, is at this site. The lid is exposed, and a 4- by 10-in. hole is cut in the lid. The actual purpose of the snake trap is unknown.

Recommendations: Soil beneath the snake trap should be sampled, and the structure removed. Disposal areas should be investigated for environmental contaminants. This work should be accomplished as part of the 100-IU-3 operable unit investigation.

H-83C-(2)--This is the control center for the "Battery C" NIKE missile site. Concrete foundation pads and an apparent well structure remain. Nearby is a small burial pit with a few hundred 30/06 blank rounds of ammunition (fired), together with steel links from a belt-fed automatic weapon. Several military style tires are left at the site.

Recommendations: Future characterization is recommended at the landfill associated with this site, as part of the 100-IU-3 operable unit investigation.

H-83L-(4)--This is the launch site for the "Battery C" NIKE missile site. The structures have been demolished except for the well structure at the barracks location. A disposal area extends to the north of the site.

Recommendations: The well structure should be evaluated for safety risks by experienced safety personnel. If additional safety measures are deemed necessary, they should be accomplished as recommended by safety personnel. If destruction of the well is recommended, the well should be abandoned according to appropriate regulations. The possible location of an underground diesel fuel tank should be investigated, and the acid pit should be located and sampled. Future characterization is recommended at the landfill. This work should be accomplished as part of the 100-IU-3 operable unit investigation.

Igloo Site-(12)--This is the site of the ammunition storage "igloos." The area is cleaned up with the exception of several empty broken shipping crates for 120-mm gun ammunition. No hazards have been identified at this location, and no further action is recommended.

Recommendations: No additional investigation appears necessary.

PSN 01-(11)--This is an antiaircraft gun site. Above-ground structures were removed with the exception of the well structure. Some disposal trenches are onsite.

Recommendations: The well structure should be evaluated for safety risks by experienced safety personnel. If additional safety measures are deemed necessary, they should be accomplished as recommended by safety personnel. If destruction of the well is recommended, the well should be abandoned according to appropriate regulations. Future characterization is recommended at the landfill, as part of the 100-IU-3 operable unit investigation.

PSN 04-(14)--This is an antiaircraft gun site. Above-ground structures were removed with the exception of the well structure. Several disposal trenches are on site. The well structure has been spray painted with the warning, "Danger Contaminated." Several blue plastic 55-gal drums were found in a gully near the site. The drums apparently have been used for stock watering. The drums were tracked to their origin, and investigation indicated that they contained photographic fixative, primarily acetic acid.

Recommendations: Potential contamination of the well should be assessed and the well structure should be evaluated for safety risks by experienced safety personnel. If additional safety measures are deemed necessary, they should be accomplished as recommended by safety personnel. If destruction of the well is recommended, the well should be abandoned according to appropriate regulations. Future characterization is recommended at the landfill as part of the 100-IU-3 operable unit investigation.

PSN 07/10-(18)--This is an antiaircraft site, used also as a barracks area for a NIKE missile site. The site had a motor pool and an unconfirmed potential for the disposal of used oil and solvent. The well structure has been removed. Some shallow pits are in the area, as well as a small dry-well or sump. This is the site where practice land mines were found.

Recommendations: The pits should be filled to eliminate them as safety concerns. Some locations in this area should be sampled including the motor pool area and the dry-well, as part of the 100-IU-3 operable unit investigation.

PSN 12/14-(27)--This is an antiaircraft gun site. A few small disposal pits have been identified, and a large landfill is also nearby. The Construction Dump, an area of disposed wooden structures and general trash, is near this site.

Recommendations: The well structure should be evaluated for safety risks by experienced safety personnel. If additional safety measures are deemed necessary, they should be accomplished as recommended by safety personnel. If destruction of the well is recommended, the well should be abandoned according to appropriate regulations. Future characterization is recommended at the landfill as part of the 100-IU-3 operable unit investigation.

PSN 72/82-(1)--This site is an anti-aircraft gun site. Small disposal areas are identified. A firing range for 22-caliber target practice is nearby. Also, three partially buried wooden boxes approximately 4 by 3 by 2 ft deep were found.

Recommendations: Disposal areas should be further characterized. The three partially buried wooden boxes should be filled to eliminate risk of persons stepping in them. This area is not open to public access. Further effort at this may appropriately be accomplished, as part of the 100-IU-3 operable unit investigation.

PSN 80-(5)--The function of this site is not known. The layout is similar to the H-12R and "Radar" sites. The site is roughly oval and is surrounded by a gravel road. Three sets of small concrete pads served as anchors for towers or large guns. No hazards were identified at this location.

Recommendations: An additional investigation may be appropriate to determine if a landfill was located at this facility. This investigation should be done as part of the 100-IU-3 operable unit investigation.

PSN 90-(8)--This site is an anti-aircraft site. The well structure has been removed but motor pool maintenance pits are in place. Used oil and solvents may have been disposed of at this site. A concrete ramp remains on site, apparently used for vehicle maintenance. This structure has been used recently for changing vehicle oil.

Recommendations: Further dumping of oil to the ground from the vehicle maintenance ramp should be prevented. The motor pool area should be further investigated for evidence of dumping of solvents and used oil. Future characterization is recommended at the landfill. This work should be accomplished as part of the 100-IU-3 operable unit investigation.

Radar Site-(15)--This site is not included on military maps. It is similar to the PSN 80 and H-12R sites. The site is roughly oval, approximately 1/4 mi long by 400 yd wide, and surrounded by a gravel road. The site includes three underground rooms (two are intact, one destroyed) approximately 10 by 10 by 10 ft. Near the rooms are concrete pads with exposed bolts. The pads apparently served as a foundation for towers (radar?) or large guns.

Recommendations: The underground structures are currently fenced and posted. This site should be evaluated by experienced safety personnel to determine if additional safety measures are appropriate. Additional safety measures should be taken as recommended by safety personnel. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

Shrapnel Site-(22)--Shrapnel has been found in three areas. At two of the areas, only two pieces of shrapnel have been found. In one area, over 100 lb of shrapnel reportedly has been found. It is not certain what type of shells are responsible for the shrapnel.

The major shrapnel area was investigated by EOD and COE. Personnel conducted a surface sweep of the area, and portions of the area were swept with metal detectors. During the investigation it was speculated that the area was a demolition area where out-of-date or unusable shells were destroyed by detonation. However, findings in the field do not rule out this site as a possible area of fallout from anti-aircraft rounds exploding in the air. No unexploded shells or large pieces of shells were found during investigations of this site. The COE has stated that nothing found in the investigation so far poses a significant public hazard.

Recommendations: A surface investigation should be conducted of known shrapnel areas approximately twice a year. This frequency of investigation should be sufficient to locate unexploded rounds (if any) that may be exposed in the area's shifting sand dunes because of wind erosion.

Underground Warehouse--A report was received of a person claiming to have been inside a "huge, underground warehouse filled with military weapons, ammunition, and jeeps." The time frame was reported to have been after the military had left their positions on the North Slope.

Followup on this report was unsuccessful. The report was at least 15 yr old, and the nearest source of information was unable to recall who actually claimed to have seen the structure.

Available military records did not document an underground warehouse. However, three storage igloos (earth-covered rooms) were present. These have been destroyed and removed and may be the source of this report.

Recommendations: No further investigation is recommended.

C.2 HOMESTEAD SITES

12-3 Cistern-(33)--This cistern is approximately 5 ft in diameter by 8 ft deep. It is located near power pole 12-3. No obvious disposal pits remain from the homestead. This site has been fenced.

Recommendations: This site has been fenced to prevent accidental entry to the area. The site should be evaluated by experienced safety personnel to determine if additional safety measures, such as filling the cistern, are appropriate. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

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Clay Pit Cistern-(19)--This cistern is approximately 4 ft in diameter. Trash and weeds in the cistern do not allow the depth to be determined. It is located near a pit that was used to obtain clay for lining irrigation canals. No obvious disposal pits remain from the homestead. This relatively small cistern is partly filled with soil and debris.

Recommendations: This cistern will be fenced and warning signs posted. The site should be evaluated by experienced safety personnel to determine if additional safety measures, such as filling the cistern, are appropriate.

Cow Camp Cistern-(20)--This cistern is approximately 4 ft in diameter. Trash in the bottom does not allow depth to be determined. This cistern contains several empty bottles of livestock antibiotic and pesticide for delousing cattle. No obvious disposal pits remain from the homestead. This relatively small cistern is mostly filled with soil and debris.

Recommendations: No additional safety measures appear necessary.

Homestead Cistern-(21)--This cistern is approximately 5 to 6 ft in diameter. It is mostly filled in with tumbleweeds and soil.

Recommendations: No additional safety measures appear necessary.

Overlook Cistern-(36)--This cistern is approximately 10 ft in diameter by 14 ft deep and is located near bluffs overlooking the Columbia River. Small disposal pits remain from the homestead. The cistern has been fenced and posted.

Recommendations: This cistern has been fenced to prevent accidental entry to the area. The site should be evaluated by experienced safety personnel to determine if additional safety measures, such as filling the cistern, are appropriate. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

Power Line Cistern-(31)--This cistern is approximately 4 ft in diameter by 6 ft deep. It is located near power line. No obvious disposal pits remain from the homestead. Old fencing material is stacked around the perimeter of cistern.

Recommendations: The cistern should be fenced and posted. The site should be evaluated by experienced safety personnel to determine if additional safety measures, such as filling the cistern, are appropriate. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

Stock Tank Cistern-(32)--The stock tank is approximately 12 by 12 ft by 5 ft deep. No obvious disposal pits remain from the homestead. A well with an approximate 8-in.-dia casing is nearby. Because this structure is partially above ground, falling into the cistern would be improbable.

Recommendations: No additional safety measures appear necessary.

Wagon Road Cistern-(30)--This cistern is approximately 8 ft in diameter by 8 ft deep. The site has been fenced by Washington Department of Wildlife personnel. Some small disposal pits remain from the homestead.

Recommendations: This cistern has been fenced to prevent accidental entry to the area. The site should be evaluated by experienced safety personnel to determine if additional safety measures, such as filling the cistern, are appropriate.

Wasteway Cistern-(16)--This cistern is approximately 8 ft in diameter by 3 ft deep. It has been mostly filled in, and the walls are partially collapsed. No obvious disposal pits remain from the homestead.

Recommendations: The remaining wall of this cistern should be destroyed, or the shallow depression remaining should be backfilled. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

Dune Homestead-(34)--This homestead is near a small series of sand dunes. Some disposal sites from the homestead are in the area.

Recommendations: No further action appears necessary at this site.

Lonetree Homestead-(38)--At this homestead area, a single cherry tree remains alive. Some small disposal areas remain.

Recommendations: No further action appears necessary at this site.

C.3 OTHER SITES

2,4-D Burial Site-(29)--This site was used for disposal of 2,4-D contaminated soil and four leaking tanks. The site is documented in WIDS (Appendix A) and is part of the 100-IU-3 Operable Unit. Cleanup of this site has been provided for in the *Hanford Federal Facility Agreement and Consent Order* (Ecology et al. 1989) with concurrence of Ecology and EPA.

Recommendations: Work plans in the *Hanford Federal Facility Agreement and Consent Order* (Ecology et al. 1989) should be pursued.

Asbestos Pipe Site-(24)--Pieces of concrete and asbestos pipe are exposed in a sand blowout at this site. The origin of the pipe is unknown; however, a NIKE missile site is nearby. The small amount of material should make removal of the pipe relatively simple.

Recommendations: Pipe and fragments should be characterized and removed as part of the 100-IU-3 operable unit investigation.

Asphalt Batch Plant-(9)--This area appears to have been used as a temporary batch plant for mixing asphalt for paving operations. The original users of the area are unknown. No specific hazards were identified at this site.

Recommendations: No further action appears necessary.

Coyote Bait Can-(35)--At this site, a large military ammunition box is partially buried. The lid is marked with paint "BAIT CAN." Evidence in the area suggests that it was once used to store bait for coyote trapping.

Recommendations: No further action appears necessary.

Coyote Bait Station-(37)--At this location, over 50 coyote skulls were counted. Large animal bones in the area indicate that a poisoned carcass was used. Reports from past residents tell of a trapper who would frequently poison a horse carcass to kill coyotes for the pelts. Bones at this location were old and may predate government control of the land.

Recommendations: No further action appears necessary.

Gravel Pit #47-(6)--This gravel pit has a pile of trash disposed in it. Much of the trash appears to be of military origin. Many bottles and beverage cans make up the pile, along with fencing wire. Two paint cans are also at the site.

Recommendations: No further action appears necessary.

Gravel Pit #56-(10)--This gravel pit was investigated, and no evidence was found of dumping or other hazards.

Recommendations: No further action appears necessary.

Hanford Firing Range-(39)--This range was used by the original Hanford Site security force for target practice. Numerous 30- and 50-caliber bullets were found near the target area. Investigation with EOD personnel produced a few 37-mm, nonexplosive, spent rounds. After the investigation with EOD, a second, smaller, impact area was located near the main impact area. Approximately 6-10, 30 and 50 caliber bullets were located at the second site. No 37-mm rounds were located, however, metal fragments were found that may be from 37-mm rounds. It has not been determined if fragments result from explosive rounds or from impact shattering of nonexplosive rounds.

Recommendations: Small shrapnel pieces should be evaluated by EOD to determine if they result from explosive 37-mm rounds, or from impact fragmentation of nonexplosive rounds. This evaluation will be conducted as part of Phase 2; however, it should be accomplished before scheduled activity of the 100-IU-3 operable unit.

Wahluke Schoolhouse-(7)--Only the front steps remain to this old schoolhouse. This site is not at the townsite of Wahluke. No evidence of hazards were found in the area.

Recommendations: No further action appears necessary.

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