

REPORT

ON

TRANSVAAL CLAIM GROUP

KAMLOOPS M. D.

by

H. D. Ferman, P. Eng.

March 20, 1967

I N D E X

TRANSVAAL CLAIM GROUP

KAMLOOPS N. D.

Summary	1
Introductory.	3
The Property.	3
History	4
Location & Accessibility.	4
Topography.	4
Limiting Factors.	5
Geology	5
Exploration	6
Proposed Exploration.	8
Certificate	10

TRANSVAAL CLAIM GROUP

KAMLOOPS N. B.

SUMMARY

The Transvaal Claim Group is situated within the Highland Valley and occupies a strategic position along the western boundary of the claims at present being successfully developed by Southseas Mines Ltd.

The claims are known to be underlain by granodiorite rocks classified as a part of the Guichon Creek Batholith, which forms the host rock for most of the major copper deposits in the valley. Two zones of brecciation within the granodiorite are known to outcrop on the property and past exploration has proven these to contain low-grade copper mineralization.

Former exploration has been concentrated on the most northerly of the breccia zones in and around the Imperial shaft. This work has explored a narrow vein system along a north south shear pattern, but has done little to outline the area of the brecciated zone nor to establish its relation with the second zone three thousand feet to the south.

Southseas Mines extensive surface and underground program has reasonably well established that the most favourable conditions for ore deposition occur where a zone of brecciated rocks has been subjected to intense fracturing or shearing. Therefore the search for ore on the Transvaal ground would best be served if first exploration were directed to outlining the extent and continuity of the brecciated rocks. Particular attention should be given to those areas that are apt to be intersected by the shear patterns of the region.

The exploration program recommended is designed to obtain

this objective and is flexible enough to allow alteration, as the results from each successive trench are mapped.

It is estimated that this preliminary program will require an expenditure of fifty thousand dollars (\$50,000.00) to adequately explore the potential of the group.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "H. D. Forman".

H. D. Forman, P. Eng.

TRANSVAAL CLAIM GROUP

KAMLOOPS N. D.

INTRODUCTORY

The claims listed as comprising the Transvaal Group represents one of the earliest stakings recorded within the Highland Valley area. This group has been sporadically explored throughout the past sixty-five years.

Past exploration has been largely confined to the mineral showings in and around the Imperial shaft and in a lesser degree to the showings near the Highland shaft.

The present examination was undertaken in the attempt to determine whether the past exploration programs had delimited the properties possibilities or whether the ground was worthy of exploration on a broader bases.

THE PROPERTY

The property consists of eight mineral claims and two fractional mineral claims, all of which are crown grants. These claims are as follows:

<u>Claim Name</u>	<u>Lot Number</u>
Transvaal ✓	194
Pretoria ✓	195
Imperial ✓	196
Chamberlain ✓	197
Makoking ✓	198
Ladysmith ✓	199
Pretoria Fraction ✓	200
Glenora ✓	4467
Highland ± 2 ✓	4468
Glenora Fraction	

HISTORY

The property was first staked in 1899 and first exploration commenced in 1901 and 1902. In 1906 and 1907 the Consolidated Mining & Smelting Co. optioned the ground and carried out the underground exploration on the Imperial Claim.

This company then dropped their option and a series of abortive attempts to further explore the ground are recorded up to 1955, when Jackson Basin Mines secured the claims and carried out a exploration program which accomplished little more than reopening the ground explored by early efforts. In more recent years Bethlehem Copper Mines held an option on the six more northerly claims in this group. This option was relinquished in 1966 after the company had put in a series of bulldozer trenches around the Imperial shaft.

LOCATION & ACCESSIBILITY

The property is situated between the two summits of Forge Mountain at an elevation of approximately 6000 ft. It is readily accessible by twenty miles of blacktop road from Ashcroft to Bethlehem Copper Mines and then by seven miles of rough gravel road running northward to the property.

TOPOGRAPHY

This section of the Highland Valley is characterized by a series of rounded mountain ridges and peaks seldom rising above 6500 feet in elevation. The intervening country consisting of gently sloping, well wooded hillsides.

The area is largely covered by glacial moraine and well blanketed with small closely spaced jackpines. Streams occupy sharply eroded ravines, irratically cut throughout the heavy glacial mantle by the flood waters of the spring break up.

LIMITING FACTORS

The climate of the area is not extreme, with short warm summers and long but reasonably moderate winters. Snowfall can be expected in early November and the spring breakup in May.

Timber and water for mining purposes are readily to hand and local sawmills within a thirty miles range fully capable of supplying all lumber needs. Hydro power lines at present follow the main highway to within seven miles of the property and power could be made available when needed.

Supply centres and labour sources are available in Kamloops, Merrit and Ashcroft and access to the metal markets has been established by rail and truckline to the Port of Vancouver.

GEOLOGY

The area occupied by the claims is underlain by granodiorite rocks, classified as a part of the Guichon Batholith of Jurrassic age. These plutonic rocks may be overlain in part by basalt rocks along the extreme western edge of the property.

The granodiorite is usually a grey to light green coloured rock, composed largely of quartz and feldspar with tourmaline and biotite comprising the major dark minerals.

The granodiorite has been brecciated in the vicinitys of the Imperial and Highland shafts, and within these areas of brecciation a series of veins or mineralized zones have been located. In the northerly showing around the Imperial shaft mineralization tends to favour a series of north trending fractures. At the Highland outcropping both the north and the north east zones of fracturing show copper mineralization. Reports on the underground working indicate that the veins were two to six feet wide, made

up of country rock mineralized with malachite chalcopryrite and chalcocite. On the surface outc mineralization favours joint and fracture faces and is seldom seen either massive or disseminated throughout the country rock.

EXPLORATION

The only workings available for examination were four bulldozer trenches which had been cleared of snow and other debris.

Number One Trench

This trench lies just north of the Highland shaft and extends seventy-four feet on a N67°E bearing. Bedrock has been exposed over a thirty foot section in the centre of the cut and consists of well brecciated granodiorite with a heavy preponderance of scooty tourmaline giving the rock a very black appearance.

Mineralization is limited to malachite, minor silicification and a little epidote.

Trench Number Two

Number two trench lies approximately one hundred and six feet N23°E of number one and is one hundred and fifty feet long on a N70°E bearing.

Forty feet from the south end this cut discloses fifteen feet of well brecciated granodiorite, mineralized with chalcopryrite. The trend of this zone is not clear, since this is the only portion of the trench to reach bedrock.

Number Three Trench

Number three trench lies approximately two hundred feet on a N60°E bearing from the Imperial shaft and the cut trends N10°E for over two hundred feet.

This trench discloses slightly weathered granodiorite throughout its entire length and follows a band of N15°E fracturing.

Weak intermittent mineralization consisting of malchite, chalcoppyrite and hematite is in evidence in a gangue of altered granodiorite showing silification and minor epidote.

Number Four Trench

This trench lies $S80^{\circ}W$ of the Imperial shaft and extends for over three hundred feet in a $N24^{\circ}E$ direction.

On its southern end the cut discloses a narrow band of black brecciated rock well stained with malachite. This zone appears to trend northerly and disappears under dump rock in this direction. The boundaries of this formation are not seen since the trench walls were sloughed at this point. Further northward fresh granodiorite outcrops and continues along the trench for the next two hundred feet, where it is cut off by a $N20^{\circ}W$ trending fault. Beyond the fault well weathered and fractured diorite continues to the end of the trench.

Southseas Trenching

Approximately fifteen hundred feet to the northeast of the Highland shaft and within two hundred feet of the east boundary separating Southseas and Transvaal ground, Southseas put in two trenches in 1966. These trenches trend east west and bare the bedrock for over two hundred feet. The writer visited these cuts during 1966.

The bedrock exposed in this work shows zones of brecciated rocks in the more southerly portion of the cuts and fractured but relatively fresh granodiorite in the more northerly section.

These cuts show malachite staining throughout their full length and strong chalcoppyrite and hematite over the more intensely fractured areas. Sampling of the better sections is reported to have assayed over one percent in copper.

PROPOSED EXPLORATION

The known ore occurrences on these claims and the results obtained in exploration on surrounding properties indicate that the most favourable regions for ore deposition lie within the brecciated rocks where they have been subjected to intense fracturing.

Exploration should therefore be planned to delimit the areas underlain by the favourable rocks and to provide a better knowledge of the shear, fault and fracture patterns of the area.

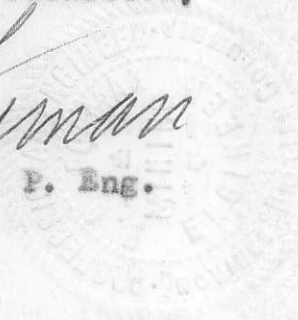
The area lying between the Highland shaft and the South-seas trenches on the east boundary of the Pretoria M. C. should receive first exploration as follows:

1. (a) The area around the Highland shaft should be trenched to the limits of the brecciated zone.
(b) Two trenches should be put in along the eastern boundary of the Pretoria M. C. in the attempt to trace the continuation of this mineral zone into Transvaal ground.
2. (a) In conjunction with the above work a survey grid of the claims should be completed and geological mapping and a limited soil sampling program undertaken.
3. (a) Subject to the results obtained in 1. and 2. and to the depth of overburden in the area three trenches should be laid out to test the intervening ground between the Highland shaft and the trenches on the Pretoria M. C. east boundary.
4. (a) A second area for exploration lies midway between the two shafts where a series of trenches should be laid out in and east west direction to provide information on the extent of the brecciated rocks and the shear patterns.
5. (a) The above program should provide the necessary geological information from which a further program can be planned

5. (a) and additional work laid out.
6. (a) The cost of the above program is estimated at \$25,000.00 but a further twenty-five thousand should be budgetted for since any potential ore zone uncovered in trenching will require further exploration by diamond drilling.

Respectfully submitted,


H. D. Forman, P. Eng.



C E R T I F I C A T E

I, H. D. Forman of Vancouver, B. C. certify that:

I am a graduate of the University of Alberta with the degree of B. Sc. in geology.

I am a registered mining engineer with the Association of Professional Engineers of British Columbia.

I have practised my profession both in Canada and abroad for over thirty-two years.

I have no interest either direct or indirect in this claim group nor do I expect to receive any.

This report is based upon a one day examination of the property made March 3, 1967 and upon personal experience in the area during the 1966 season.


Harry D. Forman, P. Eng.