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Report on the
BERRY CREEK MERCURY PROSPECT
TUSCARORA DISTRICT, ELKO COUNTY, NEVADA

LOCATION: This property is located on Berry Creek, about five miles west of Tuscarora. Tuscarora is 52 miles from Elko over a good road, 25 miles of which are paved and 27 maintained gravel. The elevation at the claims is about 6500 feet. In normal years the winters are not too severe to prohibit working, but mud conditions in the spring hamper operations some. The country is in low rolling hills and can be reached by a car at any part.

CLAIMS: There are four unpatented lode claims in the group, held by a single owner who is the original locator.

DEVELOPMENT WORK: The only development work on the property is a short crosscut tunnel (29 ft.) and 19 feet of drifting along one stringer of cinnabar; and a number of small surface cuts exposing the quicksilver zone.

GEOLOGY: The rocks exposed in the area are rhyolite flows which have been intruded by andesites; and all are highly altered and leached by hydrothermal action. Along the zone which has been prospected is a fault striking almost E-W and dipping steeply to the south. Considerable gouge has been developed along this fault and it has undoubtedly acted as a trap under which the mercury solutions have precipitated. There are two high-grade stringers of cinnabar which have been prospected on the surface; one of which has been cut and drifted on for 19 feet in the tunnel. It is about 1 inch thick, and in the tunnel is quite persistent; also, one of them has been traced for a distance of 200 feet on the surface.

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The one seen in the tunnel is undoubtedly the hanging wall streak, for the two have been found on the surface above the tunnel (see sketch map). However, in the shallow cuts east of the tunnel it is not entirely clear just which one has been exposed, since they are only from ten to fifteen feet apart. It is believed, though that it is the footwall streak which is exposed in the cuts.

One of the most interesting features of the area is the cinnabar that can be panned from the surface soil over a large area. Pannings indicate that the zone is about 300 feet wide by at least 2500 feet long; and in some places the dirt pans one or two pounds. In one small hole five or six hundred feet west of the tunnel the leached andesite under the soil pans coarse crystals of cinnabar.

SAMPLING: Only six scout samples were assayed; and in taking the ones in the surface cuts an attempt was made not to include the high-grade seams. The sampling data are shown on the sketch map. The high-grade streak cut in the tunnel is about 1 inch thick. The sample across it was taken 6 inches with the idea that if selective mining by stripping should be used this width would represent what would be taken.

The shallow surface holes are still in the weathered rock and it was impossible to get all fresh material in any of the samples except #8.

TONNAGE POSSIBILITIES: With so little work done on the ground it is futile to discuss any tonnage possibilities or grade of ore to be expected except from one angle.

The showings exposed justify development of the ground; and the

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grade and persistence of the high grade streak indicates that the ground will at least pay its way on a development campaign if it is so desired. Assuming a block of ground 200 ft. long by 20 ft. deep by the 6 inch width of 8% ore we have 200 tons of roughly \$400 value per ton, or a gross of \$80,000 which would be recovered from pipe retorts while developing to determine whether a sufficient tonnage of lower grade rock to justify a rotary furnace would be found.

CONCLUSIONS: In my opinion the showing on this property justifies the expenditure of \$13,000 to \$15,000 to sink 50 feet below the tunnel level, drift and crosscut 250 feet and install a 2-pipe retort.

The expenditures would be about as follows:

(Immediate)

Cash payments on lease and option	\$1200	
Compressor, Tugger hoist, pump & Accessories	2500	
Pipe retorts, installed	1000	
Pickup truck	<u>1000</u>	
		5700

(Later)

Minimum Royalty payments \$200/month	1200	1200
Shaft sinking -- 60 ft. @ \$30	1800	
Drifting & Crosscutting, 250 ft. @ \$10	2500	
Miscellaneous & Contingencies	<u>2000</u>	
		7500

Total		\$13,200
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Procedure should be: (1st) Crosscut N from end of tunnel 20 feet to cut the other high-grade streak showing on surface. (2) Raise to surface from tunnel on best stringer and (3) sink on this to 60 feet below tunnel. At 50 ft. below tunnel establish level and crosscut to other wall, then drift both east and west to limits of ore.

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The pipe retorts could be installed as soon as convenient. If the high grade streak persists as it shows now, a minimum of 500 pounds of it per day would be sorted or stripped from development muck; and this would give a current income of \$100 per day; so that that part of the expenditures marked "Later" would not all be needed as capital outlay.

After the development work is finished a decision can be made on whether or not a rotary furnace is desired. And if one is not indicated a salvage operation can be conducted which would not only return the capital invested but would leave some profit besides.

During the course of the prospecting outlined above additional trenching should be done on the outlying parts of the ground which give good pannings; as there are possibilities of developing a considerable tonnage of low-grade ore. I have not gone into detail on this phase because the logical thing is to start on what are now the best showings.

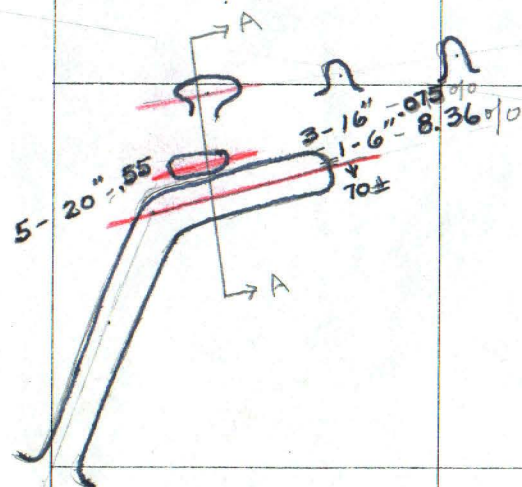
Respectfully submitted,

H. H. Hughes Jr

Elko, Nevada
Aug. 24th, 1942

H. H. HUGHES, JR.
MINING ENGINEER

$\frac{1}{4}$ " seam of Cinnabar



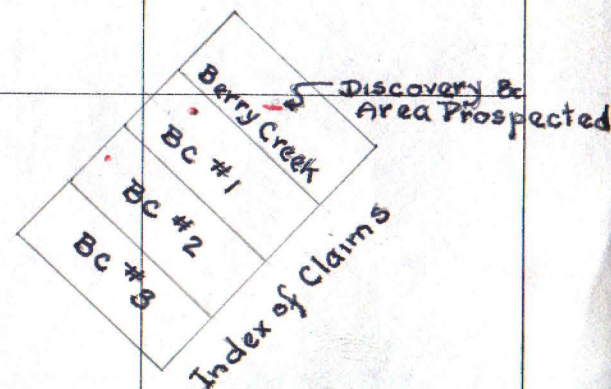
Section Thru A-A
Looking West

Samples

No.	Width	Assays of Hg	Lbs.	Value
1	6 inches	8.36	167.	\$417.50
3	16 "	.075	1.5	3.75
5	20 "	.55	11	27.50
6	30 "	.26	5.2	13.00
7	24 "	.18	3.6	9.00
8	48 "	.26	5.2	13.00

SKETCH
of
BERRY CREEK MERCURY PROSPECT
Tuscarora, Elko County, Nevada.
Scale 1" = 20'
Aug. 1942
To accompany Report by H. H. Hughes.

0 20 40 ft.



446 S. Oakland Ave.
Pasadena, Calif.
25 Aug., 1942

Dear Doc:

Inclosed is my report on the Berry Creek prospect out from Tuscarora and Elko. Of course it is a great let-down from the 35 x 1200 ft. of 15% ore as claimed, but it still is a darn fine looking prospect and well worth digging on. And the streak of 8.% ore could make some money by itself, not to mention the possibilities of eventually developing a tonnage of low grade.

I stayed in Elko until Walt Lenhart got there and showed the thing to him. He recommended the thing to Smith; and you may hear from Smith direct, since officially you have the option. Walt said that he thought the best Smith would go for on a deal would be a 5% over-ride for a total of \$25,000 for you. The deal with the owner calls for a \$500 cash payment, \$200 per month minimum royalty and a full price of \$50,000. Then Mrs. Lenhart wants her expenses in cash (\$500 or \$600), and if Smith takes it nothing more; but if anybody else takes it she will put on another \$25,000 to be paid from an overriding royalty also. The owner's royalty now is to be 10%, but he told me that he will cut it to 7½%.

The thing would be a cinch for a government loan; but the deal would have to be worked out differently, which would take time and cost money; so under the circumstances it seems to me that our quickest and best bet is to let Smith have it if he will take it on the basis outlined. From some of the things I have seen Gray refuse to dig on I am afraid that, with the cash payment involved, the Nivloc wouldnt have the vision or guts to take a chance on it. It might be that the Ryans would be interested; but they would want to examine, of course; and we have only a 30-day option which might not give enough time, so again, it looks from any angle that Smith would be the best one to have it. I told Walt that if Smith would let me operate it, and wanted to, I would do it for a cut in the profits, if any, plus my expenses and a drawing account for the family to eat on. And if he should take me up you can take all of the 5% override for yourself. In any case let me know what you want to do.

I went out to see that copper-zinc I mentioned to you; and it looks pretty good. The sulphide Cu-Zn is off to one side of an old silver-lead producer in limestone (oxidized). The sulphides are in a garnetized zone in the lime, something like those at Naica. I am sending a sample to Woolley at Salt Lake to see if the U.S. Smelting will pay for both the Cu and Zn; as the one drawback might be in difficulty in separating. It is supposed to go .03 Au, 9 Oz. Ag; 4.5% Cu; 10% Zn and 6% Pb (I cant see that much Pb). There are several raises up through the flat orebody of it and could make quite a tonnage.

Best regards,