

Oakland, California.
April 5th. 1925.

Clifford Claims, Silverbow (Ag) 25

As requested by you in our previous conversation, I have made a feeble attempt to write up the facts as I saw or have them with regards to Silverbow, Nevada.

In August 1923, accompanied by Thomas Clifford I visited Silverbow to look at a group of nine claims in which Clifford had an interest and which I will hereafter call the Clifford property. At the same time I looked over the Blue Horse Mine which consists of one claim partially surrounded by the Clifford property. Due to certain facts which are to be related later, I saw where there were future possibilities in making a small but profitable mine out of the consolidation of the above two properties together with a third property consisting of two claims and owned by a William Henderson.

Silverbow is located between 45 and 50 miles south east of Tonopah, on the west slope of the Kawich Mountains, on Tertiary rhyolite formation, at an elevation of between 5000 and 6000 feet. The road from Tonopah for the first few miles is east along the Overland Highway, after which it takes off in a southerly direction over the usual Nevada dirt road with no steep grades throughout the entire distance.

Upon the mining properties is located an ideal camp site; a ravine passing east and west across the claims. The northern slope of the ravine arises at first rather gently and is fairly well covered with a growth of pinyon pines. At the time of my visit there were four or five cabins and a fair sized boarding house built among the trees. In the bottom of the gulch several shallow wells had been put down which furnished sufficient water for domestic and mining purposes while former active mining operations were in progress.

The surrounding country has plenty of

Clifford Property

Nine Claims

surface
 workings

Tunnel

Ravine

Camp

Site

Blue Horse
Mine

One Claim

croppings

250' 220'
Shaft

Tunnel

Surface Mine

Vein

Henderson
Property

Two Claims

SKETCH

from memory

showing the relative positions
of the

CLIFFORD PROPERTY,

BLUE HORSE MINE

and the

HENDERSON PROPERTY

SILVERBOW - NEVADA

Approx



timber that could be used for certain mining timbers and as fuel for domestic purposes.

Within a short distance of the property, there are several ranches, where fresh meat, fowl, tame rabbits, eggs, milk, and a variety of the finest vegetables can be procured and I found at a very reasonable price. I mention the above fact as it may have considerable influence upon the success of an undertaking.

The Clifford property which consists of nine claims is as shown in the accompanying diagram has the northern location. The main known vein on the property strikes east and west with a steep dip to the south. The dip is with the slope of the hillside but steeper. The ore chute which drops on the surface rakes to the west. This ore chute has been worked from the surface to the lowest tunnel level. The ore taken out must have necessarily have been rich as it was shipped to the mills at Tonopah. Except to pass over the surface of these old workings I did not attempt to enter them on the account of their caved condition.

The lowest tunnel, or crosscut (191 feet in length) at a distance of 170 feet from the portal cuts a six inch streak of quartz which was sampled and gave the following results:-

Silver-----60.30 Troy Ounces

Gold-----.42 Troy Ounce.

The next twenty feet cut by the crosscut was a very highly silicified rhyolite. A cut over the entire 20 feet was taken and the results of the assay showed it to carry some values. At 191 feet the main vein was cut and drifts run east and west exposing the vein for a distance of about 60 feet with an average width of between three and four feet of quartz. Samples were taken along the drift, the results of which are shown elsewhere.

Near the end of the west drift, a winze was sunk in the vein for a depth of 33 feet. The quartz is of a bluish color and exceedingly hard. It shows ruby silver. The walls are hard and should stand well permitting of the shrinkage system of mining. Three samples were taken and results of which (see diagram and assay sheet) showed at least a milling ore. The second samples was not a fair one as only part of the mineral carrying quartz was exposed.

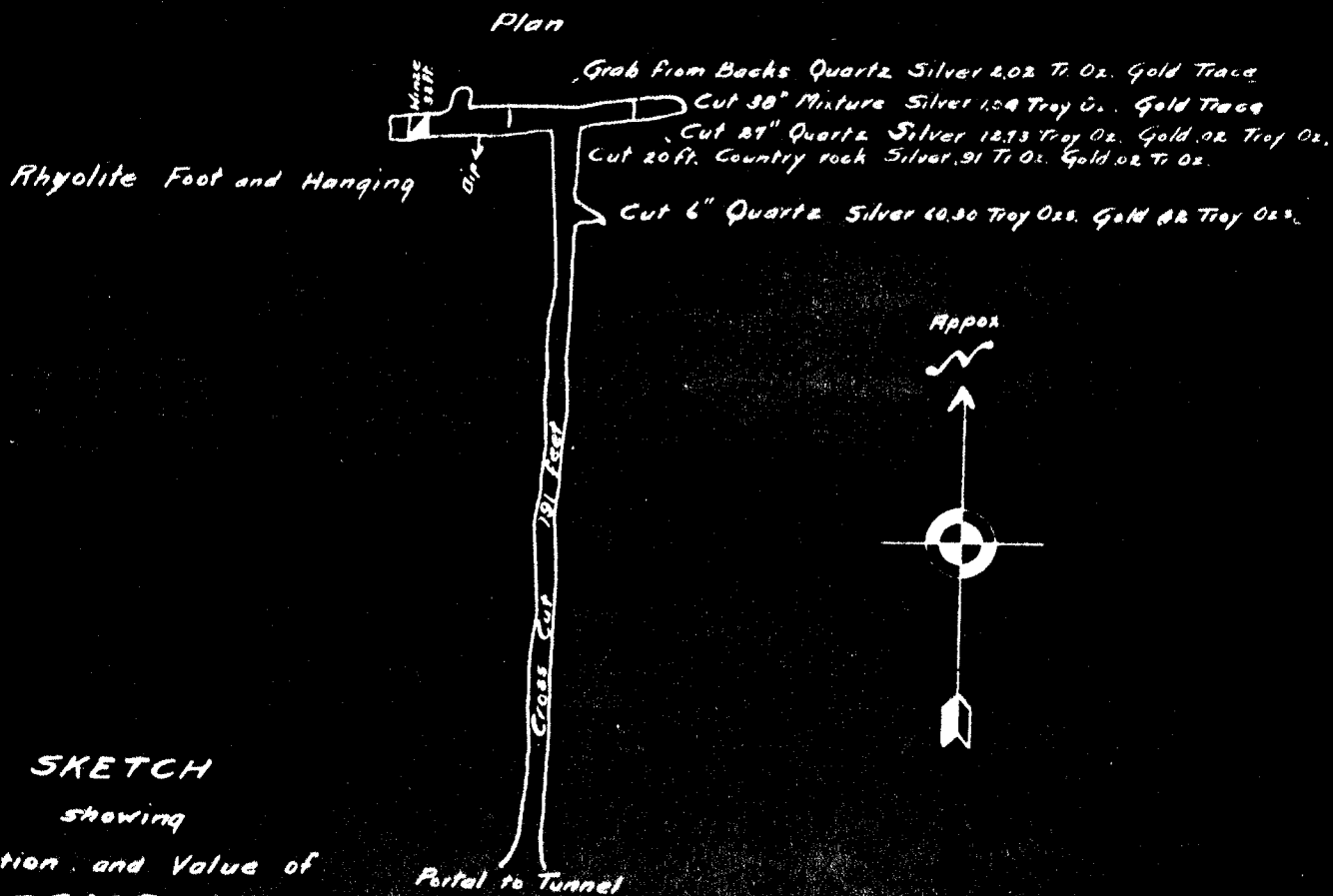
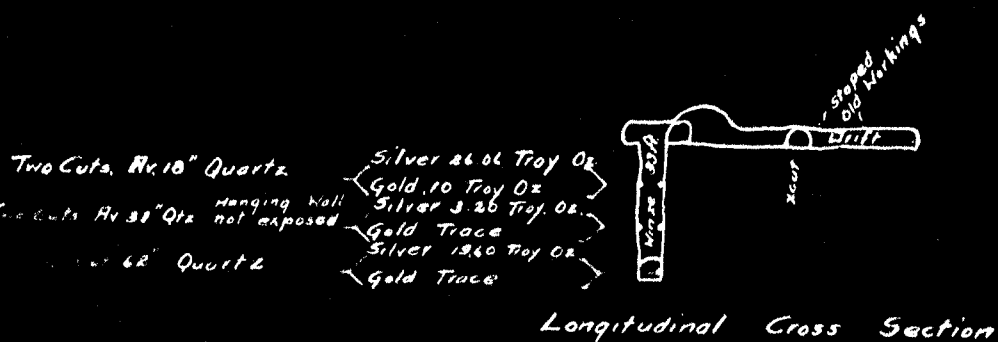
There is no question but that a tonnage of

ASSAY SHEET
for the
CLIFFORD PROPERTY

at

Silver bow -----Nevada

	Sample No.	Cut	Description	Silver Troy Ounces	Gold Troy Ounces
	1	6"	Streak of quartz on the Hanging Wall 165 feet from portal of tunnel	60.30	.42
	2	20'	East side of tunnel. Highly silicified rhyolite lying between the 6" streak and main vein	.91	.02
	3	33"	Face of East Drift. 30 feet from center of tunnel. Mixture of Qtz. and Rhyolite	1.04	Trace
	4	27"	Quartz taken in roof of drift 15 feet east of center of tunnel	12.73	.02
	5	Grab	Pieces taken from back of Drift 12 feet from floor 15 feet west of center of tunnel	2.02	Trace
	6	Av. 18"	2 Cuts taken 11 feet below floor of drift in 33 foot winze. East side 24" and west side 12"	26.06	.10
	7	Av. 31"	4 cutstaken 22 feet below floor of drift in winze. East side 26" West side 36" Still quartz in Hang. Wall	3.20	Trace
	8	62"	Cut in winze 3 feet above bottom.	19.60	Trace



SKETCH

showing

Position and Value of

SAMPLES

taken at the

CLIFFORD PROPERTY

SILVERBOW NEVADA

August 1920

Samples by Wm. W. Logan

Date April 1925

Milling ore can be developed on the Clifford property but the main fact to be considered is that the Clifford vein and the Blue Horse vein tend to dip towards each other and the Clifford property should be held to settle any question to apex rights.

On the Blue Horse claim, which is owned by Mrs. MacNamara and Mr. Bell of Tonopah, is the strongest vein formation in the vicinity. The vein croppings are exposed for a considerable distance. I did not attempt to trace these out in their entirety, but W. H. Weed writes of this vein in his "Miners Handbook", Vol. XV for the Year 1922,

'One vein exposed for 1500 feet is 4 feet 11 inches wide carrying free gold and ruby silver.'

I was able to secure material just above the tunnel level on the foot wall which showed free gold. The vein as it appears on the Blue Horse claim has a decided bend, swinging from a northerly direction to an almost easterly direction, passing off into the claims owned by William Henderson. The vein material is a very hard quartz which shows many vugs. All pyrite which may have been in the quartz is oxidized and the gold is in a free state. The original silver minerals have been altered, chiefly to ruby silver with some stephanite and silver chloride. The vein dips to the northeast or towards the Clifford vein but does not pitch as steeply as the Clifford. The walls are of hard rhyolite and with an occasional stull here and there should permit of the shrinkage system of mining. There are considerable underground workings but all are shallow. All the ore from these workings was milled.

About 250 feet northeast of the Blue Horse surface workings and on the Blue Horse claim, is a well timbered vertical two compartment shaft which was sunk to the depth of 220 feet from which point a crosscut was run to and through the vein. Drifts were merely started on the vein. A round of holes was put in one of the faces but not shot. The vein as exposed showed signs of permanency and was from five to six feet wide. I started to sample the vein but the air was so foul that we had to seek the surface. I would suggest that if the property is visited, that if it is at all possible, that this part of the ledge be examined and sampled. I consider this part of the vein one of the strong features of the mine.

However on the dump to the shaft and which dump is isolated from all other workings were pieces of quartz which I have no doubts but came from the vein where cut by the crosscut at the bottom of the shaft. I chose at random a number of pieces of quartz and chipped fragments from these to

ASSAY SHEET
for the
BLUE HORSE MINE
at

Silverbow-----Nevada

	Sample No.	Cut	Description	Silver Troy Ounces	Gold Troy Ounces
	9	Grab	Grab sample of Quartz on the surface of the dump to the Blue Horse shaft. Apparently this quartz came from the vein where cut by crosscut at the bottom of the 220 foot shaft.	13.70	.10
	10		Composite sample of the mill tailings at the rear of the old Blue Horse mill. 12 or 14 pits sunk. Estimate 50 to 60 tons of tailings in the dam	15.13	.27

make a sample. The results were as follows:-

Silver-----13.70 Troy Ounces
Gold-----.10 Troy Ounce.

This would indicate that where they cut the vein they were in milling ore.

With regards to the two claims belonging to William Henderson of Portland, Oregon will state that these claims adjoin the Blue Horse claim on the south, and to the east and are of value as the Blue Horse vein passes into them.

As to the vein formation in this district, S. H. Ball writes in U. S. Bulletin No. 303 to the following effect:-

'The striking similarity between the ore deposits of Silverbow and certain of those of Goldfield is worthy of note. Ascending waters carrying silica and metallic salts in solution appear to have deposited its burden largely in pre-existing cavities. Simultaneously waters wandering from the main channels silicified contiguous portions of the rhyolite. Kaolinization is presumably a later phenomenon. Movement has occurred in the veins since silicification, and they have been more or less faulted and brecciated. Surface waters have altered silver sulphides, pyrite and probably less amounts of chalcopyrites to the corresponding chlorides, oxides and carbonates, while secondary sulphides have also formed. Gold, probably originally in pyrite, was simultaneously set free.'

The Blue Horse Mine was worked by the Blue Horse Mining Company in 1920 and 1921. All ore was hauled to the mill which was located down the canyon about a mile. The ore was treated by amalgamation in a 20 ton Gibson mill. The fallacy of trying to apply this method to this ore needs no comment.

An attempt was made by the Blue Horse Co. to impound their tailings. At the time of my visit some 50 or 60 tons of tailings were lying at the rear of the mill. I dug twelve or fourteen pits and took a composite sample of these tailings from which I obtained the following results:-

Silver-----15.13 Troy Ounces
Gold-----.77 Troy Ounce.

I would be perfectly satisfied with the above values as mill heads in the Silverbow locality.

From what I was able to see the Blue Horse was a failure from mismanagement due to ignorance in the science of mining and milling, chiefly milling.

All mining and milling equipment has been removed from the Blue Horse and the work done on the Clifford and Henderson properties was performed by hand.

I have no doubt but with a consolidation of the three mentioned properties, properly developed and when the development warrants, the construction of a small modern cyanide plant, but that this mine can be made into a small but profitable institution. It at least warrants the expense of a trip to Silverbow for investigation.

Yours respectfully

Wm. W. Logan