

REPORT
On The
Property Of The
GOLDEN VAULT MINING & MILLING CO.
GILPIN COUNTY 1919
BY
J. D. CALDON

Report furnished by T. J. Kelleher.

Will Make Geological
Examinations and Reports
On
Mines And Mining

CABLE ADDRESS "ZULU"

J. D. CALDON

MINERALOGIST

And

CONSULTING MINING ENGINEER

Denver, Colorado

Reference Letters Including
Those From South Africa,
Mexico, As Well As This Country
On File In The Office
233 Coronado Building
Denver, Colo.

November 7th, 1919.

Field Experience

1863 to 1869

AUSTRALIA

NEW ZEALAND

SOUTH AMERICA

BRITISH INDIA

1869 to 1877

SOUTH AFRICA

1878 to Date

UNITED STATES

And

MEXICO

To The President and Board of Directors

OF

THE GOLDEN VAULT MINING & MILLING COMPANY.

Gentlemen,

The request of your President, Mr. Thomas J. Kelleher, I have examined your valuable property and herewith submit my report on same for your careful consideration.

Yours very respectfully,

(Signed) J. D. Caldon

Mineralogist and
Consulting Mining Engineer.

REPORT
On The
Property
Of The

GOLDEN VAULT MINING AND MILLING COMPANY

LOCATION:

The above named property is situated in the INDEPENDENT MINING DISTRICT, in the County of Gilpin, State of Colorado, about forty five miles from the City of Denver on the line of The Denver & Salt Lake Railroad Company: two and one half miles south-west of the Town of Rollinsville, a station on said railroad, and about six miles north of Central City, County-seat of Gilpin County, Colorado: also on the waters of South Moon Gulch, one of the tributaries of South Boulder Creek.

ALTITUDE:

Nine thousand ^{nine} hundred and ninety feet above sea-level on the dump at the portal of Wolfstone Tunnel.

AREA & TITLE:

The area consists of nine patented claims, five unpatented, two mill-sites and one placer claim, names of which are as follows:

PATENTED

Pronetheus

Survey No. 19612

Carlin	Survey No. 19612
Gov. Orman	Survey No. 19612
Col. Dormer	Survey No. 19612
Wolftone	Survey No. 965-A
Michael Davitt	Survey No. 18833-A
Shack	Survey No. 18833-A
Gov. C. S. Thomas	Survey No. 18833-A
Kelleher	Survey No. 18833-A

UNPATENTED

Gov. C. S. Thomas #3
 Gov. C. S. Thomas #2
 Golden Vault
 Golden Vault Extension
 Kerry Chief

MILL-SITES

Kerry Chief
 Wolftone Survey No. 965-B

PLACERS

Moondine

GEOLOGICAL FEATURES

The vicinity in which the above described properties are located consists of metamorphic and eruptive rocks. These formations bear hydro-mica schist, porphyritic andesite, altered granite or syenitic granite, labradorite, basalt, diorite, hornblende schist, monzonite, and gneiss, with auriferous quartz penetrated with iron pyrites and chalcopyrite. Bornite, a copper sulphide, permeates many of the rocks of this section. Geologically speaking these rocks are distinguished as follows:

HYDRO-MICA SCHIST

Found accompanying auriferous matter, is a thin schistose rock, consisting of either chiefly hydrous mica or of mica with more or less quartz, having a surface nearly smooth and feeling greasy to the fingers.

ANDESITE (Porphyritic)

Consists of oligoclase or andesite and hornblende, with often some orthoclase or sanidin, and biotite. Being porphyritic when containing crystals of porphyry. Eruptive rock.

SYENITIC GRANITE

Consists of quartz, feldspar and hornblende and is frequently termed "altered granite" and bears the name of "porphyritic" when accompanied with crystals of porphyry.

LABRADORITE

Alime-soda feldspar, containing little silica, and is generally auriferous and found in the selvage or gouge of a vein showing eruptive matter.

BASALT

An eruptive rock, similar to diorite in structure, color and variety but containing, in addition to labradorite and pyroxene, crysolite in disseminated grains.

DIORITE

Is a dark speckled, greenish gray rock consisting of a crystalline aggregate of clinic, or soda-lime feldspar and hornblende, and is generally found in copper bearing sections.

HORNBLÉNDE-SCHIST

A greenish colored rock having a coarse to fine crystalline-granular texture and occurs as a metamorphic as well as an eruptive rock.

GNEISS

A metamorphic rock similar to granite in composition, color and specific gravity, but arranged more or less in layers.

MONZONITE

An eruptive rock having a composition of lime and magnesia, also silica.

DEVELOPMENTS

I find a tunnel driven on what is known as the Kerry Chief claim, and one also on the Wolftone, claim, the latter having been driven a distance of three hundred feet. This is known as the Wolftone Tunnel.

At the one hundred and seventy-five foot point from the portal of this tunnel, I find that you have encountered a fine vein of magnetic pyrite, fully eight feet between walls. The vein to the east from this point is slightly disturbed, but to the west is more in place: however, the general strike of this vein is north-east and south-west. By extending this tunnel farther to the south-west I am satisfied you will find it more in place. This vein or lode is a continuation of the Smuggler lode which adjoins this property on the north. A large portion of this hill, or mountain, known as Wolftone Mountain, is a net-work of vein matter with a general trend of east and west to north and south. To be rightly named this mountain should be called the "Golden Vault" instead of Wolftone as it consists largely of auriferous quartz in float. It matters little what rock you pick up on the surface of this mountain it contains more or less gold.

About one thousand feet from the brest of the tunnel due south-west there has been a shaft sunk on the Wolftone claim from which I understand some very fine assays have been obtained: however, this is the same lode or vein which was encountered in the Wolftone Tunnel. The portal of the tunnel from this shaft is fully five hundred feet below the shaft and six hundred feet from the apex of the mountain.

As for the Kelleher tunnel, it is of little benefit to the property. It has been driven in a swag, or ravine and has gained but little depth, probably not more than twenty-five feet. From this tunnel, there has been some oxydized matter taken which was treated by Captain Kelleher with an old arrastre, by which method I understand he has taken considerable money. The Arrastre is still on the property and can be seen as a monument of the by-gone days.

This is also known as the Kelleher mountain named after Captain Kelleher who discovered the same.

As for the Kerry Chief Placer there is no doubt in my mind but what that was fed from the Kerry Chief Extension and Wolftone Lode. This lode is really the mother lode of this section. As a verification of my opinion, in tracing the vein to the adjoining property, known as the Smuggler, from its workings furnishes sufficient proof that all is required is depth. Your ore is a facsimile of that found in the Smuggler.

The Perrigo Mine which is to the south of your property, also the Gold Dirst have as least a million dollar production to their credit: however, as above stated the Smuggler adjoining your property on the north through its development has proven the possibilities of your property.

There are numerous shafts and open cuts on the mountain tops which have been made by Caption Kelleher: these cuts and shafts are of little value to the development of the property: however, I understand some very fine assays have been realized therefrom.

RECOMMENDATIONS

I would recommend a new tunnel driven about one hundred and seventy-five feet to the north-east of the present tunnel on the Wolftone claim and driven south-west on the Kerry Chief lode or the Wolftone lode. This will place you about seventy-five feet below the upper workings of the Wolftone tunnel and encounter the vein already cut in the upper workings of the Wolftone tunnel, but at increased depth. This proposed tunnel should be run south-west on the vein which will cut a network of veins and tap the Wolftone shaft fully four hundred feet below its present depth.

I would also recommend that a winze be sunk in the proposed tunnel directly under the shaft above which will form a continuous shaft when connected with the one above: at the same time will afford proper ventilation for the mine.

I would also recommend that a small air compressor be placed at the portal of the proposed tunnel for the operation of machine drills, which should be operated by electricity: all that is necessary is to construct a power line from the power station at the Smuggler mine, not over fifteen hundred feet to the north of the portal of the proposed tunnel on your property.

It will, of course, be necessary to equip the tunnel mentioned with rails and ore cars.

CONCLUSIONS

You have a property of great merit. It is situated in the heart of a great mineralized section, with some of the best producing mine adjacent thereto within the vicinity. The placers of Moon Gulch fed by the lodes of this section by their production have demonstrated the existence of heavy deposits of mineralized and auriferous quartz that are in evidence in your valuable property. I make no hesitancy in ascertaining that you have a property developed along the lines as outlined in the foregoing report will prove a producer equal to any of those of the district. I will further state that when depth is attained below water's level your ore will be richer in values and will carry a greater percentage of borate at increased depth. This has been proven in the Smuggler property by the values increasing from seventy to ninety dollars per ton below water's level.

The history of Gilpin County as to its mineral production needs no comment: while the properties in this immediate vicinity have merely been scratched so far as development is concerned, yet the possibilities of the district have been proven through the placers which have added largely to the county's production.

Respectfully submitted,

(Signed) J. D. Calder

REFERENCES

AMERICAN

The Bradstreet or Dunn Mercantile Agencies.
Also letters on file in office.

ENGLISH

Capt. R. E. Palmer	Oakland Park, Newdigate Surrey	England
David Currie, Esq.,	Lake & Currie, 5 Gt. Winchester St.	London
W. T. Bennet, Esq.,	I Queen Victoria St.	London
F. D. Frost, Esq.,	Frost Bros., 11 London Street	E. C.
E. A. Foster, Esq.,	6 Ct Helena	London E. C.
J. F. Pigott, Esq.,	Savage Club Adelphia Terrace	London

MEXICAN

Sr. Consuelo Estrecho, Ex-Sec'y Mineral Dept.,
Sr. C. E. Golsales, Ex-Sec'y of State

City of Mexico
Republic of Mexico

SOUTH AFRICAN

Hon. Henry Green
Hon. J. B. Robinson
Hon. Henry Tucker

Kimberly
Johannesburg,
Johannesburg

South Africa
South Africa
South Africa

Thirteen years association with Cecil Rhodes and Barney Barnato,
in South Africa.