

REPORT

On

Alberni Group of Claims Vancouver Island, B. C.

by

H.V. Warren, D.Phil. Imperial Bank Chambers Vancouver, B.C. August 28th, 1933

PROPERTY FILE

ALBERNI GROUP OF CLAIMS

Date of Examination.

A day and three quarters were spent examining the property. The first day was spent in sampling and the remainder of the time was spent in climbing over the hills in the vicinity of the workings and in taking a few extra samples.

I was ably assisted by Mr. Jukes, who represented Mr. Hoffar, and by the workmen under Mr. Jukes.

The property was visited on the 22nd and 23rd of August. 1933.

Location.

The claims are situated on Mineral Mountain down which flows Mineral creek, a tributary of China creek which is in the Alberni Mining Division, Vancouver Island, B.C. The junction of Mineral and China creeks lies about 10 miles east of Port Alberni.

Number of Claims.

The property under consideration consists of four Crown-granted claims, the Alberni, Chicago, Warspite, and Victoria, and are known as Lots 205, 206, 208, 207, respectively, and 16 other recorded claims. These claims were formerly the property of the Alberni Consolidated Gold Mines Limited and are now ewned by Vencouver Island Gold Mines, Ltd.

The claims were first staked in 1895. Considerable litigation held up development which, however, commenced in 1896. During this year the shaft was sunk on the vein which, hereafter in this report, will be referred to as the "shaft vein.". A continuation of this vein was believed to have been found in an opencut about one-eighth of a mile to the south. This opencut was all but obliterated at the time of my visit and the vein could not be examined.

In 1897 these claims passed into the hands of an English company and several trial shipments were sent out and tested with satisfactory results.

In 1898 an eight-stamp mill was erected on the property with a capacity of ten Lons a day. Two favourable clean-ups were made and several new discoveries took place. Since this time we can find no record of any further work having been done.

As far as I have been able to discover, the only published reports bearing directly on this property are those of the B.C. Minister of Mines for the years of 1895-99 inclusive.

Transportation.

A logging railway belonging to the Alberni Pacific Lumber Company runs past the foot of Mineral Hill and the claims are thus within but little more than one mile from a railroad which connects directly, both with the sea and with the C.P.R. railroad at Port Alberni. An old switch back wagon-road leads from the railroad to the property and this could be placed in a state of repair without much cost. The present workings are less than 2,000 ft. above the railroad.

Topography.

The claims are situated on a hillside with steep slopes and the area, as a whole, is one of early maturity.

In spite of this favourable topography, diamond drilling is not recommended on account of the eratic nature of the ore.

Geology.

<u>General Geology</u>. All the rocks on and in the vicinity of the claims belong to the group which C.H. Clapp of the Geological Survey of Canada has termed the Vancouver Volcanics. His description of these rocks shows them to extremely variable in composition but chiefly to be andesites, augite andesites, with some dacite tuffs, together with various other related types.

> Quoting C.H. Clapp: Memoir No. 13. Canadian Geological Survey, P. 51.

"They are usually dark green in colour, but the finer grained, sometimes silicified, varieties are light green. They have been sheared and altered, and the green colour is largely due to secondary chlorite. They are cut by veinlets of quartz, epidote, and calcite and are commonly impregnated with pyrite."

No platonic rocks were observed in place anywhere on the property.

<u>Mineralization</u>. The mineralization occurs along well defined zones of faulting or shearing. A well-defined fault forms the hanging wall in all the veins which could be seen.

Ore Minerals. Native gold is the most important ore mineral. Pyrite is intimately associated with all the shear zones and is probably associated with the gold values. Zinc blende is also reported but was not definitely identified in any of my samples. <u>Gangue Minerals</u>. Quartz, calcite, and inclusions of county rock comprise the bulk of the gangue. Quartz of at least two, and possibly three, generations occurs and one of these, a dark blackish variety, is always associated with the free gold.

<u>Ore Bodies</u>. No ore-bodies of any importance are exposed at the present time. Apparently from 500 to 1,000 tons have been stoped out in the past.

At the time of my visit, two veins were recognized and sampled. The first of these was the shaft already mentioned and the second was a vein exposed by an adit. This vein will be referred to as the "adit vein."

The shaft vein has a variable dip and strike but a strike of North 15 E. and a dip of from 55-65 degrees in an irregular manner. It pinches out entirely near the surface but is strong near the bottom of the shaft where it is about 4 feet in width at the southern end and about 2 feet at the northern end. About 200 tons of rock and ore, or possibly a little more, have been removed from this stope.

At the adit vein a 100-foot tunnel had been driven in to cut the vein about 50 feet or less below the surface and the vein had then been followed for about 170 feet. My sampling indicates that values were found in only one place. A well-defined <u>foot wall</u> had a strike <u>benging</u> of N. 17 degrees W. and a dip of about 70 degrees E.

The third exposure, which was mentioned, was not examined thoroughly on account of being nearly inaccessible at the present time. Here an old stope had broken to the surface, the development presumably having been by a shaft. Samples were taken of the vein where it was exposed at the north end of the caving. This vein may be the same as the adit vein, strike North 20 degrees W., dip 70 degrees E. It will be referred to temporarily as No. 3 vein.

The accompanying map shows a plan of the workings on the shaft vein and adit vein.

The assay plan is shown on this plan and the following is a summary of the assays:-

Sample No.	Vein.	Width.	Values calcu- lated at \$29 to the ounce.
1 2 3 4 5 6 7 8 9 10	Shaft vein n n n n n n n	<pre>4' channel. picked hanging-wall. picked centre. picked foot-wall. 2'2" channel. 2' channel. 2' channel. 4 width channel. ¹/₂ channel. ¹/₂ channel. grab sample.</pre>	 \$ 1. 16 . 58 . 87 . 29 1. 16 1. 45 3. 48 . 87 82. 94 1. 16
14 * 24 * 34 * 11 12 13	Adit vein n n n	4' channel. 4' " 4' " 4' " 1' quartz vein. grab sample	. 58 1. 16 1. 16 1. 16 9. 86 . 29
15 16 17	No. 3 vein "	l' of hanging-wall.gouge l' of centre vein material. l' of foot-wall gouge.	• 58 • 29 • 58

In addition to these assays there are many from a rich pocket of a few tons on the upper crosscut on the shaft vein. These return assays of \$100-\$300 per ton.

From personal observation in conjunction with these assays, it is possible to say:

(1) That gold does occur in almost all the veins.

(2) That the values are variable.

(3) That the gold is usually associated with quartz of a dark variety.

* These samples taken by Mr. Jukes.

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- (4) That the footwall is not definite, values alone determining the mining width of the vein.
- (5) That apart from the dark quartz the values in the mineralized shear zonem are too low to be counted as ore.
- (6) That the building of the road to the mine and the installing of a mill was unjustified and represented a grave error in management.
- (7) That there has been no systematic exploration of the ground at a depth below 50 feet.
- (8) That no heavy expenditures on machinery, mill, or the like could be justified at the present time.
- (9) That some money might justifiably be spent on surface exploration and that the opening up of the ground in the vicinity of the intersection of the adit and shaft veins presents attractive possibilities.

Climate.

The climate along the west cost of Vancouver Island is moderate, the average temperature being in the vicinity of 40 degrees F. in winter and 55 degrees F. in summer. The rainfall is exceptionally heavy being about 120 inches, most of which occurs in the winter, a large portion occurring as snow. In the vicinity of the mine heavy snowfalls are the rule in winter.

Timber.

Excellent timber occurs on the property and a supply more than adequate for all the needs of the property is assured. I understand that the timber rights are not alienated.

There is little underbrush and this, together with a comparatively shallow covering of soil and broken rock, will render surface prospecting very easy.

Water.

There is sufficient water in the creeks on the claims for domestic purposes but not for power or milling purposes.

Milling.

I believe that the best site for a mill would be near the junction of Mineral and China creeks. The treatment of the ore should be simple and there would be no difficulty in the disposal of tailings. Maps.

(a) The general position of the claims.

(b) A sketch map of the workings on the shaft vein.

(c) A sketch map of the workings on the adit vein.

The last two also serve as assay plans.

General.

<u>Camp site</u>. A camp site should be established as near the workings as possible. A suitable site could be chosen without difficulty. In choosing a site, the possibility of snow slides would have to be considered.

<u>Buildings.</u> There are no buildings on the property at the present time, a ruined cabin serving as headquarters during my visit.

Equipment. There is no equipment on the property at the present time.

Recommendations with reasons for such:

Should this property be taken up, the following is the outline of work which should be carried out:

<u>Primary Development</u>. This should consist of
 (a) Systematic search for all the veins occurring on the property.
 (b) Detailed topographic and geological mapping of the claims so that all workings and veins, old and new, could be accurately recorded.
 (c) Establishment of a permanent camp.

(d) Cutting out a good pack trail up to this camp.

Should this work reveal no unexpected results, the winter should be spent in underground development which might be termed the second phase.

2). Secondary Development. This should consist of

- (a) Driving an adit to cut the intersection of the shaft and adit veins at a depth of about one hundred feet.
- (b) Driving cross-cuts on both the adit and shaft veins from the above intersection.
- (c) Driving an adit at any other suitable place which may have been determined by the preliminary development.

At this stage, the installation of equipment for machine mining would be considered, should a sufficient quantity of ore be blocked out by this secondary development, the final stage could be entered upon, mamely: 31 <u>Production</u>. This would involve a mill and, possibly, if it had not already been used, the installation of machinery to permit of machine drilling.

A liberal estimate of the costs of the various steps would be as follows:-

	Total:	\$90,000.00
(3)	Production,	45,000.00
(2)	Secondary Development,	35,000.00
(1)	Preliminary Development,	\$10,000.00

Consequently, should none of the early work provide infor, mation which would force an abandonment of the property, it may be assumed that from \$100,000.00 to \$125,000.00 would be needed to bring the property to the production stage and that \$50,000.00 would be a sum adequate to explore the potentialities of the property; should the intersection of the adit and shaft veins prove to be the centre of ore enrichment, these costs could be lowered considerably.

Summary and Conclusions.

11). That the failure of the property in the early days was due, in part, to the small, irregular, and "spotty" character of the orebodies, and, in part, to bad management. This bad management included the building of a mill long before sufficient tonnage was developed and, likewise, the building of an expensive wagon-road up to the property.

(2). That due to the increased value of gold and to the proximity of the railroad, the possibilities of the mine today are considerably more attractive than they were thirty years ago.

(3). That the feasibility of adit level development will permit of low mining costs.

(4). That the presence of material running about \$1.00 in the vicinity of the shear zones will to some extent lessen the cost of development work.

(5). That, on the finding of occasional pockets of ore, from five to one hundred tons in size, with values from \$100.00 to \$250.00 a ton, will hinge the success or failure of the mine.

(6). That efficient management, the lowest possible capitilization and overhead, will be absolutely essential if the venture is to succeed. (7). That, taking all the above factors into consideration, the property is attractive as a highly speculative venture, because of the possibility of very large returns on a relatively small capital outlay.

Respectively submitted,

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(sgd) Harry V. Warren for Langley and Warren

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MINERAL OCCURRENCE #6 (Hunting's Survey #1; Muller's #1)

"Vancouver Island Gold Mines"

GENERAL INFORMATION:

Location and Access:

Located 9½ miles SE of Port Alberni up China Creek road (in city of Port Alberni water-shed area), then up Mineral Creek for 1½ miles, where switch-back road leads to old mine camp. The workings are on the hillside above and close to camp. Elevation about 2,600' to 2,800'.

Reports and References:

B.C. Minister of Mines Annual Reports: (see under "Alberni Consolidated" and/or "Consolidated Alberni Gold Mining Co.") 1895, 1896, pp.1, 504; 1897, pp. 566, 569; 1898, pp. 1132, 1160; 1899, pp. 151, 796; 1904, p. 250;(see under "Vancouver Island Gold Mines") 1933; 1934, pp. A28,29,F2; <u>1936, pp. F25-F30</u>; <u>1944, p. Al48</u>.

> (Two of the best reports are: <u>1936</u>, pp. F25-F30 (which gives a detailed account of work done until 1936) and <u>1944</u>, pp. Al42-G161 ("Geology and ore deposits of the China Creek Area, Vancouver Island, B.C."). Both reports are by J.S.Stevenson.

B.C. Dept. of Mines Bulletin No. 20, Part V, 1944: "Lode Gold Deposits on Vancouver Island, by J.S.Stevenson.

CPOG report: "The Mineral Resources of the E & N Railway Co. Land Grant, 1962 (?), pp. 69-70.

Gunnex report: T.F.Schorn's report on Vancouver Island Gold Mines Ltd., July 17, 1964.

Standing:

The property consists of at least 8 Crown-grants; 205G, 206G, 207G, 208G, 214G, 216G, 217G and 220G. There are following additional Crown-grants either adjoining or nearby: 218G, 219G, 220G, 221G, 227G, 43G, 146G and 215G; it is not known if these are part of the same property.

According to Stevenson (1944) the property was originally owned by Consolidated Alberni Gold Mining Co., and later by Vancouver Island Gold Mines, Ltd. (care of C.W.Mainwaring, B.C.Electric Railway Co., Vancouver).

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PROPERTY FILF

According to claim map of August, 1964, the area of Crowngrants had been staked by a group of 14 claims. In January, 1965, only 3 claims are shown. No Crown-grants are shown on these latest claim maps, except #215G, a separate lot about 1 mile NW of main showing, which is now a mineral lease. This probably means that all the grants were reverted to the Crown. Matter could be cleared up in Mining recorder's office in Port Alberni.

GEOLOGY:

The property is in <u>Sicker volcanics</u>, which include andesitic tuffs and flows, strike north and dip 25°W. "Granitic" rocks are reported, a short distance west of property (although both on Hunting's and G.S.C. (Muller's) maps the nearest diorite is at least 2 miles to the west).

Three quartz veins have been developed and mined by five driftadits. Two of these strike NW and dip 40°-55° SE, while the third strikes N and dips 80°E. They are from few inches to one foot wide, but occasionally up to 4 feet wide. They contain some pyrite and occasionally a little free gold; each follows well developed shears.

A carbonatized shear zone, 40 feet wide, was prospected also; this contained many small stringers of quartz, with uneconomic gold values, (After Stevenson, 1944).

SUMMARY OF WORK:

The property was worked in the late 1890's by the Consolidated Alberni Gold Mining Company, when an 8-stamp mill was built and the quartz veins were developed and mined by five drift-adits.

It was again worked for three years between 1933 and 1936, after which work was suspended, by Vancouver Island Gold Mines, Ltd. This company built a 35-ton pilot mill in 1936, but because of operating difficulties milled only a few tons of ore. Total production has amounted to 403 tons of ore, containing 303 oz. of gold and 52 oz. of silver. During the same period the 40' wide carbonatized shear zone was prospected in the creek by stripping, open cuts and a few short adits. (After Stevenson, 1944).

No work was done on the property since then.

T.F.Schorn of Gunnex Limited visited the property in July, 1964. He reported (summary):

> The road from China Creek is passable only by foot; one 75' long bridge and numerous small ones are out. Old buildings have all collapsed. Adits and pits were hard to find; the ones found were all caved in and could not be entered. Bush has covered workings.

Two grab samples were taken from dumps. Three samples, 5' each, were taken over 15' exposure at strong shear in the creek bottom. This shear is parallel to creek, dips 70°, and contains some sulphides.



Assay results are:

Grab:	Au - 0.01 oz.	Ag - trace	
Grab:	Au - 0.01 oz.	Ag - trace	
width 51:	Au - 0.01 o ₇ .	Ag - trace	Cu - 0.03%
width 5':	Au = 0.02 oz.	Ag - trace	Cu - 0.03%
width 5':	Au - 0.01 oz.	Ag - trace	Cu - 0.01%

Claim posts near mill, on the road showed that the area had been staked on Feb. 19, 1964, by John Leontowich for A.R.Williams.

There are remains of a flume (placer-mining?) at the junction of China Creek and Mineral Creek.

According to Harry "Cougar" Brown, an old cougar hunter living near China Creek, some placer mining had been done in Mineral Creek in 1940's; while bigger equipment was planned to bring in, it was stopped by the water board.

Also, according to Mike Jackson, a timber cruiser, there is a 50° compass deviation west of the creek. Terry found a piece of magnetite float on the west side of Mineral Creek valley.

Some prospecting and sampling was done by our crew in the area north and east of here, but not here. An old trench was found at the headwaters of Mineral Creek (by Karlsson), but apparently nothing else of interest. Douglas reported mineralization in Kammat Lake area, several miles east. The mine has not been visited by the writer. Mapping has to be done in the area next summer.

> H. Laanela January, 1965.

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