BASELINE DATA REPORT

Section 3.0

Topography

OCTOBER 2009

Submitted To:

New Mexico Mining and Minerals Division
&
U.S. Forest Service (Cibola National Forest)

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3.0 Topography

NMAC §19.10.6.602 D.(13) (b)

Baseline data shall include, as applicable:
Topographic maps clearly showing: the boundaries of the permit area and the location of all buildings within 0.5 miles of the permit area; the kinds of information set forth on U.S.G.S. topographic maps, and all man-made features within the permit area existing on the date of application. The map shall be a scale of 1 inch equals 2,000 ft (1:24,000) or a scale approved by the Director to accurately represent the permit and potentially affected area.

3.1 Topographic Maps

3.1.1 Permit Area Boundaries and Building Locations within 0.5 miles

The boundary of the permit area and topographic features of the three-section Roca Honda permit area and a half-mile margin around the permit area are shown in Figure 3-1. All buildings within 0.5 miles of the permit area boundary are also identified in Figure 3-1, as are all man-made features within the permit area that existed at the date of application.

3.1.2 Information from USGS Topographic Maps

The Roca Honda permit area is located in the northern half of the U.S. Geological Survey (USGS) San Mateo 7.5 minute and extreme southern half of the USGS San Lucas Dam 7.5 minute quadrangles. Contours for the Figure 3-1 topographic map were compiled from Digital Elevation Models of these two quadrangles obtained from the New Mexico Resource Geographic Information System Program. Features on Figure 3-1 are derived from a series of fourteen 1:12,000 aerial photos with 0.5 foot resolution flown for RHR in the summer of 2008. This information is consistent with the information contained on the USGS topographic maps and has been updated.

3.1.3 Man-Made Features within the Permit Area

All man-made features shown in Figure 3-1 were compiled from RHR aerial photos flown in the summer of 2008. All ponds shown in Figure 3-1 are man-made. Not all of them contain water or are still in use, but evidence of their existence is still visible. All of these ponds have been constructed by either damming arroyos or creating berms.

A monitoring well network of three wells completed in the Westwater Canyon member of the Morrison formation was installed in 2007-2008 by RHR. Other objects installed by RHR include a solar powered weather station and small air monitoring station that is powered by a nearby electrical line (Figure 3-1). The electrical line transects the northern half of Section 16 in the permit area and continues on the west side of the permit area in the NE ¼ of Section 17 where it terminates. It continues on the east side of Section 16 through the NW ¼ of Section 15 and along the southern section boundary of Section 10 (Figure 3-1).

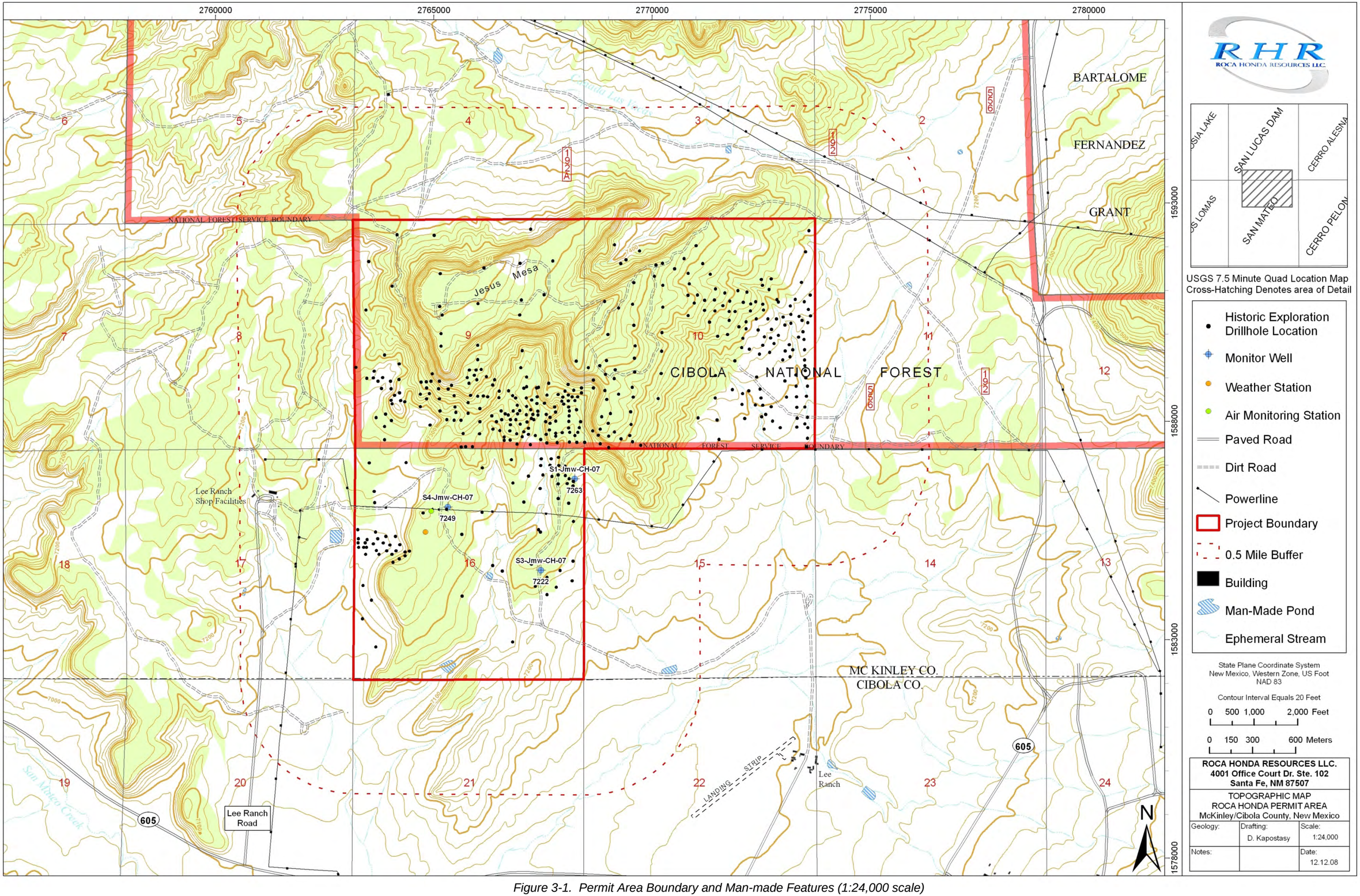

Figure 3-1. Permit Area Boundary and Man-made Features (1:24,000 scale)

There are several buildings within 0.5 miles of the permit area belonging to the Lee Ranch in the NE ¼ of Section 17. The buildings are used as a shop and living area for the Lee Ranch. There are no buildings within the three sections of the permit area. Additional structures located around the site include power lines, scattered livestock tanks, and an old windmill just east of the Lee Ranch shop facilities.

3.1.4 Prior Mining Operations

No prior mining operations which may have affected the permit area exist on the proposed permit area. There were, however, more than 400 historic exploration boreholes drilled from the late 1960s to the early 1980s in various locations of the permit area as identified in Figure 3-1 and 3-2. These figures together with Figure 3-3 show the density of drilling, particularly in Sections 9 and 10 of the permit area. Additionally, some of the property immediately surrounding the permit area contains exploration drill holes to varying degrees. However, RHR has no knowledge of particular drilling locations in those sections. Field inspections of the area conducted in conjunction with other field activities revealed occasional pipe and other markers that may identify possible drill-hole locations but cannot be confirmed as such. The USGS mapped a network of drill roads present mainly in Sections 9 and 10 that accessed the drill sites, most of which have naturally re-vegetated. The roads shown in Figures 3-1, 3-2 and 3-3 are largely still passable.

As discussed above, the Section 17 Lee Ranch shop facilities can also be seen in Figures 3-1, 3-2 and 3-3. This is the location of a mine shaft that was constructed in the late 1970s and early 1980s but was never finished. Excavation of the shaft stopped before it reached the Westwater Formation, i.e., the ore bearing formation. Additionally, as identified in Figures 3-2 and 3-3, approximately 3 miles southeast of the permit area is the Rio Grande Resources (aka, Gulf Mt. Taylor underground uranium mine) facility. This mine has been on standby since the early 1990s. Also, shown on Figures 3-2 and 3-3 at a location southwest of the permit area approximately four miles and across the San Mateo Creek, is the San Mateo underground uranium mine. This mine has not been in operation for many years.

None of the activities are likely to have affected the RHR permit area but have been included herein for clarity.

3.2 References

None

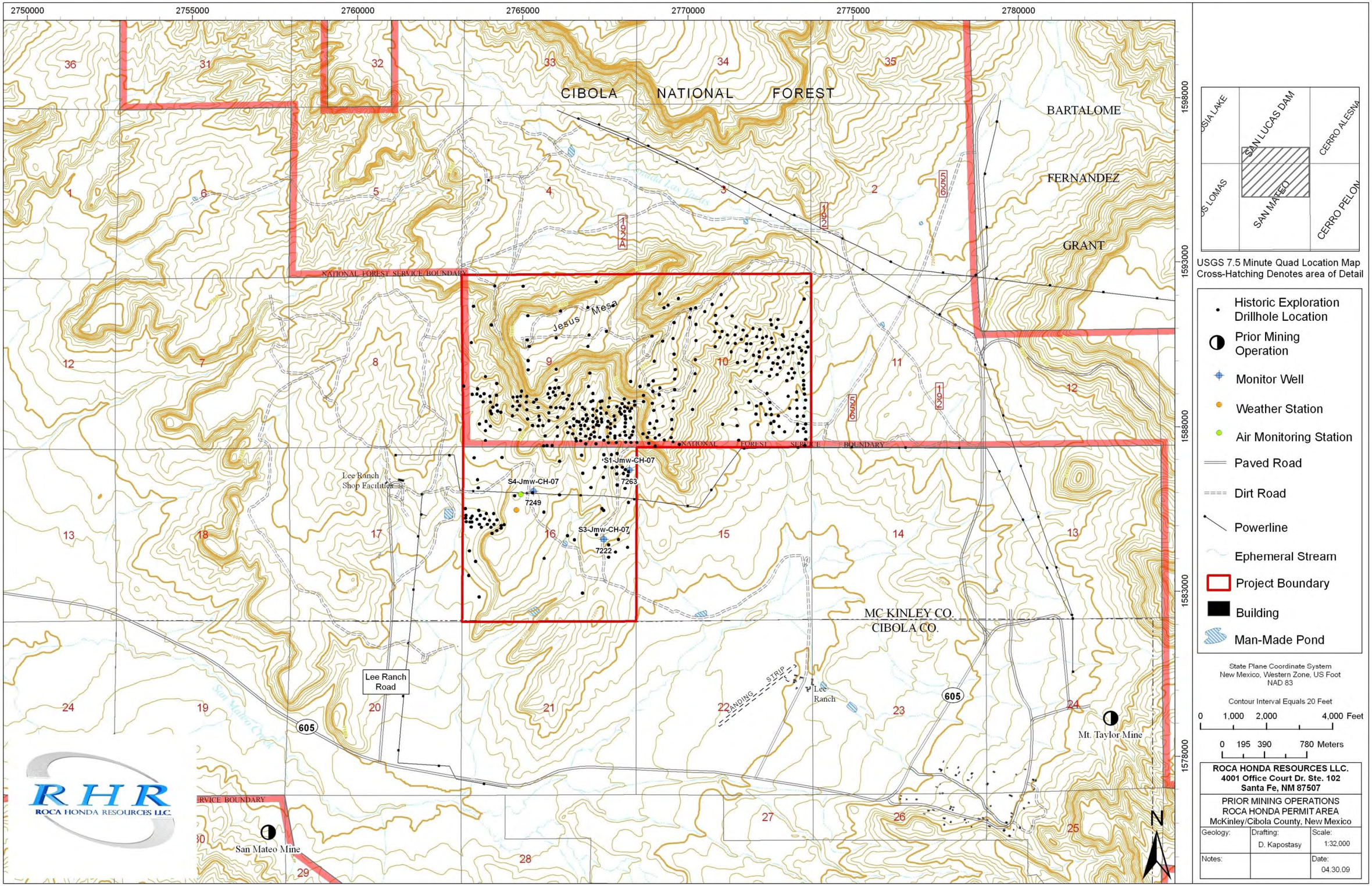

Figure 3-2. Topographic Base Map Showing Prior Mining Operations (1:32,000 scale)

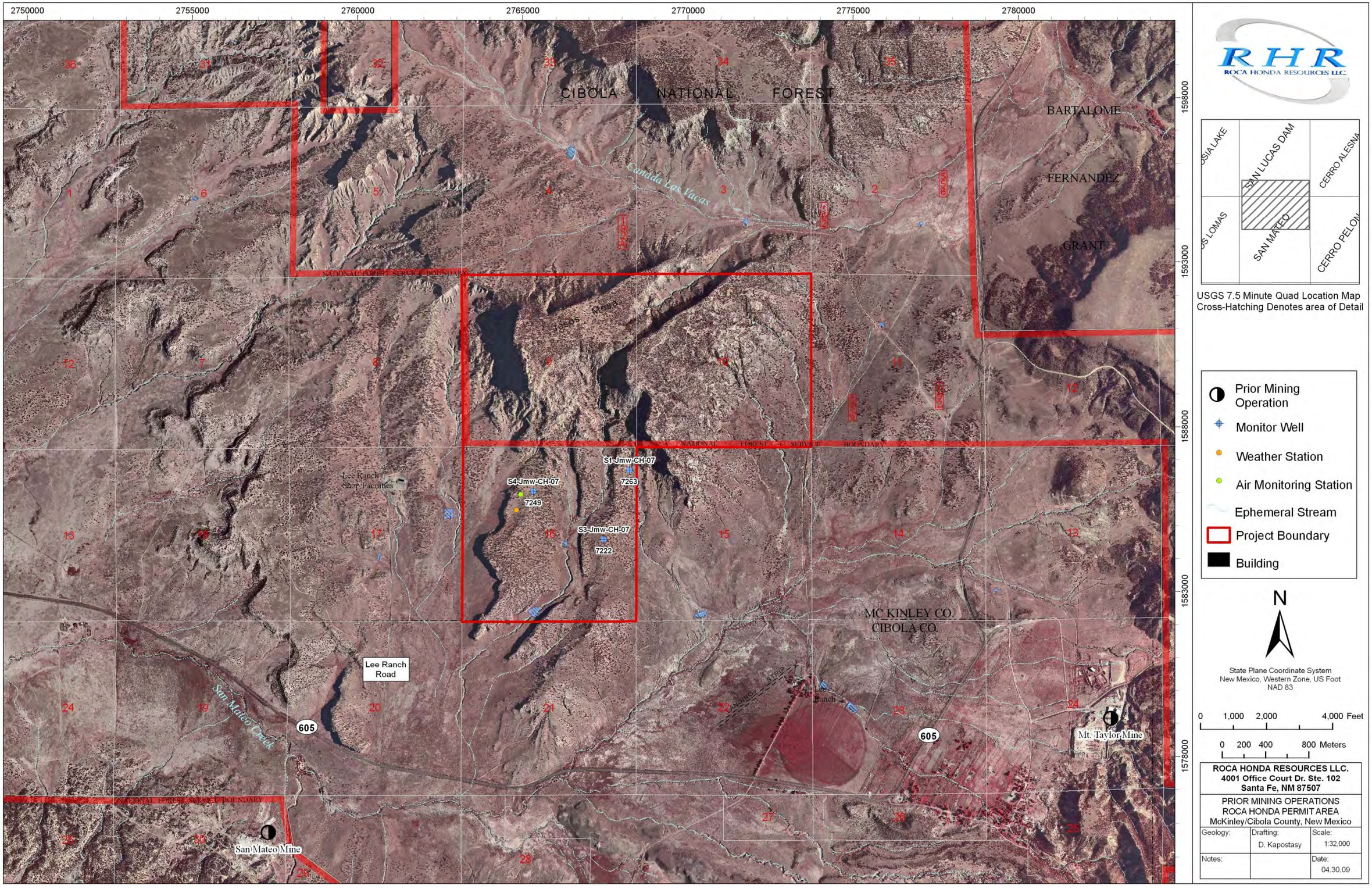

Figure 3-3. Aerial Photo Base Map Showing Prior Mining Operations (1:32,000 scale)