



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

03 AUG 1999

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT

Attn: Dr. Robert (Stu) Dinwiddie
Hazardous and Radioactive Material Bureau
2044 Galisteo
P.O. Box 26110
Santa Fe, NM 87502

FROM: 49 FW/CC
490 First Street, Suite 1700
Holloman AFB, NM 88330-8277

SUBJECT: Annual Unit Audit

1. This letter responds to the New Mexico Environment Department (NMED) Annual Unit Audit (AUA) Management Business Fee Assessment dated 4 May 99. HAFB requested an extension of the time period to submit the payment due to questions about the addition of seven alleged Solid Waste Management Units (SWMU) included in the AUA that are not included on the HAFB hazardous waste operating permit. The NMED granted the extension, in a letter dated 7 Jul 99, to allow HAFB to review pertinent documents to determine the status of the seven units in question.
2. HAFB has completed review of the records pertaining to these units and determined that the seven units in question do not belong on the permit and should not be included in the AUA. This determination is supported by the documents attached to this letter, as further explained below.
3. Units PRI-1, PRI-3 and PRI-4 were recommended for no further action (NFA) in the RCRA Facility Assessment (RFA) (copy of page 7-61 of the RFA at Atch 1). An EPA contractor conducted the RFA. The decisions made were, in effect, EPA decisions including the recommendation of no further action. According to former Holloman personnel who were present at the time, this no further action recommendation was generally the basis for considering a site of no further interest. While there were some exceptions to this, most notably some of the oil/water separators, 125 units were immediately dropped from consideration for further investigation based primarily on the NFA recommendation in the RFA. These units were never included in the permit based on the determination, after due consideration, that no further action was required. That this was the methodology used was confirmed in a telephone call between Jose Gallegos (Holloman) and Allen Chang (EPA Region 6) on 15 Jul 99.
4. PRI-2 and PRI-5 were included in the investigation of IRP Site OT-35. A decision document (Atch 2) was signed by Mark Weidler of NMED on 29 Sept 95, declaring that no action was necessary at the site to protect human health and the environment.

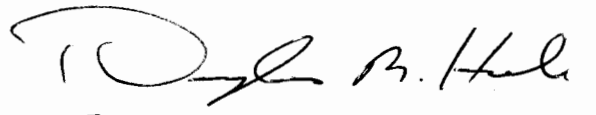


5. The Spent Munitions Burial Site (NA-6 on the AUA) is IRP Site OT-34. A decision document (Atch 3) was signed by Judith Espinosa of NMED on 29 Apr 93, declaring that no action was necessary at the site to protect human health and the environment.

6. The Waste Disposal Pit (NA-5 on the AUA) is IRP Site WP-50. A decision document (Atch 4) was signed by Judith Espinosa of NMED on 30 Sept 94, declaring that no action was necessary at the site to protect human health and the environment.

7. The additional corrections in paragraph 4 of the letter dated 21 Jun 99 to Dr. Dinwiddie are still correct.

8. If you have any questions or require additional information, please contact Mr. Courtland Fesmire at (505) 475-5395.


For WILLIAM J. LAKE
Brigadier General, USAF
Commander

Attachments:

1. Page 7-61 HAFB RFA
2. OT-35 Decision Document
3. OT-34 Decision Document
4. WP-50 Decision Document

cc:

Thomas Manning (w/o atchs)
AFCEE/CCR-D
AR REO-Central Region
525 Griffin St., Ste. 505
Dallas, TX 75202

Allen Chang (w/atchs)
U.S. Environmental Protection Agency (6PD-N)
1445 Ross Ave., Ste. 1200
Dallas, TX 75202-2733

SUGGESTED FURTHER ACTION FOR SWMUs
AT THE PRIMATE RESEARCH INSTITUTE

✓ SWMU PRI-1 - Building 1264 Waste Accumulation Area

Suggested Further Action: No further action is suggested at this time.

Reasons: This unit is located indoors in a fully enclosed metal construction trailer. Wastes including laboratory chemicals, and spent solvents are stored for less than 90 days in sealed five-gallon containers before they are transferred off-site by a private contractor. All containers appeared to be in good condition and no releases were observed during the VSI.

SWMU PRI-2 - Building 1264 Solvent Burn Area *

Suggested Further Action: An RFI is suggested for this unit.

Reasons: Waste solvents were apparently burned at an unknown location near building 1264. The extent to which secondary structures were utilized is unknown. Therefore, potential for release to soil and groundwater is high. Identification of the units' boundaries and soil sampling is suggested as part of an RFI to determine whether hazardous constituents have been released.

✓ SWMU PRI-3 - Building 1264 Biological Incinerator

Suggested Further Action: No further action is suggested at this time.

Reasons: The incinerator is a fully enclosed metal unit used to incinerate research animals and other biomedical wastes generated at the Primate Research Institute. The incinerator is located on the concrete pad, has a single combustion chamber, and discharges combustion emissions without treatment to the atmosphere. Ash is removed and disposed of off-site by a contractor.

✓ SWMU PRI-4 - Building 1264 Quarantine Area Incinerator

Suggested Further Action: No further action is suggested at this time.

Reasons: The incinerator is a fully enclosed metal unit used to incinerate research animals and other biomedical wastes generated at the Primate Research Institute. The

Declaration

**Statutory Preference for Treatment as a
Principal Element is not Applicable
and a Five-Year Review is not Required**

Site Name and Location

IRP Site OT-35 (RCRA SWMU PRI-2 and PRI-5)
Spent Solvent Disposal Area
Holloman Air Force Base, New Mexico

Statement of Basis and Purpose

This decision document presents the selected remedial action for the referenced site, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the National Contingency Plan. This decision is based on the administrative record file for this site.

The State of New Mexico concurs on the remedy.


Description of the Selected Remedy: No Action

The site investigation conducted for the site indicates that no action is necessary to protect human health and the environment.

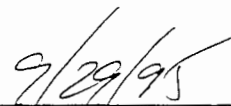
Declaration Statement

The site investigation conducted for the site indicates that conditions at the site do not require further action to ensure the protection of human health and the environment. Because no hazardous substances were detected at the site, a five-year review is not necessary.

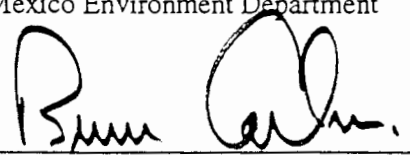
If new evidence suggesting the need for further action becomes available, the site closeout decision may be reversed. Likewise, future changes in land use, environmental regulations, or environmental laws may reverse the closeout decision.



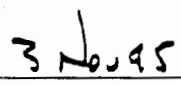
Mark Weidler, Cabinet Secretary
New Mexico Environment Department



Date



Bruce Carlson
Brigadier General, USAF Commander



Date

Decision Summary

Site Name and Location

IRP Site OT-35, the Spent Solvent Disposal Area, is located approximately 2 miles north of the Main Base near the Primate Research Lab at Holloman AFB, New Mexico. Site topography is relatively flat, and the area is sparsely vegetated. Figure 1-1 shows the location of the site at Holloman AFB, and Figure 2-1 shows the site layout.

Soils at the site consist primarily of interbedded sands, silts, and clays. The soils are low to moderately permeable and mildly alkaline. The regional groundwater flow direction is controlled by southwest-trending arroyos and is to the southwest, following the Dillard Draw surficial drainage system (Figure 1-2). At Site OT-35, groundwater occurs at approximately 35 to 40 ft below ground surface and flows to the northwest toward Rita's Draw.

The unconfined aquifer beneath the site, as well as the remainder of Holloman AFB exceeds the New Mexico Human Health Standards for total dissolved solids and sulfate concentrations and has been designated as unfit for human consumption based on NM WQCC 82-1, as amended through August 18, 1991, Parts 3-100 through 3-103. On the basis of the *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (EPA, 1986), the unconfined aquifer beneath Holloman AFB is classified as a Class III-B aquifer and is considered nonpotable.

Site History and Enforcement Activities

The Spent Solvent Disposal Area is located near the Primate Research Lab. Spent solvents containing radioactive tracers (carbon-14 and tritium) had reportedly been disposed of on the ground at the site intermittently since the 1950s.

Site OT-35 was identified as a potential contaminant source during an IRP records search conducted in 1983. The site was included in site investigation completed in 1993. Results of the investigation indicated that no action was necessary to protect human health and the environment. No remedial actions have been conducted at the site.

The site was identified as SWMUs PRI-02 and PRI-05 in the RCRA facility assessment conducted in 1987. However, these SWMUs were not listed in the Hazardous and Solid Waste Amendments permit issued to Holloman AFB by U.S. EPA Region VI and are not part of the RCRA corrective action program at Holloman AFB.

Highlights of Community Participation

Copies of the *Preliminary Assessment and Site Investigation Report—Investigation of Four Waste Sites* (Holloman AFB, 1993), which contains information pertaining to the site, is available to the public through the administrative record located at the Holloman AFB and Alamogordo Libraries.

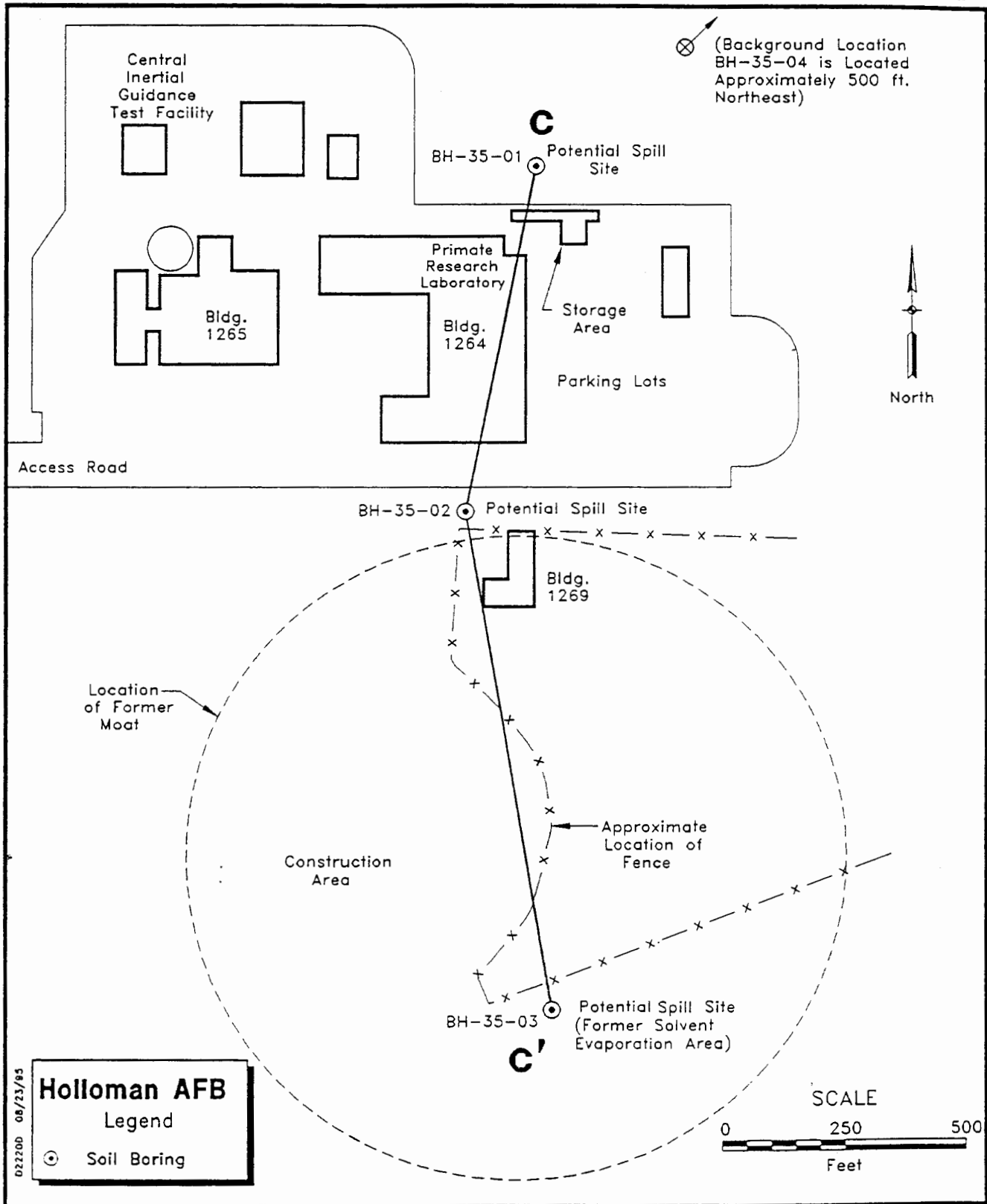


Figure 2-1. Map of IRP Site OT-35

Public meetings are held semiannually by Holloman AFB to announce the availability of reports and present issues pertaining to the IRP sites on the Base. Representatives from Holloman AFB and the U.S. Army Corps of Engineers (Omaha District) are present at these meetings to address public comments. No comments were received regarding the site at these meetings.

This decision document presents the selected remedial action for the site as chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the National Contingency Plan.

Scope and Role of the Response Action

The site investigation conducted for the site indicates that no action is necessary at Site OT-35 to protect human health and the environment under CERCLA, as amended by SARA, and to the extent practicable, the National Contingency Plan.

Summary of Site Characteristics

The IRP record search for Site OT-35 indicated that small amounts of solvents and radioactive metals may be present in the soil at the site. To determine the presence or absence of contamination at Site OT-35, Holloman AFB conducted a site investigation in 1993. The investigation focused on three principal areas of possible contamination:

- An area of stressed vegetation behind Building 1264;
- A slightly vegetated area near Building 1269 where stained soils were observed; and
- An area several hundred yards south of Building 1269 that was identified as the former solvent evaporation area where spent solvents were set out in evaporation pans for disposal.

Four borings were drilled to groundwater and a total of six soil samples were collected at the site. The samples were submitted to a certified laboratory for analyses of VOCs and gross alpha, beta, and gamma radioactivity. A background sample was collected approximately 500 ft northeast of the site and analyzed for alpha, beta, and gamma radioactivity to establish background levels.

Detected radioactivity levels were comparable to levels in the background sample. Radioactivity levels were also compared with *Waste Acceptance Criteria for Radioactive Solid Waste Disposal at SWSA-6* (Oak Ridge National Laboratory [ORNL], 1993). None of the radioactivity levels in the soils samples exceeded ORNL criteria. No VOCs were detected in any of the soil samples.

Summary of Site Risks

Contamination was not detected during the site investigation; therefore, the site does not pose unacceptable risk to human health or the environment.

Description of the Selected Alternative

The site investigation conducted for Site OT-35 indicated that no action is necessary to protect human health or the environment.

Responsiveness Summary

Restoration Advisory Board meetings were held semiannually to present information about the site to the public. Representatives from Holloman AFB and the U.S. Army Corps of Engineers (Omaha District) were present at these meetings to answer questions pertaining to the site. No comments were received during the meetings; therefore, no significant changes to the selected remedial action, as presented, were necessary.

Technical Document to Support Site Closeout

1. BASE/INSTALLATION/FACILITY

Holloman Air Force Base
Otero County, New Mexico

2. NAME AND LOCATION

Site OT-34, Spent Munitions Burial Site

3. STATEMENT OF BASIS

This site closeout decision is based on the following document which describes Site OT-34, Spent Munitions Burial Site (referred to therein as Site No. 34) conditions and potential impacts to public health and the environment.

- * Installation Restoration Program, Records Search for Holloman Air Force Base, New Mexico. CH₂M Hill. August 1983.

4. DESCRIPTION OF SELECTED REMEDY

The Records Search results confirm that the site is used for the burial of spent munitions and that no hazardous materials are associated with the spent munitions disposal operation. Available information indicates that the site does not present significant threat to human health or the environment. The No Action alternative is the selected remedy for Site OT-34.

5. DECLARATIONS

I have determined that the No Action alternative at Site OT-34 is a cost-effective remedy and provides adequate protection of public health, welfare, and the environment from releases of contaminants from past disposal practices. This determination is consistent with the Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Contingency Plan (40 CFR 300).

SITE: OT-34, Spent Munitions Burial Site
Holloman AFB, New Mexico

U.S. AIR FORCE

29 APR 93
Date

By: [Signature]
Title: _____

NEW MEXICO ENVIRONMENT DEPARTMENT

[Signature]
Date

By: [Signature]
Title: _____

U.S. ENVIRONMENTAL PROTECTION AGENCY

Date

By: _____
Title: _____

Declaration

Statutory Preference for Treatment as a Principal Element is not Applicable and a Five-Year Review is not Required

Site Name and Location

IRP Site 50
Waste Disposal Pit
Holloman Air Force Base, New Mexico

Statement of Basis and Purpose

This decision document presents the selected remedial action for the referenced site chosen in accordance with CERCLA, as amended by SARA. This decision is based on the administrative record file for this site.

The State of New Mexico concurs on the remedy.

Description of the Selected Remedy

The remedial investigation and risk assessment conducted for the site indicated that no action is necessary to protect human health and the environment. As part of the no action remedy, a plat of survey will be produced for the site and petroleum-contaminated soils exceeding the NMED clean-up level for Holloman AFB will be remediated.


Declaration Statement

The remedial investigation and risk assessment conducted for the site indicated that conditions at the site do not require further action to ensure the protection of human health and the environment. Because no hazardous substances will remain on-site above health-based levels, a five-year review is not necessary.

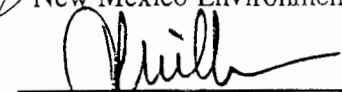
If new evidence becomes available and suggests the need for further action, the site closeout decision may be reversed. Likewise, future changes in land use, environmental regulations, or environmental laws may reverse the closeout decision.



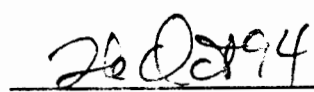
Judith Espinosa, Cabinet Secretary
New Mexico Environment Department



September 30, 1994
Date



John F. Miller, Jr.
Brigadier General, USAF
Commander



26 Oct 1994
Date

Decision Summary

Site Name, Location and Description

IRP Site 50 is the Waste Disposal Pit site located adjacent to the Base Geophysics Laboratory (Building 1251) in the north Base area (see figure).

The near-surface geology at Holloman AFB consists of interbedded sands, silts, and clays. Soils are low to moderately permeable and mildly alkaline. Groundwater occurs from 5 to 40 ft below the surface. Local and regional groundwater flow direction is controlled by the southwest-trending arroyos. In the southern portion of Holloman AFB, regional groundwater flow is to the southwest, following the Dillard Draw surficial drainage system. In the northern portion of Holloman AFB, groundwater flow is to the west, following Ritas Draw, Malone Draw, and Lost River drainages.

The unconfined aquifer beneath Holloman AFB exceeds the New Mexico Human Health Standards for total dissolved solids and sulfate concentrations and has been designated as unfit for human consumption based on NMWQCC 82-1, as amended through August 18, 1992, Parts 3-100 through 3-103. Based on the *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (EPA, 1986), the unconfined aquifer beneath Holloman AFB is a Class III-B aquifer and is classified as non-potable.

Site History and Enforcement Activities

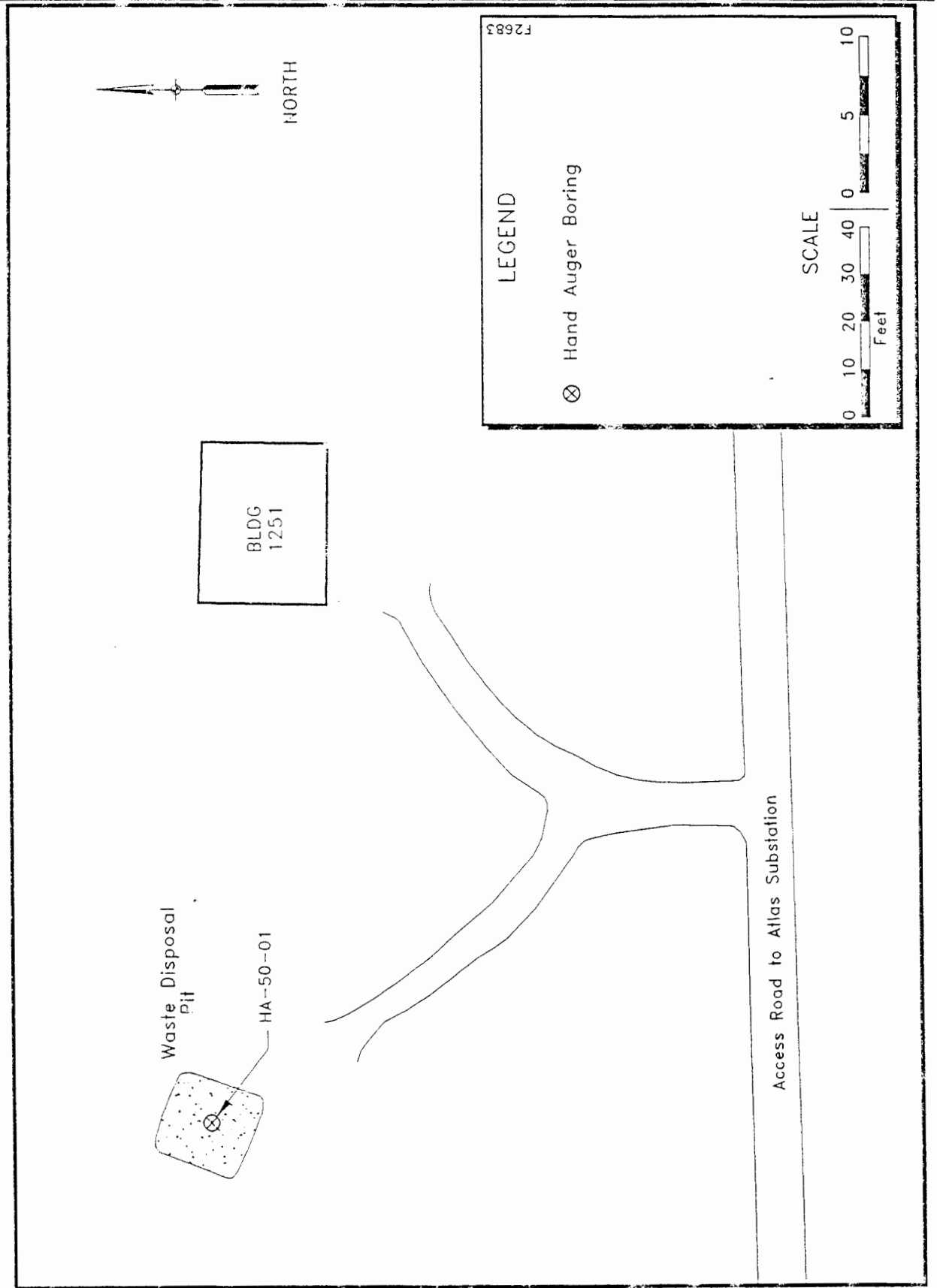
The site consists of a 10-ft-square by 4-ft-deep pit that contained several 55-gal. drums, 5-gal. buckets, and other miscellaneous containers, all with various contents at the time of the investigation. Many of the buckets and containers were either rusted or weathered and the labels were illegible, so the contents of the pails and containers were not known. These materials were reportedly disposed of at this location after the Army finished conducting a field drill in the north Base area. Based on available documentation, no evidence exists that hazardous waste was disposed of at the site after 1980. Radian Corporation performed a records search and RI during 1991 and 1992. No remedial actions have been performed at the site.

Highlights of Community Participation

- Copies of the *Remedial Investigation Report-Investigation, Study and Recommendation for 29 Waste Sites* (October, 1992) and the *Risk Assessment Report for the Remedial Investigation-Investigation, Study and Recommendation for 29 Waste Sites* (June, 1992) which contain the site were released to the public January 24, 1993. The reports were made available to the public in the administrative record located at the Holloman AFB Library and the Alamogordo Public Library. The notice of availability was published in the *Alamogordo Daily News* on January 24, 1993.

A public comment period was held from July 1993 through August 1993. A public meeting was held at the Alamogordo Civic Center on 26 August 1993. Representatives from Holloman AFB and the USACE (Omaha District) were present at the meeting to answer any questions pertaining to the site. No comments were received during the review period.

This decision document presents the selected remedial action for the site, chosen in accordance with CERCLA, as amended by SARA. The decision for this site is based on the administrative record.



Scope and Role of the Response Action

The Remedial Investigation (RI) and Risk Assessment (RA) conducted for the site indicated that no action is necessary to protect human health and the environment under CERCLA.

Summary of Site Characteristics

In July 1991, Holloman AFB conducted a RI to identify the types, quantities, and locations of contaminants at the site. A summary of the field investigation and results of the RI are presented below.

Soil

Three soil samples were collected within one soil boring inside the waste pit. The samples were collected with a hand auger every 2 ft starting at the surface and continuing to a total depth of 6 ft below ground level. The soil samples were analyzed by a certified laboratory for volatile organic compounds, semivolatile organic compounds, organochlorine pesticides and PCBs, organophosphorus pesticides, total metals, and petroleum hydrocarbons. With the exception of mercury, all metal concentrations detected were below the established background limits for Holloman AFB. Petroleum hydrocarbons were also detected in the soils at concentrations less than 1000 mg/kg, but the concentrations decreased with depth.

Summary of Site Risks

A RA was conducted to estimate the potential consequences to human health and the environment that could result if contamination at this site is not remediated. The RA consisted of four basic steps: 1) data analysis and selection of chemicals of concern; 2) identification of exposure pathways and receptors (i.e., skin, ingestion, or inhalation); 3) toxicity assessment or discussion of hazards and dose-response relationships associated with each contaminant; and 4) quantification of potential carcinogenic and noncarcinogenic risks. A detailed description of the RA is contained in the *Risk Assessment Report for the Remedial Investigation- Investigation, Study and Recommendation for 29 Waste Sites* (June 1992).

Human Health Risks

This site is located in an extremely remote area on Base. There are currently no receptors. The soil that contains other constituents (organochlorine pesticides, metals, etc.) is coincident with TPH contamination and will be remediated during the removal of the TPH-contaminated soil. Following remediation, the pit will be backfilled. Even if receptors were present at the site, the constituents will be removed and replaced with clean soil.

Environmental Risks

Environmental risk was evaluated using an Environmental Quotient (EQ). The EQ calculates the potential ecological risks associated with the contaminants of concern through the ingestion of soil and/or contaminated plants. EQs above a value of 1 represent the possibility of adverse environmental effects occurring from the intake of contaminants. No adverse ecological effects are expected to occur at sites with an EQ of less than 1. No adverse effects are expected to occur at sites with an EQ of less than 1.

The EQ for the site was calculated at a value of 1.2. The EQ was based on the concentrations of mercury in the soil. Since only a few samples were analyzed for this site, the EQ was determined using conservative assumptions. Also, since the area of the site is small, the contaminants are not present at the surface, resulting in only a slight excess of the acceptable value of 1.0. Thus, it is unlikely that this site presents an unacceptable risk to the terrestrial wildlife. Furthermore, the soil that contains other constituents (organochlorine pesticides, metals, etc.) is coincident with TPH contamination and will be remediated during the removal of the TPH-

contaminated soil. Following remediation, the pit will be backfilled with clean soil. The environmental receptors will have no exposure route or chemicals of concern.

Description of the Selected Alternative

The remedial investigation and risk assessment conducted for the site indicated that no action is necessary to protect human health and the environment.

As part of the no action remedy and site close-out procedures, the following two condition will be met:

- The completion of a RCRA-required plat of survey which will locate the site in relation to a permanent benchmark. The plat will be provided to the U.S. EPA regional administrator and the Holloman AFB zoning authority. The surveying will be completed by a professional land surveyor, and the plat will state the obligation of Holloman AFB to restrict disturbance of the site.
- The remediation of soils with petroleum contamination concentrations exceeding the 1000 mg/kg TPH level established by the NMED as the clean-up level at Holloman AFB. Although the remedial investigation and risk assessment indicated that other contaminants were detected at levels that site do not pose a risk to human health or the environment, other contaminants (organochlorine pesticides, metals, etc.) will be remediated concurrently with the TPH contamination. Following remediation and confirmation samples, the pit will be backfilled with clean soil. A workplan will be submitted to the NMED prior to the initiation of remediation activities to outline techniques and proposed confirmation samples.

Responsiveness Summary

The Proposed Plan for the site was released for public comment in July 1993. The Proposed Plan identified no action as the preferred remedial alternative. The no action alternative included the remediation of soils with TPH concentrations greater than 1000 mg/kg and the production of a plat of survey for the site. No comments were submitted during the public review period; therefore no significant changes to the preferred remedial action, as it was presented in the Proposed Plan, were necessary.