Building 20 - Federal Center
Denver 25, Colorado

July 1, 1963

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: OME-6296 (Silver-Gold-Rare Earths)
C. Pierce & W. Pierce
(Patsie, Helen, and Marion Claims)
Carey County, Colorado

Attached are the original and two copies of the Report of Examination by T. M. Romslo dated June 1963.

The field examiner believes that the chances are poor that the exploration of this property would result in the discovery of a significant amount of silver and he recommends that the application be denied.

Further search for this vein in the volcanics is in the nature of wildcat prospecting and not in the realm of true exploration. I concur with the field examiner and recommend that this application be denied.

Original signed

Hugh M. Connors

Attachments

cc Mineral Resources, DFC
OME-6296
Chron
HMC/lm

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado

OME
DEPARTMENT OF THE INTERIOR
JUN 7 1963
REGION III
DENVER, COLORADO

June 4, 1963

Mr. John Barrett, Gen. Mgr.
Key Atomic Minerals Corp.
P. O. Box 146
Canon City, Colorado

Re: OME-6296 (Silver-Gold-Rare Earths)
C. Pierce & W. Pierce
(Patsie, Helen, and Marion Claims)
Ouray County, Colorado

Dear Mr. Burrett:

Please advise this office by return mail the approximate date that you and Mr. Alexander will submit the map, production data, and other information concerned with the captioned application.

The information in question was to have been submitted, as I recall, a few days after the field investigations were made, May 23, 1963.

Sincerely yours,

T M Romslo

T. M. Romslo
Acting Field Officer, OME
Region III

cc Mr. Charles Pierce and
Mr. William R. Pierce
1327 Sherman Street
Canon City, Colorado

June 6 - 1963

Dear Mr. Romslo:

I have not seen Mr. Alexander since we last talked with him but I expect to be in Ouray (Ouray)

Cc: Lindy

Monday, June 10th, and I will get the necessary information and forward to you.

Sorry you have been delayed.

Sincerely yours,

John Barrett

UNITED STATES
DEPARTMENT OF THE INTERIOR
STEWART L. UDALL, SECRETARY

OFFICE OF MINERALS EXPLORATION

REGION III

OME-6296

C. PIERCE & W. PIERCE

Patsie, Helen, and Marion Claims

OURAY COUNTY, COLORADO

Silver, Gold, and Rare Earths

Examination Report

by

T. M. Romslo, Mining Engineer, Bureau of Mines

June 1963

CMB-6296

C. PIERCE & W. PIERCE

Patsie, Helen, and Marion Claims

Ouray County, Colorado

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C. PIERCE & W. PIERCE
Patsie, Helen, and Marion Claims
Ouray County, Colorado

INTRODUCTION, SUMMARY, AND CONCLUSION

Mr. Charles Pierce and Mr. William R. Pierce, brothers, applied to the Office of Minerals Exploration, April 2, 1963, for financial aid in exploration for silver, gold, and rare earths on the Patsie, Helen, and Marion claims, Ouray County, Colorado. The application was assigned Docket No. OME-6296.

The applicant's proposed exploration consisted of extending an adit an estimated 450 feet, driving a new adit 350 feet, diamond drilling 1,000 feet, and using a bulldozer an estimated 200 hours to improve roads, level sites for buildings, and trench across favorable zones. The proposed work would cost an estimated $100,000.00. A revised exploratory program costing an estimated $50,000.00 was submitted by the applicant before the incomplete application was referred to Region III for a field examination, if deemed necessary, and recommendations. The revised program would include all the originally proposed work except the diamond drilling.

The field investigations were made by the writer May 23, 1963, in the company of the applicant's representative, Mr. John Barrett, General Manager, Ray Atomic Minerals Corporation, P. O. Box 146, Canon City, Colorado. The investigations were extended to the Lost Day claims which cover a contiguous block of geologically related ground.

The Patsie mine and the Lost Day mine have each produced a small

tonnage of high-grade lead-silver ore from near-surface deposits. The deposits occur in landslide material that covers an extensive area, which is underlain by volcanic rocks. Ore produced by the Patsie mine occurred in an irregular and crumpled vertical vein ranging from 8 inches to 4 feet thick. Mineralogically similar ore produced by the Lost Day mine, occurred irregularily in what appeared to be sections of an overturned vein.

Additional deposits similar to those worked by Patsie and Lost Day mines may exist on the Applicant's property, but none were observed during the field investigations.

Other mines in the Silverton region have produced high-grade lead-silver ore from the near-surface zones of veins in volcanic rocks. Deeper ores from these veins contained less than 10 ounces silver a ton.

The chances are poor that exploration of the Applicant's property would result in the discovery of a significant amount of silver. No mineralized zones are known to occur in the area of the proposed new adit. Because the Patsie vein does not occur in situ, and has been transported an unknown distance and direction from its natural location, to explore for the vein by extending the existing adit would be a pure wild-cat venture. Furthermore, if, by chance the Patsie vein could be found deep in the volcanic rocks, there is reason to believe that the silver content would be low and the vein would be narrow.

Denial of the application is recommended.

ACKNOWLEDGMENTS

Acknowledgment is made of the services rendered by Mr. John Barrett, and Mr. E. A. Alexander. Mr. Barrett, supplied field transportation, acted as guide, and furnished general information. Mr. Alexander, owner of the Lost Day claims, furnished production data and historical information.

Much information included in this report was obtained from the following publications by U. S. Bureau of Mines engineers.

Wilfley, C. R., Lost Day Mine, Ouray County, Colo., War Minerals Memorandum, 1943.

William H. King and Paul T. Allsman, Reconnaissance of Metal Mining in the San Juan Region, Ouray and San Miguel Counties, Colo., I. C. 7554, pp. 45 and 46, March 1950.

Young, W. E., Lost Day and Patsie, Summary Report of Investigations, Aug. 9, 1959.

LOCATION AND ACCESSIBILITY

The Patsie, Helen, and Marian claims are in Sec. 22, T.43N., R.7W., N.M.P.M., Red Mountain district, Ouray County, Colorado. (fig. 1) The claims are about eight miles south of Ouray, Colorado, in a moderately rugged area on the steep western slope of Red Mountain ridge. Altitudes on the claims range from about 10,800 feet to 12,000 feet above sea level. The area adjacent to the claims is one of great relief with altitudes ranging from 9,800 feet on Red Mountain creek to 13,000 feet on Red Mountain ridge.

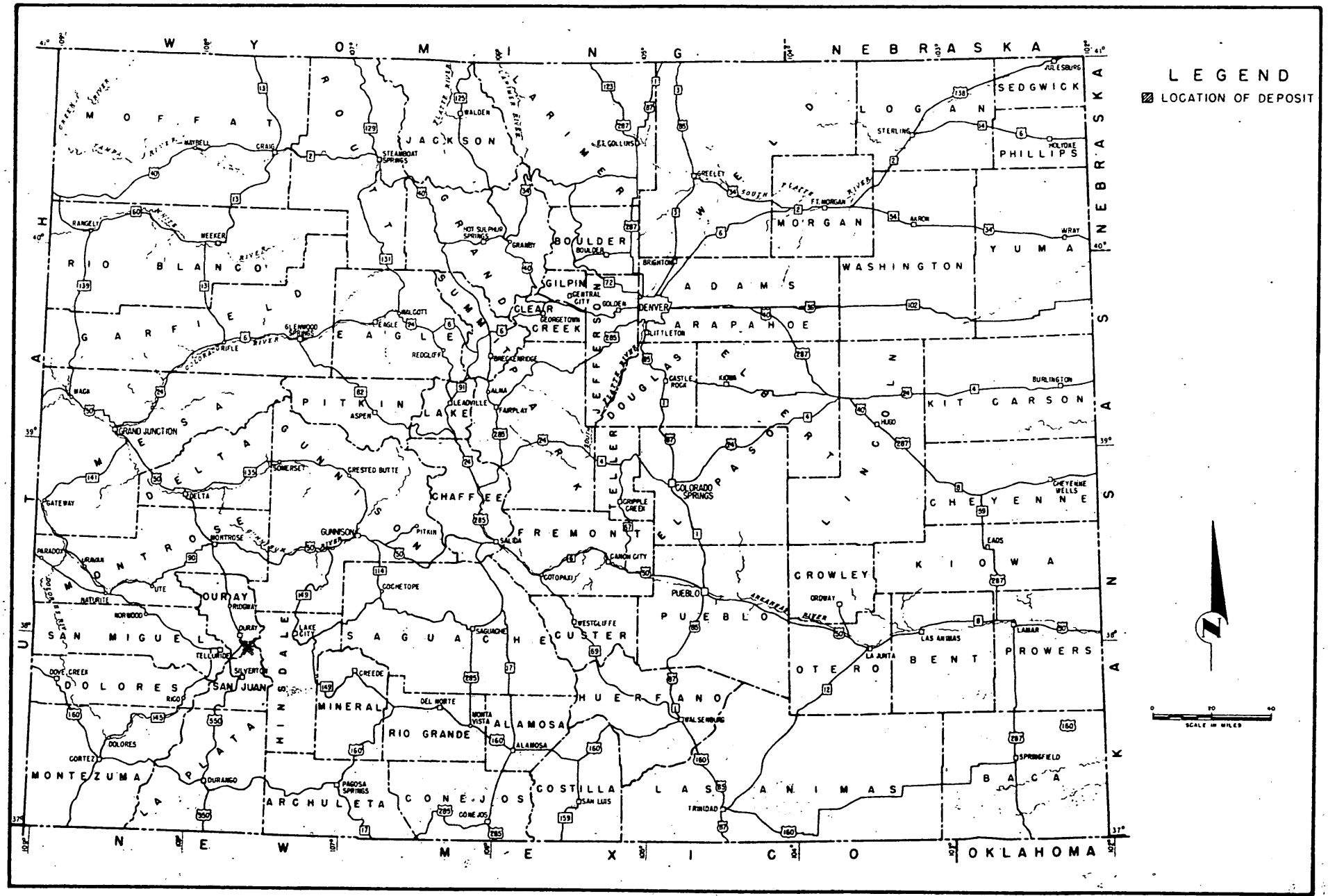

FIG. 1 - LOCATION MAP - C. PIERCE & W. PIERCE, PATSIE, HELEN, AND MARION CLAIMS, OURAY COUNTY, COLORADO, OME-6296

The claims may be reached from Ouray by traveling southward 8.1 miles on U. S. Highway No. 555, and thence eastward 0.2 mile on the signed "Gray Copper Gulch" dirt road. Here, the road to the claims turns left out of the gulch, and winds steeply upslope 2.2 miles to the portal of the adit on the Helen No. 2 claim. The road continues winding upslope for about one mile to the open cuts on the Patsie and the Lost Day claims. Use of 4-wheel drive vehicle is necessary, and local inquiry as to the accessibility of the property is recommended.

The summers are cool, and the winters are long and cold, with considerable snowfall. Snowslides, which are frequent in the general area, and are known to have occurred on the claims.

HISTORY AND PRODUCTION

The Lost Day claims, and the Patsie claim, were located shortly after 1900 by Jacob Alexander, and J. C. Gibson and partners. During the period 1902 to 1906, Jacob Alexander, produced from the Patsie claim, about 85 tons of ore containing a reported 30 percent lead and 30 ounces silver a ton. In 1916 and 1917 he mined and shipped from the Lost Day No. 1 and the Patsie claims a total 1032 tons of ore assaying 45.4 percent combined lead and zinc. The silver content of this ore is unknown. The Lost Day claim was next worked in 1942 by Mr. James Braden and Mr. Earl Alexander, who inherited the property from Jacob Alexander, his father. They produced from the Lost Day claim 34 tons of ore assaying 15.8 percent lead and 9.5 ounces silver a ton. All ore produced through 1942 came from surface exposures, tunnels and pits.

The next operations on the Lost Day and Patsie claims are described by King and Allaman.[1]

> The Lost Day mine, ... was being operated during 1947 by Ben H. Simpson, 804 Chipeta Avenue, Grand Junction, Colo. Mr. Simpson has a lease with an option to purchase one-half interest from the owner, Earl A. Alexander, of Ouray, Colo.
>
> The area is a landslide of considerable extent, and previous production is from that portion of the vein within the slide. Mr. Simpson began work with a bulldozer in an effort to expose the deposit in situ. During this operation, 100 tons of ore was recovered from pods that remained intact within the slide material.
>
> It is possible that the northerly trending vein, which dips easterly into the hill at about 30° to 45°, represents the undisturbed deposit. However, it may also be possible that it is in a larger, more consolidated mass of landslide material. Additional work will be required before the question is solved definitely.
>
> The 20 feet of drift completed disclosed a vein averaging 5 to 6 feet in width, composed almost completely of carbonates, locally termed "sand carbonates," with some sulfides. Thus far the ore has been broken down with picks or bars, and blasting has not been necessary. About 200 tons of ore has been shipped, including that in transit during early December 1947. The average of assays indicates a content of 10 to 12 ounces silver and 0.02 ounce gold per ton, 30 percent lead, no zinc or copper, 5 percent iron, and 7 percent sulfur.
>
> The ore is being shipped to the American Smelting & Refining Co. plant at Leadville, Colo.
>
> The development of consequence has been the attempt to locate the vein in place by removal of the slide material. The steep mountain side afforded ample disposal space and greatly facilitated removal of material with that type of equipment. Mr. Simpson estimates that 75,000 yards of material has been removed by this method. The very short amount of drifting is not sufficient to determine the attitude of the deposit, nor will it more than suggest the type of future development. However, the operators plan to continue work during the 1948 season, which probably

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1/ Cited under Acknowledgments, p. 4.

will open sometime in May or June depending on the ability to remove snow from the roadway. Construction of ore bins and storage facilities will receive consideration early in the coming season, as will certain road improvements.

Open pit operations were extended to the Patsie claim late in 1947, and were continued on the Patsie and Lost Day claims through the 1955 working season. In 1949, Mr. Young[2/] visited the properties and reported a crew of six men were driving an adit on the Patsie vein, and sorting ore from the crumpled and broken vein as a bulldozer removed the wall rock and waste. No drilling and blasting was required.

The 1947 to 1955 production from the Lost Day and Patsie claims, according to U. S. Bureau of Mines records, total 1998 tons of ore with a weighed average content of 21.8 percent lead, and 0.12 percent zinc, 0.02 percent copper, and 44.9 ounces silver and a trace of gold, per ton. These records show production from each claim except from 1951 through 1953. Available settlement sheets indicate that the claims each yielded about one-half of the 1998 tons, and that the silver content of the Lost Day and Patsie ores was 57.9 ounces and 31.9 ounces a ton, respectively. They also indicate that the Lost Day and Patsie ores are mineralogically similar.

Neither claim was active in 1956. In 1957, the May Atomic Minerals Corporation purchased the Patsie and Helen claims from Mr. Alexander, and sampled several small mineralized zones in the bottom of Patsie open pit. The combined samples reportedly weighed 250 pounds and assayed 6.0 percent lead, and 104 ounces silver a ton. The adit, which the Applicant proposes to extend, also was started, and the Marian claims were located. In 1958, the corporation extended the adit to a total length of 784 feet, and then, for reportedly financial

2/ Cited under Acknowledgments, p. 4.

reasons, stopped operations and removed equipment and supplies from the property.

Since 1958, only assessment work has been done.

The total production from the Lost Day and Patsie claims probably is not much more than the recorded 3149 tons.

EXTENT AND OWNERSHIP OF THE PROPERTY

The property comprises 16 unpatented lode mining claims in two groups (fig. 2). Three of the claims, the Patsie, Helen, and Helen no. 2, make up one of the groups, and the other 13 claims, the Marian and the Marian nos. 1 through 12, make up the other group.

The Applicant, Mr. Charles Pierce and Mr. William R. Pierce, 1327 Sherman Street, Canon City, Colorado, acquired the above listed 16 claims by a lease agreement dated January 1, 1963, with the owner of the claims, the Key Atomic Minerals Corporation, P. O. Box 146, Canon City, Colorado. Mr. John Barrett, who represented the Applicant during the OME field investigation, is the corporation's general manager.

The Applicant reported, prior to the field investigations, that the Key Atomic Minerals Corporation was attempting to purchase the Lost Day, no. 1 and 2, claims from the owners, and that the corporation would lease the claims to them, if acquired.

PRESENT STATUS

The property, which has been inactive since 1958, contains no buildings, nor equipment other than a bulldozer and one mine car. The bulldozer was recently used to improve access roads on the property

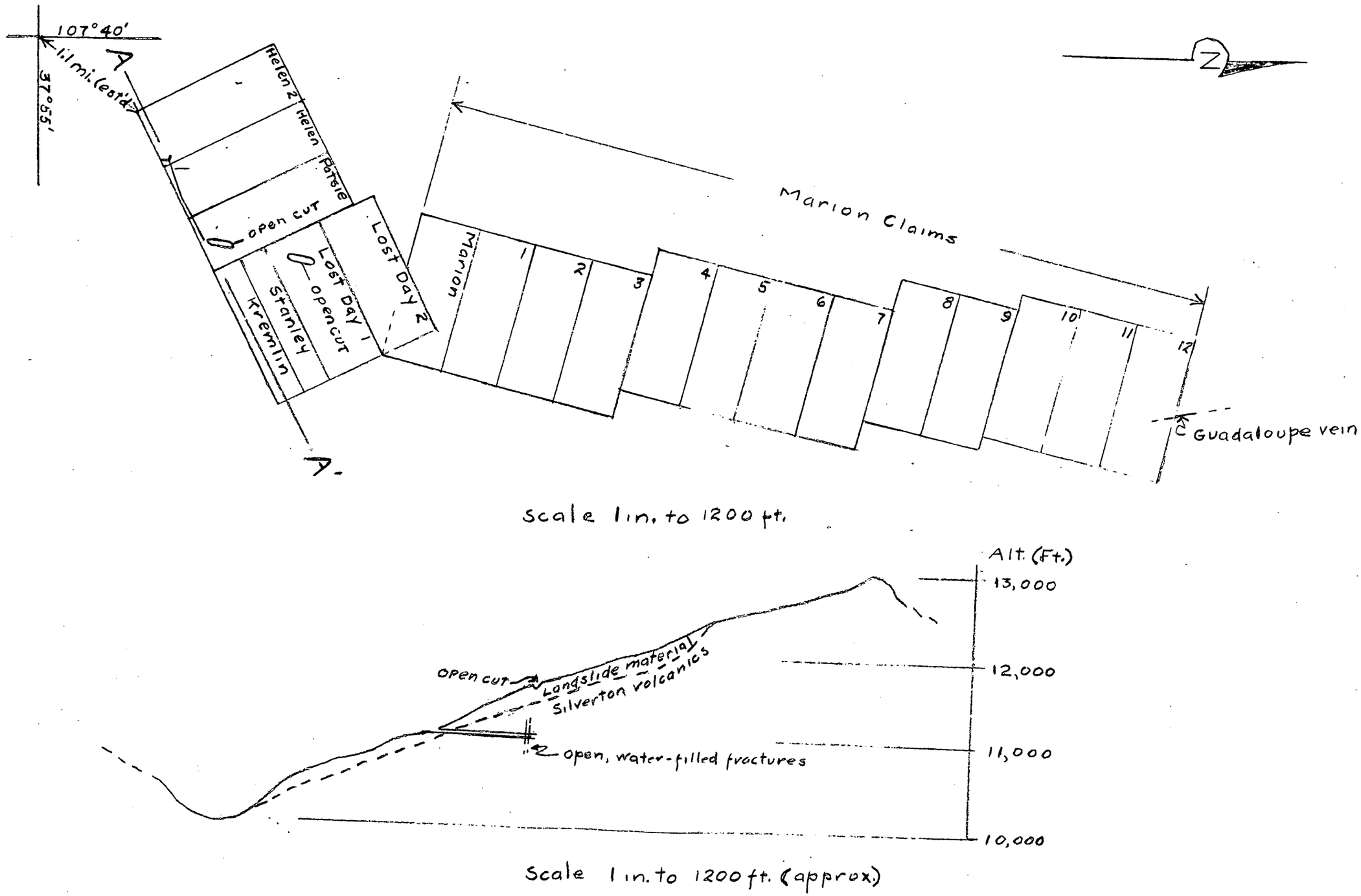

FIG. 2 CLAIM MAP AND GEOLOGICAL SECTION, PATSIE, HELEN, AND MARION CLAIMS, OURAY COUNTY, COLO., OME-6296

and remove some debris from the Patsie open cut. It reportedly will soon be used again for additional road work, and for exploratory trenching in the area north of the Lost Day open pit.

The principal mine workings consist of two trenches and a 784-foot adit (fig. 2). The trench on the Lost Day claim is about 300 feet long, 8 feet wide at the bottom, and averages about 40 feet deep. The trench on the Patsie claim is about 200 feet long, 8 feet wide at the bottom, and averages about 30 feet deep. Fragments of rock, mainly one inch to one foot in diameter, covers the bottom, and the steeply sloping sides of the trenches. Evidence of the orebody noted by the writer was confined to a large fragment of sheared, altered and iron-stained rock.

The adit is about 5- by 7-feet in cross section. Track, and air-, water-, and ventilation-pipe are installed throughout the adit. The adit is timbered, with 8- by 8-inch sets, a distance of about 160 feet from the portal. The remainder of the adit penetrates a competent rhyolite porphyry. An estimate of 50 g.p.m. of water enters the adit through vertical, open cross fractures near the face of the adit.

GEOLOGY AND ORE DEPOSITS

The geology of the western portion of the San Juan region is the subject of numerous papers. Among those who have described and mapped the geology are; Cross, Howe, and Ransome[3/], and Kelley[4/].

3/ Cross, W., Howe, E., and Ransome, F. L., Silverton, Colorado U. S. Geo. Sur. Geol. Atlas, Folio No. 120,1905

4/ Kelley, V. C., Geology, Ore Deposits and Mines of Mineral Point, Poughkeepsie and Uncompahgre Districts, Ouray, San Juan and Hinsdale Counties, Colo., Colo. Sci. Soc. Proc., Vol. 14, No. 7, 1946

During Tertiary time in the Silverton area, thick sections of volcanic rocks were deposited on the floor of truncated Precambrian, Paleozoic, and Mesozoic rocks. The volcanic rocks, known as the Silverton series, consist of nearly horizontal strata of latites, andesites, and rhyolites which occur as flows, tuffs and breccias. The Silverton volcanics have been subdivided into Picayune andesite, Eureka rhyolite, Burns latite, and Pyroxene andesite. In the area of the Lost Day and Patsie claims landslide material covers the volcanic rocks (fig.2). The landslide area is about 1 mile wide, and extends about 1/4 mile south and 1 3/4 miles north from the Patsie claim.

Mineralized zones in the Silverton region occur as lodes, stocks and masses, and replacements. The lode or fissure type deposits, ranging in thickness from a few inches to 3 or 4 feet, are most numerous. Strike and dip lengths vary greatly. The attitude and mineralogy of some of the deposits are similar to those of the Patsie deposit. Copper, copper-zinc, lead, and lead-zinc are the most common type of ores. Lead ores containing considerable silver are generally confined to near-surface deposits of either anglesite or cerussite. Below the zone of oxidation and enrichment, the depth of which ranges widely, such deposits normally contain relatively minor amounts of silver associated with galena. Deep ores averaging more than 5 ounces silver a ton are uncommon.

Ores produced from the Lost Day mine, according to Kelley[5], occur as masses of cerussite in landslide material that is probably post-Durango and pre-Wisconsin in age. The Bureau of Mines examiners[6]

5/ Cited in footnote 4. 6/ Cited under Acknowledgments, p. 4.

found that the cerussite in the Lost Day mine and the Patsie mine occurred as irregular shaped bodies. In the Lost Day mine the orebodies were distributed over a definite horizon resembling a bedded deposit that appeared to represent the oxidized portion of an overturned block of landslide material. They also found the cerussite similarily deposited in the Patsie deposit, which was described as a crumpled and irregular, vertical vein in landslide material. Mr. Alexander[7], reported that the vein at the bottom of the open cut ranged in thickness from 8 inches to 3 or 4 feet, and that some galena was associated with the cerussite. Also, that segments of the vertical vein dip 60° east.

The adit which the Applicant proposes to extend penetrates landslide material for an estimated 150 feet. The remainder of the adit is in rhyolite porphyry. The porphyry is unaltered, and is appreciably fractured only near the face of the adit. These fractures, crosscut the adit, are open, and show no evidence of ground movement. The open fractures indicate that a probably strong, northerly trending fault occurs not very far ahead of the present face of the adit.

In the area of the proposed adit on the Marion claim, the single mineralized zone that had reportedly been located, but not sampled, could not be found by Mr. Barrett.[8] The mineralized zone is reportedly located along the strike of the Patsie vein (about N.° 10°E.), which the Applicant apparently believes persists northerly to Guadaloupe mine (fig. 2). Kelley[9] says the vein of the Guadaloupe vein strikes

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7/ and 8/ Cited under Acknowledgments, p. 4.

9/ Cited in footnote 4.

N.5° 10°W. and dips 65° - 80°E., and that near the surface it yielded a small amount of high-grade copper-silver ore. The operation was abandoned, when the vein in depth was found to contain only lead and zinc, whereas silver and copper had been expected. Mr. Hazen[10/], reports, that a small pile of ore on the dump of an adit that cut the vein in depth, "assayed 0.005 ounce gold and 0.45 ounce silver per ton, 0.1 percent copper, 2.5 percent lead, and 5.55 percent zinc."

PROPOSED EXPLORATION

The originally proposed exploratory program is described in the application, which was reportedly prepared by Elmer V. Rheinhardt, geologist, Grand Junction, Colorado. It would include the extension of the existing 784-foot adit an estimated total 450 feet, the driving of a new 350-foot adit, 1,000 feet of diamond drilling, and 250 hours of bulldozing road improvements, exploratory trenches, and sites for buildings. This work would cost an estimated total $100,000.00. Prior to the field investigations, the program was revised to include all the originally proposed work except the diamond drilling, and to cost an estimated total $50,000.00. Proposed unit costs of the revised program are $50.00 a foot for driving the adits, and $15.00 an hour for the bulldozer work. Other costs would include $750.00 for each of two supervisors, and $100.00 a day for the services of a mining engineer-geologist when needed.

No evidence of rare earth minerals on the property was furnished by the Applicant, either in the Application or in the field.

10/ Scott W. Hazen, Jr., Lead-Zinc-Silver in the Poughkeepsie District and part of the Upper Uncompahgre and Mineral Point Districts, Ouray and San Juan Counties, Colo., U.S.B.M. R.I. 4508, p. 17, Sept. 1949.

Discussion of Proposal

The Applicant has projected the Patsie vein about 2 miles northward to the Guadaloupe vein. No mineralized zones are known to occur along the strike of the Patsie vein in the intervening area that is covered with landslide material. Thus, it would be unreasonable to assume that the Patsie and Guadaloupe veins represent a single vein.

While the field investigations were in progress, I suggested to Mr. Barrett, that any additional exploration for the Patsie vein should be done in stages. Stage I should consist of diamond drilling from the present face of the adit, a flat hole that would be followed by the adit, if extended. The drill hole would not only test for the vein, but would reveal, and serve to drain water-filled zones that probably would be encountered by the adit. Stage II work if warranted, could consist of diamond drilling additional holes from the face of the adit, or extending the adit to the vein, and drifting on the vein. Mr. Barrett, said that the applicant was not interested in doing any diamond drilling, but would like to include drifting on the vein from the adit and would put this in writing to the Denver OME office. Regarding the drilling of the suggested Stage I hole, he said such drilling was not considered necessary, because Mr. Rhinehardt, was sure that the vein would be found either by the adit or by a raise driven from the adit. If Mr. Rhinehardt made this statement, he evidently considered that the vein either might not extend in depth to the adit, or that the vein dips at a flatter angle than he found. At the present time, the face of the adit is approximately where the vein should occur if it maintains its indicated vertical dip.

At this writing, neither the revised proposal, nor the additional information that Mr. Barrett promised to furnish, had reached Denver.

CONCLUSIONS AND RECOMMENDATION

The chances are poor, that exploration of the Applicant's property would result in the discovery of a significant amount of silver. No mineralized zones are known to occur in the area of the proposed new adit. Because the Patsie vein does not occur in situ, and has been transported an unknown distance and direction from its natural location, to explore for the vein by extending the existing adit would be a pure wildcat venture. Furthermore, if, by chance the Patsie vein could be found deep in the volcanic rocks, there is reason to believe that the silver content would be low and the vein would be no wider.

Denial of the application is recommended.