

LEWIS CAMP

UP BRIT RIVER

PAPER

REPORT

BY

... on the place of ... **DR. A. MALINOVSKY** ... **TO** ... **MR. A. L. JUDE**

LOS ANGELES, CALIF.

... of ... ~~CONFIDENTIAL~~

... **AT** ... **LEWIS CAMP** ... **BAKER COUNTY, OREGON** ...

... and ...

of

## ASBESTOS CLAIMS

at

BURNT RIVER, BAKER COUNTY, OREGON

1. This report is the result of an ASBESTOS MINERAL SURVEY made on the place of resource, and known as the LEWIS CAMP, which is located in BURNT RIVER DISTRICT, BAKER COUNTY, OREGON, Township 12, South Range 41, East Section 16 and 17.

2. This report has been prepared with the special intention of covering the project in as complete a manner as possible without entering into technical descriptions and is purposely made brief to avoid producing any confusion of mind in reading which might possibly arise from treating the various points in too much detail.

3. ~~The asbestos which is located on a considerable wide area, where~~ out-croppings occur on the side and on the top of the mountain known as HORN-BLENDE, and at other adjoining mountain ranges. On the top of this HORN-BLENDE MOUNTAIN, which has an altitude elevation of 1,240 feet, and about 600 feet further in, are eight (8) openings cut through. The work of the openings has been done as prospecting cuts to expose the asbestos; which are not yet developed at the present time of inspection to such an extent as to warrant calculations of the amount of asbestos present.

4. The examinations of these openings reveal that the asbestos occurs in regions occupied formerly by the older eruptive and metamorphic rocks in fibrous form, such as secondary and true form; such as AMPHIBOLE, and asbestos.

5. The position of the asbestos as found in veinlets; that is, to movements in the mass of rock whereby the asbestos mineral has undergone crystallization, compressed laterally and drawn out along the line of least resistance. It is seen that the structure of the asbestos is an extreme development of the prismatic cleavage due to the shearing forces.

6. At opening No. 1, the asbestos deposit occurs between platy masses along the slickenside zone so called soapstone and shistosite (which is an altered pyroxenite). West of the shistosite the contact wall is a stratum of slate, and east of the contact wall is a stratum of serpentinized limestone and pyroxene rock interlaced with olivine.
7. The fibrous asbestos mineral running in a horizontal vein parallel, for a distance, (the length not yet determined). Two forms of asbestos are present, one which is AMPHIBOLE (hard and can not be spun except by special processing), and represents about 80% of the mass. The other type of asbestos represents about 20% of the mass and it is CHRYSOTILE asbestos (which is soft wool-like after it is ground and can be spun into yarn). Both are white in color.
8. The other open cuts reveal the fibrous asbestos running in veinlets perpendicular (in a width from 1/2 inch to 2 inches) with the direction of movements which has taken place, and the two contact walls are composed of metamorphous rocks and slate. Some of the open cuts and outcroppings show the presence of actinolite, serpentine, talc, porphyry, rhyolite, and dolomite.
9. The country rock surrounds the LEWIS CAMP (BASIN) by the mountains. The northern mountains are of well weathered shale, slate, limestone, and dolomite; the eastern mountains, altered olivine, and pyroxene; the western mountains, slate and graphitic shale; the southern mountains rocks are composed of a series of metamorphosed sedimentary rocks. All of these mountains show large dikes of green, to grey black rocks of fine grain.

10. Analysis made of the two kinds of asbestos found at No. 1 open-cut, gave the following results:

	No. 1.	No. 2.
Aluminium ( $Al_2O_3$ ) - - - - -	.50%	1.58%
Iron ( $Fe_2O_3$ ) - - - - -	.40%	4.80%
Line (CaO) - - - - -	.60%	4.38%
Magnesia ( $MgO$ ) - - - - -	38.59%	28.62%
Ignition Loss ( $H_2O$ ) - - - - -	9.64%	.79%

11. Analysis No. 1 represents Chrysotile asbestos, and analysis No. 2 represents the Amphibole asbestos.

12. No. 1 is practically free from iron, and is an excellent non-conductor of electricity, fine yarn can be made to cover, and thus insulate copper wire, and can be largely used for fire-proofing theater curtains, spun into yarn or rope, and woven into clothing, shoes, gloves, brake bands for motor cars, etc.; boiler and pipe covering to preserve the heat, and for filtering acids and other corrosive chemicals.

13. No. 2 can be used for millboard, fire protecting wall and hollow tiles; floor and roofing tiles, stoves, plaster, stucco, and also mixed in Portland cement, or with magnesia cement, flue linings, and flue pipes.

MINING and MARKETING the RAW and PROCESSED ASBESTOS.

14. As to the commercial possibilities of this project, it would be well to keep in mind the following outstanding features:

A. Quantity and quality of the raw asbestos present.

B. Cost of mining operation, and marketing of the raw product.

C. Cost of mining, processing, and marketing.

D. Sound railroad transportation, reaching the markets.

E. Distribution of the raw, and of the manufactured, or semi-manufactured products.

F. Cost of selling, depreciation on equipment, advertising, competitive selling price per ton on open market.

G. Investment in the mine, equipment, and grinding plant.

H. Working capital.

I. Power and freight to railroad.

TO SECURE THE INVESTMENT

15. To develop the asbestos deposit for commercial operation, considerable amount of capital and time will be required:

- A. Clean the over-burden, to expose the asbestos deposit in order to be able to determine its commercial value. This will require an investment to pay the labor for a period of from one to two months, as this will be the time required.
- B. The asbestos must be lowered from an elevation of about 1,800 feet. This will require a chute, or an endless conveyor.
- C. Cost of transportation by truck for about 44 miles to the nearest railroad station at Baker. Of the 44 miles, about 8 miles of the road must be conditioned in order that a ten-ton truck would be able to pass over the road safely. The rest of the 36 miles, the trucks must travel over a high mountain (5,892 ft. elevation) winding road, to reach Baker, which is the nearest railroad station. A 15 mile road contemplated by the County to Baker at the river bed level would later eliminate travel over the mountain grade.
- D. Labor and equipment, for mining, and transportation from the place of mining to the bottom of the mountain; Buildings and equipment for grinding, power, water, and light.

16. This will require a capital of more than \$100,000.00, with a very long time for returns to be expected. Creating a market will require a sales force of a few men. Meeting the resistance of the present established open market prices, of manufacturers already established for many years.

FOR FINANCING AND ASSURING THE INVESTMENT  
TO THE SOUND DEVELOPMENT OF THE PROJECT

17. To outline, and plant a new industrial project in the asbestos mining industry, there must be a favorable co-ordination or inter-relation of revenue, or income, must on hand to be able to finance the project of mining, processing, and marketing the product.

18. To avoid such a large investment, the following is recommended in order to insure a sound investment.

19. At my inspection of the surrounding terrain at LEWIS CAMP, and its vicinity, I have noticed the geology formations of the lode, placer and gravel; also the sedimentation layers of the mountains, and the floor of the basin.

20. It has also been brought to my attention that the gold deposits in this region have been obtained by the very crude method of panning and screening out the gold from the gravel and of the sediment formation. I witnessed the gold operations, myself, so obtained, and I brought the gold with me (which is still in my possession).

21. After I had satisfied myself of the possibility of winning the gold on a large commercial scale, I am satisfied that it will yield a good profit on the investment.

22. I have taken this up with Mr. Glaspell and the two Lewis brothers, where the proposition has been thoroughly analysed and discussed from every angle; and we all agreed on the possibilities of winning the gold by magnitude, well arranged system. We also agreed to make further investigation and research, and to sample the different gold deposits; which was done. I brought these samples with me for analyses to determine the gold value, and which has given the following results:

Description of Sample	Gold Value per Cubic Yard
1. S. & H Upper River west #1	0.085
2. S & H Upper River west #2 (A)	0.234
3. S & H Upper River west #2 (B)	1.350
4. S & H River Low Bar near River Level (Middle)	1.220
5. S & H Lower River East	Trace
6. Lewis B.	0.016
7. Lewis C.	Trace
8. Lewis Camp D.	0.005
9. E. Bottom 100-	0.190
10. E. Bottom 101-	0.015
11. E. Top 102	0.312
12. H. 4 Top-	0.015

13. I. 5 Top	Trace
14. J. 6	0.016
15. K. 7 Center	0.440
16. L. 8 Bottom	Trace
17. M. 9	0.012
18. N. 10	0.855
19. O. 5 Bridgeway directly across from Camp 300 feet above the stream	0.260
20. Horablende #4, Juniper Trees	0.700
21. Shaft gravel near wall 2 feet above bed rock	0.963
22. Glaspell Bar (made two assays)	4.230
	Gold Value Per Ton
23. Dark Canyon quartz South	0.850
24. Vic #30	0.700
25. Bitter Cup Blowout S. Center	Trace
26. Dark Canyon quartz North	Trace
27. Green Bluish Ore	Gold 41.650 Silver 33.880
28. Lewis #1	Trace
29. Lewis #2	Trace
30. Black Sand after amalgamation of Free Gold	140.00
31. Gold recovered	374.50
	<hr/> 514.50

23. I am satisfied that it will not require such a large investment as the asbestos project, and will yield a quick return and, at the same time it will help gradually in the future to finance the development work for the asbestos project.

24. Sections show the possible source of gold deposits.

GOLD DEPOSITS

24. Beside the BURNT RIVER BOTTOM there are two kinds of gold deposits, such as VEIN and PLACER, of which the latter is far more important. It seems to me, after I have examined the places that these veins have not been extensively developed.

25. The placer grounds occur in widely separated by the dykes. Entering the canyon at the south end along the Burnt River to the Lewis Camp ground. Here the gravel deposits are essentially of two kinds: those close to the bottom of the mountain and at the bottom of the mountain; and those in benches on the west side of the mountain side or ridges, all shown the presence of gold, even at about 600 feet high on the HORNBLAND MOUNTAIN side we have recovered gold.

26. The origin of the higher terraces gravels at the west mountain side are partly due to the drainage centuries ago by the flow of the river which resulted in the heavy accumulation of the gravel and sedimentation of gold deposits NEAR THE MARGIN of the plateau.

27. The stream has subsequently lowered the valleys, leaving the remnant of the earlier deposits as terraces and causing further concentration of the gravel, sedimentations, and gold deposits in the present river, and built sedimentations or hills. This phenomenon is very pronounced at the North easterly end of the canyon (Lewis Camp) where the gravel beds are more spread out.

28. The bed rocks are namely of quartz, rhyolite, and diorite; in some places basalt is present. These gravel strata contain a great abundance of rhyolite and quartz pebbles, evidently derived from the numerous quartz veins in the district which occur on all of the mountain ranges adjoining the Lewis Camp.

29. The BURNT RIVER containing large rhyolitic boulders and pebbles, which I think also must contain gold, and should not be over-looked. The river supplies sufficient water for the operation, and therefore it is an ideal location for placer mining.

30. ~~There are~~ buried placers and veinlets, shown by the presence of the large amount of auriferous gravel and quartz.



Certain amount of money should be at Mr. Caspell's disposal in order to buy all those claims which contain valuable gold gravel, sand, and ore; such as the black sand ect. . To clear and obtain all the legal rights to all the claims here involved, and to organize, control, and develop the project without any interferences in the future; legally or otherwise.

Based on my own knowledge and investigation of this project, I am convinced that the entire project is entirely practicable. As demonstrated by the enclosed results of the gold assay, it would be more logically practical and most safe to start first mining gold, and develop the asbestos later, which could be accomplished from the earnings and profits from the gold. Placer gold is mined today very successfully and pays good profits, which only yields from four to five cents per cubic yard. It is possible to handle from forty to sixty cubic yards of material per minute with present day equipment, which will not exceed in cost more than ten thousand (10,000) dollars or less.

When starting with the gold proposition it will not require such a large capital, and expensive equipment as would be necessary for mining the asbestos.

The entire investigation indicates to me that a substantial saving could be effected, and a more safe and sound investment by beginning with the gold mining. The broad division of this phase of the whole project appears evident, because the so invested capital contains all the possibility necessary to produce early earnings, and at the same time affords opportunity for larger profits.

Respectfully Yours,