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Magnatic Mine

GEOLOGIC REPORT
QUARTZ NO. 1 and QUARTZ NO. 2
CLAIMS
TELLURIDE MINING DISTRICT
LANDER COUNTY
NEVADA

Prepared For

LEGEND CORPORATION

PANORAMA CITY, CALIFORNIA

R. C. Gardner and Associates
Geologists
2109 Gladys Street
Pasadena, California

TABLE OF CONTENTS

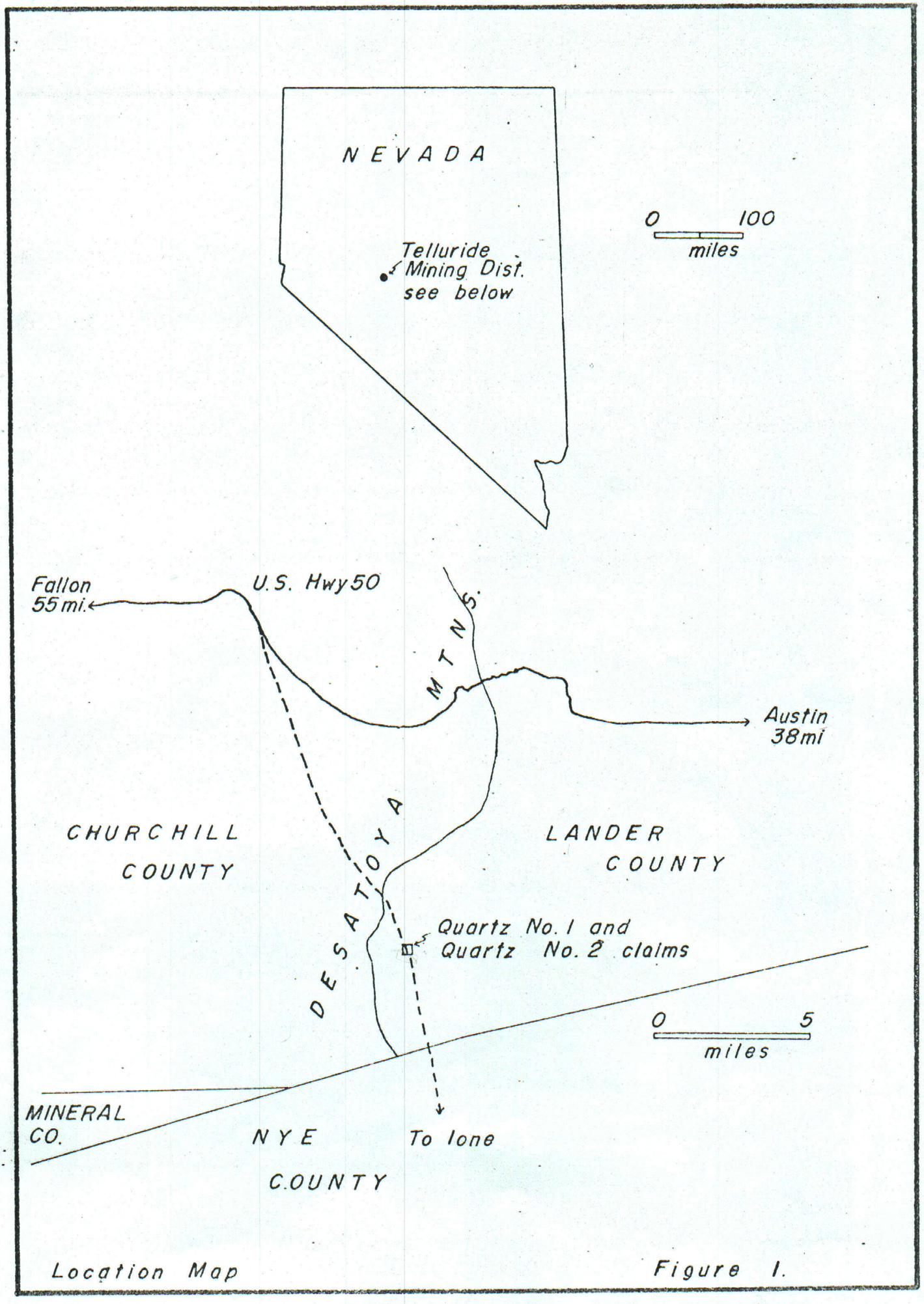
CHAPTER		PAGE
I.	INTRODUCTION	1
II.	GEOLOGY	4
	A. Rock Types	4
	1. Basalt Porphyry	7
	2. Altered Trachyte	7
	3. Rhyolite	10
	4. Quaternary Alluvium	10
	B. STRUCTURE	10
	C. ORE DEPOSITS	11
III.	SUMMARY	13
IV.	RECOMMENDATIONS	13

LIST OF ILLUSTRATIONS

	PAGE
Figure 1 - Location Map	2
Figure 2 - General View of the Area	3
Figure 3 - Verification Photographs	5 & 6
Figure 4 - Alteration as seen in Open Stope	8
Figure 5 - Location of Additional Claim	14
Plate I	In pocket
Plate II	In pocket
Plate III	In pocket
Plate IV	In pocket

I. Introduction: The Telluride Mining District lies in the southern part of the Desatoya Mountains, in Churchill and Lander Counties, Nevada. The two claims which are the subject of this report are located on the east flank of the Desatoya Range at an elevation of approximately 6,600 feet, and lie wholly within Lander County (see Figure 1). The claims are approximately 60 miles east of Fallon, Nevada and 50 miles west of Austin, Nevada, the nearest towns of any size. The property is easily accessible during favorable weather conditions by way of a good dirt road from U. S. Highway 50 to the north, a distance of approximately 14 miles. The property can also be reached from the south via Ione and Burnt Cabin Summit, however the distance is much greater. The property is easily accessible by automobile during all but the winter months. During the winter access can be made from the south using four wheel drive vehicles, but heavy snows in the Desatoya Mountains make travel from the north impossible.

The claims are sparsely covered by sagebrush, pinyon pine and juniper trees. There is no timber suitable for mining use on or near the property. The area is situated at the head of a large alluvial fan that extends southwestward into Smith Creek Valley (see Figure 2). There is no water on the property, the nearest water being at a well approximately 9 miles away along the road from U. S. Highway 50. There are also wells in Smith Creek Valley, the nearest one to the property being approximately 10 miles away by road. Small springs have been developed nearby by local ranchers for use by livestock but



Location Map

Figure 1.

they do not produce enough water to support a mining operation. They are probably sufficient to supply water for exploration drilling.

The Quartz Number 1 and Quartz Number 2 claims were staked on September 2, 1964 by R. C. Gardner and Associates, agents for Legend Corporation of Panorama City, California. The location work was done on the same date and consisted of trenching with a bulldozer, (see Plate I and Figure 3). Verification photographs of the discovery monuments and bulldozer cuts are shown in Figure 3. On the following days the property was geologically mapped and samples taken for assay.

Some work has been done previously in the area. It is reported that the open stope (now on Quartz Number 1 Claim) produced several thousand dollars worth of gold ore earlier in the century. Plate II shows the location and type of all workings prior to September 3, 1964.

II. Geology: See Plate III and Plate IV.

A. Rock Types: Four mappable rock units crop out in the area of the claims. They consist of three volcanic formations and the unconsolidated quaternary alluvium which mantles much of the area. The low relief of the area coupled with widespread alluvial deposits made detailed mapping difficult, thus in most cases contacts are indefinite or inferred. Where volcanic rock units cropped out samples were taken for analysis and description. The three volcanic formations show what might be considered a "textbook" example of differentiation of the parent magma, as they progressively change in composition from mafic to silicic. This should not be accepted as incontrovertible fact as

although the field evidence and relative ages of the rocks supports it, nothing is known about the quantitative ages of the rocks. The following description of the rock units is according to age, beginning with the oldest, as suggested by the cross-cutting relationships of the rocks in the field.

1. Basalt Porphyry: This formation crops out in the extreme northern portion of the Quartz Number 1 claim. In hand specimen it appears porphyritic in texture; the fine grained subhedral plagioclase phenocrysts are enclosed in a very fine holocrystalline groundmass consisting of identifiable grains of pyroxene and hornblende (?). No quartz was recognized in the sample. This formation shows the effects of mild thermal alteration. The unit is cut by both the trachyte and rhyolite formations described below.

2. Altered Trachyte: This rock unit is moderately to intensely altered, probably by a combination of the emplacement of the quartz veins shown in Plate III, and by the intrusion (extrusion ?) of the rhyolite. The degree of alteration is greatest in the wall rock adjacent to the quartz veins. In such areas the trachyte has essentially lost its identity and has become a garnet-quartz-epidote rock (see Figure 4). This rock is granoblastic in texture and contains some secondary calcite veins. Some hypersthene may be present in the rock although its existence could not be verified through hand specimen analysis.

A petrographic analysis was made of the altered trachyte from the big dump adjacent to the caved shaft on the Quartz Number 1 claim.

This shaft is sunk on the footwall of the vein and it bottoms approximately 85 feet west of the vein in altered trachyte. A descent of the shaft confirmed that the walls of the lower portion of the shaft are composed of the same material that is presently on the top of the dump. This rock is not as intensely altered as that adjacent to the quartz veins, as the following analysis will indicate.

Texture: trachytic
Groundmass 60-65%: too fine grained to clearly identify minerals. Appears highly altered, may contain feldspar, chlorite, carbonate, reddish patches of oxides and some opaque minerals.
Identifiable minerals 35-40%:
5% opaques with rectangular outline; probably limonite after pyrite.
5% carbonate (Calcite, dolomite).
10% chlorite (after pyroxene?)
15% sanidine feldspar
65% quartz.

The quartz occurs in small (1 mm.) oblong rounded aggregates of crystals most of which show signs of mobilization. Many of the aggregates are connected to each other by fine stringers of quartz, and many of the aggregate masses have centers of chlorite. In some places the stringers appear to have broken up the groundmass and filled the subsequent interstices. It is suggested by the above observations that the quartz was secondarily introduced.

The feldspar occurs as euhedral crystals and crystal fragments which appear to have undergone exsolution and now contain small amounts of plagioclase. All grains have undergone alteration to some extent and

most contain a fine grained mica (probably muscovite). Some feldspar grains contain chlorite and/or carbonates. The chlorite is found in the ground mass, in some of the aggregates of quartz crystals and in some of the feldspar crystals.

3. Rhyolite: This rock unit crops out over the majority of the Quartz Number 2 claim. The rock has porphyro-aphanitic texture, and fine grained quartz phenocrysts being identifiable in hand specimen. The groundmass is very dense and from white to gray in color. Vugs up to 10 mm. in diameter occur throughout the rock and flow banding is conspicuous locally. The rock is essentially unaltered and is clearly the most recent of the bedrock formation in the area.

4. Quaternary Alluvium: Much of the property is thinly mantled by a coarse to fine alluvial debris and soil containing fragments of all the aforementioned rock units plus milky quartz fragments.

B. Structure: Due to the alluvial cover detailed mapping of structural features was difficult. No significant faults were mapped on either claim. There is a strong possibility that the prominent quartz vein which traverses the length of the Quartz Number 1 claim may be emplaced along an old fault zone. This is suggested by the attitudes of primary fractures in the wall rock adjacent to the vein and the remarkably straight course of the vein. The same may be true for the smaller vein to the west, along which an open stope has been excavated.

The property itself is some distance back from (west) the large frontal fault which forms the east structural limit of the Desatoya Mountains.

C. Ore Deposits: The regional geology of the subject area is similar to several other mining districts in western Nevada where mesothermal quartz veins are emplaced in volcanic terranes. On the Quartz Number 1 and the Quartz Number 2 claims there are two such quartz veins invading a trachytic host rock which has been substantially altered by the quartz vein emplacement. The strongest of the two veins is the easternmost one, which varies in thickness from a few inches in the northern part of the property to approximately 15 feet near the southern limit of the Quartz Number 1 claim. The vein itself is composed of a dense milky quartz locally stained with limonite. The vein has been prospected by three small shafts and numerous open cuts. The vein dips fairly uniformly to the east, and the dip is paralleled by a number of fractures, which in some cases are filled by stringers of quartz.

A subordinate vein apparently branches from the previously described vein just south of the south end of the Quartz Number 1 claim and follows a northwesterly strike across the western portion of the Quartz Number 1 property. It is reported that this vein yielded some gold ore early in the century. This vein varies in thickness from a few inches at the prospect hole in the northwest part of the Quartz Number 1 claim to approximately 12 inches in the open stope. (see Plate III and Figure 4). The vein exposed in the bottom of the stope is characterized by an open boxwork structure, and is strongly stained by oxides. It is apparent that what ore was produced from the old workings was restricted to a few limited ore shoots in the quartz veins. It has been reported that much of the high grade gold ore that was produced

was rich in gold tellurides. This is entirely possible considering the temperature and pressure environment in which the quartz vein was emplaced.

An examination of the present workings indicates that the zone of oxidation extends well below the level of the deepest workings. This is substantiated by the petrographic analysis of the altered trachyte, as limonite is present as a pseudomorph after pyrite. The sample from which the analysis was made came from approximately 150 feet beneath the surface.

Four samples were taken for assay from the veins. The assay points, A_1 -A_4 inclusive are shown on Plate III. The assays were made from samples taken across the exposed width of the vein in accordance with established sampling procedures. The results of the assays are as follows:

Assay	Au, oz./ton	Ag, oz./ton	Total value/ton
A_1	0.09	2.96	$ 6.97
A_2	0.06	0.80	$ 3.13
A_3	0.08	0.64	$ 3.63
A_4	0.16	2.16	$ 8.38

The unimpressive assay reports do not condemn the property. The existence of a favorable regional geologic picture cannot be overlooked. The existence of chlorite, exsolution of the feldspars, the oxide remnants of sulfide mineralization all in the highly altered host rock indicate an environment favorable to ore deposition. However, the mesothermal zone can theoretically be several thousand feet in depth and within it there may be barren zones of significant

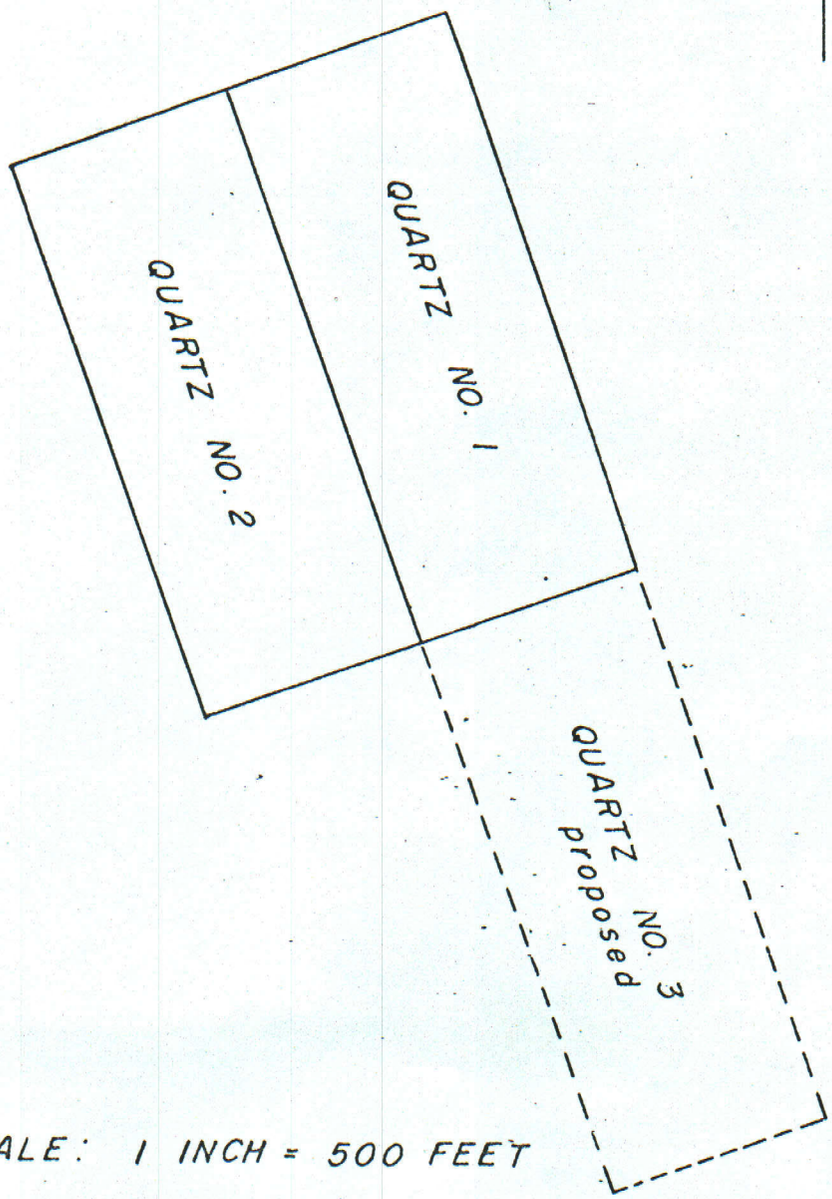
extent. Considering the possibility that ore may be concentrated in the vicinity of vein intersections a drilling program to evaluate this possibility is recommended below.

It is suggested that the quartz veins were emplaced in Tertiary time, perhaps as silicic offshoots related to the rhyolite body. The trachyte formation was a much more favorable host rock than the basalt porphyry for two reasons: First, the basalt porphyry being composed of essentially high temperature minerals will resist thermal and chemical alteration from solutions of mesothermal characteristics to a greater degree than will the trachyte. Second, the original nature of the trachyte, probably being more porous and containing vugs, was mechanically more favorable for alteration and the concurrent emplacement of the quartz veins.

III. Summary: No proven ore presently exists on either the Quartz Number 1 or the Quartz Number 2 claim. The claims are underlain by volcanic rock formations that together with the existence of strong mesothermal quartz veins and wide zones of alteration provide a favorable regional geologic picture for further exploration.

IV. Recommendations:

1. Locate an additional claim immediately south of the Quartz Number 1 claim (see Figure 5). This claim will cover the south strike projection of the vein system. The location work should consist of exposing the vein under the thin alluvial cover by bulldozer cuts. While the bulldozer is on the property two drill bases should be graded at the sites indicated on Plate III.



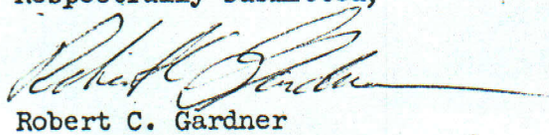
Location of additional claim.

Figure 5.

2. A drilling program consisting of two holes should be instituted. A vertical drill hole on the Quartz Number 1 claim should penetrate the intersection of the two quartz veins at a depth of approximately 435 feet at a point adjacent to one of its best developed surface exposures. The second drill hole on the proposed Quartz Number 3 claim will sample the main vein below the point of intersection with the subordinate vein and should intersect the vein at approximately 475 feet. It is recommended that the hole on Quartz Number 1 be drilled first and that the second hole be deferred until the results from the first hole can be evaluated.

It is further recommended that the hole be diamond drilled and continuously cored. The formations are fairly hard and abrasive, and although conventional rotary drilling could be used the rate of penetration would be slower and thus more time consumed in the drilling program. It is suggested that the faster rate of penetration by diamond drilling will offset the higher costs and the geological data acquired by continuous coring will be worth any additional expense.

Respectfully submitted,



Robert C. Gardner

BOOK NO. 29 PAGE 261

Proof of Labor

STATE OF Nevada)
) ss.
County of Lander)

Return Receipt to:

BEFORE ME. personally appeared the subscriber, L.B Goldsmith, Bar-Nevada Inc., Box 312, Snyder Ave, Yerington Nevada

who being sworn, says: that at least $280.00 dollars

worth of labor or improvements consisting of Geological Investigation was performed by L.B. Goldsmith, Geologist, on August 22, 23, 24, 1969

were performed and made upon the "Quartz No 1, Quartz No 2" "Quartz No 3 & Quartz No 4, being unpatented Lode Mining Claims

situated in (Unknown) T11N, R37E, Sec 33 Mining District, County of Lander, State of Nevada, during the year ending September 1, 1968

SUCH EXPENDITURE was made by or at the expense of Bar-Nevada Inc, Lessee from Legend Corporation

owner.... of said claim, for the purpose of holding said claim.

Subscribed and sworn to before me, this

..... day of ..... 19.....

L B Goldsmith

RECORDED AT REQUEST OF
Ran-Nevada
8-27, 19 68 AT 1:10 P M.
BOOK 29 OFFICIAL RECORDS PAGE 261
OF LANDER COUNTY, NEVADA
FILE NO. 53418 Carol Schuh
COUNTY RECORDER

BOOK NO. 27 PAGE 49

Proof of Labor

STATE OF Nevada)
ss.
County of Lander)

BEFORE ME. personally appeared the subscriber, L.B. Goldsmith, Pan-Nevada Inc., (Please forward receipt of filing to this address) Apt 512, Snyder Ave, Yerington, Nevada

who being sworn, says: that at least $121.00 dollars

worth of labor or improvements consisting of Geological Investigation, Sampling, and Assaying made by N.J. Byrne & L.B. Goldsmith, Geologists on April 30 & May 1, 1968

were performed and made upon the 'Quartz No.1', 'Quartz No.2', 'Quartz No.3', and 'Quartz No.4', being unpatented Lode Mining Claims

situated in (Churchill) T11N, R37E, S33 Mining District, County of Lander, State of Nevada, during the year ending September 1, 1968.

SUCH EXPENDITURE was made by or at the expense of Pan-Nevada Inc, Lessee from Legend Corporation

owner.... of said claim, for the purpose of holding said claim.

Subscribed and sworn to before me, this

..... day of ..... 19.....

L.B. Goldsmith

RECORDED AT REQUEST OF

L.B. Goldsmith

7-1, 1968 AT 1:00 P M.

BOOK 27 OFFICIAL RECORDS PAGE 49

OF LANDER COUNTY, NEVADA

FILE NO. 52211 Carol Schuck

COUNTY RECORDER

PAN-NEVADA INC.
Suite 500 • 37 Lewis Street
Hartford, Connecticut 06103

Please refer reply to:

103 East 37th Street
New York, N.Y. 10016

June 11, 1968

Mr. Frank W. Lewis
6904 Woodman Avenue
Van Nuys, California 91405

Subject: Nevada Project -
Magmatic (Quartz) Claims

Dear Frank:

Enclosed herewith is a report of Locke Goldsmith and Norman Byrne concerning the above claims.

We hereby advise you that we wish to return the claims to you. How should the mechanics be handled?

Please let me hear from you at your convenience.

Sincerely,
COPY
Original Signed by
D. B. Lamont
Donald B. Lamont

DBL/la
encl.

cc: Mr. Norman H. Ursel
Mr. Locke B. Goldsmith
Mr. Jas. L. Buckley
Co-ord - New York
- Hartford

June 6, 1968.

MEMORANDUM TO: Donald B. Lamont

FROM: Norman H. Ursel

RE: Nevada Project - Magmatic Claims.

Enclosed herewith is a report of Locke Goldsmith and Norman Byrne concerning the above claims.

The recommendations are self-explanatory; i.e., the claims should be returned to Lewis as quickly as possible together with the Goldsmith - Byrne report.

Appendix II need not be sent, but is forwarded to you so that your files may be complete.

I can only say about Gardner's report that the recommendation for drilling was clutching for straws. The evidence supporting the recommendation is very weak.

NHU/nl
Enc.

Norman H. Ursel, P. Eng.

cc: Mr. Locke B. Goldsmith
(2) Coord - New York
- Hartford

BOOK NO. 5 PAGE 760

CERTIFICATE OF LOCATION

LODE—QUARTZ

THIS IS TO CERTIFY that the Quartz #2 lode mining claim was located by R. C. Gardner (print name of locator) Box 1344 (print post office address) Panorama City, Charles P. Anderson California as agents for the Legend Corporation on the 2 day of September, 1964, situated in the Telluride Mining District, Lander County, State of Nevada, and about 16 miles in a southerly direction from East gate on the road to TONE.

We (or I) claim 1500 linear feet along the course of the mineral-bearing ledge, lode or vein, extending 1475 feet from the location monument in a northerly direction, and 25 feet in a southerly direction, together with 300 feet on each side of the center of the ledge for the entire length of the claim.

The discovery work consists of a open cut located about 700 feet in a northeast direction from the location monument, and its dimensions are 12-15 feet wide, 25-30 feet long and 2 - 2½ feet deep, exposing ledge, lode or vein in place.

The northwest corner is marked by a post 4 feet high, inscribed "NW Corner of the Quartz #2 Claim"; the southwest corner is marked by a post 4 feet high, inscribed "SW Corner of the Quartz #2 Claim"; the southeast corner is marked by a post 4 feet high, inscribed "SE Corner of the Quartz #2 Claim"; the northeast corner is marked by a post 4 feet high, inscribed "NE Corner of the Quartz #2 Claim" There is also a 4x4 post at the center of each side line. The discovery work has been done, and the location completed since September 2, 1964

Charles P. Anderson

LOCATORS

Dated September 2, 1964

(Section 517.050, Nevada Revised Statutes, provides that every location of a mining claim made after July 1, 1941, shall be absolutely void unless a certificate of location thereof is recorded with the county recorder of the county in which the claim is located within 90 days after the date of location.)

TONOPAH TIMES-BONANZA

BOOK NO. 5 PAGE 761

CERTIFICATE OF LOCATION

LODE—QUARTZ

THIS IS TO CERTIFY that the Quartz #1 lode mining claim was located by

K.C Gardner (print name of locator) Box 4544 (print post office address)

Charles P Anderson Panorama City,

as agents for the California

Legend Corporation

on the 2 day of September, 1964, situated in the Telluride Mining District, Lander County, State of Nevada, and about 16 miles in a Southerly direction from Eastgate. on the road to IONE.

We (or I) claim 1500 linear feet along the course of the mineral-bearing ledge, lode or vein, extending 1475 feet from the location monument in a Northerly direction, and 25 feet in a Southerly direction, together with 300 feet on each side of the center of the ledge for the entire length of the claim.

The discovery work consists of a open cut located about 680 feet in a northerly direction from the location monument, and its dimensions are 15-20 feet wide, 30 feet long and 1½ - 2 feet deep, exposing ledge, lode or vein in place.

The northwest corner is marked by a post 4 feet high, inscribed "NW Corner of the Quartz #1 Claim"; the southwest corner is marked by a 4 ft feet high, inscribed "SW Corner of the Quartz #1 Claim"; the southeast corner is marked by a 4 ft feet high, inscribed "SE Corner of the Quartz #1 Claim"; the northeast corner is marked by a Post 4 feet high, inscribed "NE Corner of the Quartz #1 Claim" There is also a 4 ft. post at the center of each side line. The discovery work has been done, and the location completed since September 2, 1964

Charles P Anderson.

LOCATORS

Dated September 2, 1964

(Section 517.050, Nevada Revised Statutes, provides that every location of a mining claim made after July 1, 1941, shall be absolutely void unless a certificate of location thereof is recorded with the county recorder of the county in which the claim is located within 90 days after the date of location.)

TONOPAH TIMES-BONANZA

BOOK NO. 9 PAGE 279

CERTIFICATE OF LOCATION

LODE—QUARTZ

THIS IS TO CERTIFY that the Quartz No. 3 lode mining claim was located by

Legend Corporation
(print name of locator)

P. O. Box 4344
(print post office address)
Panorama City, California

on the 27th day of August, 19 65, situated in the Telluride Mining District, Lander County, State of Nevada, and about 10 miles Southwest of Campbell Creek Ranch, ½ miles south of Highland Mill in T 15 N, R 37 E, MDBM, 3 miles north of Burnt Cabin Summit.

We (or I) claim 1500 linear feet along the course of the mineral-bearing ledge, lode or vein, extending 1475 feet from the location monument in a Southeast direction, and 25 feet in a Northwest direction, together with 300 feet on each side of the center of the ledge for the entire length of the claim.

The discovery work consists of a three open cuts (largest of three described below) located about 70 feet in a Southeast direction from the location monument, and its dimensions are 10 feet wide, 40 feet long and 6 feet deep, exposing ledge, lode or vein in place.

The northwest corner is marked by a 4 X 6 post, 4 feet high, inscribed "NW Corner of the Quartz No. 3 Claim"; the southwest corner is marked by a 4 X 6 post, 4 feet high, inscribed "SW Corner of the Quartz No. 3 Claim"; the southeast corner is marked by a 4 X 6 post, 4 feet high, inscribed "SE Corner of the Quartz No. 3 Claim"; the northeast corner is marked by a 4 X 6 post, 4 feet high, inscribed "NE Corner of the Quartz No. 3 Claim." There is also a 4 X 6 post, 4' high at the center of each side line. The discovery work has been done, and the location completed since August 27, 19 65.

Legend Corporation
by
R. C. Gardner and Associates
Geologists
their agents

LOCATORS

Dated September 11, 19 65

(Section 517.050, Nevada Revised Statutes, provides that every location of a mining claim made after July 1, 1941, shall be absolutely void unless a certificate of location thereof is recorded with the county recorder of the county in which the claim is located within 90 days after the date of location.)

TONOPAH TIMES-BONANZA

BOOK NO. 9 PAGE 300

CERTIFICATE OF LOCATION

LODE—QUARTZ

THIS IS TO CERTIFY that the Quartz No. 4 lode mining claim was located by

Legend Corporation
(print name of locator)

P. O. Box 4344
(print post office address)

Panorama City, California

on the 27th day of August, 19 65, situated in the Telluride Mining District, Lander County, State of Nevada, and about 10 milrs southwest of Campbell Creek Ranch, ½ mile south of Highland Mill in T 15 N. R 37 E, MDBM, and 3 miles north of Burnt Cabin Summit

We (or I) claim 1500 linear feet along the course of the mineral-bearing ledge, lode or vein, extending 750 feet from the location monument in a Northeast direction, and 750 feet in a Southwest direction, together with 300 feet on each side of the center of the ledge for the entire length of the claim.

The discovery work consists of a open cut located about 500 feet in a Southeast direction from the location monument, and its dimensions are 10 feet wide, 45 feet long and 2 feet deep, exposing ledge, lode or vein in place.

The northwest corner is marked by a 4 X 6 post, 4 feet high, inscribed "NW Corner of the Quartz No.4 Claim"; the southwest corner is marked by a 4 X 6 post, 4 feet high, inscribed "SW Corner of the Quartz No. 4 Claim", the southeast corner is marked by a 4 X 6 post, 4 feet high, inscribed "SE Corner of the Quartz No. 4 Claim"; the northeast corner is marked by a 4 X 6 post, 4 feet high, inscribed "NE Corner of the Quartz No. 4 Claim " There is also a 4 X 6 post, 4' high at the center of each side line. The discovery work has been done, and the location completed since August 27, 19 65

LOCATORS

Legend Corporation
by
R. C. Gardner and Associates
Geologists
their agants

Dated September 11, 19 65

(Section 517.050, Nevada Revised Statutes, provides that every location of a mining claim made after July 1, 1941, shall be absolutely void unless a certificate of location thereof is recorded with the county recorder of the county in which the claim is located within 90 days after the date of location.)

TONOPAH TIMES-BONANZA