

837

GEOLOGICAL REPORT

ON THE

BELLIVEAU and CLARKE CLAIMS GROUP

TRUAX CREEK AREA

Bridge River, B. C.

FILME

By:

E. P. Sheppard, P. Eng.
Consulting Geologist

Vancouver, B.C.
September 28, 1966

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DIVISION. Investigation No. MD2893. Flotation
tests on an Antimony Ore from the Gray Rock Mining
Company, Limited, Bridge River District, British
Columbia. July 31, 1952.

* * *

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GEOLOGICAL REPORT

BELLIVEAU and CLARKE CLAIMS GROUP

Bridge River, B.C.

SUMMARY

Mr. Len Belliveau and Mr. G. Harold Clarke are the owners of 10 full-size staked mineral lode claims located in the Truax Creek area, Bendor Range, B.C. The property was located in 1936. Since that time development work, consisting of 1400 feet of surface striping and trenching, outlined a quartz vein containing antimony, lead, zinc, copper, silver and gold mineralization.

Surface work was followed by underground development undertaken by Bralorne Mines Ltd. Two crosscuts were driven; the upper at 6800' elevation, the lower at 6500' elevation. Drifting was begun on the upper level after the crosscut intersected the vein and 30 feet of drifting was completed on the vein. On the lower level, 480 feet was driven on the vein in a westerly direction, with 30 feet of raising. 280 feet was driven eastward on the vein with 32 feet of raising completed. 990 feet of diamond drilling was done. The workings were sampled and work was suspended at the end of the season.

Flotation tests carried out by the Mineral Dressing and Process Metallurgy Division, Department of Mines and Technical Surveys, showed that 92% of the antimony could be recovered in a 50.2% antimony cleaner concentrate. (See Appendix)

A total of 77,700 tons of 3.00% Sb, 2.10% Pb, 10.00 oz. Ag, was calculated from assays and measurements made on the vein from surface exposures and underground workings. The ore is divided between Proved, Probable and Possible classes.

At present metal prices this tonnage makes the property attractive as a prospect. If additional ore can be developed along strike and downdip below the lower level, it is felt that the property could be developed into an 80-100 ton per day high-grade operation. It is with this in mind that the 2740 feet of diamond drilling has been proposed.

RECOMMENDATIONS

It is recommended that 2740 feet of diamond drilling be carried out from the crosscut on the lower level. These drill holes are designed to cut the No. 1 Vein at elevations 6240', 6160' and 6660'. Two holes are to be extended past the No. 1 Vein to explore for No. 2 Vein projected from surface. (See Diamond Drill Section)

BELLIVEAU AND CLARKE PROPERTY

Truax Creek Area, Bridge River, B. C.

INTRODUCTION

The silver-gold-antimony property described herein was examined by the writer on September 14, 15 and 16, 1966. Mr. Harold Clarke and Mr. Leo Delisle, both of Chilliwack, B.C., accompanied the writer on this visit. It was requested that a report be made on the property which would incorporate a summary of earlier work done and an examination of mine workings and old records. During the visit to the property, levels #1 and #2 were mapped and sampling was checked.

PROPERTY

The property consists of 10 staked mineral lode claims designated as follows:

Robin No. 2, No. 3, No. 6, staked by Harold Clarke, 153 Margaret Ave., Chilliwack.

Robin No. 1, No. 4, No. 5, staked by Len Belliveau, Fort St. James.

Stib No. 5, No. 7, staked by G. Harold Clarke.

Stib No. 6, No. 8, staked by L. Belliveau.

These claims are wholly owned by Mr. Harold Clarke and Mr. Len Belliveau. The location of the claims and their arrangement in relation to the 6300 adit portal is shown on the accompanying Claims Map. The claims are situated at the headwaters of Truax Creek near a U-shaped bend slightly less than half a mile from the source of the creek. The principal showings lie between 6400 and 7200 feet elevation on the northeastern slopes of a sharp ridge which separates the headwaters of Fergusson Creek from those of Truax Creek. Truax Peak, altitude 9,448 feet, is directly across Truax Creek and approximately 1.5 miles northwesterly from the showings.

The mountainside near the showings is characterized by steep rock cliffs and long talus, and above these by ridges or moraines of large-sized rubble left by a retreating alpine glacier. The showings consist of six or more approximately parallel veins striking northwesterly and dipping 35° to 65° southeastward. Only the three most conveniently located and best mineralized veins have been prospected.

Work done consists of stripping, open cuts and crosscutting on surface; drifting and raising on No. 1 Vein underground.

LOCATION & ACCESS

The property is on the south side of Bridge River, B.C., near the headwaters of Truax Creek. It is reached by 18 miles of truck road from Gold Bridge, B.C.

HISTORY

1936: Property was acquired by Gray Rock Syndicate. Reported on by E. H. Lovitt, who examined surface showings and sampled cuts and trenches. He reported that the property "showed unusual merit".

- 1946: Reported on by Stanley D. Townsend.
- 1948: Reported on by C. Rutherford, M.E., who sampled 1340 feet of surface exposure on No. 1 Vein. He reported favorably on the property, and recommended diamond drilling and driving adits to intersect the vein below surface.
- 1949: H. L. Hill, M.E., examined and sampled the surface exposures of Nos. 1 and 2 veins.
- 1949: J. S. Stevenson reported on the property.
- 1949: B. T. O'Grady, M.E., reported on property in B.C. Dept. of Mines Annual Report. Reported on progress and sampled showings.
- 1949: Transcontinental Resources Ltd had General Engineering Company run recovery tests on ore.
- 1950: No. 1 Crosscut was started on August 1st, at 6800 ft. elevation, and driven 400 feet before work was stopped for the winter.
- 1951: Adit driven 12 feet to intersect No. 1 Vein, drifted 25 feet and put in four diamond drill holes.
- 1952: 7.232 long tons of hand-cobbed ore was shipped to Antwerp, Belgium. Ore contained 50.20% antimony. Price, 42.5¢ per lb.
- 1952: Gray Rock Mining Co. Ltd made an agreement with Bralorne Mines Ltd.
No. 2 Crosscut was started in July, at an elevation of 6500 feet. Work continued until December. The No. 1 Vein was intersected at 994 feet from the portal and adit was continued an additional 202 feet. Total length of 576 feet of drift was driven on vein.
- 1953: 241 feet of drift was driven by Bralorne Mines on No. 1 Vein in No. 2 adit. Two raises, 40' and 37' long, were driven on the vein above this level. 959 feet of exploratory diamond drilling was completed in No. 2 adit. Bralorne suspended work on the property in August.
- 1955: Reported on by W. R. Bacon, Geologist, B.C. Dept. of Mines.
- 1959: C. Itoh & Co. Ltd offered a tentative agreement to Gray Rock Mining Ltd.
- 1963: Sumitomo Shoji Canada Ltd expressed interest in the property and a report was prepared for them by H. Hill & Starck & Associates Ltd. Giant Mascot Mines Ltd summarized the results of work performed on the property, at the request of Sumitomo Shoji Ltd.
- 1966: Property is dormant.

GEOLOGY

The showings are quartz veins in metamorphosed sediments in an embayment of the Bendor batholith. The batholithic rock is uniformly medium grained granodiorite consisting of 60% plagioclase, 17% quartz, 15% biotite partly altered to chlorite, and 7% hornblende.

The metasediments are mainly dark grey to greenish grey greywackes consisting of varying proportions of hornblende, biotite, chlorite, quartz and plagioclase feldspar of intermediate composition. Some thick layers contain fragments which have been squeezed and silicified. Conglomerate occurs containing white to bluish chert fragments, limestone pebbles and boulders, and calcite fragments. Bedding in the metasediments was noted in one area only; elsewhere it is obscure.

Two sets of fractures predominate. One set strikes northward and dips steeply to vertical. The second set strikes N 65° E and dips 35° to 70° southward. These sets of fractures have influenced the erosion pattern and appear to be responsible for the west and east draws. The net effect of these shear fractures on vein structure is small and their cumulative effect on the No. 1 Vein fracture is a right-hand offset of approximately 35 feet.

No. 1 Vein material consists mainly of lenticular masses of quartz containing some stibnite, tetrahedrite, galena and a little sphalerite. Stibnite is present in the quartz but is most abundant in lenticular bands a few inches to a foot or more wide on either wall of the vein. The underground work shows that No. 1 Vein structure persists down dip for 600 feet. In this vertical distance there is no change in mineralogy. In the horizontal distance opened up by No. 2 level, the vein was seen to be lenticular. It is felt that the true picture of the vein in strike and down dip is lenses of quartz occurring in a through-going sheared zone.

ORE RESERVES

In the present study, ore blocks were laid out as shown on the PROJECTION IN PLANE OF VEIN map. Assigned grades were taken from reports by C. Rutherford, Bralorne Mines, and the B. C. Dept. of Mines, 1954. Although individual assays may not match up with the old plans, it is felt that the overall weighted average is representative of the whole level and surface vein sampled.

The location, size and assigned grades of each block of ore are indicated on the above mentioned map.

Proved Ore is taken 60 feet below surface and 30 feet above and below a sampled drift. Probable Ore is taken as extending upwards or downwards from Proved Ore. Possible Ore is an extension upwards or

downwards past Probable Ore.

The waste block from 5200E to 5300E was taken from below the No. 2 level to surface. There is some evidence that this whole block is not waste but it was taken as such in the calculations.

The total tonnage worked out in the three classes explained above amounted to 77,700 tons @ 3.00% Sb, 2.10% Pb, 10.00 oz Ag.

Seven diamond drill holes, for a total of 2740 feet of drilling, have been laid out on the plan of the No. 2 Level and shown in detail on the Diamond Drill Section sheet. This program is designed to explore the vein at the elevations noted, and two holes are to be extended past No. 1 Vein to explore No. 2 Vein projected from surface.

If this drilling program proves successful, it is felt that the property could be developed into an 80-100 ton per day high-grade operation.

E. Percy Sheppard
E. Percy Sheppard, P. Eng.
Consulting Geologist



Vancouver, B.C.
September 28, 1966

BELLIVEAU and CLARKE CLAIMS GROUPORE RESERVESProved:

	<u>Tons</u>	<u>Sb.</u>	<u>Pb.</u>	<u>Ag.</u>	<u>Au.</u>
(1)	2900	9.00	1.10	18.50	-
(3)	2000	6.90	10.10	3.13	-
(6)	3000	3.50	2.00	8.00	-
(8)	2500	3.66	-	10.60	.017
(13)	1200	-	1.10	3.00	-
(15)	4000	2.00	1.10	13.00	-
(20)	4000	1.00	3.00	9.00	.017
	19600	4.00	2.40	10.00	-

Probable:

(2)	4000	9.00	1.10	18.50	-
(4)	4000	4.00	2.00	12.00	-
(5)	5000	4.00	2.00	12.00	-
(9)	4000	3.66	-	10.60	.017
(12)	2500	1.10	0.30	5.00	0.01
(16)	1600	3.30	1.00	10.30	-
(19)	7000	1.00	5.00	9.00	-
	28100	4.00	2.10	11.30	.003

Possible:

(7)	4000	3.50	2.00	8.00	-
(10)	2500	3.66	-	10.60	.017
(11)	4000	2.50	-	4.00	-
(14)	2000	-	1.10	3.00	-
(17)	3500	3.20	0.50	10.30	-
(18)	7000	2.00	3.00	10.00	-
(21)	7000	1.00	3.00	9.00	.017
	30000	2.10	1.80	8.32	-

TOTAL:

77,700 Tons @

3.00% Sb.

2.10% Pb.

10.00 oz. Ag/ton

BELLIVEAU and CLARKE CLAIMS GROUPORE BLOCKS

Block	Dimensions	Tons	Sb. %	Pb. %	Ag. oz/T	Au. oz/T
#1	$\frac{70 \times 3.8 \times 60}{10}$	1600	8.45	0.14	1.23	-
#1	$\frac{50 \times 4.4 \times 60}{10}$	$\frac{1300}{2900}$	$\frac{9.90}{9.01}$	$\frac{2.30}{1.10}$	$\frac{41.30}{18.50}$	$\frac{0.039}{\text{Neg.}}$
#2	$\frac{130 \times 3.2 \times 105}{10}$	4000	9.00	1.10	18.50	
#3	$\frac{130 \times 2.6 \times 65}{10}$	2000	6.90	10.1	3.13	
#4	$\frac{140 \times 2.6 \times 105}{10}$	4000	4.00	2.0	12.00	
#5	$\frac{150 \times 2.5 \times 150}{10}$	5000	4.00	2.0	12.00	
#6	$\frac{160 \times 2.5 \times 70}{10}$	3000	3.50	2.0	8.00	
#7	$\frac{100 \times 2.5 \times 160}{10}$	4000	3.50	2.0	8.00	
#8	$\frac{90 \times 4.6 \times 60}{10}$	2500	3.66	-	10.60	0.017
#9	$\frac{90 \times 4.6 \times 100}{10}$	4000	3.66	-	10.60	0.017
#10	$\frac{90 \times 4.6 \times 60}{10}$	2500	3.66	-	10.60	0.017
#11	$\frac{90 \times 4.6 \times 100}{10}$	4000	2.50	-	4.00	-
#12	$\frac{90 \times 2.3 \times 120}{10}$	2500	1.10	0.3	5.00	0.01
#13	$\frac{90 \times 2.3 \times 60}{10}$	1200	-	1.10	3.00	-

ORE BLOCKS -- cont.

<u>Block</u>	<u>Dimensions</u>	<u>Tons</u>	<u>Sb. %</u>	<u>Pb. %</u>	<u>Ag. oz/T</u>	<u>Au. oz/T</u>
#14	<u>90x2.3x100</u> 10	2000	-	1.10	3.00	-
#15	<u>220x3.30x60</u> 10	4000	2.00	1.10	13.00	-
#16	<u>75x3.30x75</u> 10	1600	3.30	1.00	10.30	-
#17	<u>200x4.6x60</u> 10	3500	3.20	0.50	10.30	-
#18	<u>200x3.5x100</u> 10	7000	2.00	3.00	10.00	-
#19	<u>200x3.5x100</u> 10	7000	1.00	5.00	9.00	-
#20	<u>200x3.5x60</u> 10	4000	1.00	3.00	9.00	.017
#21	<u>200x3.5x100</u> 10	7000	1.00	3.00	9.00	.017

DIAMOND DRILL PROGRAM

<u>Location</u>	<u>Hole</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>
S. end Crosscut lower level	G	N 60°W	-35°	330'
" " " " "	F	N 45°W	-35°	260'
" " " " "	A		-90°	450'
" " " " "	B	S 20°W	+50°	100'
S. end Crosscut -90'	C	S 20°W	-25°	650'
S. end Crosscut -210'	D	S 20°W	+40°	450'
S. end Crosscut	E	S 20°W	-25°	500'
				<u>2740'</u>

ESTIMATED COST:

2740 feet of AX Wireline diamond drill holes ...\$ 14,000.00

Supervision, logging, assays, transportation,

etc. ... 4,000.00
\$ 18,000.00

C E R T I F I C A T E

I, E. Percy Sheppard, do hereby certify that I am an independent Consulting Geologist with offices at 402 West Pender Street, Vancouver 3, British Columbia.

I am a member of the Association of Professional Engineers of British Columbia, the Geological Association of Canada, the Society of Exploration Geophysicists, and the A. I. M. E.

I have been active in mining geology and geophysics for the past thirty years.

I am a graduate of Dalhousie University, Halifax, Nova Scotia, with a B.Sc. in Geology.

The information for the accompanying report was obtained from an examination of the property and a study of Company records, assay plans, and pertinent geological reports, during the period September 14th, 15th and 16th, 1966.

I further certify that I have no interest in the property described herein and do not anticipate any interest as a result of writing this report.

E Percy Sheppard
E. Percy Sheppard, P. Eng.



Vancouver, B.C.
September 28, 1966

September 28, 1966

STATEMENT

In Account With:
Mr. Len Belliveau
and
Mr. G. Harold Clarke
1500 Marine Building
Vancouver, B.C.

September 1966:-

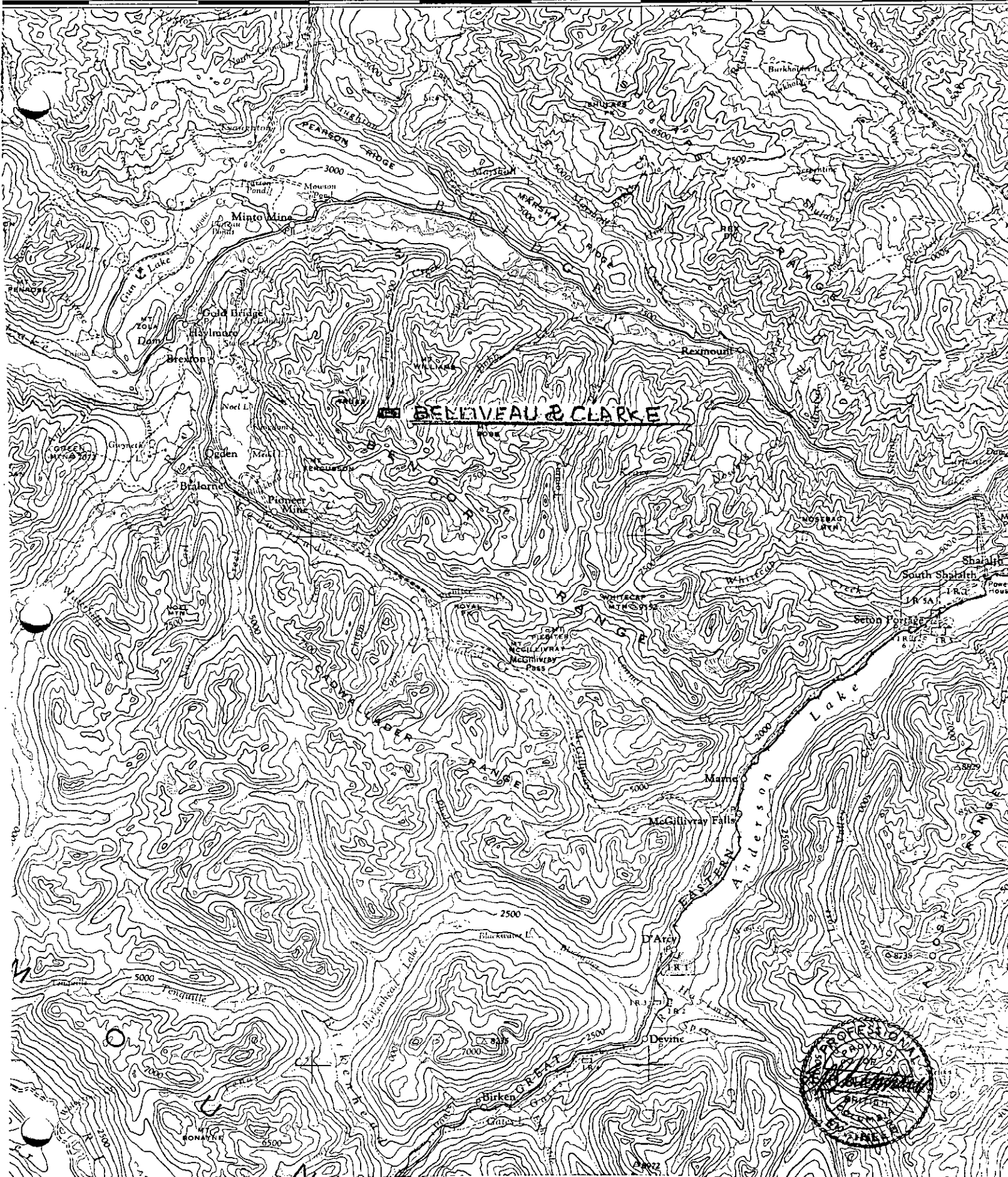
Consulting and Technical Services	.....	\$ 1150.00
Travel, Vancouver to property & return	.....	177.00
Casual labor, 2 men/2 days @ \$30/day	.....	120.00
Drafting & Clerical	.....	96.00
Printing Costs	.....	<u>41.50</u>
		\$ 1584.50

APPENDIX

REFERENCES

- COPY OF A REPORT BY E. LOVITT, 1936
- REPORT LETTER FROM STANLEY D. TOWNSEND, 1946
- REPORT ON GRAY ROCK PROPERTY, by C. Rutherford, 1948
- REPORT BY J. S. STEVENSON, 1949
- SILVER-GOLD-ANTIMONY DEPOSITS, by B. T. O'GRADY,
B. C. Dept. of Mines, 1949
- REPORT LETTER FROM GENERAL ENGINEERING CO. LTD, 1949
- MEMORANDUM RE. GRAY ROCK (Bralorne Mines Ltd), 1953
- ANTIMONY IN CANADA, Dept. of Mines & Technical
Surveys, Ottawa, 1953
- CANADIAN PACIFIC SYNOPSIS, Antimony in Canada, 1950

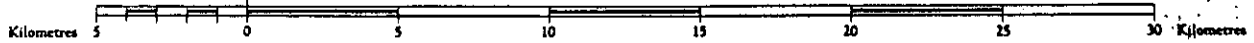
* * *



BELLEVUE & CLARKE

Scale 1:250,000

1 Inch to 4 Miles Approximately



Emberton Meads



TRUEAX CREEK

N

BERGAMHAM LAKE

WP II WITNESS Post.

ROBIN NO 1 ROBIN NO 2
25731 25732

ROBIN NO 4 ROBIN NO 3
25734 25733

STIB NO 8 STIB NO 6
24473 24471

STIB NO 7 STIB NO 5
24472 24470

ROBIN NO 6 ROBIN NO 5
25736 25735

PORTAL 6300 ADIT.
↑
5'

S 70° W



BELLIVEAU & CLARKE
CLAIMS MAP
ROBIN NOS 1 TO 6
STIB NO 5 TO 8
LEN BELLIVEAU & G. HAROLD CLARKE
TRUEAX CREEK.
BRIDGE RIVER BC

Scale 1" = 1500' Approx.

O T T A W A

July 31, 1952.

R E P O R T

of the

MINERAL DRESSING AND PROCESS METALLURGY DIVISION.

Investigation No. MD2893.

Flotation Tests on an Antimony Ore from the
Gray Rock Mining Company, Limited,
Bridge River District, British Columbia.

Shipment:

A 170 pound sample of ore was received on March 11, 1952. The sample was shipped by Messrs. J.R. Williams & Son, of Vancouver, B.C., at the direction of Mr. H.M. Wright, Director, Gray Rock Mining Company, Limited, 850 West Hastings Street, Vancouver, B.C.

The sample had been crushed, previously, to minus one quarter inch.

Location of Property:

The property from which this ore is said to have been taken consists of 16 claims, located in the Bridge River district, 14 miles due south of Minto, British Columbia.

Purpose of Test Work:

It was requested that testing be carried out in order to obtain a suitable concentrate with satisfactory recovery of the stibnite.

Sampling and Assaying:

A head sample was cut out from the shipment, according to standard procedures, and the following analysis was obtained:

Gold	-	0.01	oz./ton.
Silver	-	1.17	" "
Antimony	-	8.60	per cent
Arsenic	-	0.15	" "
Lead	-	Trace	
Iron	-	4.60	" "
Sulphur	-	4.64	" "
Insoluble	-	73.42	" "

Summary of Results:

By flotation it was possible to recover 92.1 per cent of the antimony in a 50.2 per cent antimony cleaner concentrate.

Best results were obtained when flotation was carried out in an acid circuit at a pH of 6.5. However, by using a natural circuit, recovery of the antimony dropped off only by 2.5 per cent.

A flotation period of 20 minutes was necessary to give satisfactory results.

Microscopic Examination:

Two polished sections were prepared from the sample as received and were studied under a reflecting microscope in order to determine the characteristics of the ore.

Gangue -

In the polished sections gangue is composed of white to clear glassy quartz enclosing a few small, scattered patches of soft, fine-grained, micaceous material which probably represents altered remnants of wall-rock. Metallic mineralization seems to favour the quartz, since this is the only gangue material in the four heavily mineralized pieces.

Metallic Minerals -

Nine small pieces of ore, the largest about 0.5 in. across its longest direction, were mounted in the two polished sections. With the naked eye, metallic minerals are seen to be abundant in four of the nine mounted specimens but are sparsely and finely disseminated through gangue in the other five polished fragments.

Under a microscope stibnite is seen to preponderate greatly over all other metallics combined and to occur as small fine-grained masses and coarse to fine irregular particles disseminated through gangue. As represented in the sections, a minor but appreciable proportion of the latter mode of occurrence is in fine grain sizes as shown in Fig. 1. The antimony ore mineral often encloses numerous inclusions of gangue, some of which range down to 10 microns or less in diameter. An approximately average field is shown in the photomicrograph. In many places the stibnite displays a mottled appearance, suggesting the presence of more than one mineral, but this is due to a variation in colour and hardness with orientation (Fig. 2).

Very small amounts of pyrrhotite, pyrite, chalcopyrite and ilmenite(?) are also visible in the polished surfaces as occasional to rare fine grains in gangue and in stibnite. A few

tiny inclusions of pyrite in stibnite can be seen in Fig. 2. All show relief and are white in colour; one is within the white square near centre left. Since all grains in the polished sections are too small for a confirmatory test by an X-ray powder pattern, the ilmenite is only tentatively identified as such.

Fig. 1.



Photomicrograph of polished section showing fine irregular particles of stibnite (white) scattered through gangue (dark grey); the white square is a 200-mesh Tyler screen opening.

Magnification, X120.

Fig. 2.



Shows numerous inclusions of quartz (dark grey) in stibnite (light grey to grey white mottled appearance); a few tiny particles of pyrite (white, show relief) can also be seen in stibnite; the white square represents a 200-mesh screen opening.

Magnification, X120.

DETAILS OF TEST WORK:

Test No. 1.

A sample of ore was ground, at 57 per cent solids, to 55.1 per cent minus 200 mesh. No reagents were added to the grinding.

The pulp was then transferred to a flotation cell and conditioned for 5 minutes with 0.10 lb. of reagent Z-6 per ton of feed, and 0.04 lb. of Dowanol frother per ton.

Flotation was carried out for 10 minutes and then a second addition of 0.1 lb. of reagent Z-6 and 0.02 lb. of Dowanol frother per ton was made. Flotation was continued for another 10 minutes, so that the total flotation period was 20 minutes.

In this test only 56.0 per cent of the antimony was recovered.

Test No. 2.

Test No. 2 was carried out similarly to test No. 1 except that the ore was ground to 59.6 per cent minus 200 mesh and the pulp was conditioned with 1.0 lb. of copper sulphate per ton.

Recovery of the antimony was 76.0 per cent in this test.

Test No. 3.

A sample of ore was ground to 59.6 per cent minus 200 mesh, 1.0 lb. of lead acetate per ton being added before grinding.

The pulp was then transferred to a flotation cell and the pulp made acid with H_2SO_4 to give a pH of 6.5. The pulp was then conditioned with 0.1 lb. of reagent Z-6 for 5 minutes and then floated with 0.04 lb. of Dowanol frother per ton. At intervals of 5 minutes, reagent Z-6 was added in the following quantities: 0.10 lb. per ton, 0.05 lb. per ton, and 0.05 lb. per ton. At each interval, 0.02 lb. of Dowanol frother per ton was also added. The total amount of reagent Z-6 added was 0.30 lb., the total frother was 0.1 lb. per ton, and the total flotation time was 20 minutes.

Rougher recovery was 96.6 per cent of the antimony and 90.3 per cent of the silver. The concentrate was not cleaned.

Test No. 4.

This test was the same as test No. 3. The rougher concentrate was cleaned once to improve the grade of concentrate.

Rougher concentrate recovery was 92.7 per cent of the antimony, with 92.1 per cent of the total antimony reporting in a cleaner concentrate that assayed 50.2 per cent antimony. The recovery of silver was 85.9 per cent in the antimony cleaner concentrate.

Test No. 5.

This test was also similar to test No. 3. The rougher concentrate was cleaned with 0.5 lb. of sodium silicate per ton of original feed.

Results, Test No. 5:

Product	Weight, per cent	Assays		Distribution, per cent	
		Ag, oz./ton	Sb, per cent	Ag	Sb
Feed	100.0	1.25*	8.50*	100.0	100.0
Cleaner conc.	15.7	6.88	49.80	86.1	92.0
Cleaner tail.	7.3	0.80	4.92	4.7	4.2
Rougher tail.	77.0	0.15	0.42	9.2	3.8

* Calculated.

In the cleaner concentrate arsenic assayed 0.45 per cent.

Test No. 6.

Test No. 6 was similar to test No. 5 except that no H_2SO_4 was added and the flotation was carried out at a pH of 8.0.

Recovery of antimony in this test was 94.1 per cent in a rougher concentrate which also contained 89.2 per cent of the silver.

Test No. 7.

This test was carried out in an acid circuit but no lead acetate was added, since in some of the existing literature it has been stated that it was not necessary in an acid float. However, results were not good; only 85.8 per cent of the silver and 68.7 per cent of the antimony were recovered in a rougher concentrate.

Conclusions:

Satisfactory recovery of the antimony and of the silver can be made from this ore.

The best recovery of antimony was 96.6 per cent in a rougher concentrate, assaying 37.68 per cent antimony. Silver recovery in this rougher concentrate, assaying 5.12 oz. silver

per ton, was 90.3 per cent.

In a similar test, 92.1 per cent of the antimony and 85.9 per cent of the silver were recovered in a cleaner concentrate which assayed 50.2 per cent antimony and 6.84 oz. silver per ton.

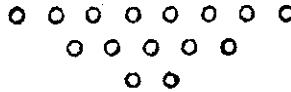
It was only necessary to grind to 59.6 per cent minus 200 mesh to obtain satisfactory recovery of the metals.

Copper sulphate did not appear to be a good activator for the stibnite, and lead acetate was used instead.

For best results it was necessary to make the pulp acid, to a pH of 6.5, with H_2SO_4 . Flotation in a pulp, using tap-water of pH 8.5, gave a natural pH of 8.0. This resulted in a recovery of 94.1 per cent of the antimony in a rougher concentrate. It is probable that with a water supply of pH 7.0 the results would be as good as those obtained using sulphuric acid.

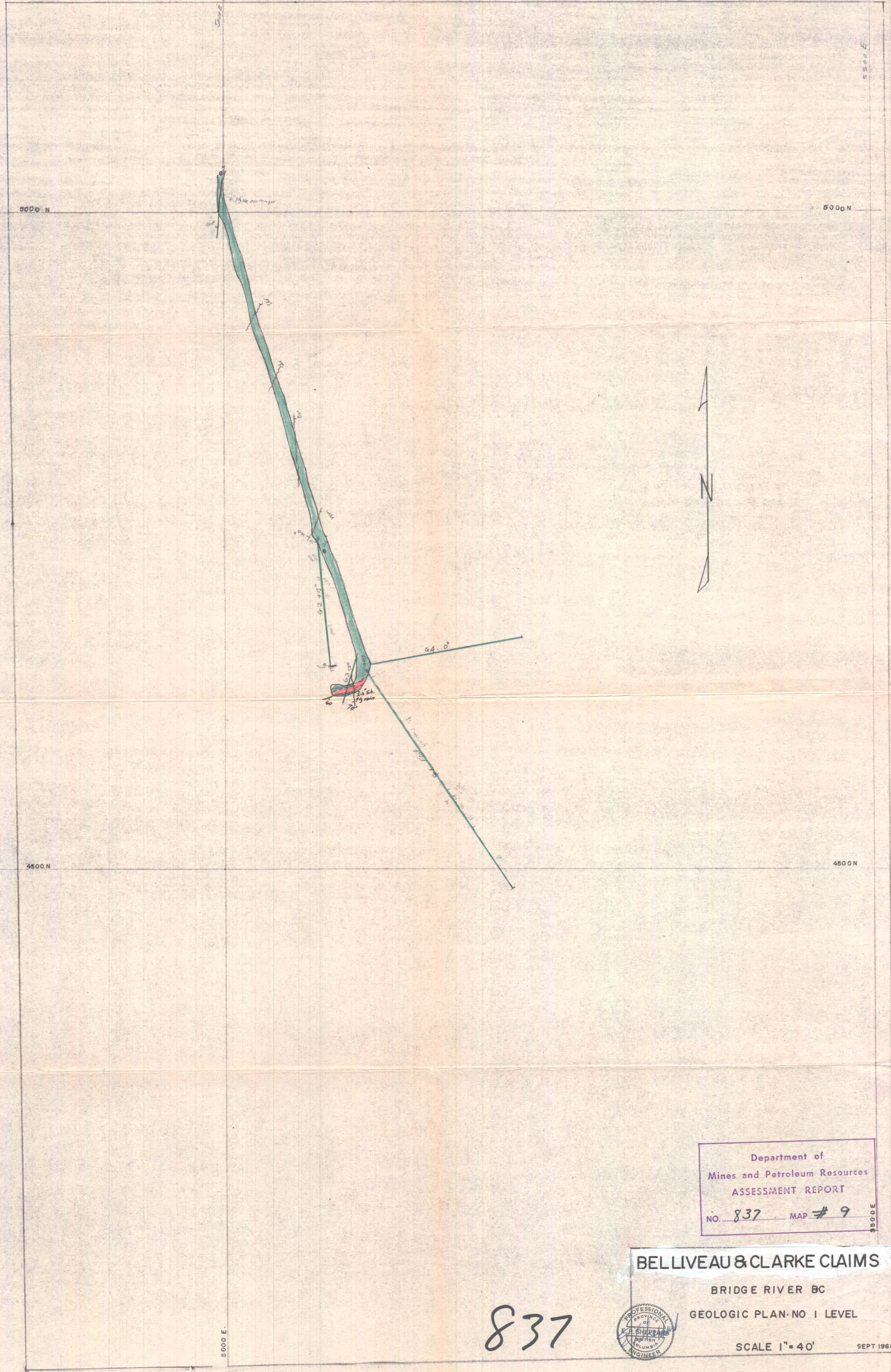
When flotation begins, a large amount of the stibnite floats off readily. However, to obtain the best recovery it was necessary to prolong the flotation period. It was found that 20 minutes flotation time was necessary to give best results.

No trouble was experienced with arsenic, as it was below the allowable limit in all tests.



GOH:(PE3)AL.

G.O. Hayslip



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BELLIVEAU & CLARKE CLAIMS

BRIDGE RIVER BC
GEOLOGIC PLAN NO 1 LEVEL

837

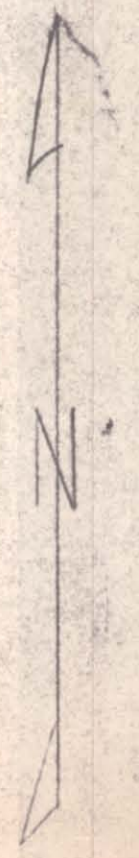


SCALE 1" = 40' SEPT 1966

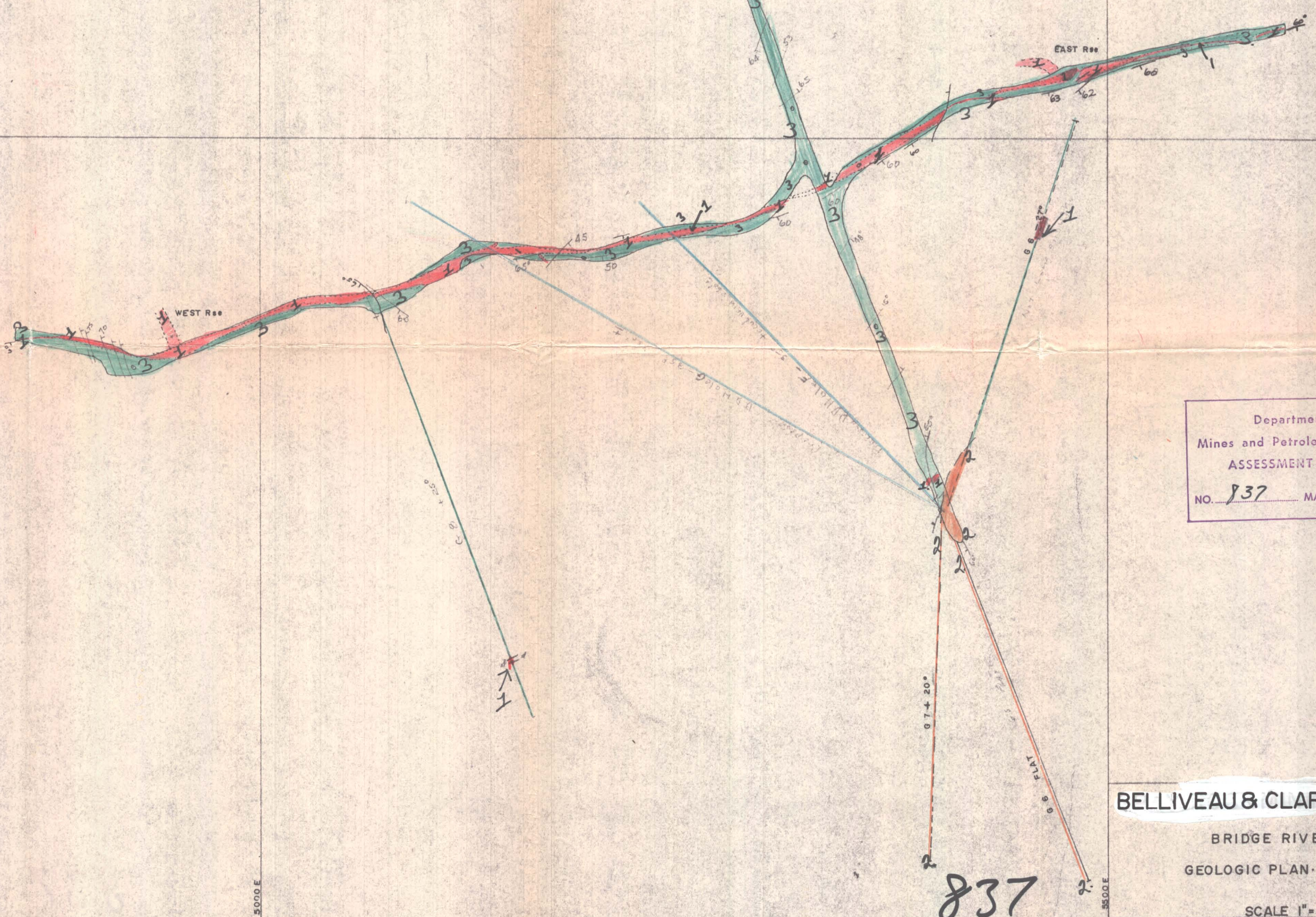
5000 E
5000 E
5000 E
5000 E

5000 F
5000 F
5000 F
5000 F

5000 N
5000 N
4500 N
4500 N



- LEGEND
- 2 Metasediments
 - 3 Granodiorite
 - 1 Vein material
 - Fracture



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 837 MAP # 10

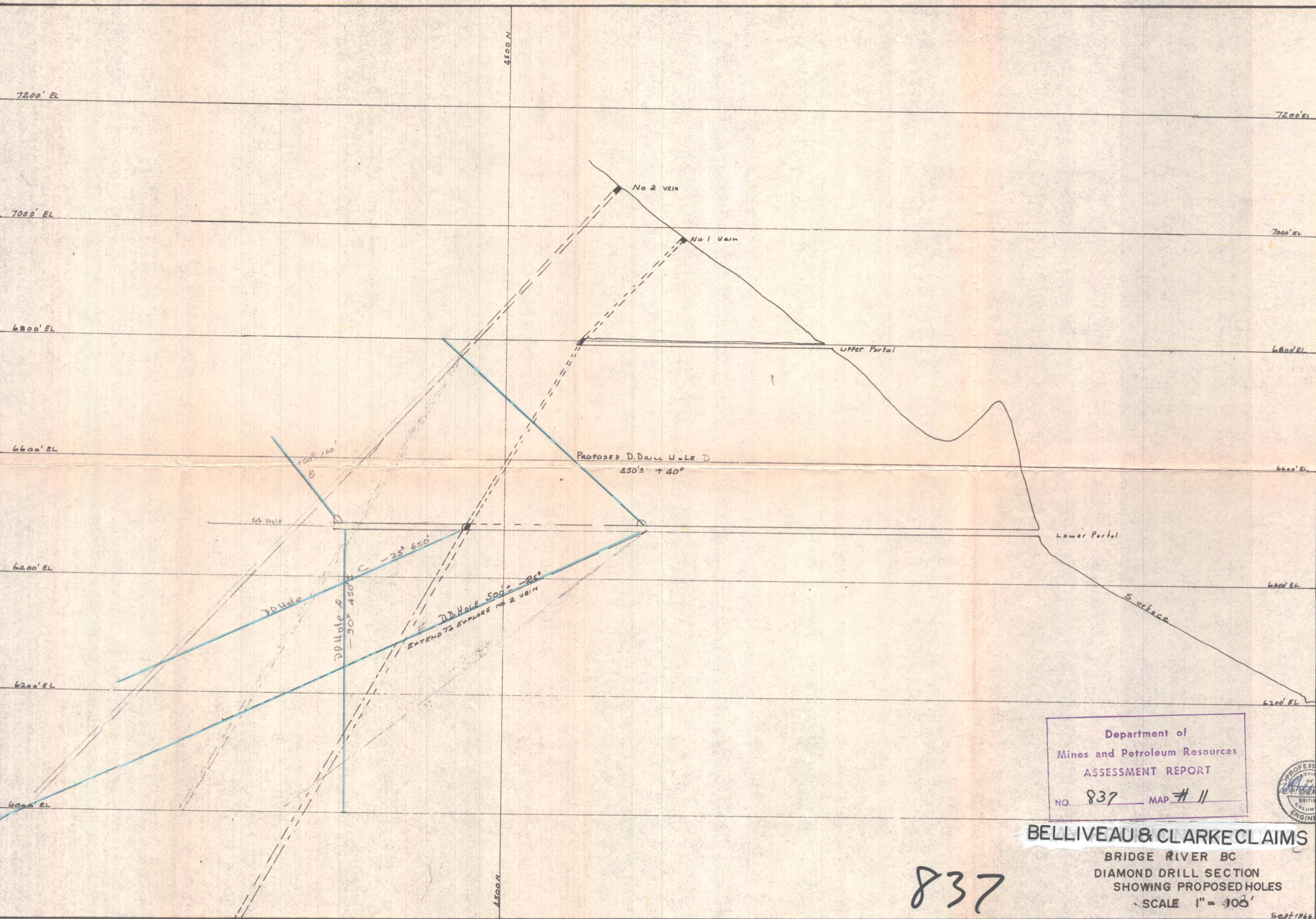
BELLIVEAU & CLARKE CLAIMS

BRIDGE RIVER BC
GEOLOGIC PLAN NO 2 LEVEL



SCALE 1" = 40' SEPT 1966

837



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 837 MAP # 11



BELLIVEAU & CLARKE CLAIMS

BRIDGE RIVER BC
 DIAMOND DRILL SECTION
 SHOWING PROPOSED HOLES
 SCALE 1" = 300'

837

Sept 1966