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ROSEDALE MINE AND MILL SITE CLEANUP PROJECT
NO ADVERSE EFFECT

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Report No. 2007-03-031
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HISTORIC BACKGROUND: The historic town site of Rosedale, site AR-03-03-03-847/LA 5190 is an abandoned historic gold mine and mill site located approximately 25 miles southwest of Magdalena, New Mexico (Refer to Figure 1 and 2). In 1882, gold was first discovered in the general area by J.W. and Rose Richards, but early mining operations were extremely difficult due to the frequent raiding parties conducted by the Apaches until the mid 1880's when they were forced onto the reservations. The existing mine today was first developed by the Rosedale Mining Company in 1886. E. H. Martin Company acquired the property and mined it from 1898 until 1911. The mine began operation with a [illegible] mill and gold was recovered using Deister vibration tables with amalgamation plates. In 1899 a 20 tons-per-day (TPD) cyanide leaching pad was added to the milling circuit. Mill records show that approximately two-thirds of the gold was recovered by mercury amalgamation and one third by cyanidation. This leaching operation had the distinction of being one of the first gold-cyanide recovery operations in the western United States. Soon after the cyanide operations began, the operators determined that fine-grained (slimes) material could not be leached out during the milling process. This part of the tailings material was sent directly to the mill tailing pond. In 1913, the mine was sold to another group who mined it until 1916, when a fire destroyed the mill operations. In 1936, Rosedale Gold Mines, Ltd. obtained the property and a 56 TPD mill was erected. In 1936, the mill capacity was increased to 135 TPD. Operations continued until 1937. There has been no production or development of the mine since 1937. Most of the Rosedale mining and milling equipment was sold at auction in 1942. Over the lifetime of the mine approximately 13,425 ounces of [illegible] ounces of silver was recovered from the mine. Additionally, several hundred pounds of copper and lead were produced as a by-product. During operation of the Rosedale mine, all gold concentrates were shipped to El Paso, Texas for smelting (Dynamac: 2001).

During its peak, the town of Rosedale is said to have had approximately 100 full time residents. Local businesses included a grocery store, post office, and a saloon that catered both to the miners and local ranchers. Located due east of the abandoned town is the Rosedale Cemetery which contains the graves

of J.W. and Rose Richardson, who are credited as the founders of Rosedale. Also located in the cemetery are several unmarked graves of miners and a trooper from Fort Craig who was killed by the Apaches (The Courier 1995: 1C). Today all that remains of the former town of Rosedale are the mine, the structural foundations of the mill site, numerous house foundations and a few pieces of ore processing equipment. At one time an adobe structure with partially standing walls was present until the monsoon rains of 2006 melted it away. Since the site is easily accessible to the public, the area has most likely over the years been impacted by metal detector users and bottle collectors (Refer to Figure 2).

PROJECT DESCRIPTION: The abandoned Rosedale mine, mill site, waste rock pile and approximately 40% of the tailings dumps are located on private land. The remaining 60 % of the tailings pile and structural foundations are located on USDA- Forest Service administrated lands. Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the USDA-Forest Service performed an Engineering Evaluation/Cost Analysis (EE/CA) at the abandoned Rosedale Mine and Mill site. The purpose of EE/CA is to evaluate the magnitude and extent of heavy metal contamination associated with past mining and milling activities and to evaluate cleanup alternatives. The Rosedale Mine and Mill EE/CA focused on the waste rock and tailings. The EE/CA characterized the health risks associated with exposure to elevated metals contamination (primarily arsenic) from the tailings and waste rock. Due to the health risks associated with the heavy metal contamination, the EE/CA addressed the necessity and objectives of a removal action, as well as the effectiveness, feasibility, and cost of seven cleanup alternatives.

The chosen cleanup alternative for this project will consist of establishing three repository areas; the Elizabeth Repository, the Rose Repository, and the Longtail Repository (see Figures 5 and 6).

Activities at the Elizabeth Repository area, which is located on private property, will consist of re-grading the existing waste rock pile to a 3:1 slope, then placing a layer of covering soil approximately two feet thick over the entire area. A barbed wire fence, approximately 620 feet long, will be constructed around the repository to restrict access to the area. A water diversion channel (1 foot deep by 4 foot wide by 50 foot long) with a rip-rap water dispersement apron (1 foot deep by 6 foot wide by 10 foot long) will be constructed along the north boundary of the repository area. Area of treatment is 140 feet by 210 feet or 0.7 acres.

Activities at the Rose Repository area, which is located on private property, will consist of consolidating the mill tailings from 3 piles located next to the former mill site into a mound that is approximately 320 feet by 150 feet or 1.1 acres. A covering soil, two feet thick will be placed over the entire area. A barbed wire fence (approximately 1149 feet long) will be constructed around the repository to restrict access to the area. A water diversion channel (1 foot deep by 4 foot wide by 328 foot long) with a rip-rapped water dispersement apron (1 foot deep by 10 foot wide by 20 foot long) will be constructed around the northern boundary of the area.

Activities at the Longtail Repository area, which is located of FS lands, will include consolidating the mill tailings into a mound. The area will then be covered with 2 feet of covering soil. Approximately 3.3 acres (480 feet by 300 feet) will be used as the repository area for the mill tailings located in this part of the site. A barbed wire fence (approximately 1170 feet long) will be constructed around the

repository to restrict access to the area. A water diversion channel (1 foot deep by 4 foot wide by 420 foot long) with a rip-rapped water dispersement apron (1 foot deep by 10 foot wide by 20 foot long) will be constructed around the western boundaries of the area and key into the existing drainage on the south boundary of the area. The existing drainage system (now buried by the tailings pile) along the northern boundary of the area will be re-established. The stream channel will be 3 feet deep by 12 feet wide by 500 feet long. Two gully plugs and 4 channel plugs will be constructed to slow water run-off within the drainage located along the southern boundary of the area.

The water dispersement aprons are being constructed to allow the diverted water to spread out across the landscape once it has passed the repository areas. On completion of the project, the entire project area will be seeded and mulched to provide a vegetative cover that will stabilize the soils. Heavy equipment will be used during all project activities. Access to the mine and borrow area will be by existing roads. The source of the covering soil to be used in the construction of the repository areas lies within an area that was surveyed 100% for the present project and is located east of the mine area. Project activities will take place on both Forest Service lands and private lands.

LEGAL DESCRIPTION: The Rosedale Mine and Mill Site Cleanup Project area and the borrow source area are located on USGS 7.5' quadrangle Grassy Lookout, New Mexico, and fall within the following described areas.

Rosedale Mine and Mill Site:
Sec. 1, 12, T. 6 S., R. 5 W., NMPM.
Sec. 6, 7, T. 6 S., R. 6 W., NMPM.

Borrow Area:
SW 1/4, NE 1/4, NW 1/4, Sec. 7, T. 6 S., R. 6 W., NMPM.

Refer to Figure 2.

RESEARCH DIRECTIONS: The immediate goal of this survey is to inventory the project area and to locate and evaluate the cultural remains, according to the standards set forth in the Cibola National Forest Land and Management Plan (United States Department of Agriculture 1987). This is being done in order that the Forest Service can protect its base of significant cultural resources.

In the long range, it is planned that the results of this survey will be included in the heritage resource data base for the Magdalena Ranger district, Cibola National Forest, an analysis of which will help produce a detailed chronicle of the prehistoric and historic occupation of the area. Preliminary steps towards this goal have been taken with such documents as the Cultural Resources Overview, Socorro Area, New Mexico, (Berman: 1979). This and other publications (such as Stuart and Gauthier 1981) discuss areas of archaeological research beyond chronology and culture history to which the potential heritage resources in the present survey area might provide some enlightenment.

FIELD CREW: The site was recorded by Rick Robinson, District Archaeologist, and Cliff Nicoll, Assistant Forest Archaeologist. The survey of the borrow source area was conducted by Rick Robinson, District Archaeologist.

DATE OF SURVEY: The survey and site recording took place on April 29-30, 2003, September 21-29, 2006, and April 14, 2007.

FIELD METHODS: The Rosedale site was thoroughly walked over during the identification of the features and the production of the site sketch map. The proposed borrow area (300 feet by 300 feet) was surveyed by walking parallel, compass oriented transects spaced not more that 15 meters (49 feet) apart (Refer to Figure 2 and 3). All heritage resources identified during the course of this project were plotted on the appropriate USGS topographic map. A Laboratory of Anthropology site inventory form and Cibola National Isolated Occurrence and historic artifact recording forms were completed and are attached. Refer to Figurer 3 and 4 for the locations of the documented heritage resources. See Appendix "A" for photographs of the site.

Cultural remains, which include at least one of the following, are here defined as sites.

1. one or more features
2. one formal tool, if associated with other cultural material or more that one formal tool
3. an occurrence of cultural material (for example, sherds, lithic debris, historic artifacts) that contains one of the following:
    a. three or more types of artifacts or materials
    b. two types of artifacts or material in a density of, at least 10 items per 100 square meters
    c. a single type of artifact or material in a density of at least 25 items per 100 square meters

As a general rule, site designations are reserved in the case of historic remains for those at least 50 years old. Questionable cases are left to the discretion of the professional resource specialist.

DIMENSIONS OF AREA SURVEYED: The Rosedale Mine and Mill Cleanup project area acreage was determined using the ArcView GIS 3.2. A total of 29 acres (27 acres at the mine site and 2 acres at the proposed borrow area) was surveyed 100% for the present project. Refer to Figure 2.

ENVIRONMENTAL/MODERN IMPACTS: The abandoned mining town of Rosedale is located in the east central part of the San Mateo Mountains, approximately 25 miles southwest of Magdalena, New Mexico. Elevation of the project area averages 2195 meters (7200 feet). Vegetation is primarily a pinyon/juniper woodland with associations of gambles oak, ponderosa pine, and various grasses and forbs. The project is located within the riparian system of Rosedale Canyon and has experienced periodic flooding from seasonally heavy precipitation. Recent impacts to the area have been artifact collecting, recreational use, and wood cutting. Numerous camp fire rings have been constructed from the materials of the stone foundations with the wooden materials of these features being used as fuel wood.

PREVIOUS ARCHAEOLOGICAL WORK: Six Heritage Resource surveys have taken place near the boundaries of the present project areas`. An Archaeology Survey of the Proposed Rosedale Prescribed Burn -- (Report No. 1986-03-100), surveyed 87 acres, 100%. No heritage resources were documented during the course of that survey. An Archaeological Survey of the Proposed Fire Line Construction of the North Canyon Burn--(Report No. 1988-03-026), surveyed 3 acres, 100%. No heritage resources were documented during the course of that survey. Cultural Resource Surveys, Horse Mountain Allotment Improvement--(Report No. 1992-03-156), surveyed 11 acres, 100%. No heritage resources were documented during the course that survey. North Canyon/East Red Canyon Rx Burn Survey--

(1995-03-057), surveyed 68 acres, 100%. No heritage resources were documented during the course that survey. Natural Resources Conservation Service (NRCS) Pipeline Project--(Report No. 1999-03-096) surveyed 15 acres, 100%. No heritage resources were documented during the course that survey. Natural Resources Conservation Service (NRCS) Pipeline Project--(Report No. 1999-03-096B) surveyed 10.3 acres, 100%. No heritage resources were documented during the course that survey.

AR-03-03-03-847/LA 5190
Legal Description: Sec. 1 and 12, T. 6 S., R. 5 W.; Sec. 6 and 7, T. 6 S., R. 6 W., NMPM.

Description: Site AR-03-03-03-847/LA5190 is the historic abandoned gold mining town known as Rosedale, which is located in the east central part of the San Mateo Mountains. The site lies at the opening of Rosedale Canyon. The site consists of 32 historic features with numerous associated historic artifact scatters. The site has been impacted by sheet wash, but remains in overall good condition. A 20% representative sample of observed surface artifacts was analyzed and recorded. The artifact assemblage of the site consisted of soldered meat tins, evaporated milk cans that date from early 1900's to 1930's, purple glass, square nails, and numerous fragments of brown crock ware, tobacco tins, historic white ware ceramics, refractory bricks, aqua-marine glass, and numerous pieces of metal fragments. The site appears in the ARMS database as being first recorded in the 1970's, but no activity or project information is available that would indicate under what circumstances the site was recorded. It is believed that the site might have been documented during the development of an overview of the mining history for Socorro County, NM. Refer to Appendix "B" for a brief history of the Rosedale Mining District (Lasky 1932:93-97) and Appendix (C) for the project fact sheet.

Feature 1 is the Rosedale mine that was developed by the Rosedale Mining Company in 1886. A wooden platform has been placed on top of the mine opening for safety concerns and it measures approximately 3 meters by 4 meters and is 100's of feet deep. A fence enclosure has also been placed around the mine opening. Located west of the mine is a waste rock pile that measures approximately 10 meters in height. The waste rock pile is within the Elizabeth Repository area and will be covered with soil.

Feature 2 is a mine adit located north of the Rosedale mine. The adit has been cut into solid bedrock and is somewhat collapsed. The adit measures approximately 4 meters wide by 3 meter in height.

Feature 3 is a vertical shaft into solid bedrock that measures approximately 3 meters in diameter. A fence has been placed around the opening of the mine.

Feature 4 consists of three poured concrete footings that are most likely associated with the transportation of ore from the mine to the mill. One footing measures 1.5 meters in height with a length of 60 centimeters. The other two footings measure 2 meters in height with a length of 2 meters and a width of 36 centimeters.

Feature 5 is a poured concrete rectangular vat that measures 6.20 meters in length by a width of 3 meters and a height of 96 centimeters. The function of this feature is unknown.

Feature 6 is a poured concrete structure built into the ridge. The height of the structure is approximately 5 meters in height with a width of 4 meters. The function of the structure is unknown.

Feature 7 is a circular metal vat encased in a poured square concrete foundation measuring 3.5 meters by 4.2 meters with a height of 76 centimeters. The diameter of the circular vat is 4 meters.

Feature 8 consists of the mill foundations. This feature was constructed of poured concrete and rock cobbles. Some of the walls are still standing with the concrete tank footings still present. Average height of the walls is 3 to 4 meters. This features measures approximately 54 meters by 34 meters. No ore processing equipment is present within the feature. The Rose Repository area is located approximately 18 meters due east of the mill foundations.

Feature 9 is a poured concrete structure with two concrete footings. The height of the structure is 1.9 meters by a length of 2.9 meters with a width of 2.1 meters. The walls are reinforced with metal rebar rods and narrow gauge mining car rails. This structure was probably the powder house used to store explosives. Located next to the structure are two poured concrete footings. One footing measures 6 meters in length, with a width of 25.5 centimeters and a height of 34 centimeters. The other footing measures 4.7 meters in length, with a width of 38 centimeters and a height of 73 centimeters.

Feature 10 is a conical shaped steel vat with a diameter of 2.6 meters and a height of 94 centimeters. The vat is lies on top of a platform constructed of concrete and milled lumber. This feature lies within the Rose Repository area and will be relocated to Feature 8 (mill foundations).

PARTIALLY EXCAVATED **Feature 11** is a partially exposed metal circular shaped vat with a 4 meter diameter. Two concrete footings extend east of it approximately 1.6 meters. The function of this feature is unknown.

Feature 12 is the foundations of an [redacted] This feature had partially standing walls until the monsoon rains of 2006, eroded the walls away. Artifact density associated with this feature was very low. A small head cut has developed adjacent to the structure.

Feature 13 is a sand stone foundation with an identifiable doorway and individual rooms. This feature measures 10 meters by 7.7 meters with an average height of 40 centimeters. There is a low artifact density associated with this feature.

Feature 14 is a stone foundation that measures 2.5 meters by 1.7 meters. No artifacts are present.

Feature 15 is a small circular rock pile that measures 1.50 meters in diameter and has a height of 30 centimeters. No artifacts are present.

Feature 16 is a rectangular stone foundation that measures 13 meters by 8.7 meters and is relatively intact. Located in the northeastern part of the feature is a circular depression that measures 7 meters in diameter with a depth of 1.5 meters.

Three Test Units Excavated **Feature 17** is the remnants of the milled lumber tramway (flume) that carried the mill tailing away from the mill site. This feature measures west to east approximately 105 meters with only the support

posts extending out of the tailing pile. In the early 1990's, portions of the chute was still standing. This feature lies within the boundaries of the Longtail Repository Area, and will be buried under the covering soil.

Feature 18 is a corner of a stone foundation that measures 2.5 meters (north to south) by 1.5 meters (east to west). There is a low artifact density associated with this feature.

Feature 19 is a stone foundation that measures 7 meters by 5.5 meters. The west wall is still fairly visible and rises approximately 22 centimeters above the ground surface. The other walls are somewhat discreet. A camp fire ring is located approximately 2 meters southeast of the feature. Artifacts assemblage consists of fired bricks, round nails, tobacco cans, stoneware, and white ware with aqua, brown and purple glass.

Feature 20 is a stone foundation that measures 7 meters by 5 meters. The average height of the foundation is 10 centimeters above the ground surface. A camp fire ring is located approximately 2 meters southeast of the feature. Artifacts assemblage consists of sardine cans, tobacco cans, stoneware, and white ware with aqua, brown and purple glass.

Feature 21 is a stone foundation that measures 4 meters by 4.5 meters with an average height of 5 centimeters. Artifact assemblage consists of aqua, purple, and brown glass, white ware, stone ware, and metal fragments.

Feature 22 is a circular depression with an average diameter of 2.5 meters and a depth of 40 centimeters. There is a large concentration of artifacts associated with the feature.

Feature 23 is stone foundation with an identifiable doorway and individual rooms. The feature measures 9.4 meters by 9.5 meters with an average height of 40 centimeters. Tabular sand stone was mainly used in the construction of the foundation. An exploratory mining pit is located approximately 3 meters southwest of the feature. The diameter of the pit is 5 meters with a depth of 1 meter.

Feature 24 is two undefined rock alignments that measure approximately 5 meters in length with a height of 5 centimeters. Artifact density is low.

Feature 25 is an undefined rock alignment that runs east to west and is approximately 19.80 meters long with a height of 40 centimeters. This feature has the highest concentration of artifacts which consists of food cans, tobacco tins, window pane fragments, numerous types of white wares, aqua and purple glass, and the back piece of a pocket watch.

Feature 26 is a rectangular stone foundation that measures approximately 2.8 meters by 1 meter. The western wall of the feature is somewhat discreet due to the fact that the stones were probably used in building campfire rings. A large campfire ring is located due south of the feature. There is a low artifact density associated with the feature.

Feature 27 is a square stone foundation that is located next to a ridge and measures 4 meters by 4 meters with a height of 30 centimeters. Artifact density is low and consisted of aqua glass, purple glass, and white ware ceramics.

Feature 28 is a rectangular stone foundation located next to an intermittent drainage and measures 4.5 meters by 6.5 meters with a height of 30 centimeters. Numerous artifacts are located along the bank and the bottom of the drainage.

Feature 29 is a corner of a stone foundation that measures 1.5 meters (north to south) by 2.5 meters (east to west). A purple glass bottle base was the only artifact observed in association with the feature.

Feature 30 is the remnants of a stone foundation that measures 3 meters by 3.5 meters. There is a low artifact density associated with the feature.

Feature 31 is a circular pit that measuring 1.5 meters in diameter with an average depth of 30 centimeters. Numerous artifacts are located within and outside of the feature.

Feature 32 is a rectangular stone foundation that measures 6.5 meters by 2.2 meters with a height of 30 centimeters. There is a low density of glass fragments compared to the high density of metal cans.

Eligibility:
The presence of intact features, the likelihood of buried cultural deposits, and the large artifact assemblage indicates that the site retains the potential to contribute important information regarding the nature of early mining operations in the area. The site has yielded and is likely to yield additional information on the history of this area of the San Mateo Mountains. The presence of diagnostic artifacts and features, along with the known cultural history of the area, suggest a U. S. Territorial to Statehood (1882 to 1937) cultural/temporal affiliation for the site. The site is recommended eligible to the National Register under criteria (a) and (d).

Isolated Occurrences: (Borrow Area)

A complete list of the 4 isolated occurrences documented during this survey can be found below. Refer to Figure 4 for isolated occurrence locations.

I.O. #1
Legal Description: SW¼, SE¼, NE ¼, Sec. 7, T. 6 S., R. 5 W., NMPM
Description: Three fragments of a metal pail, crimped.

I.O. #2
Legal Description: SE¼, SE¼, NE ¼, Sec. 7, T. 6 S., R. 5 W., NMPM
Description: sixteen historic white ware sherds.

I.O. #3
Legal Description: SW¼, SE¼, NE ¼, Sec. 7, T. 6 S., R. 5 W., NMPM
Description: One crushed soldered can and one historic white ware sherd.

I.O. #4
Legal Description: SW¼, SE¼, NE ¼, Sec. 7, T. 6 S., R. 5 W., NMPM
Description: Two crushed crimped metal cans, one crushed soldered metal can and one porcelain sherd.

SUMMARY/RECOMMENDATIONS: The most listings of the National Register of Historic Places have been consulted and no sites which appear on the Register occur in the project area. Site AR-03-03-03-847/LA 5190 is an abandoned historic gold mining town known as Rosedale. The site is located on Forest lands and private lands. The site has been assigned a temporal date of 1886 (US Territorial) to 1937 (Statehood) based on the known history of the area and artifact assemblage. The presence of intact features, the likelihood of buried cultural deposits, and the large artifact assemblage indicates that the site retains the potential to contribute important information regarding the nature of early mining operations in the area. The site has yielded and is likely to yield additional information important to the mining history of this area of the San Mateo Mountains. It is recommended that the site be considered eligible to the National Register under criteria (a) and (d). The present undertaking should be considered as having a **No Adverse Effect** on those qualities of site AR-03-03-03-847/LA 5190 that contributes to its eligibility to National Register of Historic Places. The waste rock pile and mill tailings will be consolidated on site and covered. Feature 10, a metal vat, will be removed from its location in the tailings pile and placed next to the mill foundations, Feature 8. Feature 17, the wooden post remains of the flume are in poor condition with little of their original integrity remaining and will be buried in place. All other features will be avoided during the project activities. Due to health risks associated with exposure to elevated metals contamination (primarily arsenic) from the tailings and waste rock, the site has been identified under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLA legislative statute allows for certain types of mine cleanup projects (on-site removal actions) to be exempt from administrative requirements, such as approvals and consultation. CERCLA §121 (e) [Title 42, Chapter 103, Section 9621(s)] provides that no Federal, State, or local permit shall be required "for the portion of any removal or remedial action conducted entirely on-site." This permit exemption under the law allows the response action to proceed without the potential for delays that can result from approvals or consultation, for example, and applies to all administrative requirements whether or not they are actually "permits." Administrative requirements are described as "those mechanisms that facilitate the implementation of the substantive requirements of a statute or regulation including the approval of, or consultation with administrative bodies, consultation, issuance of permits, documentation, reporting, record keeping, and enforcement.

The following Best Management Practices standards were developed to gather archaeological data to minimize or mitigate the adverse effects to historic property from the on site removal action:

Best Management Practices for Heritage Resources for this CERCLA Project

1. All ground disturbances will take place in areas surveyed for heritage resources.

2. Complete avoidance and/or preservation of the historic features of the site is the preferred action. Two exceptions to this management practice have been identified in this report.

3. An archaeologist shall monitor all ground disturbing activities on the historic site.

4. Orange netting will be placed around all historic features and foundations that are immediately adjacent to the repository areas (activity areas) to restrict disturbance from project activities.

5. Avoidance of buried cultural deposits is the preferred action. If undocumented surface or subsurface heritage resources are encountered during the cleanup activities, the work in the immediate vicinity will stop and the Forest Archaeologist shall be contacted. The archaeologist monitoring the work will determine the nature of the resource, its extent, and possible depth. If avoidance is not possible, the cultural deposits will be recorded in the field at a level sufficient to determine the nature of the deposits, its extent, and depth, as well as a description of the deposits and probable age.

6. If human remains are encountered, work in the immediate vicinity will stop, the Forest Archaeologist will be contacted and a treatment plan will be developed. All human remains will be avoided.

7. A project monitoring report will be prepared documenting the cleanup activities and any affected heritage resources. Three copies of the report will be delivered to the Forest Archaeologist. A copy of the final report will be delivered to the SHPO for their information.

REFERENCES: Mss. on file at the Magdalena Ranger District, Magdalena, NM.

Report No. 1986-03-100. An Archaeology Survey of the Proposed Rosedale Prescribed Burn -- (Report No. 1986-03-100), by Bobby Gomez, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

Report No. 1988-03-026. An Archaeological Survey of the Proposed Fire Line Construction of the North Canyon Burn, by Salomon Peralta, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

Report No. 1992-03-156. Cultural Resource Surveys, Horse Mountain Allotment Improvements, by Phil Dano, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

Report No. 1995-03-057. North Canyon/East Red Canyon Rx Burn Survey, by Russell W. Baker, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

Report No. 1999-03-096. Natural Resources Conservation Service (NRCS) Pipeline Project, by Cliff Nicoll, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

Report No. 1999-03-096B. Natural Resources Conservation Service (NRCS) Pipeline Project, by Candance Sall, USDA-Forest Service, Cibola National Forest, Albuquerque, NM.

OTHER REFERENCES:

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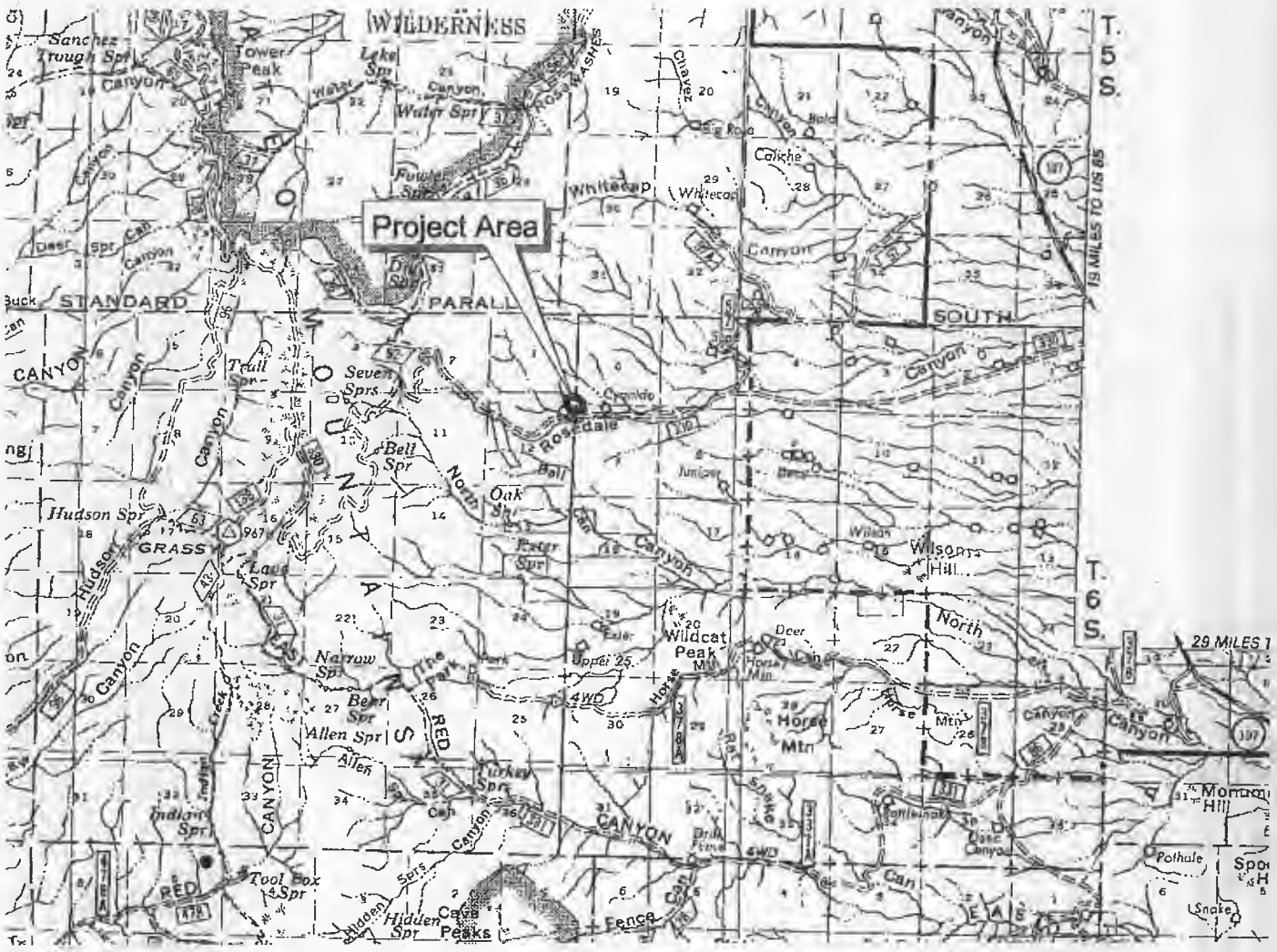
1987 (amended version of 1985 original) Cibola National Land and Resource Management Plan. USDA-Forest Service, Southwestern Region, Albuquerque, NM.

Figure 1

Rosedale Mine and Mill Site Cleanup Project
General Location Map

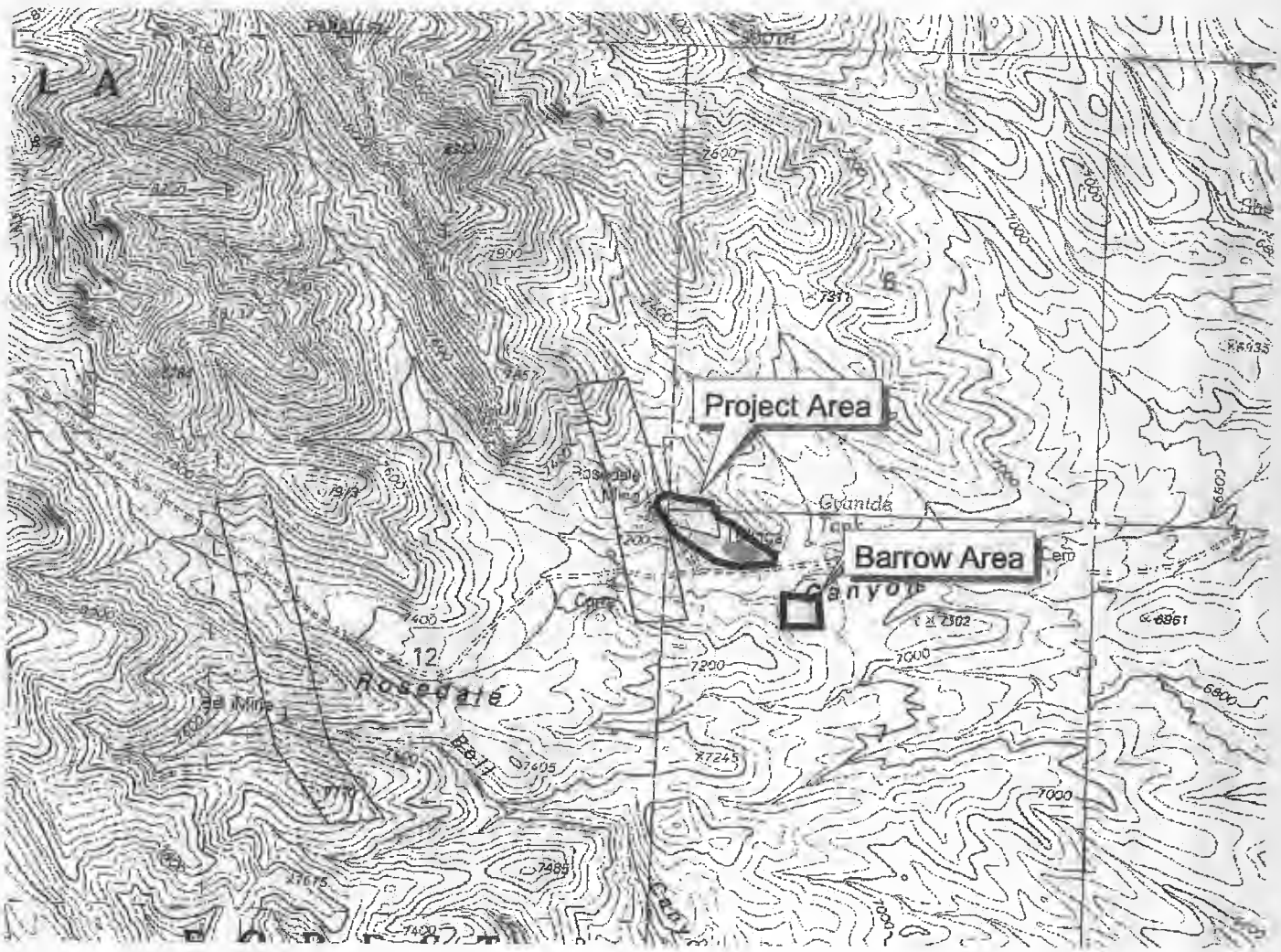


Forest Service Map
Scale: 1/2" = 1 mile
T. 6 S., R. 5 W., Sec. 1,2
T. 6 S., R. 6 W., Sec. 6, 7
District: Magdalena Ranger District

County: Socorro
State: New Mexico
Forest: Cibola

Figure 2

Rosedale Mine and Mill Site Cleanup
Project Location Map

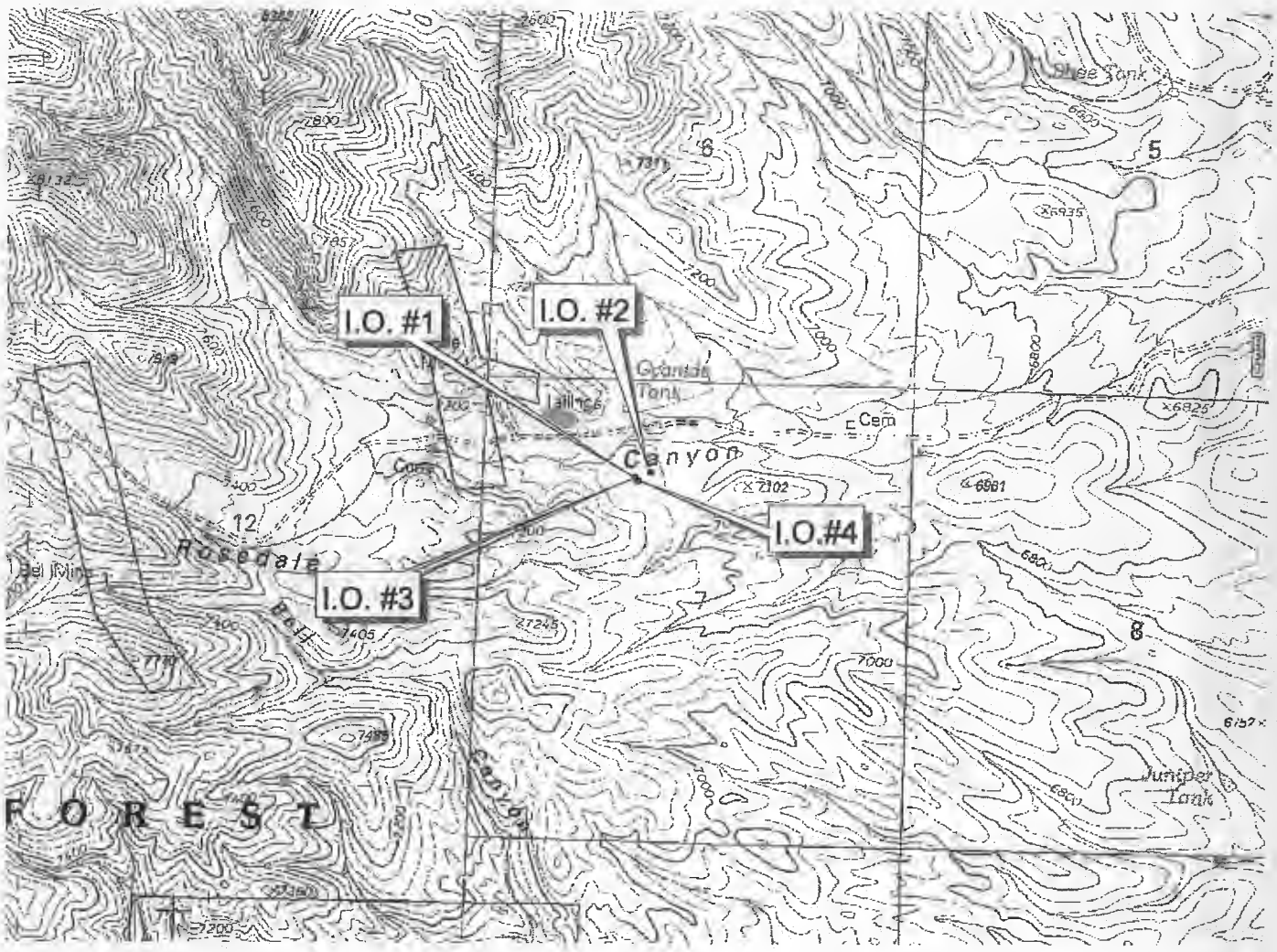


Quad. Name: Grassy Lookout
Scale: 1:24,000
T. 6 S., R. 5 W., Sec. 1,12
T. 6 S., R. 6 W., Sec. 6, 7
District: Magdalena Ranger District

County: Socorro
State: New Mexico
Forest: Cibola

Figure 4

Rosedale Mine and Mill Site Cleanup
Isolated Ocurrence Location Map



Quad. Name: Grassy Lookout
Scale: 1:24,000
T. 6 S., R. 5 W., Sec. 1, 2
T. 6 S., R. 6 W., Sec. 6, 7
District: Magdalena Ranger District

County: Socorro
State: New Mexico
Forest: Cibola

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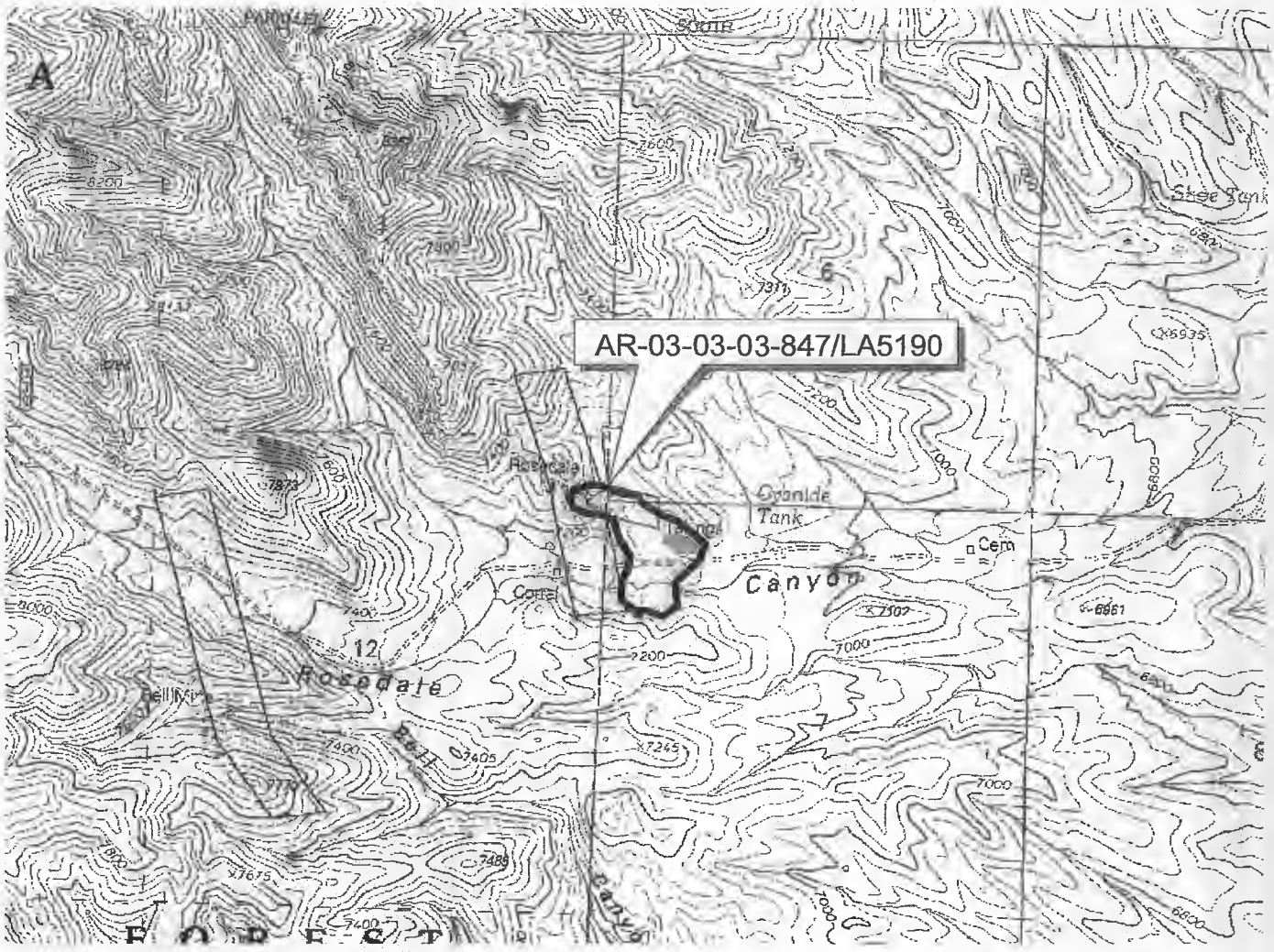
Figure 3

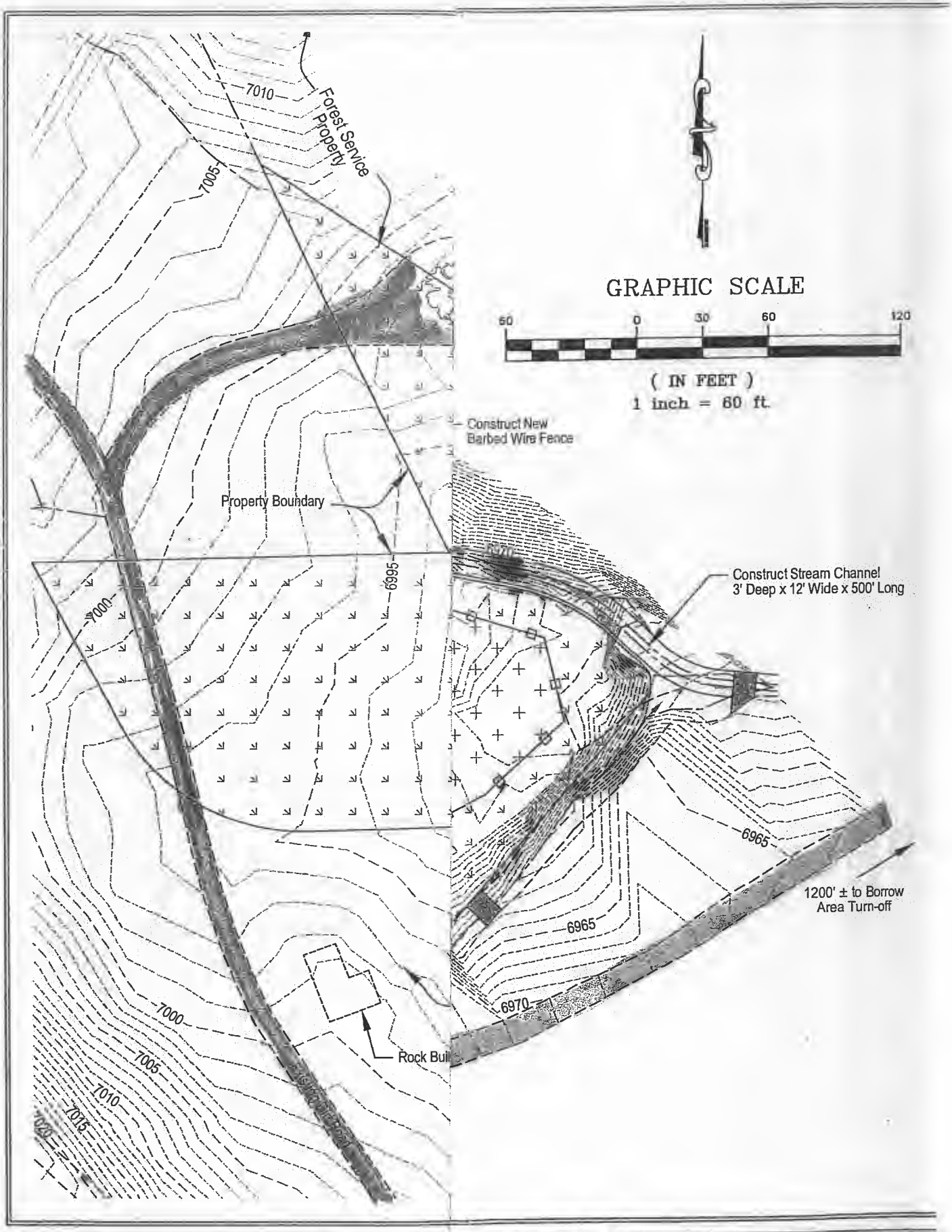
Rosedale Mine and Mill Site Cleanup
Site Location Map



Quad. Name: Grassy Lookout
Scale: 1:24,000
T. 6 S., R. 5 W., Sec. 1,12
T. 6 S., R. 6 W., Sec. 6, 7
District: Magdalena Ranger District

County: Socorro
State: New Mexico
Forest: Cibola

For Official Use Only. Disclosure of site locations is prohibited (36 CFR 296.18)



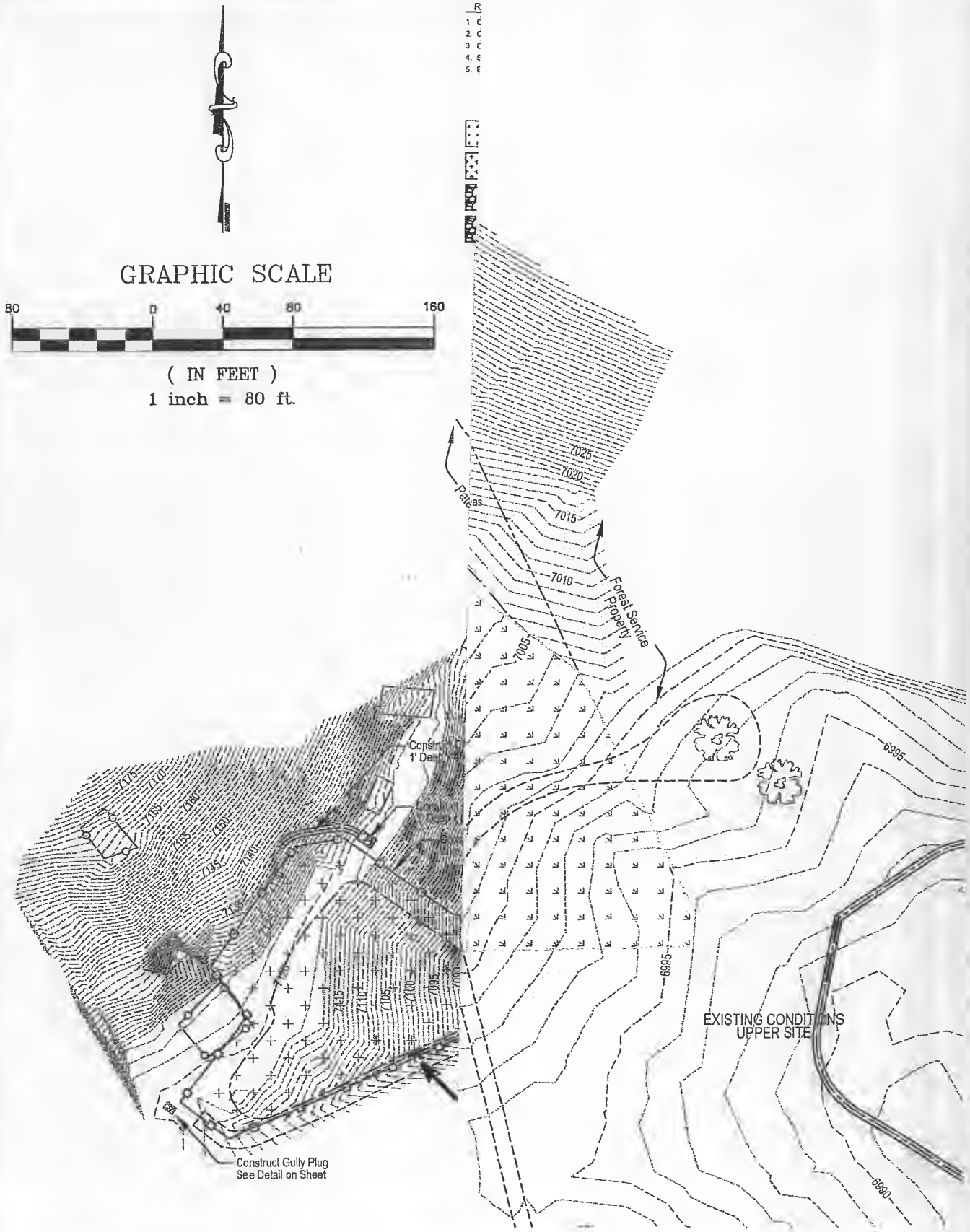
U.S. DEPARTMENT OF AGRICULTU EST
FOREST SERVICE
R-3

MILL SITE

Sheet Title
RECLAMATION PLAN
LONGTAIL REPOSITORY

Scale 1"=60'

Sheet



U.S. DEPARTMENT OF AGRICULTUT
FOREST SERVICE
R-3
SOUTHWESTERN REGION

L SITE

Sheet Title
RECLAMATION PLAN
UPPER SITE

Scale
1"=80'

Sheet
of

APPENDIX "A"

SITE PHOTOGRAPHS

Rosedale Mine and Mill Site Cleanup Project

Photo# 1
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img512.JPG

Description: Facing north, an overview of Feature 1, Rosedale mine under wooden platform, Feature 2 (adit) is in background and Feature 3 (vertical shaft) lies on top of the hill.

Rosedale Mine and Mill Site Cleanup Project

Photo# 2
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img520.JPG

Description: Facing southeast, an overview of the waste rock pile, located next to the mine.

Rosedale Mine and Mill Site Cleanup Project

Photo# 3
Site: AR-03-03-03-847/LA 5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img522.JPG

Description: Facing west, an overview of Feature 4. These concrete footings were probably part of the tramway system that carried the ore out of the mine.

Rosedale Mine and Mill Site Cleanup Project

Photo# 4
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img513.JPG

Description: Facing north, an overview of Feature 5, a poured concrete rectangular vat.

Rosedale Mine and Mill Site Cleanup Project

Photo# 5
Site: AR-03-03-03-847/LA 5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img514.JPG

Description: Facing north, an overview of Feature 6, standing concrete structure.

Rosedale Mine and Mill Site Cleanup Project

Photo# 6
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img519.JPG

Description: Facing southwest, an overview of Feature 7.

Rosedale Mine and Mill Site Cleanup Project

Photo# 7
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img620.JPG

Description: Facing south, an overview of Feature 8, the Rosedale Mill foundations.

Rosedale Mine and Mill Site Cleanup Project

Photo# 8
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img509.JPG

Description: Facing north, an overview of Feature 8; the Rosedale Mill foundations.

Rosedale Mine and Mill Site Cleanup Project

Photo# 9
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img506.JPG

Description: Facing northeast, an overview of Feature 9. The structure in the background was probably the powder house for the storage of explosives.

Rosedale Mine and Mill Site Cleanup Project

Photo# 10
Site: AR-03-03-03-847/LA5190

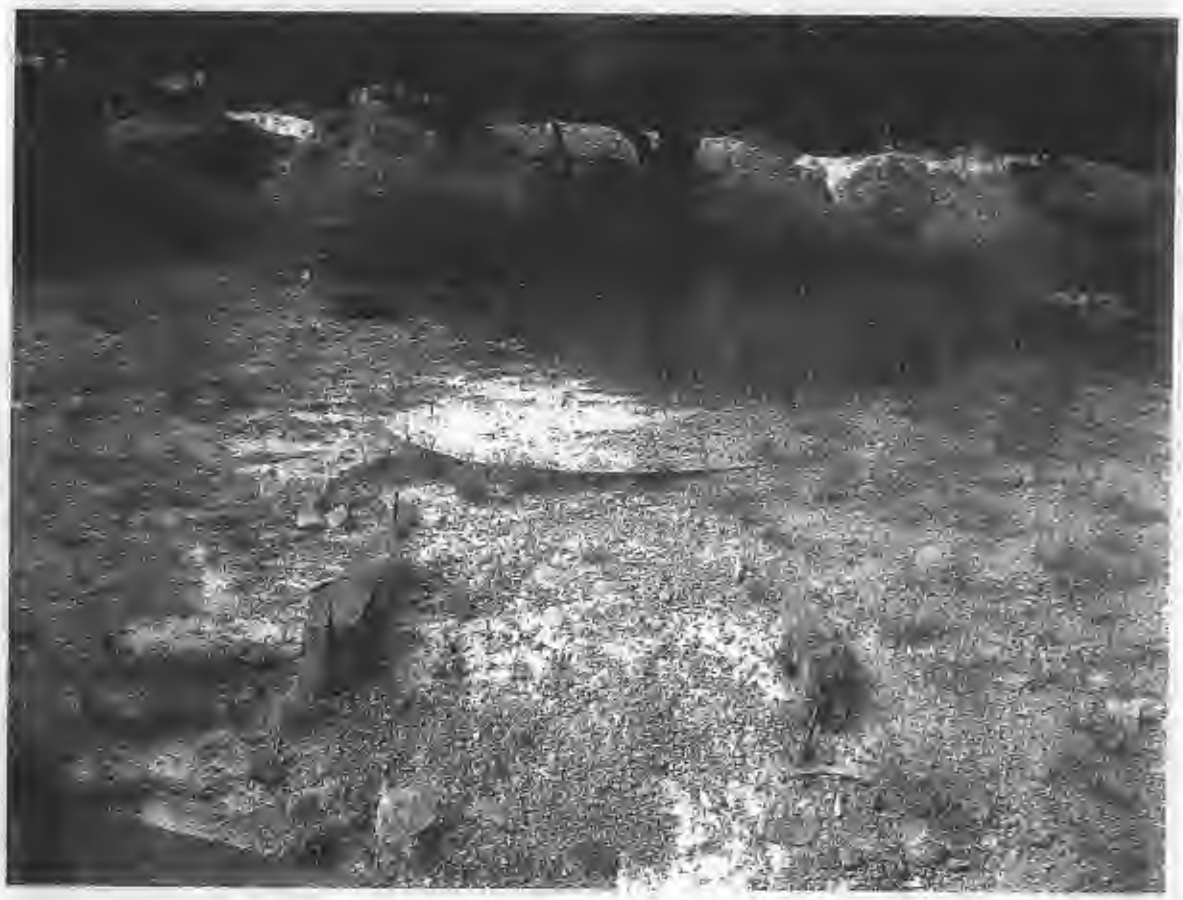
Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img505.JPG

Feature 10 according to pg. 6

Description: Facing east, an overview of Feature ~~15~~, a steel vat. The mine tailings lie to east and north of the feature. This feature lies within Repository Area #2, and will be relocated to Feature 8 (mill foundations).

Rosedale Mine and Mill Site Cleanup Project

Photo# 11
Site: AR-03-03-03-847/LA5190



Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img526.JPG

destroyed

Description: Facing northeast, an overview of Feature 11. This feature will be disturbed during the cleanup activities. In the background are the mine tailings.

Rosedale Mine and Mill Site Cleanup Project

Photo# 12
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img500.JPG

Description: Facing west, an overview of Feature12, foundations of an adobe house. A developing head cut lies north of the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 13
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img501.JPG

Description: Facing north, an overview of Feature 13, a rectangular sandstone foundation.

Rosedale Mine and Mill Site Cleanup Project

Photo# 14
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img625.JPG

Description: Facing north, an overview of Feature 14, beneath the grass cover is a stone foundation that measures 2.5 meters by 1.7 meters. No artifacts were present.

Rosedale Mine and Mill Site Cleanup Project

Photo# 15
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img626.JPG

Description: Facing northeast, an overview of Feature 15, circular pile of rocks, no indications of being a hearth.

Rosedale Mine and Mill Site Cleanup Project

Photo# 16
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img504.JPG

Description: Facing northeast, an overview of Feature 16, a rectangular stone foundation that measures 13 meters by 8.7 meters and is relatively intact. Located in the northeastern part of the feature is a circular depression that measures 7 meters in diameter with a depth of 1.5 meters.

Rosedale Mine and Mill Site Cleanup Project

Photo# 17
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img624.JPG

Description: Facing east, an overview of wooden tramway remains, Feature 17. This feature lies within the Repository Area # 3. The feature will be buried under the consolidated mine tailings.

Rosedale Mine and Mill Site Cleanup Project

Photo# 18
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img632.JPG

Description: Facing south, an overview of Feature 18.

Rosedale Mine and Mill Site Cleanup Project

Photo# 19
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img481.JPG

Description: Facing west, an overview of Feature 19.

Rosedale Mine and Mill Site Cleanup Project

Photo# 20
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img482.JPG

Description: Facing south, an overview of Feature 20. A stone foundation measuring 7 meters by 5 meters. The average height of the foundation is 10 centimeters above the ground surface. A camp fire ring is located approximately 2 meters southeast of the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 21
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img628.JPG

Description: Facing south, an overview of Feature 21, a stone foundation that measures 4 meters by 4.5 meters with an average height of 5 centimeters.

Rosedale Mine and Mill Site Cleanup Project

Photo# 22
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img483.JPG

Description: Facing south, an overview of Feature 22, a circular depression with an average diameter of 2.5 meters and a depth of 40 centimeters. There is a large concentration of artifacts associated with the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 23
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img485.JPG

Description: Facing northeast, an overview of Feature 23, a stone foundation with an identifiable doorway and 3+ individual rooms. The feature measures 9.4 meters by 9.5 meters with an average height of 40 centimeters. Tabular sand stone was mainly used in the construction of the foundation. An exploratory mining pit is located approximately 3 meters southwest of the feature. The diameter of the pit is 5 meters with a depth of 1 meter.

Rosedale Mine and Mill Site Cleanup Project

Photo# 24
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img629.JPG

Description: Facing south, an overview of Feature 24. This feature consists of two rock alignments that measure approximately 5 meters in length with a height of 5 centimeters. The functions of the alignments are unknown at this time. Artifact density is low.

Rosedale Mine and Mill Site Cleanup Project

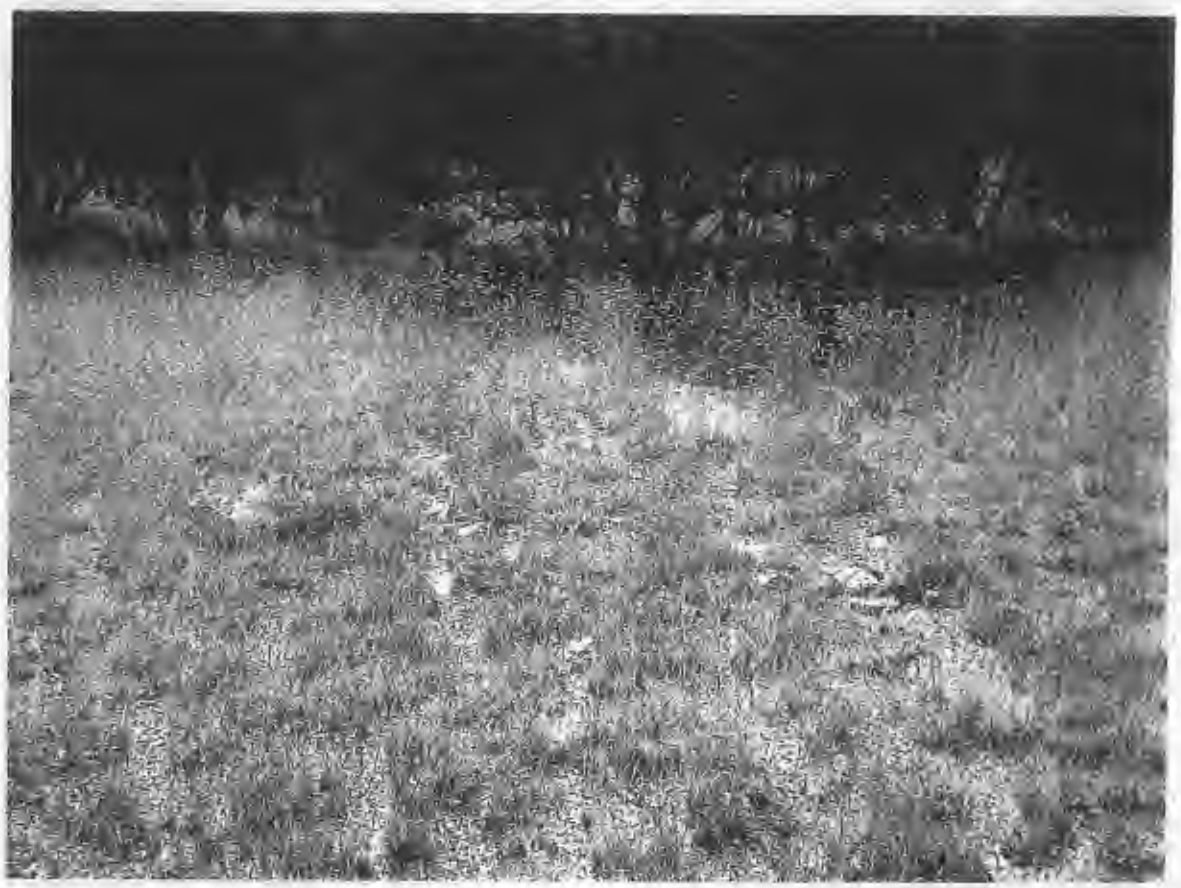
Photo# 25
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img488.JPG

Description: Facing east, an overview of Feature 25, a rock alignment that runs east to west and is approximately 19.80 meters long with a height of 40 centimeters. This feature had the highest concentration of artifacts compared to the other features. A portion of the feature has been impacted by recreational users using the stones for campfire rings.

Rosedale Mine and Mill Site Cleanup Project

Photo# 26
Site: AR-03-03-03-847/LA5190



Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img630.JPG

Description: Facing west, an overview of Feature 26, a stone foundation that measures approximately 2.8 meters by 1 meter. The western wall of the feature is somewhat discreet due to the fact that the stones were probably used in building campfire rings. A large campfire ring is located due south of the feature. There is a low density artifact scatter associated with the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 27
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img489.JPG

Description: Facing south, an overview of Feature 27, a square stone foundation that is located next to a ridge and measures 4 meters by 4 meters with a height of 30 centimeters.

Rosedale Mine and Mill Site Cleanup Project

Photo# 28
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img490.JPG

Description: Facing west, an overview of Feature 28. A rectangular stone foundation located next to an intermittent drainage and measures 4.5 meters by 6.5 meters with a height of 30 centimeters. Numerous artifacts are located along the bank and the bottom of the drainage.

Rosedale Mine and Mill Site Cleanup Project

Photo# 29
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img497.JPG

Description: Facing south, an overview of Feature 29. A stone corner foundation that measures 1.5 meters (north to south) by 2.5 meters (east to west).

Rosedale Mine and Mill Site Cleanup Project

Photo# 30
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img491.JPG

Description: Facing south, an overview of Feature 30. The discreet outline of a stone foundation that measures 3 meters by 3.5 meters. There is a low artifact density associated with the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 31
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img493.JPG

Description: Facing west, an overview of Feature 31, a circular pit measuring 1.5 meters in diameter with an average depth of 30 centimeters. Numerous artifacts are located within and outside of the feature.

Rosedale Mine and Mill Site Cleanup Project

Photo# 32
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img495.JPG

Description: Facing west, an overview of Feature 32. A stone foundation that measures 6.5 meters by 2.2 meters with a height of 30 centimeters.

Rosedale Mine and Mill Site Cleanup Project

Photo# 33
Site: AR-03-03-03-847/LA5190

Magdalena Ranger District, Cibola National Forest
HRM Digital Photo: Img523.JPG

Description: Facing southwest, an overview of the mine tailings located near the mill foundations.

USDA - Forest Service

R3-FS-2300-4 (7/00)

Forest: Cibola
District: Magdalena
State Project Number: 106258

INVENTORY STANDARDS AND ACCOUNTING

(Reference FSM 2361) HTL45

1. Report Number:				2. Report Date:		
Year	Forest	Number	Series	Month	Day	Year
2007	03	031		04	19	2007

3. Routing: Copies to

[X] District [ ] RO [X] SHPO [ ] 2360 [X] SO: [ ] Other:

4. Author:

A. ROBINSON R C B. NICOLL C H

5. Project Name/Report Title (Abbreviate if Necessary):

Rosedale Mine and Mill Site Cleanup Project, NAE (CERCLA)

6. Abstract/Summary of Report and Findings:

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the USDA-Forest Service performed an Engineering Evaluation/Cost Analysis (EE/CA) at the abandoned Rosedale Mine and Mill site. The purpose of EE/CA is to evaluate the magnitude and extent of heavy metal contamination associated with past mining and milling activities, and to evaluate cleanup alternatives. The Rosedale Mine and Mill EE/CA focused on the mining waste rock and tailings. Due to the health risks, the EE/CA addressed the necessity and objectives of a removal action, as well as the effectiveness, feasibility, and cost of cleanup

Continued Page 2 [X]

7. Consultation/Clearance

A. Conditions of Clearance:

[ ] None (No potentially eligible sites in project area) [ ] Avoid sites specified below
[X] Monitor sites specified below [ ] Report new sites to Forest Archeologist
[ ] Other/additional comments

Best management practices were developed to minimize or mitigate adverse effects to site AR-03-03-03-847/LA5190 and should be followed during the implementation of this project.

Continued Page 2 [ ]

B. Additional Fieldwork Required: [ ] Evaluate sites specified below [ ] Other, see below

Continued Page 2 [ ]

C. Report Accepted: [X] Yes [ ] No

D. Clearance Recommended: [ ] Yes [ ] No [X] N/A

Forest Archaeologist: [signature] **Date:** 6/21/07

E. Effect: [ ] No Effect [ ] No Adverse [ ] Adverse [X] N/A [ ] Beneficial

F. Consult SHPO on: [ ] Effect [X] Eligibility [ ] Info Only [ ] Other

Forest Supervisor: Cynthia Connell **Date:** 6/21/07

G. SHPO Concurrence: [ ] Yes [ ] Yes, per comment below [ ] No, per comment below

[ ] Case-by-case concurrence not required per R-3 Programmatic Agreement

SHPO: **Date:**

H. Clearance Approved: [X] Yes [ ] No

Forest Supervisor: Cynthia Connell **Date:** 6/21/07

8. Ranger District:	03	9. Project Function:	71	10. Primary Activity Type:	A
11. Secondary Activity Type:		12. Programming:	P		

13. Total Project Acres:	29	14. Acres Completely Surveyed:	29	15. Sample %:	0
16. Acres Resurveyed:	0	17. Total Sites in Project Area:	1	18. New Sites:	1

19. Sites Evaluated Eligible:	1	20. Sites Evaluated Not Eligible:	0

(By Professional CRM Specialist, Request SHPO Concurrence)

21. Sites Inspected, Monitored, Enhanced, Etc.: 0 *(Projects other than survey, evaluation)*

22. Recommended Determination: 2 (initial:) CM *(By FS Professional CRM Specialist)*

(1. No Effect 2. No Adverse Effect 3. Adverse Effect 4. N/A - Not An Undertaking 5. Beneficial 6. N/A - No Properties

23. Project Location (Surveys only):

Township	6 S	Range	5 W	Section	1 & 2
Township	6 S	Range	6 W	Section	6 & 7
Township		Range		Section	
Township		Range		Section	

24. Institution Conducting Project / Survey: FA

Name of Institution: USDA-Forest Service Heritage Resource Specialist

25. Average Number of Individuals Used: 2 26. Average Individual Transect Spacing (ft.): 49

27. Field Hours:	65	28. Lab/Lib Hours:	0	29. Travel Hours:	122		
30. Admin. Hrs:	123	RD: 87	SO: 36	31. Mileage:	398	32. PD Rate:	N
33. Days of Per Diem:	0						
34. Cost Weight Factor:	9	35. Cost (Code):	C	36. or Actual Cost:			

37. Remarks / Continuation from page 1:

alternatives. Cleanup activities will include the use of heavy equipment to consolidate tha tailings remains into a mounded piles and then covered with top soil (containment) from a near-by borrow source. Water diversion channels will be constructed on the upslope parts of the containment areas is ensure that water runoff does not disperse the contaminated soils in the watershed. Site AR-03-03-03-847/LA 5190 is an abandoned historic gold mining town known as Rosedale. The site has been assigned a temporal date of 1886 (US Territorial) to 1937 (Statehood) based on the known history of the area and the artifact assemblage. The site is recommended eligibile to the National Register under criteria (a) and (d). Refer to the site narrative in the report for a complete description of the site's significance evaluation. The present undertaking should be considered as having a No Adverse Effect on those qualities of site AR-03-03-03-847/LA 5190 that contributes to its eligibility to National Register of Historic Places. One waste rock pile will be covered with soil and 2 mill tailings piles will be consolidated and covered with soil. Feature 10, a metal vat, will be removed for the tailings pile and placed at the mill foundations (Feature 8). Feature 17, the vertical support remains of the tailings flume, will be covered with top soil after the tailings pile has been consolidated. All other features will be avoided during project activities. The CERCLA legislative statute allows for certain types of mine cleanup projects (on-site removal actions) to be exempt from administrative requirements, such as approvals and consultation.

11-24-07

WHAT ABOUT FEATURE 11, THE ONE I HAVE PARTIALLY EXCAVATED? IT IS NOT GOING TO BE AVOIDED AS THE PHOTO DESCRIPTION IMPLIES. THIS IS WHY I WOULD LIKE TO EXPOSE MORE OF THE FEATURE BEFORE IT IS DESTROYED. MSB