Eisenman Claims Perlite Prospect, Loraine District, Kern County, California

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Acknowledgement and Disclaimer

The information in this paper is taken largely from published sources. I have reproduced this material and present it pretty much as I found it, not trying to harmonize discrepancies in mine or geologic descriptions. I have changed verb tenses for readability and have used some paraphrase. I have expanded abbreviations or special characters with full text (e.g. feet instead of ft., inches instead of ") *Italics indicate quotations*. Authors of the original information are indicated at the end of each paragraph. Paragraphs without a citation are my own material. The maps in this report have been compiled and rectified from digital and paper copies of original sources that were made at different scales and in different geographic projections. Therefore, many of the maps had to be adjusted or stretched. They do not fit perfectly. Most are accurate to within 100 feet, but reproduction and projection errors can be as much as 300 feet for some maps. PLSS means Public Land Survey System. That survey data was obtained from the U.S. Bureau of Land Management website.

MRDS, 2011, Mineral Resources Data System, U.S. Geological Survey, https://mrdata.usgs.gov/mrds/. This database relies on records that, in many cases, are inaccurate or imprecise. For example, if a report describes a mine as being in "Section 9", with no other information, MRDS plots the mine location in the center of the section. If a mine is reported in "SW ¼" of a section, MRDS plots the mine in the center of that SW quarter-section. Where I could confidently adjust an MRDS location of a mineral deposit to features identifiable in aerial photographs or topographic maps, I did so.

Help me make this report better. If you have any photographs, memories or reports for this mine, please send them to me so I can incorporate in this paper.

Avenza. pdf

All the maps in this report are available as georectified .pdf files. These can be read in the field (without cell phone tower reception) on your smart phone with the Avenza.pdf app. It is downloadable at https://www.avenza.com/avenza-maps/

This application takes my maps and puts a dot on your cell phone or tablet screen to show you where you are as you explore the areas covered by my maps. The free version only lets you load 3 maps a at time. Georectified maps can be obtained from me by request.

LOCATION

31S 34E Sec. 22 MDM 35.21749 -118.31401
4 Miles north-east of Monolith (1949). Note: Location not confirmed by Troxel and Morton in 1958 (Troxel and Morton, 1961, p. 243).

PREVIOUS NAMES

HISTORY

Unknown

OWNERSHIP

Walter C. Eisenman, P.O. Box 6, Randsburg, California (1949)(Troxel and Morton, 1961, p. 243).

GEOLOGY

LORAINE DISTRICT

The Loraine district is underlain by. Mesozoic biotite hornblende quartz diorite and by roof pendants of pre-Cretaceous metasedimentary rocks. The quartz diorite is medium gray, equi-granular, medium grained, and, near contacts with roof pendants, is poorly to moderately foliated. The roof pendants arc composed of lavers of mica schist, quartzite. hornfels. and limestone. The largest roof pendent is a nearly continuous body, which in the Loraine district is one to one and a half miles wide and extends laterally several tens of miles from Tehachapi Creek on the south to Lake Isabela on the north. In the Loraine district the pendant trends north-northeast between Eagle Peak on the south to the old townsite of Piute. Numerous Tertiary rhyolite porphyry dikes have intruded the granitic and metamorphic rock throughout the district. The dikes range in width from a few feet to many tens of feet and are as much as several hundred feet long. Most of these dikes crop out as resistant ridge-forming masses that weather to a pale huff-yellow color, which contrasts with the predominantly reddish-brown color of the metasedimentary rocks and the knobby rounded outcrops of the granitic rocks. A. few Tertiary dikes of andesitic to dacitic composition are found mostly in the northeastern part of the district. Both types of dikes trend northwest to west-north west (Troxel and Morton, 1962, p. 42*).*

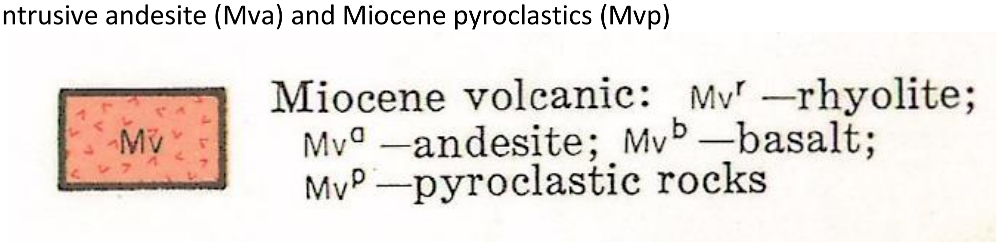
EISENMAN CLAIMS PROSPECT

Perlite suitable for the manufacture of light-weight aggregate, loose fill insulation, acoustical plaster, and other industrial purposes outcrops in a number of places in sec. 22, T. 31 S., R. 34 E., M.D. The perlite is dark gray and occurs as irregular flows associated with perlite breccia, rhyolite flows, tuffs, domes of dacite, and lacustrine sedimentary rocks of Miocene age (Tucker, Sampson , Oakeshott, 1949, p.249).

Dark gray irregular flows of perlite associated with perlite breccia, rhyolite flows, tuffs, domes of dacite, and lacustrine sedimentary rock s of Miocene age (Tucker, Sampson , Oakeshott, 1949, p.249, cited by Troxel and Morton, 1961, p. 243).).

Smith (1964, Figures 7 and 8 this report) mapped the area of the Eisenman Claims as intrusive Miocene andesite and pyroclastic rocks

Miocene intrusive andesite (Mva) and Miocene pyroclastics (Mvp)



To the northwest Smith mapped outcrops of Tertiary intrusive rhyolite (Tir):

Ti — Tertiary intrusive (hypabyssal) rocks: Ti^r—rhyolite; Ti^a—andesite; Ti^b—basalt

Dibblee and Minch (2008b) mapped the Eisenman Claims area as Miocene Andesite (Ta) between two elongated exposures of Kinnick Formation

Ta:

Ta	Tb	Tr	Td	Tf

VOLCANIC ROCKS

Volcanic rocks ranging from basalt to rhyolite, but mostly of intermediate composition, intrusive and extrusive; age, Tertiary, mostly if not entirely Miocene.

Ta *Andesite, greenish- to grayish-brown, weathers brown, porphyritic, phenocrysts of plagioclase (andesine), minor biotite and hornblende, aphanitic groundmass, widespread volcanic unit, thick flows and flow-breccias tongue out southward into Kinnick and Bopesta Formations; highest flow overlies Bopesta Formation and could be Pliocene*

Tb *Basalt, black, fine-grained, equigranular, microdiabasic, nonvesicular; not hard, weathers to black sand; composed of plagioclase (calcic andesine or labradorite), augite, locally olivine, iron oxide (magnetite); forms thick flows and sills intercalated in upper part of the Kinnick Formation and lower unit of Bopesta Formation*

Tr *Rhyolite, white to light tan, microcrystalline, massive to flow-banded, breaks into platy slabs, locally glassy to perlitic, composed of sodic plagioclase, potassic feldspar, minor quartz; forms flows or flow breccias within* **Ta**

Td *Dacite, intrusive, forms dikes and thin pods of dacite and andesite intrusive into pre-Tertiary crystalline rocks; similar in color and texture to* **Ta**, *although somewhat lighter colored and less porphyritic; thinner dikes felsitic; composition of dike rocks similar to* **Ta** *except for presence of quartz in* **Td**

Tf *Felsite, intrusive, light gray, weathers tan to brown, aphanitic to slightly porphyritic, rarely flow-laminated; some dikes vitreous at outer walls, with phenocrysts of plagioclase or flakes of biotite; mainly quartz latite, dikes and small plugs intrusive into pre-Tertiary rocks*

TERTIARY

Tk:

Tk

KINNICK FORMATION

Terrestrial pyroclastic rocks, lie unconformably on the Witnet Formation, (Buwalda, 1934, 1954); middle Miocene Phillips Ranch vertebrate fauna and early middle Miocene Tehachapi flora found in upper part; correlative with Walker Formation and lower part of Bena Gravels and its marine equivalents of early and middle Miocene age in the San Joaquin Valley foothills (Dibblee and Chesterman, 1953); age, middle Miocene

Tk *White to greenish-white tuff, tuffaceous sandstone, and tuff breccia; contains fragments of andesite and local interbeds of lacustrine tuffaceous or bentonitic clay and tuffaceous shale, locally siliceous, intertongues into andesite*

MINERALOGY

LORAINE DISTRICT

In the Loraine District, silver and gold ore present in quartz veins commonly, within or along the walls of the rhyolite dikes. This relationship suggests that the mineralizing solutions may have been a late phase of the intrusion of the dikes. Pre- mineral shearing, faulting. and sheeting provided channels for the emplacement of the veins. The veins also commonly extend from the rhyolite into schist or diorite, or lie wholly within them, as at the ***Ella and Atlas*** *mines. At the* ***Eisenman Claims Prospect****, a quartz vein* *strikes diagonally across a rhyolite porphyry dike to the edge of the dike, follows the contact for a few tens of feet, then swings into the quartz diorite where it splits or "horsetails" into minor fractures within a few feet. No known mineralization is associated with the dacite or andesite dikes (Troxel and Morton, 1962, p. 42).*

Wall-rock alteration in the Loraine District is pronounced in most of the silver and gold mines in the district. Kaolinization commonly extends a few tens of feet into hath walls of the vein -and alteration has been so intense that, in some mines, the nature of original wall rock is obscure. The altered rock is very weak and workings in it are held open only with difficulty, especially when it is wet (Troxel and Morton, 1962, p. 42).

The veins of the Loraine District consist principally of white to blue-gray quartz containing pyrite, cerargyrite, bromyrite, argentite, and free gold. Tetrahedrite and proustite also have been noted. Hydrous iron oxides and melanterite are common in oxidized zones near the surface. At the ***Minnehaha mine*** *large crystals of scheelite associated with free gold are in a vein in schist and limestone (Troxel and Morton, 1962, p. 42).*

Zinc, lead, and copper have been mined in the Loraine District at one locality in the district, the ***Blackhawk mine****. There, aurichalcite, sphalerite, goslarite, hemimorphite, galena, cerussite, chalcopyrite. and malachite are in a gangue of calcite and quartz, with associated pyrite, arsenopyrite, and pyrrhotite. The deposit consists of irregular replacement masses along a contact zone between metamorphic rocks and quartz diorite(Troxel and Morton, 1962, p. 42).*

In the Loraine District, several high-grade, closely spaced, and steeply dipping barite veins crop out in limestone on a sharp, high ridge between ***Studhorse and Hog Canyons on Ritter Ranch****. Two antimony prospects,* ***the Wiggins and Studhorse Canyon*** *deposits, have each yielded a few tons of ore. Stibnite and yellow antimony oxides are in steeply dipping, narrow fissure veins in highly bleached and altered granitic rock* (Troxel and Morton, 1962, p. 42).

EISENMAN CLAIMS PROSPECT

Idle prospect, no production (Troxel and Morton, 1962, p. 243).

DEVELOPMENT

LORAINE DISTRICT

Silver and gold valued at more than $600,000 has been yielded by the Loraine district since mining began in the 1890s. The tungsten, antimony, lead, zinc, and copper output has been valued at approximately $150,000. In 1959, a deposit of barite was being developed (Troxel and Morton, 1962, p. 42).

EISENMAN CLAIMS PROSPECT

No information

REFERENCES AND BIBLIOGRAPHY

Brown, G. C., 1916, Kern County: California Mining Bureau Report 14, p. 471-523. See p. 491.

Dibblee, T.W. Jr. nd J.A. Minch, 2008a, Geologic map of the Edison & Breckenridge Mountain 15 minute quadrangles, Kern County, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-419, scale 1:62:500.

Dibblee, T.W., and Minch, J.A., 2008b, Geologic map of the Cummings Mountain & Techachapi [Tehachapi] 15 minute quadrangles, Kern County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-397, scale 1:62,500.

Louke, Gladys, 1964, Geology of the Emerald Mountain Quadrangle, California Division of Mines and Geology, Unpublished map and report in support of geologic mapping for the Bakersfield 250K Sheet, Geologic Atlas of California, 19p. and map.

Tucker, W. B., and Sampson, R. J., 1933, Gold resources of Kern County, California: California Journal of Mines and Geology, vol. 29, Parts 3 and 4, p. 271 -334. See table on p. 273t and 297

Tucker, W. B.; Sampson, R. J., and Oakeshott, G. B., 1949, Mines and mineral resources of Kern County, California: California Journal of Mines and Geology, vol. 45, p. 203-297. See Table, p. 257t.

MRDS, 2011, Mineral Resource Data System, U.S. Geological Survey

Troxel, Bennie W. and Paul K. Morton, 1962, Mines and Mineral Resources of Kern County, California Division of Mines and Geology, County Report No. 1., 370 p. Gold Table, p. 144.

MAPS

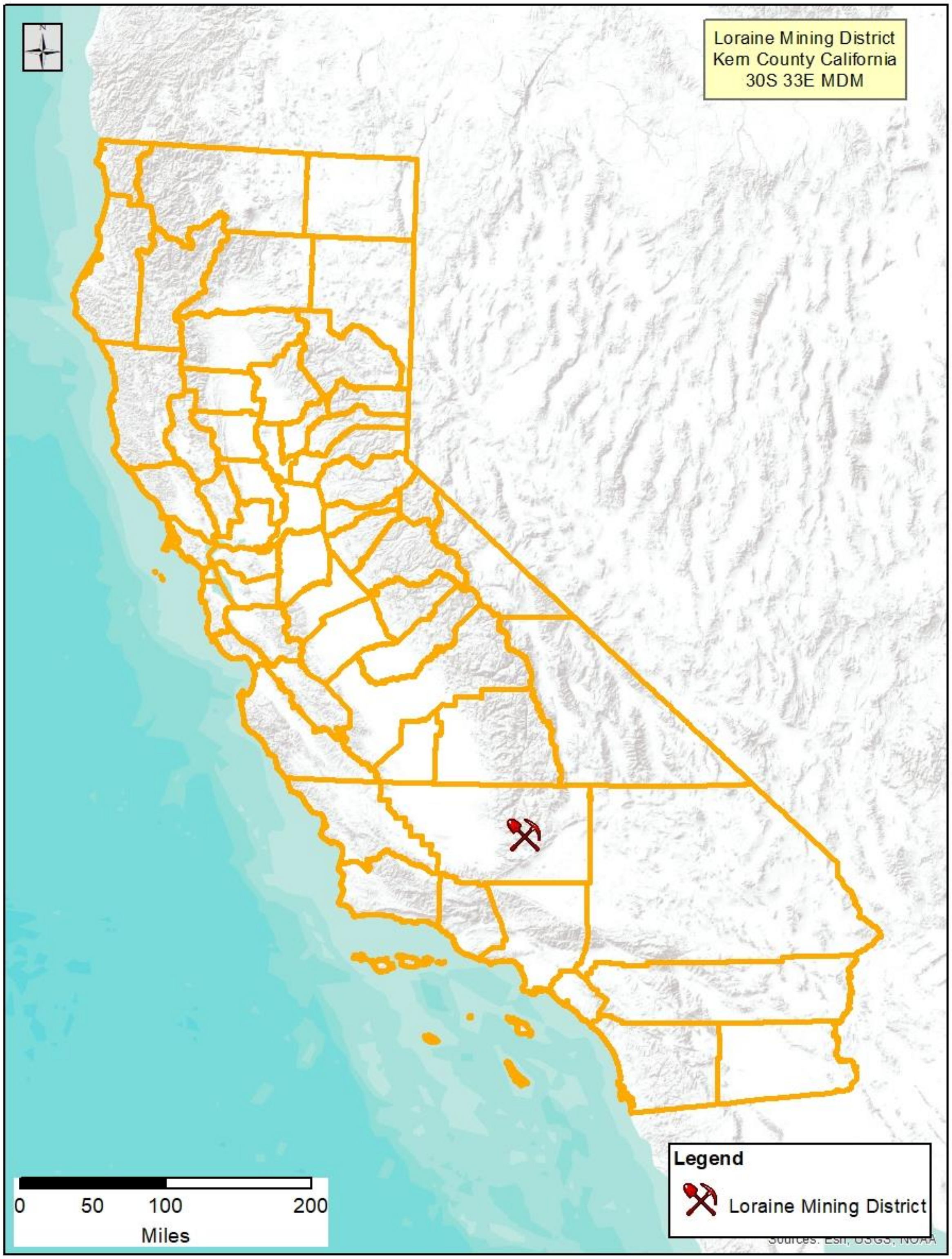


Figure 1. Location map of the Loraine Mining District in California.

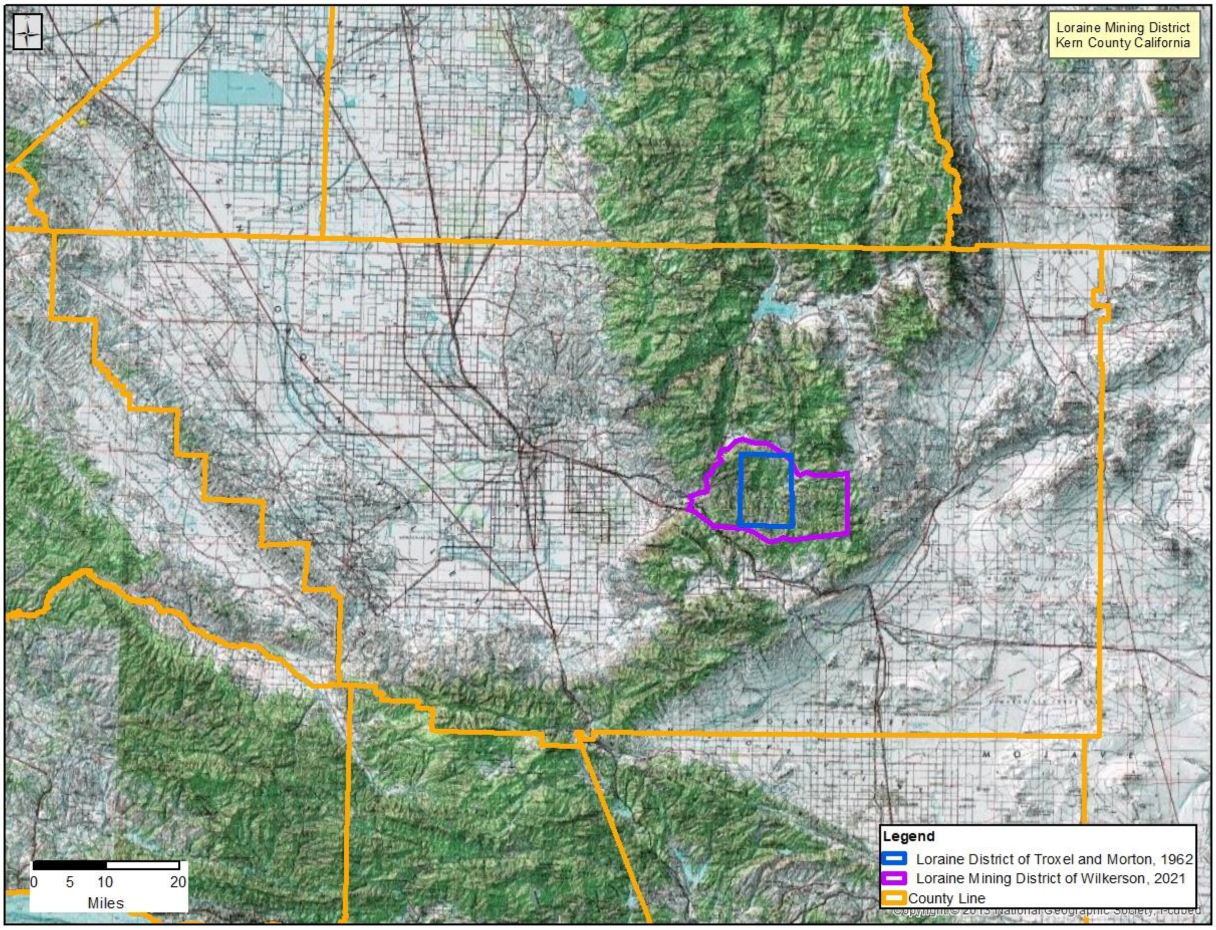


Figure 2. Location map of the Loraine Mining District in Kern County.

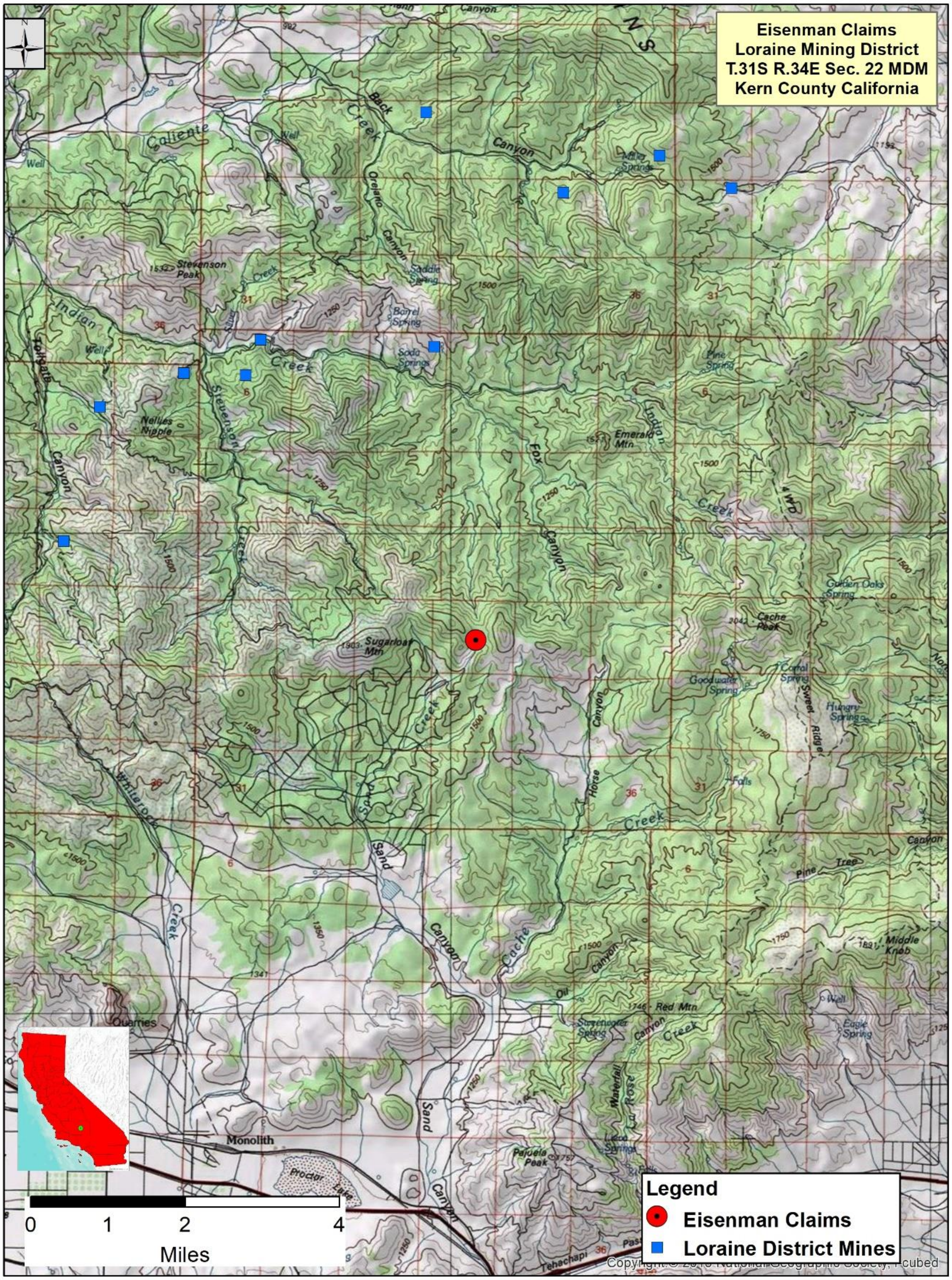


Figure 3. Regional topographic map of the Eisenman Claims Prospect. Scale 1:250K.

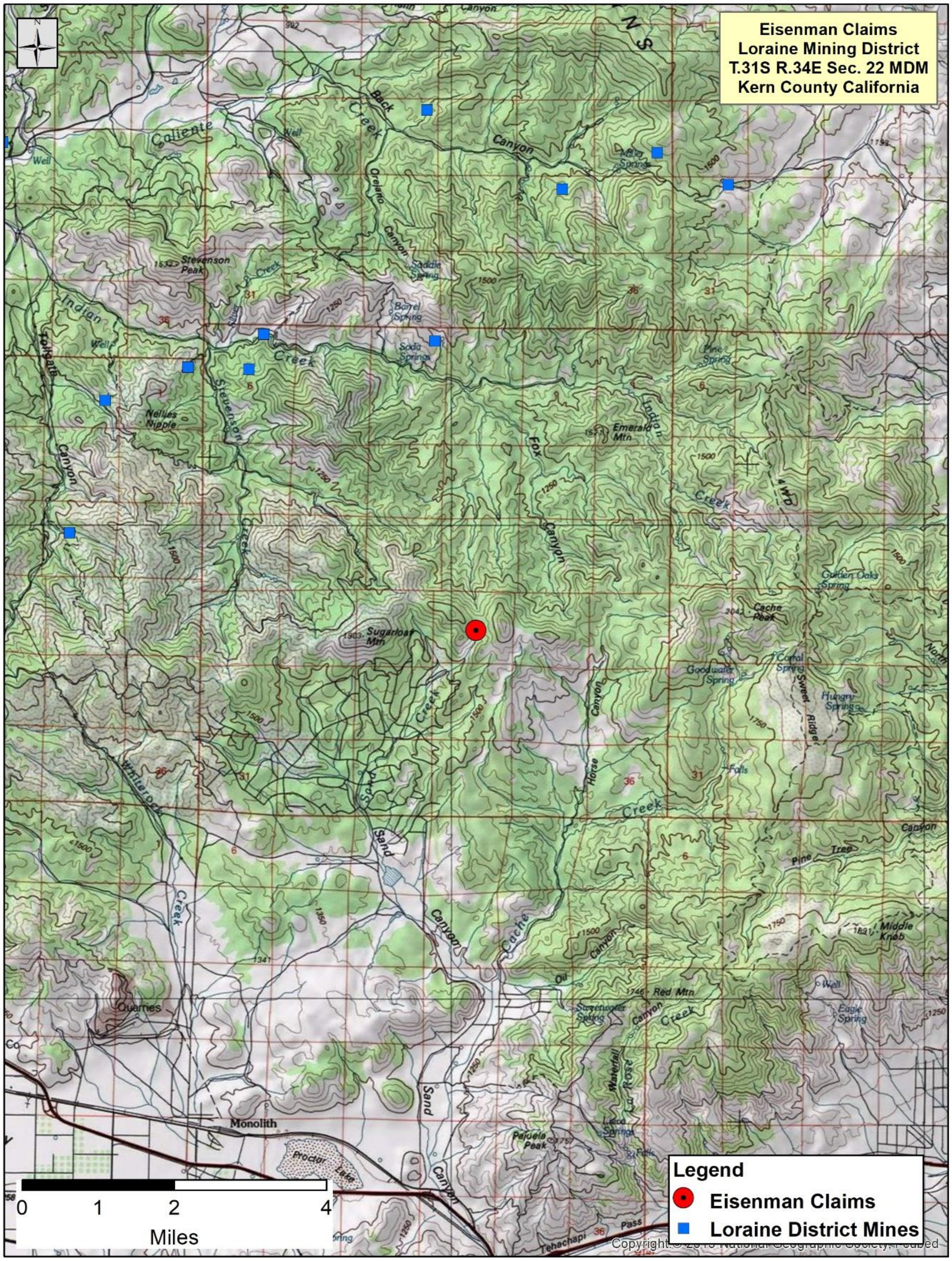


Figure 4. Topographic map of the Eisenman Claims and surrounding areas. Scale 1:100K

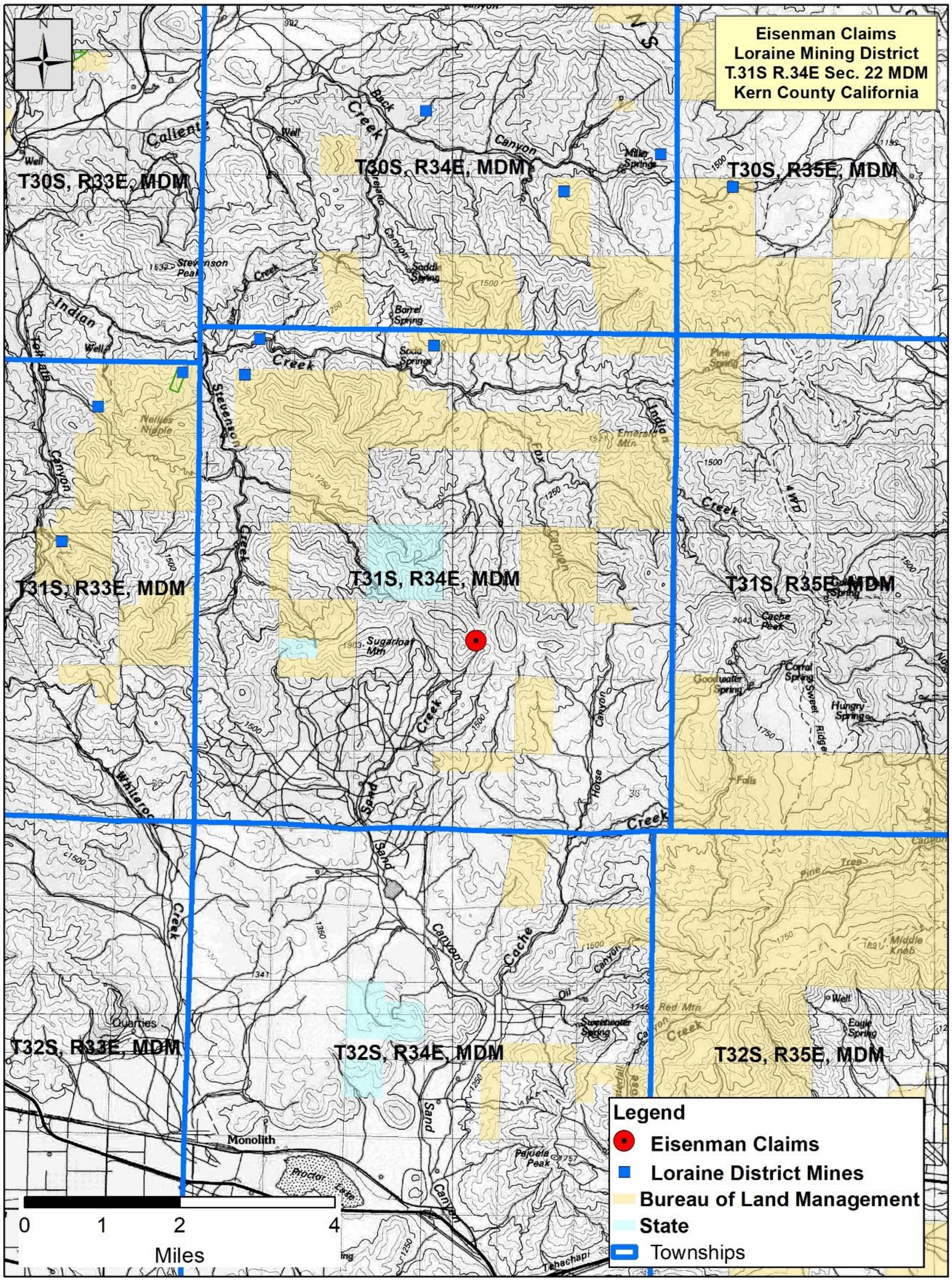


Figure 5. Land status map for the Eisenman Claims Prospect. Data from USBLM.

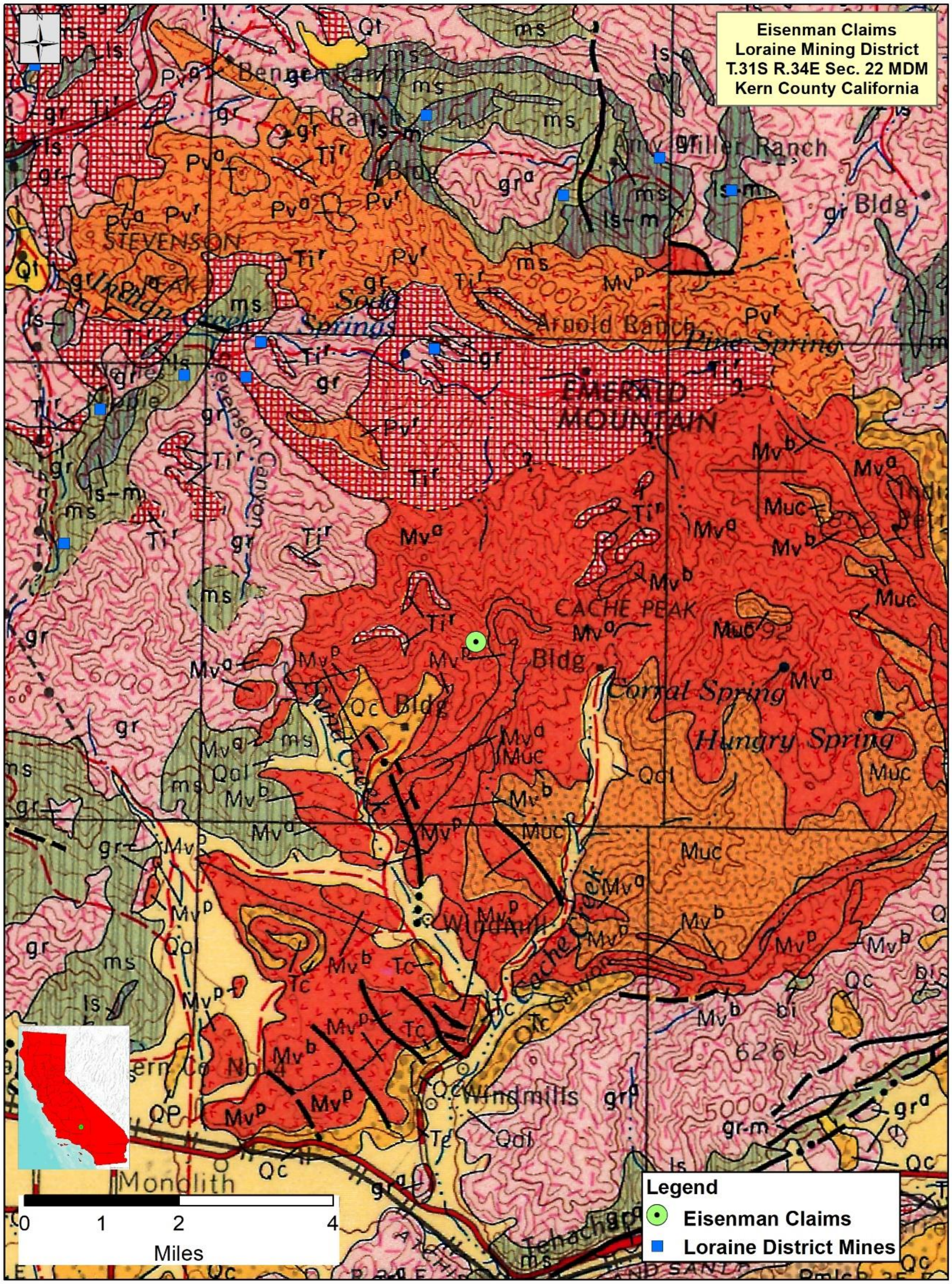


Figure 6. Area geologic map of the Eisenman Claims Prospect. Scale 1:100,000.

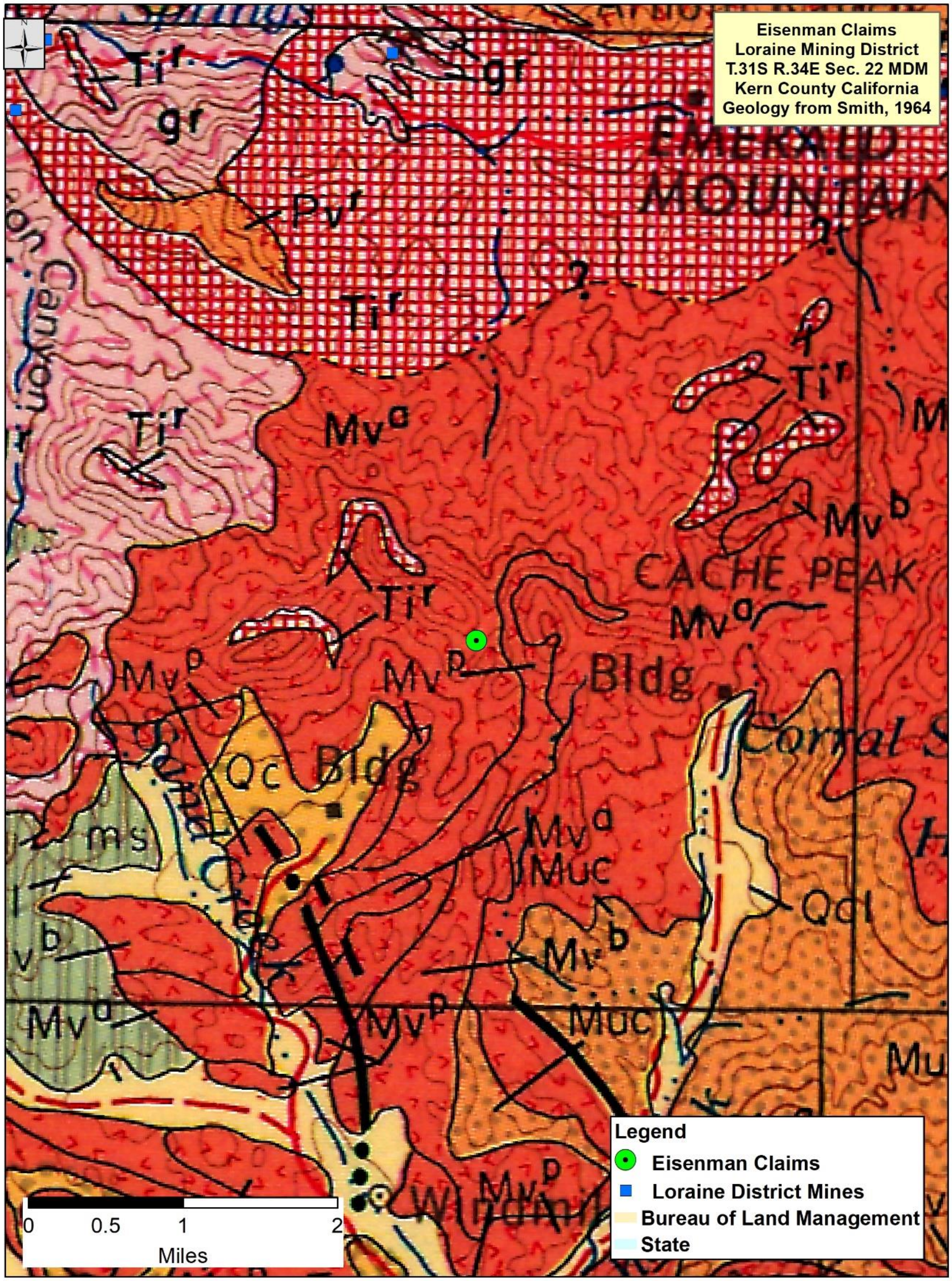


Figure 7. Detail of regional geology. Scale, 1:50K.

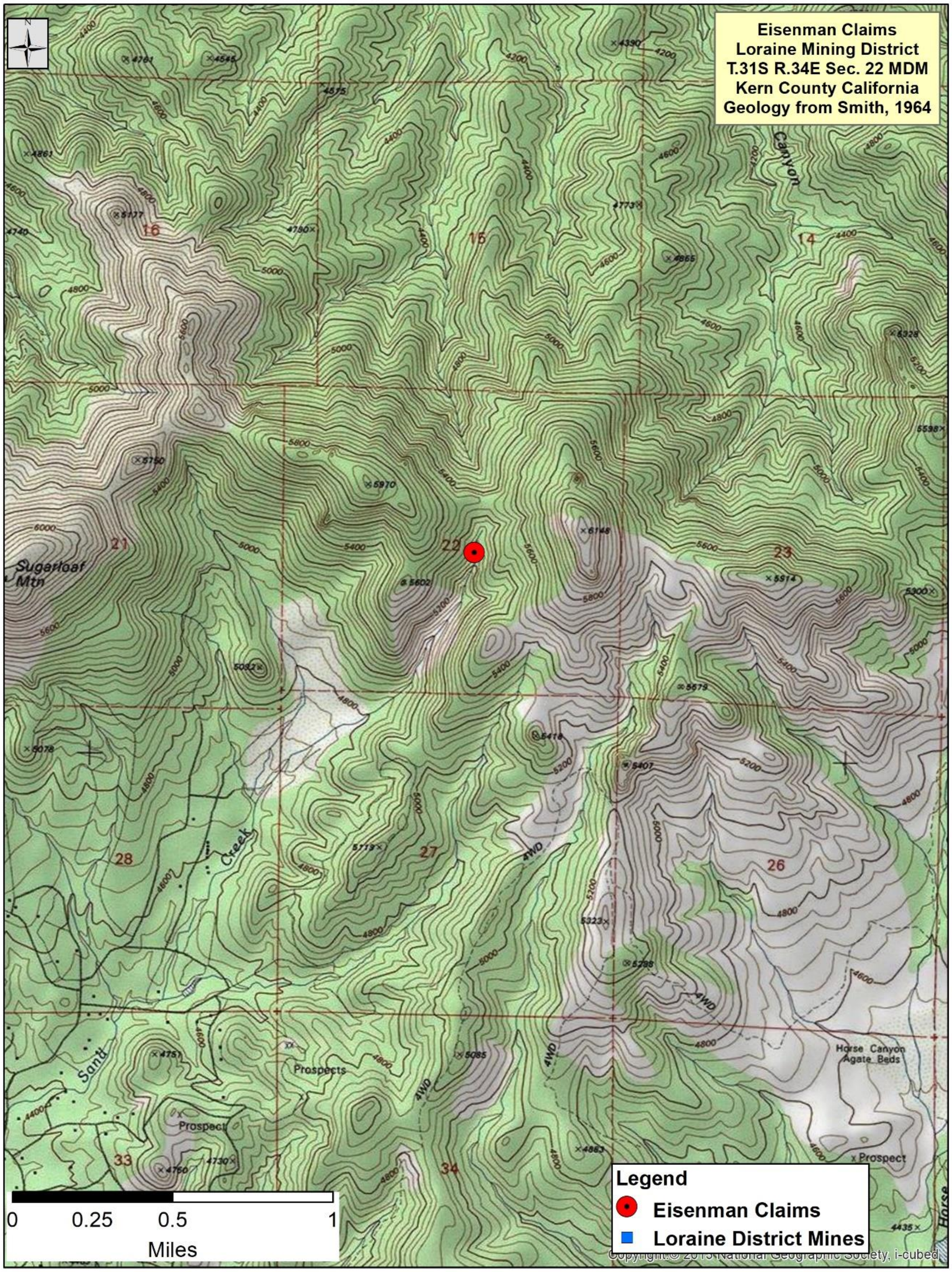


Figure 8. Location map of the Eisenman Claims Prospect. Scale 1:24,000.

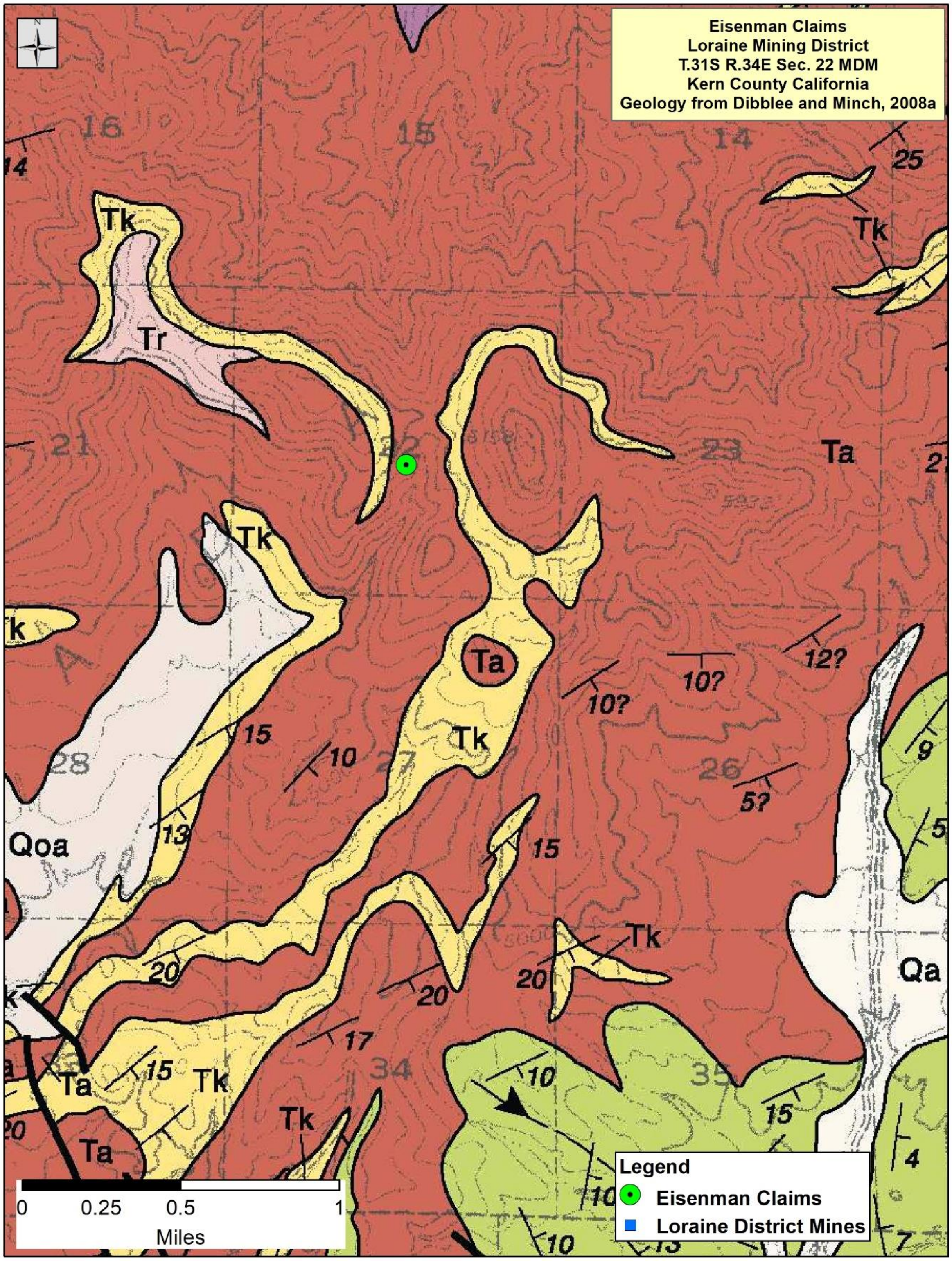


Figure 9. Geologic map of the Eisenman Claims Prospect. Scale 1:24,000.

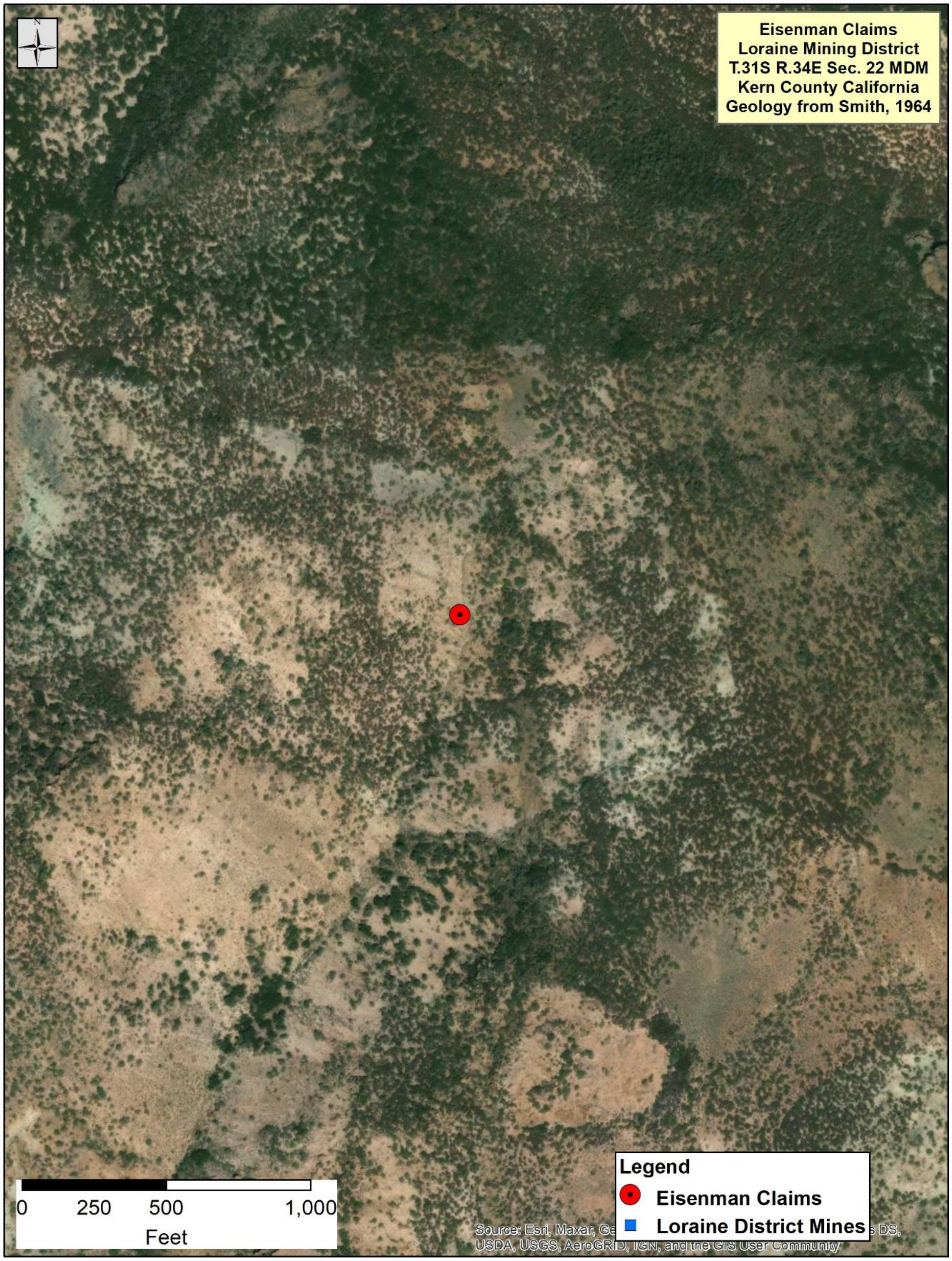


Figure 10. Aerial photograph of the Eisenman Claims Prospect. From ESRI, 2021.Scale, 1:5,000