

Sandia National Laboratories

**PROPOSAL FOR ADMINISTRATIVE
NO FURTHER ACTION
ENVIRONMENTAL RESTORATION
SITE 21, METAL SCRAP (COYOTE SPRINGS)
OPERABLE UNIT 1334**

August 1994

Environmental
Restoration
Project



United States Department of Energy
Albuquerque Operations Office

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OPERABLE UNIT 1334
AUGUST 1994**

Prepared by
Sandia National Laboratories/New Mexico
Environmental Restoration Project
Albuquerque, New Mexico

Prepared for the
United States Department of Energy

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1.0 INTRODUCTION

1.1 ER Site Identification Number and Name

Sandia National Laboratories/New Mexico (SNL/NM) is proposing an administrative no further action (NFA) decision for Environmental Restoration (ER) Site 21, Metal Scrap, Operable Unit (OU) 1334. ER Site 21, formerly included in OU 1272, was identified as a scrap yard in the Hazardous and Solid Waste Amendment (HSWA) Module IV (EPA August 1993) of the SNL/NM Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Facility Permit (NM5890110518) (EPA 1992).

1.2 SNL/NM Administrative NFA Process

This proposal for a determination of an administrative NFA decision has been prepared using the criteria presented in Section 4.5.3. of the SNL/NM Program Implementation Plan (SNL/NM February 1994). Specifically, this proposal will "contain information demonstrating that there are no releases of hazardous waste (including hazardous constituents) from solid waste management units (SWMU) at the facility that may pose a threat to human health or the environment" (as proposed in the Code of Federal Regulations (CFR) Section 40 Part 264.51[a] [2]) (EPA July 1990). The HSWA Module IV contains the same requirements for an NFA demonstration:

Based on the results of the RFI [RCRA Facility Investigation] and other relevant information, the Permittee may submit an application to the Administrative Authority for a Class III permit modification under 40 CFR 270.42(c) to terminate the RFI/CMS [corrective measures study] process for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous waste including hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in 40 CFR 270.42(c) (EPA August 1993).

In requesting an administrative NFA decision for ER Site 21, Metal Scrap, this proposal is using existing administrative/archival information to satisfy the permit requirements. This unit is eligible for an administrative NFA proposal based on one or more of the following criteria taken from the RCRA Facility Assessment Guidance (EPA October 1986):

- Criterion A: The unit has never contained constituents of concern
- Criterion B: The unit has design and/or operating characteristics that effectively prevent releases to the environment
- Criterion C: The unit clearly has not released hazardous waste or constituents into the environment

Specifically, ER Site 21 is being proposed for an administrative NFA decision because the SWMU never contained hazardous waste or constituents (Criterion A).

1.3 Local Setting

SNL/NM occupies 2,829 acres (ac) of land owned by the Department of Energy (DOE), with an additional 14,920 ac of land provided by land-use permits with Kirtland Air Force Base (KAFB), the United States Forest Service (USFS), the State of New Mexico, and the Isleta Indian Reservation. Sandia Corporation (a subsidiary of AT&T) operated SNL/NM for DOE from the time of its opening in 1945 until September 1993, when Martin Marietta Corporation undertook operation. SNL/NM has been involved in nuclear weapons research, component development, assembly, testing, and other nuclear activities since 1945.

ER Site 21 (Figure 1-1) is owned by KAFB (unassigned) with a SNL/NM right-of-way through the area. The site is located in an open area along a dirt road north of the Coyote Springs picnic ground, approximately one-half mile west of the USFS Withdrawn Area. The site lies on approximately 1 ac of land at a mean elevation of 5,851 feet (ft) above sea level (SNL/NM April 1994).

This inactive site is located on alluvial deposits correlated to the Gila fine sandy loam found near the channel of Arroyo del Coyote (IT May 1994), with permeabilities ranging from 0.6 to 2.0 inches per hour (USDA 1977). Geologic and hydrologic conditions at ER Site 21 are inferred from outcrops of Precambrian quartzite to the east and north and Paleozoic rock to the west and southwest, from the Starfire Optical Range well lithologic log, and routine monitoring and observation of Coyote Springs. Although the Starfire Optical Range well lies approximately 3 miles to the south and is not the closest monitoring well to ER Site 21, it lies in the same geologic setting east of the Coyote Fault. Therefore, based on the lithologic log for the Starfire Optical Range well and rocks exposed in the surrounding mountains, ER Site 21 is anticipated to lie on 20 to 40 ft of alluvial deposits that are underlain by Paleozoic or Precambrian rocks. Depth to groundwater is approximately 10 ft or less, as evidenced by the active groundwater discharge at Coyote Springs and intermittent alluvial seeps (IT May 1994).

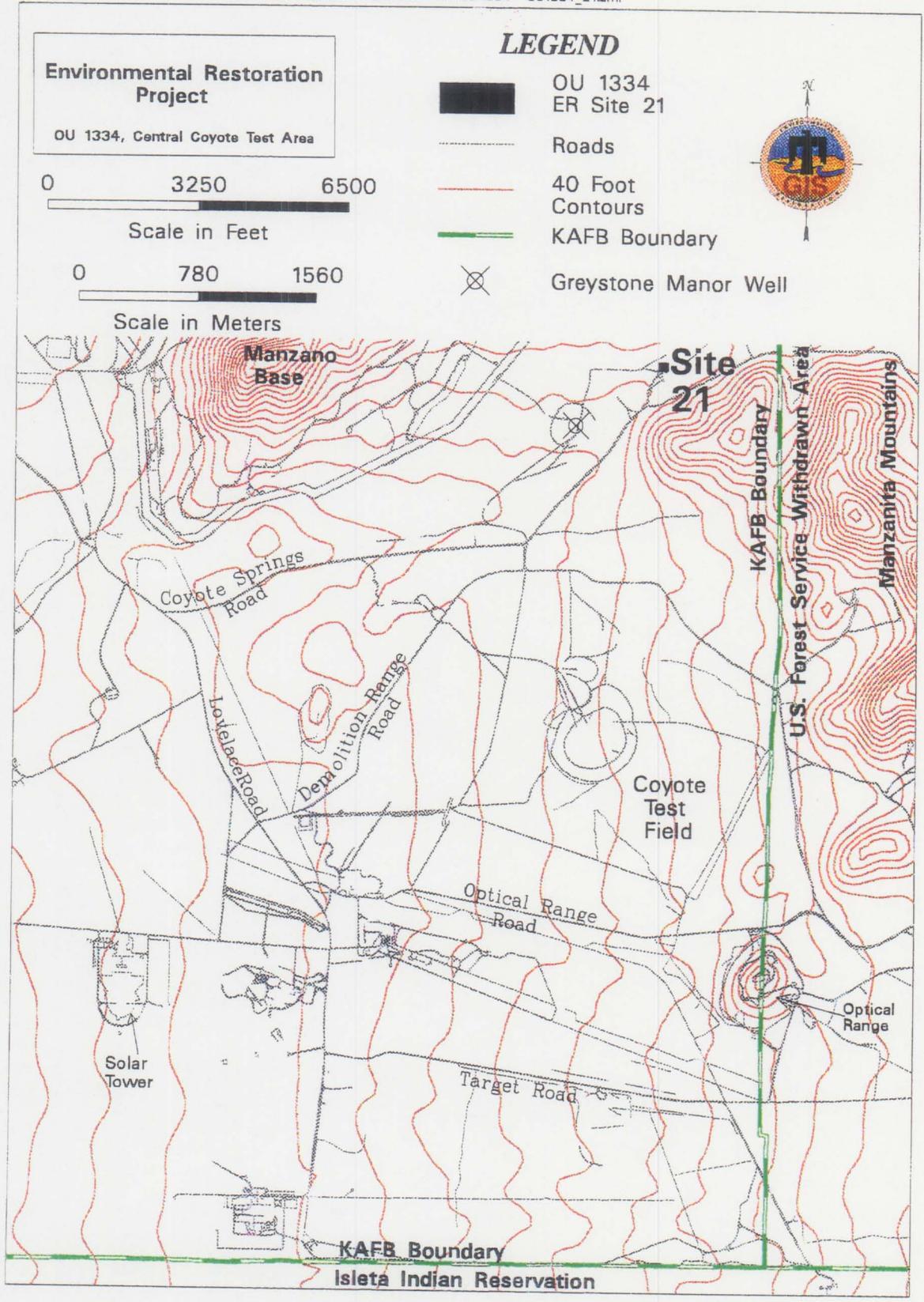


Figure 1-1
Location of ER Site 21, Metal Scrap

2.0 HISTORY OF THE SWMU

2.1 Previous Audits, Inspections, and Findings

ER Site 21 was first listed as a potential release site based on the Comprehensive Environmental Assessment and Response Program (CEARP) interviews in 1985 (DOE September 1987), which noted an old 55-gallon (gal) drum and some partially buried pieces of metal on the ground. None of the persons interviewed during the CEARP investigation recalled a waste disposal site in this area (21-6 through 21-11, 21-20 through 21-25, 21-32). The regulatory disposition of the SWMU remained uncertain, however, because of a lack of information regarding possible waste generation or disposal activities at the site. Insufficient information also prevented calculating a Hazard Ranking System score for the SWMU.

Subsequent to the CEARP inspection, the Environmental Protection Agency (EPA) conducted a RCRA Facility Assessment (RFA). The RFA report (EPA April 1987) noted the site was located adjacent to Coyote Springs and contained a few partially buried drums and pieces of metal. The origin, contents, and condition of the debris was described as unknown.

2.2 Historical Operations

ER Site 21 consists of one empty rusted 55-gal drum (Figures 2-1 and 2-2) and some scrap metal lying in a heavily vegetated area of *Ailanthus* (*Ailanthus altissima*) near an arroyo channel. The origin of the metal drum and scrap metal is unknown. No documentation of activities that occurred at this SWMU have been found. Interviews with current and former SNL/NM employees (21-20 through 21-25) revealed no information concerning waste management activities at this SWMU. This area is currently used by KAFB as a training and bivouac area (21-14, 21-18).

Aerial photographs taken at ER Site 21 in 1951 show a farm house with associated outbuildings, corrals, and fences (USGS 1951), and these features remain on 1961 and 1967 photographs (USGS 1961, USGS 1967). However, the house is not present in a 1971 aerial photograph (USGS 1971). Five aerial photographs available from 1951 through 1991 show that the cluster of *Ailanthus* is traceable to the present. None of the aerial photographs shows cultural features to suggest that ER Site 21 was ever used as a waste management area (USGS 1951, USGS 1961, USGS 1967, USGS 1971, USGS 1991).

SNL/NM is proposing to remove the drum and metal scrap from the site as nonhazardous solid waste under a voluntary corrective measure.

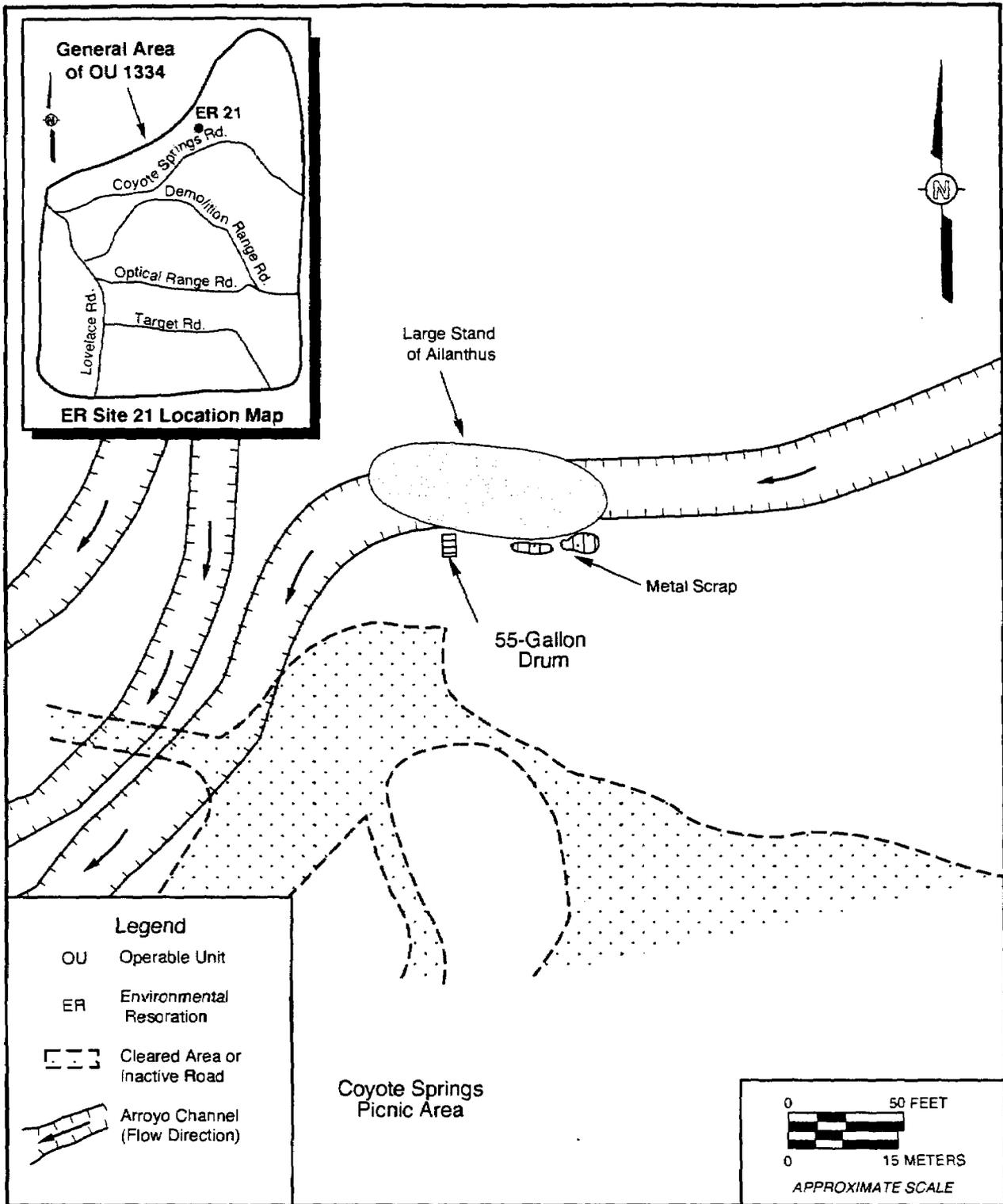


Figure 2-1
Site Map of ER Site 21, Metal Scrap

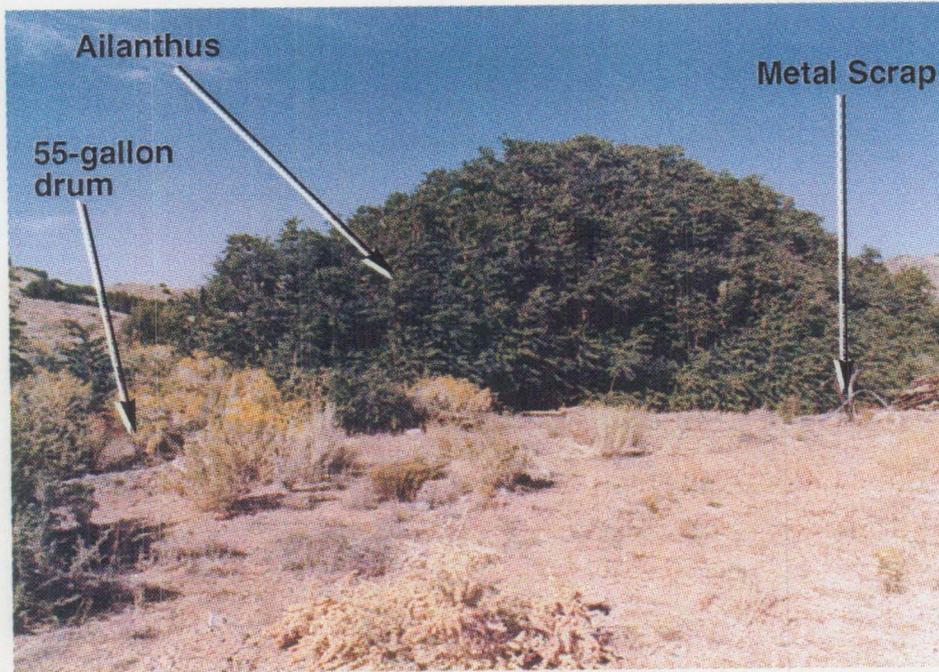


Figure 2-2a. Metal scrap, drum, and Ailanthus cluster, ER Site 21. View to the east.

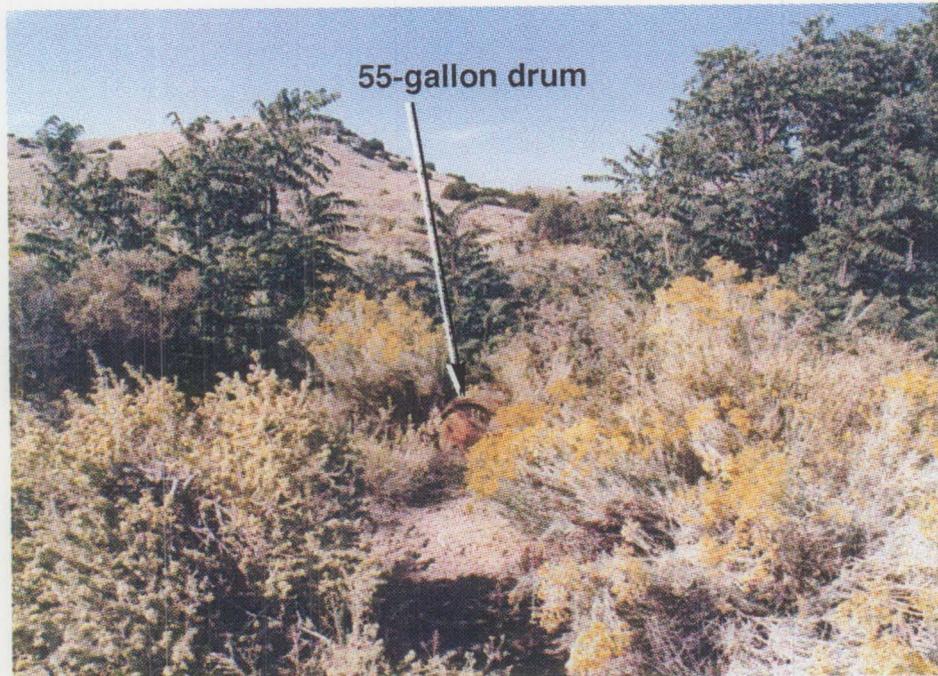


Figure 2-2b. 55-gallon drum at the Coyote Springs dump, ER Site 21. This drum is the primary fixture at this site. View to the north.

**Figure 2-2
ER Site 21 Photographs**

2.3 Discussion of Information Conflicts

The RFA report (EPA April 1987) noted that a few partially buried drums were present at the site. Recent site visits have shown that a rusted empty drum and some metal debris are present on the surface. There are no other information conflicts present in the records for ER Site 21.

3.0 EVALUATION OF RELEVANT EVIDENCE

3.1 Unit Characteristics

ER Site 21 contains a single rusted 55-gal drum and some metal debris. According to aerial photographs and ER Project interviews, the site has never been associated with historical disposal operations.

3.2 Operating Practices

Hazardous materials were not managed or contained at ER Site 21.

3.3 Presence or Absence of Visual Evidence

Recent site inspections found an empty rusted 55-gal drum and some scrap metal on the ground. However, there is no visual evidence to suggest the drum ever contained hazardous materials or that a release occurred at the site. Interviews with current and former SNL/NM personnel revealed no information concerning waste management activities (21-20 through 21-23, 21-25). This is supported by aerial photographs (USGS 1951, USGS 1961, USGS 1967, USGS 1971, and USGS 1991) that show a farm house and associated structures prior to 1971 and an absence of structures at the time of the 1971 photograph. None of the aerial photographs show cultural features that suggest the site was used to dispose of hazardous constituents.

3.4 Results of Previous Sampling/Surveys

3.4.1 Unexploded Ordnance/High Explosive Survey

In November 1993, KAFB Explosive Ordnance Disposal conducted a surface unexploded ordnance (UXO)/high explosives (HE) survey at this site that was completed in conjunction with ER Sites 62 and 88. Expended ordnance collected and removed during this survey included ten smoke grenades, two 40-millimeter white star cartridges, one booby trap simulator, and numerous rifle shells and casings. No UXO or HE was found (21-34). It is unlikely the ordnance collected was related to ER Site 21 activities because many groups—including the Defender Challenge, civil engineering, the KAFB hospital, and the KAFB security police—use the Coyote Springs area as a training/bivouac area (21-14, 21-18). The ordnance collected during this survey was probably the remnant of training exercises conducted by one or more of these groups.

3.4.2 Gamma Radiation Survey

In February 1994, RUST Geotech Inc. conducted a surface radiation survey at the site in conjunction with ER Sites 62 and 88. The survey used a scintillometer containing a sodium-iodide detector to measure gamma radiation and no detections were found above the background readings of 10 to 13 microrentgen per hour (RUST Geotech Inc. July 1994).

3.5 Assessment of Gaps in Information

There are no records that state hazardous waste or constituents were contained at ER Site 21. However, the potential data gap arising from incomplete archival records on the operation of the site has been addressed by ER Project interviews, aerial photographs, site visits, and UXO/HE and surface gamma radiation survey results. This new information indicates that the site never contained hazardous waste or constituents.

3.6 Rationale for Pursuing An Administrative NFA Decision

SNL/NM is proposing an administrative NFA decision for ER Site 21 because the SWMU never contained hazardous waste or constituents (Criterion A). There is no knowledge of any waste management activities at this site and no visual evidence of buried or stored hazardous waste or constituents.

An inspection conducted under the CEARP verified the presence of one empty, unlabeled 55-gal drum and some partially buried pieces of metal on the ground (DOE September 1987). Interviews with current and former SNL/NM personnel revealed no information concerning waste management activities (21-20 through 21-23, 21-25). Aerial photographs reveal no features associated with waste management practices (USGS 1951, USGS 1961, USGS 1967, USGS 1971, and USGS 1991). Site visits show a single rusted drum and metal scrap debris, which will be removed under a voluntary correction measure.

Subsequent to the CEARP inspection, the EPA conducted a RFA (EPA April 1987) and reported that several partially buried 55-gal drums were at the site. However, recent site inspections found one empty, rusted 55-gal drum and some scrap metal lying on the ground. SNL/NM is proposing to remove the drum and metal scrap from the site as nonhazardous solid waste under a voluntary corrective measure.

In November 1993, a UXO/HE survey conducted by KAFB in conjunction with ER Sites 62 and 88 found no live UXO/HE or significant UXO/HE debris at the site (21-34). In February 1994, a surface gamma radiation survey of the site was done in conjunction with ER Sites 62 and 88. No detections were found above the background levels (RUST Geotech Inc. 1994, in preparation). Therefore, based on recent surveys and newly obtained historical information, ER Site 21 is recommended for an administrative NFA decision because the SWMU never contained hazardous waste or constituents (Criterion A).

4.0 CONCLUSION

Based upon the evidence cited above, no potential remains for a release of hazardous waste (including hazardous constituents) which may pose a threat to human health or the environment.

5.0 REFERENCES

5.1 ER Site References

Section 5.1 contains a comprehensive bibliographical list of the documents relating to ER Site 21. This list is arranged numerically by the numbers assigned to each document.

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21-2.	Sandia National Laboratories, November 1993. "Environmental Restoration Program Information Sheet: Metal Scrap (Coyote Springs)," Sandia National Laboratories, Albuquerque, New Mexico.
21-3.	Sandia National Laboratories/New Mexico, April 1985, Environmental Operations Records Center Record Number ER/1334 021/INT/94-001.
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21-5.	Sandia National Laboratories, [n.d.], draft. RCRA Facility Assessment SWMU 73, Coyote Springs Burial Area, ER Site #73, Sandia National Laboratories, Albuquerque, New Mexico.
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- 21-19. Lojek, C. Field Activity Daily Logs, Site 21, Coyote Springs, New OU 1293 Site Visit, Sandia National Laboratories, Albuquerque, New Mexico. July 21, 1993.
- 21-20. Sandia National Laboratories/New Mexico, January 1993, Environmental Operations Records Center Record Number ER/1334 021/INT/94-008.
- 21-21. Sandia National Laboratories/New Mexico, January 1993, Environmental Operations Records Center Record Number ER/1334 021/INT/94-009.
- 21-22. Sandia National Laboratories/New Mexico, January 1993, Environmental Operations Records Center Record Number ER/1334 021/INT/94-010.
- 21-23. Sandia National Laboratories/New Mexico, September 1985, Environmental Operations Records Center Record Number ER/1334 021/INT/94-011.
- 21-24. Sandia National Laboratories/New Mexico, October 1985, Environmental Operations Records Center Record Number ER/1334 021/INT/94-012.
- 21-25. Sandia National Laboratories/New Mexico, September 1985, Environmental Operations Records Center Record Number ER/1334 021/INT/94-013.
- 21-26. Reference removed/not applicable to site.

- 21-27. Sandia National Laboratories/New Mexico, December 1992, Environmental Operations Records Center Record Number ER/1334 021/INT/94-014.
- 21-28. Sandia National Laboratories, July 1993. OU 1293—Site 21 Photographs, Albuquerque, New Mexico.
- 21-29. Sandia National Laboratories/New Mexico, October 1993, Environmental Operations Records Center Record Number ER/1334 021/INT/94-015.
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- 21-31. Sandia National Laboratories/New Mexico, January 1994, Environmental Operations Records Center Record Number ER/1334 021/INT/94-017.
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- 21-33. Sandia National Laboratories/New Mexico, January 1994, Environmental Operations Records Center Record Number ER/1334 021/INT/94-019.
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5.2 Reference Documents

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U.S. Department of Agriculture (USDA), 1977, "Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico," Soil Conservation Service, U.S. Department of Agriculture.

5.3 Aerial Photographs

United States Geological Survey (USGS), 1991. Aerial Photograph, NAPP-3534-183, Albuquerque, New Mexico.

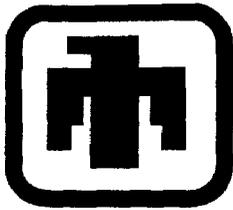
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Sandia National Laboratories

PROPOSAL FOR ADMINISTRATIVE NO FURTHER ACTION ENVIRONMENTAL RESTORATION SITE 47, UNMANNED SEISMIC OBSERVATORY OPERABLE UNIT 1334

August 1994

Environmental
Restoration
Project



United States Department of Energy
Albuquerque Operations Office
