Table of Contents

List of Figures

List of Tables

11 Present and Historical Land Use

The information in this section is summarized primarily from SRK Consulting (2010) and the U.S. Bureau of Land Management (BLM) (1999). An online review of BLM Master Title Plats and land status on GeoCommunicator, the National Integrated Land System (http://www.geocommunicator.gov/GeoComm/index.shtm) was also performed to check the current status of rights of way (ROW) and other activities on BLM lands.

The Copper Flat Mine Permit Area (Site) and associated noncontiguous mill site claims are located between the communities of Caballo and Hillsboro, north of NM State Highway 152 and south of Animas Peak. It is covered by the Hillsboro 15-minute U.S. Geological Survey (USGS) quadrangle and occupies parts of Sections 30 and 31, Township 15 South, Range 5 West (T15S, R5W); Sections 30 and 31, T15S, R6W; Sections 23 through 27 and 34 through 36, T15S, R7W; Section 6, T16S, R6W; and Section 2, T16S, R7W (all with reference to the New Mexico Principal Meridian). Some of the noncontiguous mill site claims are outside the permit boundary and are associated with water rights and water wells approximately 8 miles east of the Site. The center of the mineralized zone is at approximately latitude 32.970300, longitude −107.533527.

11.1 Present Land Use

11.1.1 Land Ownership and Status

According to the 2010 property tax schedule of the Sierra County Assessor, Hydro Resources Corporation (Hydro) and Cu Flat, LLC (Cu Flat) own all of the fee lands within the permit area except as follows:

- Edgar E. Greer (“Greer”) owns the fee surface estate in the lands within the permit area in Sections 30 and 31, Township 15 South, Range 6 West, and has contracted to sell his fee surface estate to Ryan G. and Wendy M. Fancher (the “Fanchers”). The mineral estate in such lands is owned by the United States and is subject to unpatented mining claims owned by Hydro and GCM, Inc. (GCM).
- Greer owns the fee surface and mineral estates in the Cincinnati, Graf Von Luxenburg, and Prosper patented mining claims in Sections 25 and 36, Township 15 South, Range 7 West, and has contracted to sell such claims to the Fanchers.
- The non-fee lands within the permit area are owned by the United States. All such lands are subject to unpatented mining claims owned by Hydro and GCM.

All of the fee lands and unpatented mining claims within the permit area owned by Hydro, Cu Flat, and GCM are subject to the Option and Purchase Agreement described in Section 1.2.5.

NMCC holds an exclusive option to acquire the Copper Flat properties under an Option and Purchase Agreement effective July 23, 2009 (amended on January 10, 2010; April 1, 2010; May 28, 2010; and August 2, 2010). All option payments to date have been made; an additional payment is due in September 2010, and the final payment is to be made in 2011. The Agreement specifies that after its option is exercised NMCC will pay quarterly royalties to Hydro Resources and GCM. The lands covered by the Agreement are not subject to any other royalties, payment obligations, other agreements or encumbrances, or to any back-in rights. However, NMCC must pay New Mexico property taxes on fee and producing the Copper Flat properties and pay the U.S. fees required to maintain the unpatented mining claims and mill sites.

Figure 11-1 shows the property ownership of the Site as of June 23, 2010. Hydro Resources owns the surface and mineral estates the patented mining claims subject to the Option and Purchase Order Agreement. In addition to the surface and mineral estates shown in Figure 11-1, noncontiguous mill site claims located east of the Site that are owned by Hydro Resources and subject to the Option and Purchase agreement are shown in

Figure 11-2. Cu Flat, another of the optioners, owns the surface and mineral estates in the parcels of other fee land included in the Copper Flat property and the surface estate in three other parcels of other fee land. Hydro Resources has title to the surface rights in 132 unpatented mining claims included in the Copper Flat Property and in nine unpatented mill sites outside the permit boundary. Hydro Resources owns an undivided two-thirds interest in the surface rights as well as in the mining rights in 44 unpatented mining claims included in the Copper Flat Property, and GCM, also a vendor to NMCC, owns an undivided one-third interest in the surface and mining rights in those 44 claims. The United States has retained rights to manage and dispose of plant resources and to manage other non-mineral surface resources on the unpatented mining claims.

State lands would not be directly affected by the operation, although a portion of the mine access road in T15S, R6W, Section 32, passes through State Trust lands. Several sections of State land also exist south of the tailings impoundment dam (T16S, R6W, Section 6) and to the west and east of the existing well field (T15S, R6W, Section 36, and T15S, R5W, Section 32, respectively).

Lands adjacent to the Site include federal, state, and private property. Although there are several nearby placer claims held by rock clubs for recreational collecting, there are no known adjacent properties with mineralization similar to that of the Copper Flat Mine.

11.1.2 Land Planning and Regional Land Use

Historically, most of Sierra County has been used for mining, ranching, agriculture, and tourism. The public lands on which the unpatented mining claims and mill sites located at the Copper Flat Site are managed by BLM's Las Cruces Field Office. BLM manages public lands for multiple uses including recreation, range, forestry, mineral extraction and processing, watershed, fish and wildlife habitat, wilderness, and natural, scenic, scientific, and historical values. The current operational land use plan for this region is the 1986 White Sands Resource Management Plan, which covers all BLM-administered lands in Sierra and Otero counties; a new plan, the TriCounty Resource Management Plan, is expected to be approved in early 2011. The White Sands Resource Management Plan identifies the Copper Flat Mine as a mineral resource and recognizes that it could again become a producing mine, although no mining has occurred at the Site since 1982.

The town of Hillsboro, located approximately 5 miles southwest of the Site, has around 100 homes as well as several restaurants, other businesses, and government buildings. Truth or Consequences, approximately 20 miles northeast of the Site, has a population of about 8,000 and is the county seat. Few residences lie within 5 miles of the Copper Flat Mine: the Coalson and Clark ranches are located about 4 miles southeast of the Site and the Golddust Ranch is about 0.1 mile south of the mine and north of Highway 152 (formerly used as Quintana's Site headquarters).

11.1.3 Current Land Use and Structures at Site

Livestock grazing is the primary ongoing land use in the area of the Site. BLM grazing allotments 16040 and 10679 cover the Site, and livestock grazing is permitted in areas adjacent to the Site.

Except for a small viewing structure and a sample storage building, no buildings currently exist on the Site. A state and federally approved water diversion channel exists around the Site area. A 370-acre tailings pond exists at the Site along with two decant towers. Three dumps that were used for waste rock during the 1982 operation of the mine are located near the perimeter of the pit.

11.1.4 Access, Rights of Way, and Water Rights

The Site is accessed from I-25 by 10 miles of paved highway (NM State Highway 152) and about 3 miles of all-weather gravel road. The mine road is gated near the former mine entrance to discourage vehicular access.

Several other unimproved roads provide access to portions of the Site; however, the tailings area is fenced to limit movement of people and cattle.

Electric power in the area is supplied by Sierra Electric Co-op. An existing 115-kilovolt (kV) transmission line is located in a utility corridor that parallels State Highway 152 from the Caballo switching station to the Site. The original mine operation included a 20-megavolt-ampere (MVA) transformer that stepped the power down to 4.16 kV. A 25-kV power line exists that could be used to carry power from the Site to the water well field previously used for the mine (about 8 miles east of the Site). A 20-inch diameter waterline runs from this well field to the Site. This pipeline has no current ROW agreement, having been abandoned by the former owner, Gold Express Corporation (Gold Express). BLM now owns this line; use rights are currently being negotiated. When Hydro Resources reacquired the Site in 2001, 1,019 acre-feet of water rights were also conveyed. If NMCC exercises its option to acquire the Site, these rights will be transferred to NMCC for use at the mine. Many thousands of acre-feet of additional water rights in the area are owned by third parties; negotiations have been initiated by NMCC to acquire some of these rights (SRK, 2010).

11.2 Environmental Liabilities and Permits

The Copper Flat Mine was first permitted by Quintana Minerals (Quintana) during the 1980s. In 1992, a new plan of operations was submitted to BLM and an environmental assessment (EA) was begun by Gold Express, but the operation was never restarted. Alta Gold Company (Alta Gold) acquired the property in the mid-1990s and reinitiated the permitting and approvals process, collecting significant baseline data and submitting applications for all major state and federal permits. Alta Gold declared bankruptcy in early 1999, but not before a draft environmental impact statement (EIS) had been prepared and the associated public comments received; a public hearing had also been held on Alta Gold's application for a the New Mexico Mining Act Permit and a New Mexico Groundwater Discharge Permit. However, no final permits were issued.

Baseline data collected by Alta Gold, Gold Express, Rio Gold Mining Ltd (Rio Gold), and Quintana is relevant and provides insights for future permitting activity. Five major permits or approvals are needed:

- BLM plan of operation, and subsequent EIS approval
- New Mexico groundwater discharge permit
- New Mexico mining permit
- New Mexico air quality permit
- New Mexico permit for dam construction and operations

These and other permits/approvals are listed in Table 11-1.

11.3 Pertinent Historical Land Use

Ore was first discovered in the Hillsboro district in April 1877, and the town of Hillsboro was established that same year. A number of mining claims were patented for the Site between 1892 and the 1940s; these now form most of the private land occupied by the Copper Flat mine.

In 1952, Newmont began exploration in the district for porphyry copper mineralization by drilling nearly 3,599 ft in six angle holes into the Copper Flat Quartz Monzonite (CFQM) (Kuellmer, 1955). Bear Creek drilled another 9,300+ ft in 1958−1959 in 20 widely spaced core holes, hoping to find an enrichment blanket of secondary copper (which was not found). Both the Newmont and Bear Creek drill and assay data is available (Dunn, 1984). Porphyry copper exploration was advanced by Inspiration again in the late 1960s. Inspiration completed 30 core

drill holes by 1973, purchased the patented claims, performed metallurgical work, and completed two water wells on the property (Dunn, 1984).

In 1974, Inspiration leased the property to Quintana, which undertook a comprehensive mine development program with metallurgical work, underground drifting, bulk sampling, and drill hole composite testing (all preformed by the Colorado School of Mines Research Center). The program included detailed geologic investigations into the relationship between the breccia pipe and the quartz monzonite host rocks, as well as the relationship between host rocks and mineralization. An EA was initially prepared for state and federal agencies in 1975, but low copper prices caused the project to be shelved from late 1976 until 1979. At that time, processing methods were reviewed and semi-autogenous grinding and copper-molybdenum flotation separation became the basis for subsequent design work. Mineable reserves were estimated at 60 million standard tons (Mst) with 0.42 percent copper and 0.012 percent molybdenum, plus some gold and silver (SRK, 2010).

With Quintana as the overall project manager, the Copper Flat mine began full production in March 1982 at a rated capacity of 15,000 st a day, a waste-to-ore ratio of 1.8:1, and a cut-off grade of 0.25 percent copper. The combination of low copper prices and high interest rates on the financing loan resulted in the mine closing down just 3 months later, at the end of June. During its short operational period, the mine produced 1.48 million standard tons (Mst) of ore containing 7.4 pounds (lbs) of copper, 2,301 ounces (oz) of gold, and 55,955 oz of silver (SRK, 2010). By the end of 1985, the surface facilities equipment had been sold and the site reclaimed as required by state and federal guidelines. However, all structural foundations, power lines, water wells, and in-ground infrastructure were left in place.

Hydro Resources of Albuquerque, New Mexico, acquired the Copper Flat property, including all royalties, from Inspiration in 1989. Rio Gold and Tenneco Minerals (Tenneco) drilled six large-diameter holes in 1990. Gold Express optioned the property in 1993, and then sold it to Alta Gold in 1994 without performing any exploration or development. A preliminary final EIS for the Alta Gold mining project was issued in March 1999, but Alta Gold went bankrupt (due to financial problems with other assets) before any permits were issued. Hydro Resources reacquired all the properties in 2001 along with all royalties. Hydro Resources maintains an archive of information related to the mine, including over 14,000 sample pulps and skeleton core from the Quintana drilling programs (SRK, 2010).

In 2009 and early 2010, NMCC conducted a sample verification program that included pulp reject analysis and drilling, as part of the requirements for a NI43-101 report on the resources at Copper Flat (SRK, 2010). The program was designed to verify different aspects of the mineralization and geology of the deposit, as well as to comply with new reporting requirements. The drill holes were plugged with bentonite and capped with cement, as required by the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Mining and Minerals Division (MMD). NMCC completed seven drill holes comprising 5,046.5 ft of core. Three of the drill holes terminated prematurely due to bad ground. The drill sites were reclaimed as per MMD requirements (SRK, 2010).

Approximately 60 percent of the proposed Site has been disturbed by previous operations. Remnants of the 1982 mining operation include an open pit and pit lake, a tailings impoundment area, waste rock disposal areas, a number of buried building foundations, and ancillary facilities including decant towers, roads, power transmission lines, and waterlines (Figures 11-3 and 11-4). These features are clearly delineated on BLM geographic information system (GIS) maps and aerial photographs, and have been considered as part of the proposed plan of operations. Although some reclamation was done to the area in 1986, much of the Site remains disturbed (Figure 11-5).

11.4 References

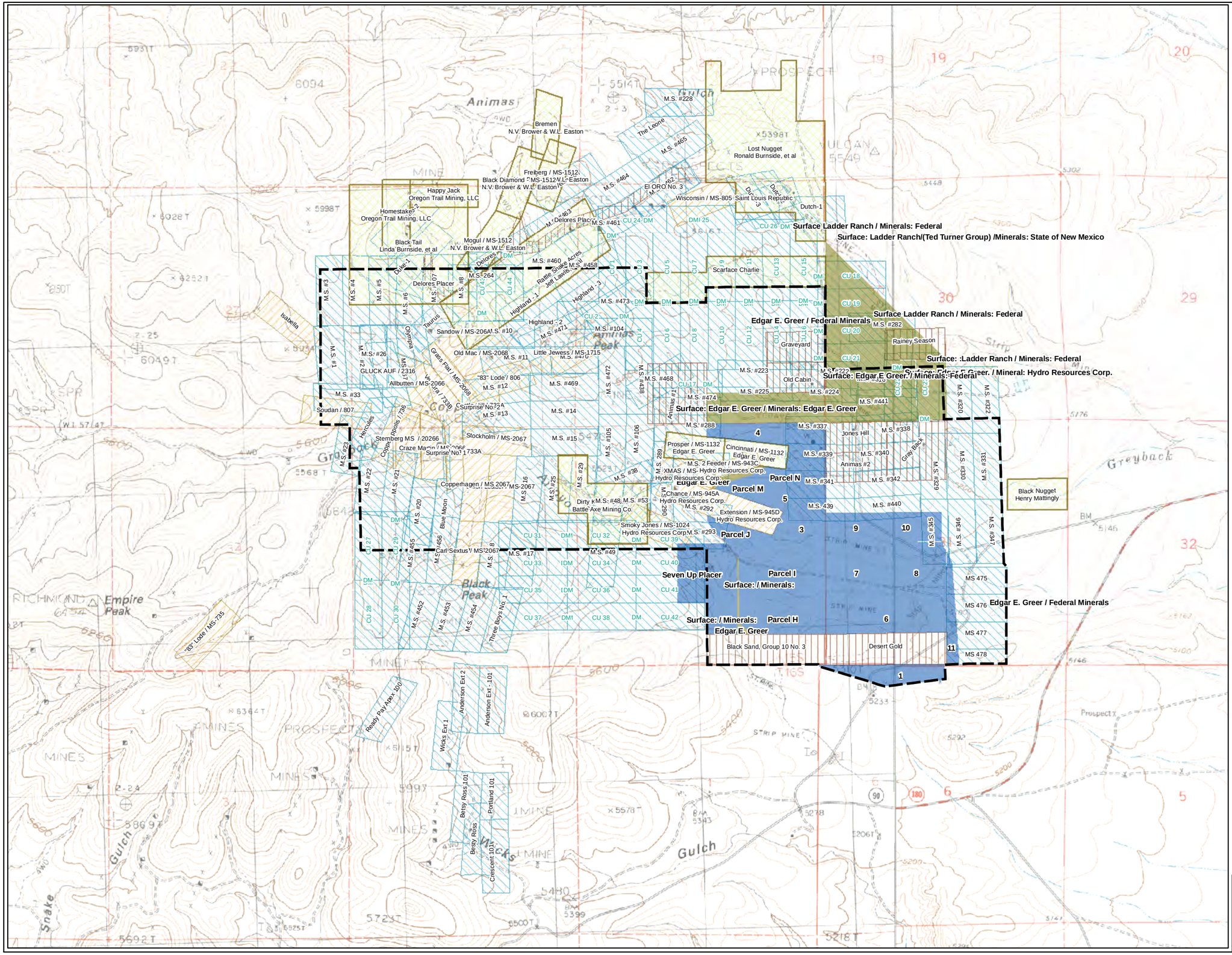
Bureau of Land Management (BLM), 1999, Preliminary final environmental impact statement, Copper Flat project: Las Cruces, N. Mex., U.S. Department of the Interior, 491 p. Prepared by ENSR, Fort Collins, Colo.

Dunn, P., 1984, Geologic studies during the development of the Copper Flat porphyry deposit: Mining Engineering, February, 1984, p. 151.

Kuellmer, F.J., 1955, Geology of a disseminated copper deposit near Hillsboro, Sierra County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Circular 34, 46 p.

SRK Consulting, 2010, NI-43-101 Preliminary assessment, THEMAC Resources Group Limited, Copper Flat project, Sierra County, New Mexico: Lakewood, Colo. Prepared by SRK Consulting for THEMAC Resource Group Limited, June 30, 2010.

Figures



Mine Boundary:
John Reynolds
Claims & Feelands:
Tom Van Bebber
Imagery Information:
-USGS 7.5-Minute Quads; Skute Stone Arroyo & Hillsboro
Projection Information:
-New Mexico State Plane West, NAD 1927

Figure 11-1
Land Ownership Status
New Mexico Copper Corporation

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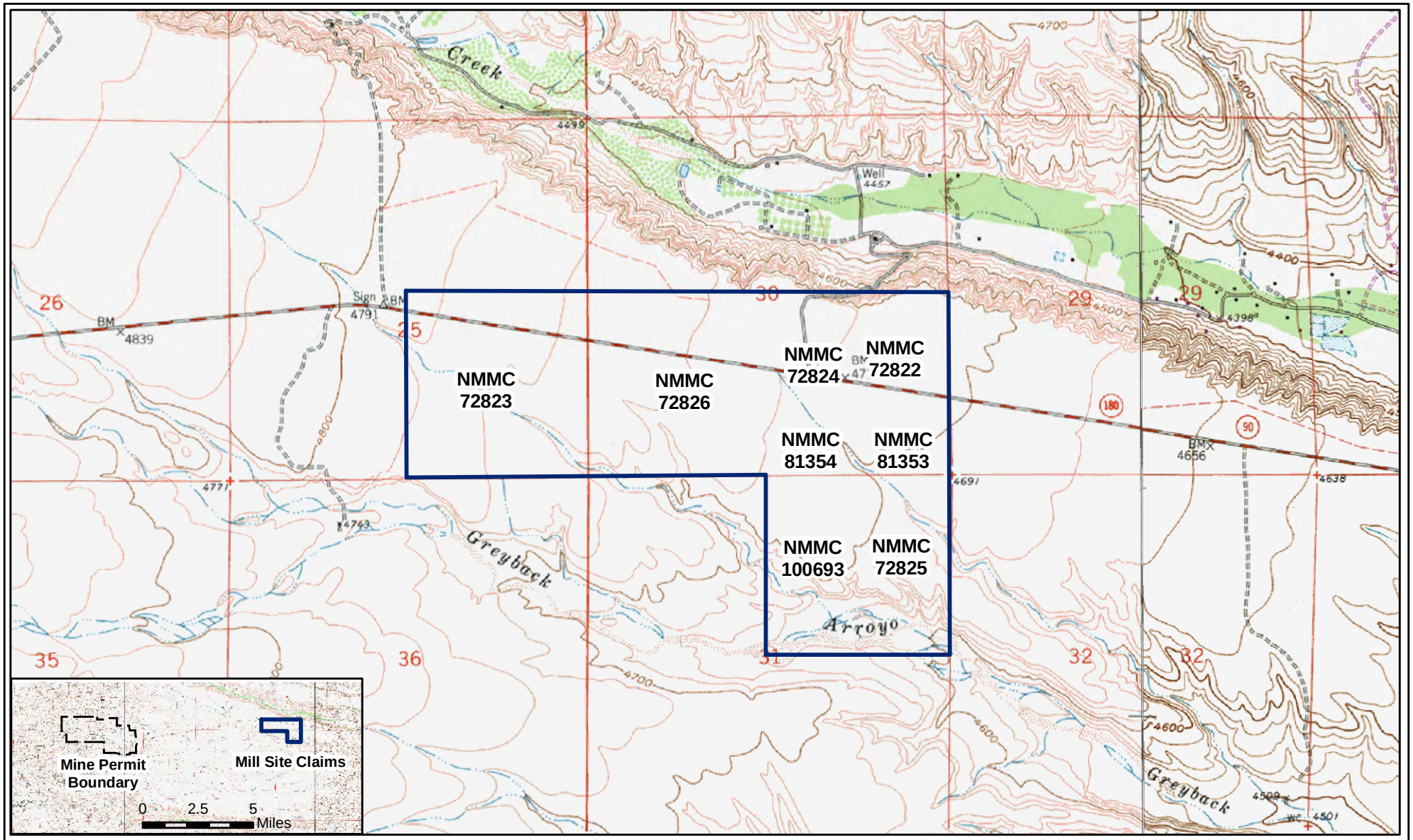

Claim Boundary:
SRK, 2010
Imagery Information:
-USGS 7.5-Minutes Quads; Skute Stone Arroyo & Caballo
Projection Information:
-New Mexico State Plane West, NAD 1927

Legend

Mill Site Claims Boundary

Figure 11-2
Noncontiguous Mill Site Claims
New Mexico Copper Corporation

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Figure 11-3
Aerial View to the West at Copper Flat Mine, 1982

New Mexico Copper Corporation

from Hydro Resources, Inc.

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Figure 11-4
Aerial View to the East at Copper Flat Mine, 1982

New Mexico Copper Corporation

from Hydro Resources, Inc.

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N
W E
S

0 1,000 2,000 4,000 6,000

Feet

Mine Boundary:
Tom Van Bebber
Imagery Information:
-USGS 7.5-Minutes County DOQQ
mosaic Sierra County, 2009
Projection Information:
-New Mexico State Plane West, NAD 1927

Legend

Proposed Mine Permit Boundary

Figure 11-5
Proposed Copper Flat Permit Area with Air Photography

New Mexico Copper Corporation

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Table

Table 11-1

Permits and Approvals Required for the Copper Flat Mine

Permit/Approval	Approving/Granting Agency
Federal	
Plan of Operations	U.S. Bureau of Land Management
Nationwide Dredge and Fill Permit (Section 404)	U.S. Army Corps of Engineers
FCC License	Federal Communications Commission
MSHA Registration	Mining Safety and Health Administration
Stormwater Disposal Permit (National Pollutant Discharge Elimination System)	U.S. Environmental Protection Agency
State	
Mining Permit	New Mexico Energy, Mineral and Natural Resources Department-Mining Act Reclamation Bureau
Water Pollution Control Permits	New Mexico Energy, Mineral and Natural Resources Department-Mining Act Reclamation Bureau, Environmental Protection Agency
Surface Disturbance Permit (Air Quality)	New Mexico Environment Department - Air Quality Bureau
Permit to Construct (Air Quality)	New Mexico Environment Department - Air Quality Bureau
Permit to Operate (Air Quality)	New Mexico Environment Department - Air Quality Bureau
Permit to Appropriate Water	New Mexico State Engineer's Office
Permits for Dam Construction and Operations	New Mexico State Engineer's Office
Approval to Operate a Sanitary Landfill	New Mexico Environment Department-Solid Waste Bureau
Tailings Discharge	New Mexico Environment Department-Groundwater Bureau
Cultural Resources Clearance	State Historic Preservation Office

Source: SRK, 2010, Table 2.5.1.1