

# **SAMPLING AND ANALYSIS PLAN**

## **Section 13.0**

### **Prior Mining Operations**

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&  
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## **13.0 Prior Mining Operations**

### **13.1 Introduction and Background**

No previous mining operations exist on the proposed permit area which may have affected the 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 13-1. The Kerr-McGee Corporation began drilling on Sections 9 and 10 in 1966; approximately 362 drill holes (839,687 ft) were completed. Most holes in 9 and 10 were drilled from 1966 to 1985. Rare Metals Corporation completed 13 drill holes of unknown footage on Section 16 in the 1950s. Western Nuclear drilled 63 exploration holes (121,164 ft) through the 1980s. Historic drilling (prior to RHR) on Sections 9, 10 and 16 was approximately 438 drill holes totaling approximately 960,851 ft. RHR drilled 4 holes in 2007.

Figure 13-2 shows 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 stand-pipe and other markings 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 Section 17 Lee Ranch shop facilities can also be seen in Figures 10-1 and 10-2. This is the location of an uncompleted mine shaft that was constructed in the late 1970s and early 1980s by Kerr-McGee. Construction of the shaft stopped before it reached the Westwater Formation, i.e., the ore bearing formation. Few details of the particulars of shaft construction are available to RHR. It has been reported (but not confirmed) that the shaft was completed to approximately 1700 ft below ground surface. That would place the bottom of the shaft in the area of the Dakota Formation, above the Westwater Formation. As such, it cannot and does not act as a “ground water sink.”

Roca Honda Resources, LLC has no information as to the manner in which the shaft was closed. However, when it was closed, it was converted into a water well that is owned and used by the surface owner, i.e., the Lee Ranch. Roca Honda Resources, LLC believes, but cannot confirm that the well is providing water from the Westwater and Dakota Formations. Roca Honda Resources, LLC has taken water level measurements that indicate that water rises in the well to 900 ft below the surface of the ground, or 300 ft below the Gallup Formation. This indicates that the well is not communicating with the Gallup Aquifer.

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

### **13.2 Sampling Objectives**

The prior mining operations will not be sampled or otherwise characterized per se. The purpose and objective of the SAP is to provide a description of the means by which baseline data will be collected to characterize and establish background conditions inclusive of contributions, if any, in and around the Roca Honda permit area prior to mining.



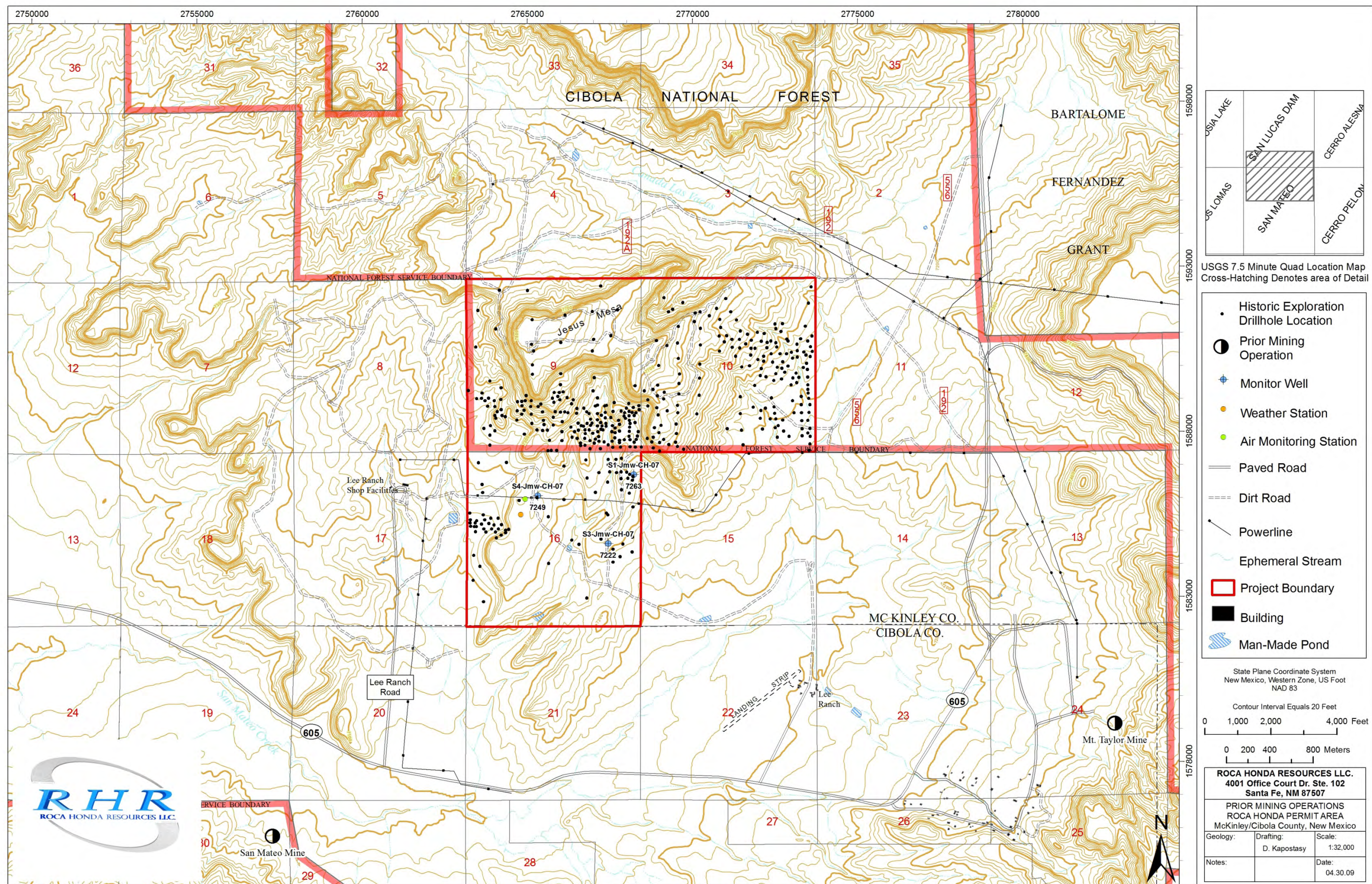


Figure 13-1. Topographic Base Map Showing Prior Mining Operations (1:32,000)



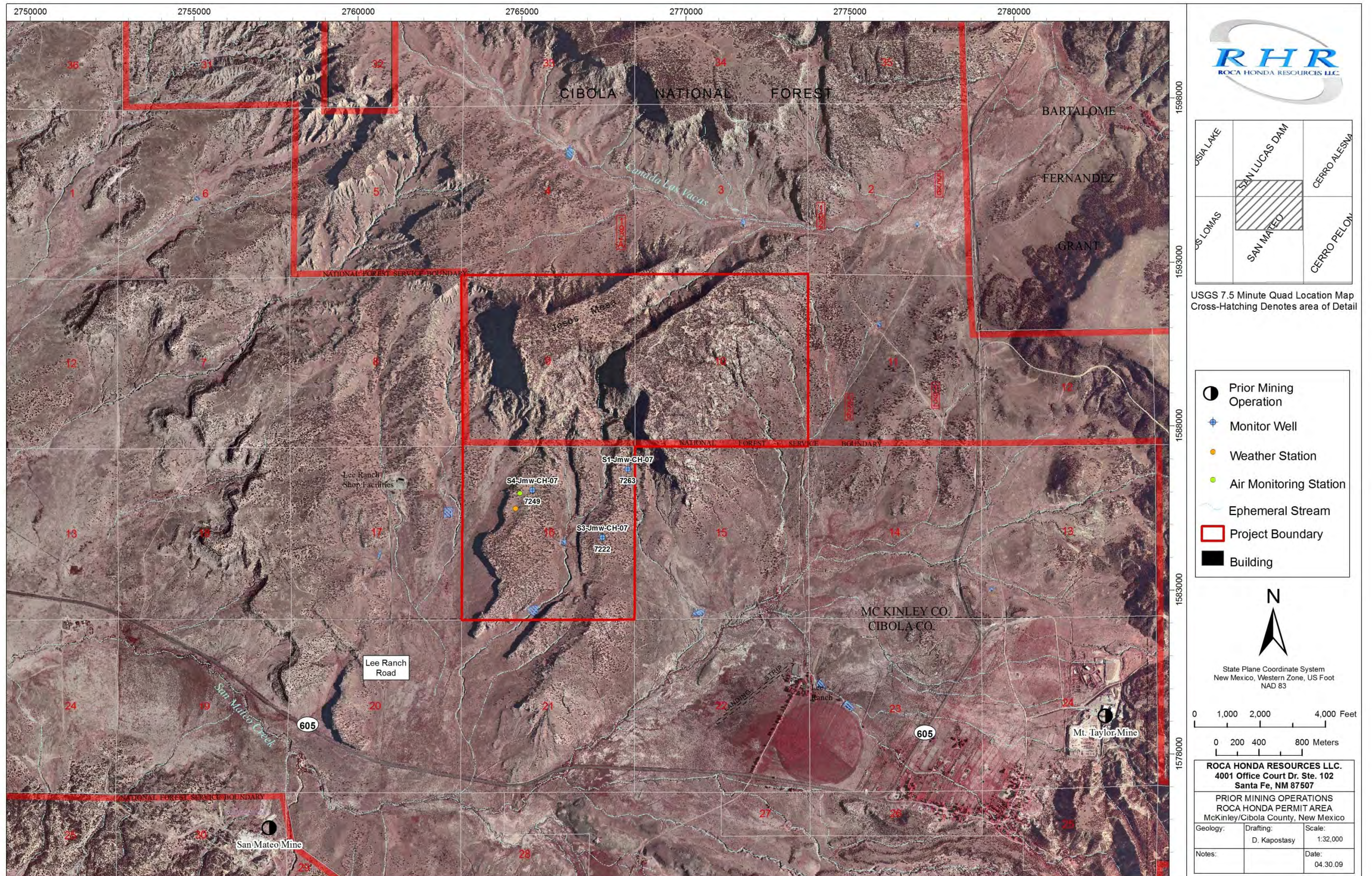


Figure 13-2. Aerial Photo Base Map Showing Prior Mining Operations (1:32,000)



### **13.3 List of Data to be Collected**

The list of data to be collected for each environmental medium and/or subject of interest is discussed in each of the respective sections of this SAP.

### **13.4 Methods of Collection**

The methods of collection of the data for each environmental medium and/or subject of interest, are discussed in each of the respective sections of this SAP.

### **13.5 Parameters to be Analyzed**

The parameters to be analyzed for each environmental medium and/or subject of interest are discussed in each of the respective sections of this SAP.

### **13.6 Maps Providing Sample Locations**

The maps providing sampling locations for each environmental medium and/or subject of interest are discussed in each of the respective sections of this SAP.

### **13.7 Sampling Frequency**

The sampling frequency for each environmental medium and/or subject of interest is discussed in each of the respective sections of this SAP.

### **13.8 Laboratory and Field Quality Assurance Plan**

The laboratory and field quality assurance plans for each environmental medium and/or subject of interest are discussed in each of the respective sections of this SAP.

### **13.9 Brief Discussion Supporting Proposal**

None of the prior mining operations are likely to have affected the RHR permit area. This Section 13.0 has been included herein at the request of the agency for clarity.

The prior mining operations will not be sampled or otherwise characterized per se. The purpose and objective of the SAP is to provide a description of the means by which baseline data will be collected to characterize and establish background conditions inclusive of contributions, if any, in and around the Roca Honda permit area prior to mining.

### **13.10 References**

None