

**CULTURAL RESOURCE SURVEY OF TWO PROPOSED
NRC CLEANUP AND RECLAMATION SITES IN
SOCORRO AND SANDOVAL COUNTY
NEW MEXICO**

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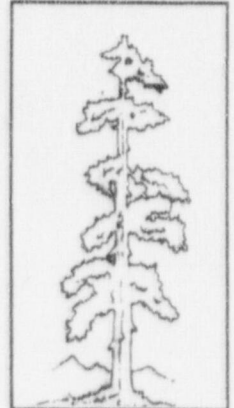
Prepared for:

ETEC, INC.



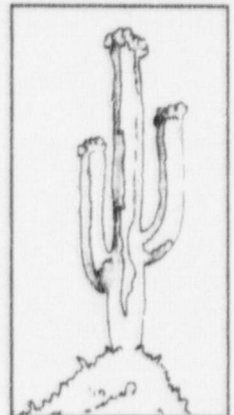
Prepared by

**SWCA Inc.
Environmental Consultants**



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July 1998



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**CULTURAL RESOURCE SURVEY
OF TWO PROPOSED NRC CLEANUP
AND RECLAMATION SITES
IN SOCORRO COUNTY AND SANDOVAL COUNTY,
NEW MEXICO**

Prepared For

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Submitted By

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NMCRIS Project/Activity No. 61451
SWCA Project No. 2650-8332
SWCA Archaeological Report Number 98-99

July 1998

ABSTRACT

In July 1998, SWCA, Inc. completed a cultural resource survey of two proposed reclamation areas on privately owned land in Socorro and Sandoval Counties, New Mexico. The survey was requested by Etec Resources, Inc. The project areas are two privately owned, geographically separate parcels, referred to as Grace 2 and Grace 3. The two parcels were used for uranium ore extraction and processing, but these operations were discontinued about twenty years ago. Etec proposes to remove and dispose of contaminated material from the two parcels, and conduct other reclamation activities. The project area comprises two geographically separate areas with a total area of 6.0 hectares (17.3 acres).

The cultural resources survey included an ARMS files check, a review of current listings for the National Register of Historic Places and State Register of Cultural Properties, and an archaeological survey. The ARMS search indicated that no previous surveys have led to the recording of archaeological sites within 1,000 m of the project areas. No properties on the national or state registers are present within or adjacent to the project areas. The archaeological survey of the project areas encountered one isolated occurrence of cultural material. The isolated occurrence does not have the potential to add important information to the cultural history of the area; documentation of its character and location has exhausted its data potential.

SWCA recommends no further cultural resource studies prior to construction within the two surveyed areas. If previously undetected archaeological remains are unearthed during construction, work in that area should be halted and the lead public agency for the project should be notified. If human remains are unearthed during construction, work in that area should be halted and the appropriate county sheriff should be notified.

INTRODUCTION

On July 1 and 2, 1998, SWCA, Inc. Environmental Consultants completed a cultural resource survey of two proposed reclamation areas on privately owned land in Socorro and Sandoval Counties, New Mexico (Figs. 1 and 2). The survey was requested by Mr. Gary Williams of Etec Resources, Inc. During the project, David Phillips served as principal investigator, Robert Swain served as project archaeologist, Robin Stipe-Davis prepared the figures, and Margaret Ozolins produced the report.

The project area comprises two privately owned, geographically separate parcels, referred to as Grace 2 and Grace 3. The two parcels were used for uranium ore extraction and processing, but these operations were discontinued about twenty years ago. The Grace 2 parcel is owned by Mr. Ray Gonzales; the Grace 3 parcel is owned by Mr. Lee Henderson. Etec, Incorporated proposes to remove and dispose of contaminated material from the two parcels, and conduct other reclamation activities. For additional information on the nature of the proposed activities, the reader is advised to contact Mr. Gary Williams of Etec, Incorporated. The activity areas are described separately, as follows:

Grace 2 is a rectangular area on a gently rolling, shallowly dissected alluvial fan near the head of Cañon del Piojo in Sandoval County, New Mexico (Fig. 1). The area is about 1,250 feet (381 meters) long, and 500 feet (153 meters) wide, and was used for in situ leaching of uranium ore. The northeastern part of Grace 2 was not surveyed for cultural resources, since no ground disturbing activities are proposed for that area. The trapezoid-shaped part of Grace 2 surveyed for cultural resources covers 10.1 acres (4.1 hectares), and about half of this area has been disturbed by mining activities. The proposed activities for Grace 2 consist of plugging several abandoned water wells and the removal of about six cubic yards of contaminated material.

Grace 3 is a trapezoidal area on the floodplain and adjacent slopes of Jaralosa Creek in Socorro County, New Mexico. The area is about 500-700 feet (153-214 meters) long and 430 feet (131 meters) wide, and contains an abandoned heap leach processing site. Grace 3 covers about 7.2 acres (2.9 hectares), and more than half of this area has been disturbed by mining activities. The proposed activities for Grace 3 consist of removal of contaminated soil and rock, resulting in ground disturbance to a depth of six inches.

The Grace 2 study area is located in T 12 N, R 4 W, Sec. 13, NW 1/4 of the NE 1/4. The Grace 3 study area is located in T 1 N, R 6 W, Sec. 13, SE 1/4 of the SW 1/4. UTM Zone 13 coordinates (GPS derived; Garmin GPS 12XL averaging unit, set to the 1927 NAD) for the project area are:

<i>Grace 2:</i>	Northeast Corner:	E 298,988	N 3,905,633
	Southeast Corner:	E 298,840	N 3,905,633
	Northwest Corner:	E 298,847	N 3,905,986
	Southwest Corner:	E 298,840	N 3,905,460
<i>Grace 3:</i>	Northeast Corner:	E 277,370	N 3,798,488
	Southeast Corner:	E 277,359	N 3,798,292
	Northwest Corner:	E 277,233	N 3,798,438
	Southwest Corner:	E 277,239	N 3,798,278

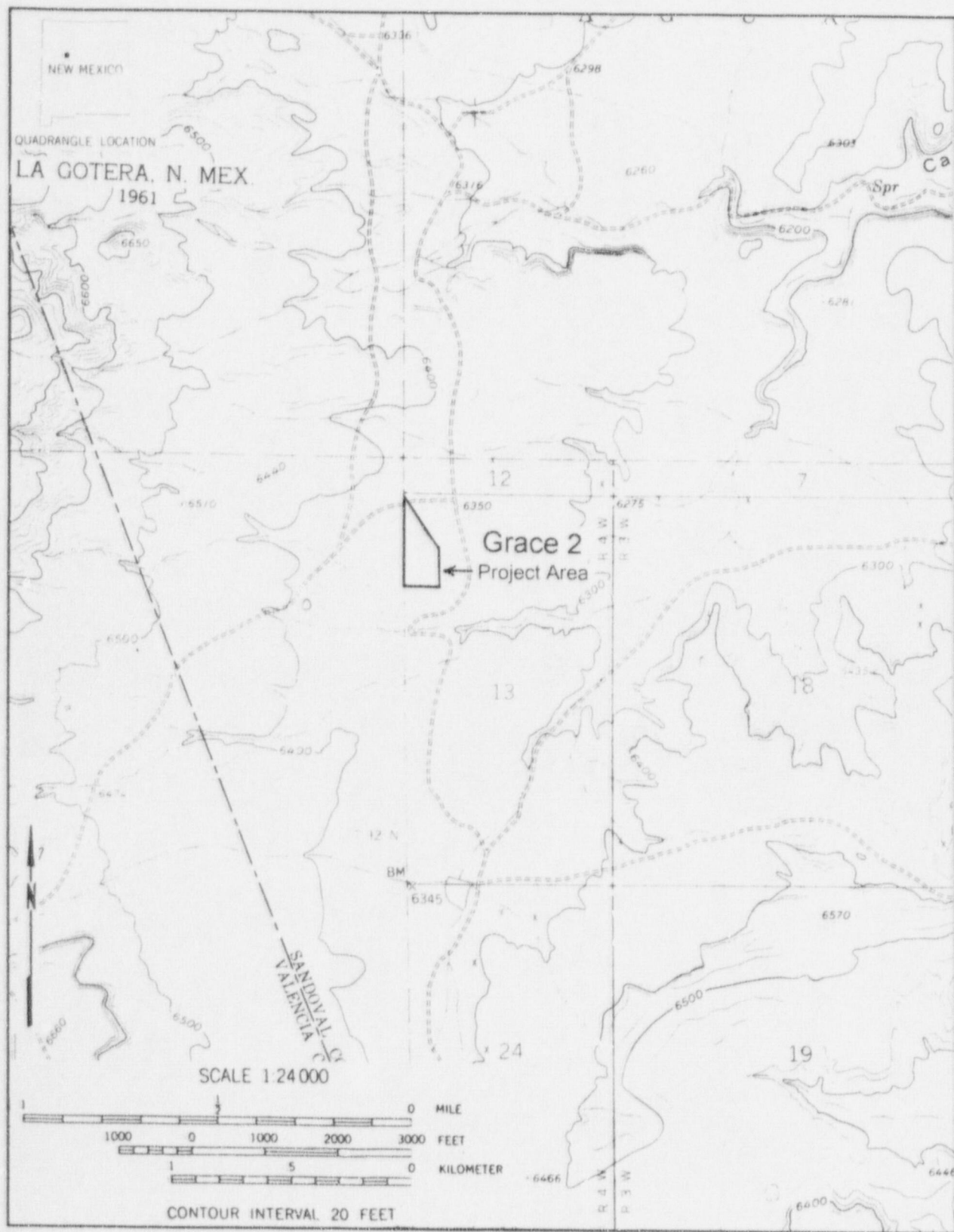


Figure 1. Grace 2 project location.
Based on USGS La Gotera (1961) Map.

PROJECT CONTEXT

Grace 2 is about 29 km (18 miles) northeast of Laguna, New Mexico, in the southwestern corner of Sandoval County. This part of New Mexico is included within the Acoma-Zuni Section of the Colorado Plateau Physiographic Province (Hawley 1986:24). The survey area is on an alluvial fan dissected by shallow drainages that flow into Canon del Piojo, which is, in turn, a tributary of the Rio Puerco. Sediments consist of sandy loams of varying thicknesses; the adjacent alluvial ridges are covered by gravelly loams underlain by coarser, stonier sediments (Maker et al. 1978). The underlying bedrock is mostly Dakota Sandstone, a geographically extensive sedimentary formation.

The local biotic community can be characterized as a Juniper Woodland/Grassland transition zone. The area is rural, and the predominant commercial activities is cattle grazing. The ground surface within the project area is more or less intact and is dominated by mixed grasses and snakeweed; other common species include juniper, cholla, and some sage. Throughout the project area, ground cover ranges from 50 to 80 percent.

Grace 3 is about 31 km (19 miles) northwest of Magdalena, New Mexico, in the northwestern quarter of Socorro County. This part of New Mexico is included within the Datil-Mogollon Section, a newly defined physiographic subdivision, transitional between the Basin and Range Province and the Colorado Plateau (Hawley 1986:24, 25). The survey area is on the flood plain and adjacent slopes of Jaralosa Creek. Sediments consist of silty, sandy loams of varying thicknesses; the adjacent alluvial ridges are covered by gravelly loams underlain by coarser, stonier sediments (Maker et al. 1978).

The local biotic community can be characterized as a Juniper Woodland/Riparian transition zone. The area is rural, and the predominant commercial activities is cattle grazing. The ground surface within the project area is mixed grasses and snakeweed; other common species include juniper, Cottonwood, Gambel's oak, cholla, and some sage. Throughout the project area, ground cover ranges from 50 to 80 percent.

Because no sites were found, this report will not include a detailed culture history. Based on previous research, a broad range of prehistoric archaeological remains occur in the two areas, including Paleoindian, Archaic, Mogollon, and Anasazi. The region was probably also occupied by protohistoric and historic nomadic groups, including the Apache, though remains of those groups are rarely found. Euroamerican remains could date as early as the 1600s, but are most likely to date from the late 1800s, when ranching, mineral prospecting and mining activities intensified. For more information on the culture history of these portions of New Mexico, please see Stuart and Gauthier (1988).

METHODS

Prior to fieldwork, SWCA completed an on-site search of the site files at the Archaeological Records Management Section (ARMS), N.M. Historic Preservation Division, Santa Fe, for previously recorded sites within 1,000 m of the project areas, and examined the current published listings for

the State Register of Cultural Properties and the National Register of Historic Places (HPD 1997). On July 1 and 2, Robert Swain walked over each survey area at 15 m intervals, with the goal of identifying and recording all structures, sites, and other cultural materials of an apparent or possible age of 50 or more years. The project area was not staked in the field, but project boundaries were defined by Gary Williams of Etec, Incorporated, who accompanied Swain in the field.

One isolated occurrence was plotted on the local USGS topographic map and was recorded on a standard SWCA IO form. Field records from this project will be submitted to the N.M. Historic Preservation Division in Santa Fe.

RESULTS

Based on the ARMS search, no previously recorded archaeological sites are present within 1,000 m of the project areas. Based on the check of published listings, no properties on the National Register of Historic Places or State Register of Cultural Properties are present within or adjacent to the project areas.

The archaeological survey of the project area encountered one isolated occurrence (IO) of cultural material in the Grace 3 study area. IO-1 consists of one quartzite cortical flake. The isolated occurrence is on a shallow slope overlooking Jaralosa Creek. Zone 13 UTM coordinates for the isolated occurrence are: E 277,254 N 3,798,428. Township 1 North, Range 6 West, NE¼ of the SE¼ of the SE¼ of the SW¼ of Section 13.

The IO does not have the potential to add important information to the cultural history of the area; documentation of its character and location has exhausted its data potential.

MANAGEMENT RECOMMENDATIONS

SWCA recommends no further cultural resource studies prior to ground disturbance within the two surveyed areas. If previously undetected archaeological remains are unearthed during construction, we suggest that work in that area be halted until a professional archaeologist can examine the remains. If human remains are unearthed during construction, work in that area should be halted and the local law enforcement authorities should be notified.

REFERENCES

Hawley, John W.

- 1986 Physiographic Provinces. In *New Mexico in Maps, Second Edition*. Jerry L. Williams, editor. University of New Mexico Press, Albuquerque.

HPD (Historic Preservation Division)

- 1997 *New Mexico State Register of Cultural Properties--National Register of Historic Places, 1993*. N.M. Historic Preservation Division, Santa Fe.

Maker, H. J., H. E. Dregne, V. G. Link, and J. U. Anderson

- 1978 *Soils of New Mexico*. New Mexico State University Agricultural Experiment Station Research Report No. 285. New Mexico State University, Las Cruces.

Stuart, David E., and Rory P. Gauthier

- 1988 *Prehistoric New Mexico: Background for Survey*. University of New Mexico Press, Albuquerque.

LA PROJECT/ACTIVITY RECORD

-- 1. PROJECT DATA -----

NMCRIS Project Number: 61451

Parent Project Number:

Sponsoring Agency: NRC

Project ID:

Project Name:

Project Dates (dd-mmm-yyyy): to

Project Type (choose one): ☒cultural resource management ☐regional or topical overview
☐research project ☐other project type:

Project Description (optional):

Proposed Action: ☐research project ☐drill hole ☐mining ☐materials pit/stockpile ☐railroad
☐road/highway ☐buried pipeline/cable ☐transmission line ☐seismic line ☐fence line ☐trail ☐military
target site ☐land exchange ☐land management project ☐building/facility ☐reservoir/dam ☐water
system ☒other action: Remove and dispose of contaminated material from lands.

Other Permitting Agencies:

-- 2. ACTIVITY DATA -----

NMCRIS Activity Number: 61451

Performing Agency: SWCA Inc.

Activity ID: 2650-8332

Activity Name: Etec 2 parcels

Activity Dates (dd-mmm-yyyy): 01-Jul-1998 to 02-Jul-1998

Activity Type: ☐research design preparation ☐cultural resources overview or literature review (Class
1 Survey) ☐archeological testing ☐archeological excavation ☒archeological survey (Class 2 or 3
Survey) ☐collections and non-field studies ☐archeological monitoring or damage assessment
☐ethnographic study ☐other activity:

Activity Description (optional): Survey of two proposed reclamation areas on privately owned land in
Socorro and Sandoval Counties.

Studies and Analyses Performed: ☐lithic technology ☐lithic tool typology ☐ceramic technology
☐ceramic typology ☐faunal analyses ☐human osteology ☐archeomagnetic dating ☐obsidian hydration
dating ☐radiocarbon dating ☐tree ring dating ☐pollen, phytolith analysis ☐macrobotanical analysis
☐site distribution ☐isolated artifact distribution ☐architectural studies ☐historic artifact analyses
☐historic records studies ☐soils, stratigraphy, geomorphology ☐geology, lithic materials sourcing
☐ethnographic interviews/oral history studies ☐other studies:

-- 3. SURVEY ACTIVITIES -----

Total Area Surveyed: 17.3 acres

Total Activity Area (if < 100% coverage):

Survey Intensity (choose one): ☒intensive (BLM Class 3; 100%) ☐reconnaissance (BLM Class 2;
< 100%)

Survey Configuration: number of survey units: ☒block survey units ☐linear survey units ☐other
survey units:

Survey Scope (choose one): ☒non-selective ☐selective/thematic
Survey Coverage (choose one): ☒systematic pedestrian coverage ☐other coverage method
Standard Survey Interval: 15 m
Standard Crew Size: 1 person
Source Graphics: ☐copies in report ☐copies attached to report or form ☒USGS 7.5' topographic maps ☐other topographic maps (Scale:____) ☐rectified aerial photos (Scale:____) ☐unrectified aerial photos (Scale:____) ☐GPS Unit ☐other source:
Survey Results:
Sites Discovered and Registered: 0
Sites Discovered and Not Registered: 0
Previously Recorded Sites Revisited: 0
Total Number of Sites Visited: 0
Total Isolated Occurrences: 1
☒Non-Selective IO Recording?
Land Ownership: Private **State:** New Mexico **Acres Surveyed:** 17.3 acres
Counties/States Surveyed: Socorro and Sandoval County / New Mexico
USGS Quadrangles Included in Surveyed Area:
Quadrangle Name/Date: La Gotera/1961 Quadrangle Code: 35107-C2
Indian Spring Canyon/1964 34107-C4
Previously Registered Sites (LA nos.): 0
New Sites (LA nos.): 0

-- 4. NON-SURVEY ACTIVITIES -----

Investigated Sites (LA nos.):

-- 5. REPORT INFORMATION -----

Document Type (choose one): ☒report, monograph, or book ☐title in an edited collection ☐manuscript ☐volume in a report series ☐article in a journal ☐article in a magazine ☐dissertation or thesis ☐paper presented at meeting ☐other document type:
Year Issued: ☐no date ☐draft?:
Main Author: Robert Swain
Additional Authors:
Title #1:Cultural Resource Survey of Two Proposed NRC Cleanup and Reclamation Sites in Socorro County and Sandoval County, New Mexico
Title #2 (additional citation data):
Prepared By:SWCA, Inc. - Albuquerque Office
Preparing Agency Report No.: 98-99
Published By (publisher, city, state): n/a
Report Recipient: Etec, Inc.
Other Agency Report Nos.:

Project Number: 2650-8332 **Project Name:** Etec 2 Parcels **Crew Chief:** R. Swain

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