

LAKE MELNYCHUK
WATSON LAKE

D.J. Brownlee
206-341 W 3rd St.
N. Vancouver B.C.
986-2893

FEB 23 1983

GEOLOGICAL REPORT
VAL and RABO MINERAL CLAIMS
WATSON LAKE M.D., Y.T.

Marshall Smith

by

K.G. SANDERS, P. ENG.

for

SELWYN EXPLORATIONS LTD. (N.P.L.)
3737 Nanier Street
Burnaby 2, B.C.

December 22, 1971.

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PART A

INTRODUCTION

The following geological report on the Val and Rebo Mineral Claims has been prepared at the request of Selwyn Explorations Ltd. (N.P.L.). The writer participated in the original claim staking and initial trenching and mapping programs in 1955 and 1956 on the copper showings which are now covered by these claims in the Yukon Territory. This report summarizes and evaluates most of the accumulated data on the showings and recommends additional field work which is warranted by the results of all of the field work to date.

This report is based on the data made available by Newmont Mining Corporation of Canada Limited by way of Mr. H.S. Aikins of Wye Lake Resources, and on the data supplied by Mr. H.S. Aikins himself, as well as the writer's own comprehensive knowledge of the property by virtue of his four months of supervision of development work on the claims while in the employ of Newmont in 1955, 1956 and 1957.

SUMMARY and RECOMMENDATIONS

The 4 Val and Rebo claims encompass the original copper showings discovered in 1955 by Newmont Mining Corporation of Canada Limited which were then known as the Mont Group. They are located 93 air miles northwest of Watson Lake and are accessible entirely by aircraft. The claims cover the best known portion of a long narrow sheared zone of northwesterly strike and steep northeasterly dip in tight isoclinally folded metamorphosed argillites and silts of assumed Cambrian age and paralleling the contact of a medium sized granitic stock of Cretaceous age. The sheared zone is traceable across the claims and beyond for in excess of 30,000 feet but only the 10% of this length in the claim area has had exploration work of any consequence. Impressive surface showings of chalcopyrite, bornite, pyrite, and pyrrhotite over narrow widths were discovered in 1955 in heavily siliceous and quartz-filled sections of this sheared zone on the claims.

Trenching and mapping supervised by the writer in 1956 and 7,080 feet of diamond drilling in 1957 by Newmont represents the major exploration work on the claims. Very limited airborne geophysics and ground geochem were carried out in the area by Atlas Copper in 1966 at the time of the activity at Anvil Creek 120 miles to the northwest. A small re-appraisal program was carried out in 1970 by Wye Lake Resources under the supervision of Mr. H.S. Aikins.

The Newmont trenching work plus additions by Wye Lake gave the following results in the discovery area: surface assays in the A Zone show an average width of 6.2 feet of 3.05% copper over a length of 450 feet and less substantiated 4.9 feet of 3.18% copper over a length of 700 feet in the B Zone. Follow-up diamond drilling in seven holes by Newmont in 1957 encountered the mineralized zones at depths of greater than 500 feet below the trenching but the surface copper assays could not be duplicated although two of the holes returned intersections of greater than 2% copper across widths greater than those measured on surface. Newmont did no work after 1957 and allowed the property to lapse.

It is the writer's opinion that the vertical step out in the diamond drilling was excessive and it is quite probable that the interpretation of the mineralized structures was over-simplified and the sulphide zones may have a rake to the northwest controlled by drag folding noted in the drill core but not readily apparent on surface. For these reasons the Newmont drilling cannot be considered an adequate test of the continuity of the mineralization with depth.

A re-appraisal of the claims is well warranted in 1972 because of additional facts and interpretation of mineralization control that now are known. It is the writer's opinion that the potential of the mineralized structure on and beyond the present boundaries of the 4 Val and Rabo claims is several million tons of greater than 2% copper as indicated by its great length and already proven surface grades. The showings on the Val and Rabo claims are considered to be the key to the economic viability of the regional structure.

It is recommended that a re-appraisal program to cost \$20,000 should be carried out in 1972 on these claims. Such a program would include detailed geological mapping by competent personnel, a detailed E.M. survey, and additional rock trenching if required. Contingent on favorable results from the initial program, an additional expenditure of up to \$100,000 in the form of diamond drilling and follow up work should be anticipated.

The recommended initial program and estimated costs are as follows:

Phase 1 - Firm - \$20,000:

Detailed mapping by plane table over the 3,000 feet of strike length of the favorable structure on the claims. This should be done on a scale of 1" = 100' or less where warranted by the importance of data to be recorded. A detailed E.M. survey over the entire length of the favorable structure on the claims should also be carried out simultaneous with the mapping. Such an E.M. survey would total about 2½ miles with base line 3,000 feet and 30 cross lines at 100 foot intervals and 300 feet each across the strike of the structure.

The crew should consist of one geologist, one surveyor, one E.M. technician-operator, two helpers and one cook. A Ronka E.M. 16 unit can be used. It is estimated that the program can be completed in less than one month. This phase is flexible so that the crew can be varied to include rock trenching laborers if required in favorable areas that may become apparent as the work progresses. Since most of the area is above timber line, line cutting costs will be almost negligible. The cost breakdown would be as follows:

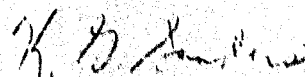
Geologist	\$1,200
Surveyor	1,000
E.M. Technician	1,000
Helpers	1,200
Cook	800
Camp operation \$60 per day plus	2,000
Camp & equipment costs and rentals - E.M. & rock drill	3,000
Supplies and dynamite	1,000
Air support - helicopter and fixed wing	5,000
Mobilization from Vancouver & return	2,000
Contingencies	<u>1,800</u>
Total	<u><u>\$20,000</u></u>

Costs other than labor are liberal and should cover all contingencies and rock trenching work required.

Phase 2 - Contingent on Results of Phase 1 - \$100,000:

Should the results of Phase 1 prove encouraging and drill targets are indicated from the E.M. work, a major follow-up program should be anticipated. Such a program could cost up to \$100,000 and include the examination and exploration of the remainder of the mineralized structure beyond the present claim boundaries as well as a major drill program and possible preliminary underground exploration on the Val and Rabo claims.

Respectfully submitted,



K.G. Sanders, P. Eng.

North Vancouver, B.C.

December 22, 1971.

PART BINTRODUCTION

The copper showings at the head of Old Gold Creek were first discovered in 1955 by prospectors employed by Newmont Mining Corporation of Canada Limited and the original group of claims comprising the property was called the Mont Group. At the present time the property is known as the Val and Rabo claims. The writer spent approximately five days in September 1955 assisting the Newmont prospectors in staking forty claims of the Mont Group. The complete field season of 1956 was also spent by the writer supervising the preliminary field program of mapping and trenching on the claims. The diamond drilling program of 1957 was also reviewed by the writer while still in the employ of Newmont.

Title:

The Val and Rabo claims total four and are listed as follows:

<u>Claim</u>	<u>Grant No.</u>	<u>Expiry Date</u>
Val 1	89201	December 1, 1972
Val 2	89202	December 1, 1972
Rabo 1	89179	December 1, 1972
Rabo 2	89180	December 1, 1972

The claim staking has not been checked on the ground by the writer. Valid certificates of work regarding these claims and their expiry dates have been examined by the writer and found to be as stated above and also show that the claims are registered in the name of Wye Lake Resources Ltd. (N.P.L.).

Location and Access:

(61° 01' North Lat., 130° 42' West Long., Yukon Territory)

The claim group lies 93 air miles northwest of Watson Lake and 148 air miles east of Whitehorse. Intermittent copper showings beyond the present boundaries of the claims trend in a northwesterly direction for about four miles across the headwaters of Old Gold Creek which is a southwesterly flowing tributary of the Liard River. Topography along the showings is rugged but traversable by foot. Elevations on the claims range from 4,000 to 6,650 feet above sea level. Timber line is at 4,700 feet a.s.l.

Present access is by helicopter, or a combination of float plane and helicopter from Watson Lake. Float planes land at Wasson Lake 25 miles southeast of the claims or on the Liard River at Rainbow Creek 15 miles south of the claims. Foot roads and pack trails connect the claim area with the float plane landing sites. A winter road some 100 miles in length crosses country from the Alaska Highway was used in 1957 to freight drilling equipment to the property and could assist in the location of a permanent overland access route in the future.

History:

There is no record prior to 1955 known to the writer of discovery of copper showings at the head of Old Gold Creek. The presently known showings were found in 1955 by Nels Hals, a prospector employed by Newmont Mining Corporation of Canada Limited. A total of 96 claims were subsequently staked by Newmont to protect the area and a surface mapping and trenching program was carried out in 1956 under the direction of K.G. Sanders. This preliminary program was followed in 1957 by 7,000 feet of surface diamond drilling under the supervision of Andrew Allen. At the expiration of assessment credits the claims were allowed by Newmont to lapse.

The property was re-staked by G.E. Stephen and Associates of Watson Lake at the time of the activity by Dynasty in the Vangorda area. In 1966 the property was optioned to Atlas Copper Co. Ltd., who combined its exploration with a regional program in the area. The only ground work reportedly done by Atlas was a geochemical survey along the valley of one of the forks of Old Gold Creek upstream from the point where the copper-bearing structures on the Val and Rabo claims can be projected across the valley. The Atlas option was consequently dropped and no additional field work was done until 1970.

In the 1970 season, ownership of the property was acquired by Wye Lake Resources Ltd. and most of the old Newmont trenches were cleaned up and re-examined, some new rock trenching was done and several samples were taken. An inspection of the drill core stored on the claims was also made. In addition, prospecting and limited rock trenching were carried out on other showings along the strike of the discovery zone beyond the present claim boundaries.

WORK PERFORMED TO DATE ON THE PROPERTY:

Geological Mapping:

An area of about 90 mineral claims was mapped on a reconnaissance scale of 1" = 1,000 feet in the summer of 1956 by the writer while in the employ of Newmont. Mapping on a scale of 1" = 10 feet in the two areas that were trenched was also done as well as an area of about three mineral claims on a scale of 1" = 100 feet in the best mineralized section. Except for check mapping, very little has been done since 1957.

Geochemical Sampling:

In 1966 a geochemical survey involving 9,200 lineal feet was completed by Atlas Copper along the upper headwaters of the centre fork of Old Gold Creek. Although a moderate anomaly greater than 50 ppm Cu was found striking across the creek and parallel to the known mineralization trends for 950 feet by 200 feet, this survey is considered by the writer to be too far upstream to adequately test for the extension of the known mineralization across the valley.

Geophysical Surveys:

It is reported to the writer that in 1966 Atlas also conducted a combined E.M., magnetometer airborne regional geophysical survey in the area of the Val and Rebo claims but that no effort was directed to areas of high relief such as found on the best mineralized sections of the structure. The results of the overall survey are not known to the writer.

Drilling:

7,080 feet of standard AX diamond drilling was done in 1957 by Newmont in seven drill holes under the two areas which had been extensively trenched in 1956. The drilling is summarized as follows:

<u>Hole</u>	<u>Dip</u>	<u>Length</u>	<u>Zone</u>	<u>Vertical distance between mineralized outcrop and mineralized intersection</u>
1	-15°	810	A	500 feet
2	-15°	1,113	B & C	650 feet
3	-15°	901	A & B	600 feet
4	-16°	1,136	C	800 feet
5	-15°	1,000	A	600 feet
6	-15°	1,085	C	730 feet
7	-15°	1,035	700 feet East of C	+600 feet

Three drill sites were blasted out of the steep mountainside and two three-hole fans were drilled. Only hole #7 was drilled from the most easterly drill site.

No percussion drilling has been done on this property.

Surface Trenching:

In 1956 two mineralized zones were recognized and called A and B Zones. Eight rock trenches totalling 168 lineal feet were blasted in the A Zone over a length of 300 feet and three trenches totalling 150 lineal feet were blasted in the B Zone over 116 feet of length.

In 1970 three additional rock trenches were blasted in the A Zone by Wye Lake Resources Ltd. One new trench was put in on the west end of the B Zone and two on the east end, or C Zone.

Underground Development:

There has been no underground work performed on these claims.

Sampling:

The eleven rock trenches by Newmont in 1956 along with all mineralized showings over a strike length of 5,000 feet in the main area of interest were chip sampled in 1956 by the writer. One hundred and forty-nine samples were taken.

Ten chip samples were taken by H.S. Aikins of Wye Lake Resources in 1970 from the Newmont trenches and the new work performed by Wye Lake in the main area of interest.

All of the mineralized diamond drill core from the 1957 drilling was sampled in 1957 by A. Allen.

Total Exploration Costs to Date:

No actual costs were made available to the writer but it is estimated that a rough minimum of \$150,000 has been spent on or related to the Val and Rabo claims since the discovery in 1955, exclusive of option payments, and this estimate is broken down as follows:

1955 - Original staking costs by Newmont - 96 claims	\$5,000.00
1956 - Trenching program	20,000.00
1957 - Drilling program - 7,000 feet	100,000.00
1966 - Atlas soil sampling & part of airborne survey	5,000.00
1970 - Re-examination and trenching by Wye Lake Resources	20,000.00
Option payments, etc.	?
Estimated Total	<u>\$150,000.00</u>

GEOLOGY:Regional Setting:

The property is located in the Simpson Range between the Liard River valley and the Tintina Trench which are both considered to be the expressions of long northwesterly trending regional faults. Rocks in the region range in age from Precambrian schists and gneisses to Tertiary basalts but most of the region is underlain by rocks older than mid Palaeozoic. Extensive granitic intrusions of Cretaceous age occur throughout the region and may be generally controlled in their emplacement by the Tintina and Liard faulting. The Cretaceous intrusions are probably responsible for sulphide mineralization in the region which includes the producing lead-zinc mine at Anvil Creek. Silver-lead veins of potential economic interest also are found in the Ketsa River area about 50 miles northwest of the Val - Rabo property. The most favorable geological environment recognized to date in the region is in rocks of Cambrian age at or near Cretaceous intrusives, and this is the setting for most of the known mineral occurrences.

Rock Types - Val, Rabo Claims

The host rocks for the copper showings on the property are Middle and Upper Cambrian fine grained argillite and siltstone, which are here metamorphosed to phyllite and hornfels. The formations trend conformably along the claim group and dip almost vertically thereby showing remarkable parallel contacts over long distances.

Undifferentiated sedimentary rocks comprised of graywacke, limestone, and argillite occur along the southeast side of the claim group. These have been generally metamorphosed to phyllite and no attempt was made in the mapping to differentiate any of the contained units. The general characteristics of the phyllite are its fine grain size and grey to black color.

The second major rock assemblage lies conformably between the phyllite on the southwest and intrusive rocks along the northeast border of the claim group. This assemblage is the host rock for the copper showings on the claims and is comprised of two units which are differentiated

by the degree of metamorphism which they now show. It is the writer's opinion that the rocks were originally fine grained silts, but of two different chemical compositions, so that on metamorphism at the time of the granitic intrusions they became altered in different ways. They are here called siliceous and non-siliceous purple hornfels. The silicified unit is characterized by its fine grain size and often siliceous banding in pastel shades of purple, brown, pink, and green. Its general overall color is light purple. The non-siliceous hornfels is slightly coarser grained but is more schistose and brownish in color, and occurs in two bands across the property. The main band occurs conformably along the centre of the silicified member and as such could represent the core of a syncline. The other band occurs along the contact with the intrusive mass on the northeast border of the property.

The intrusive occurs along the northeast side of the property and is mapped as medium to coarse grained granodiorite, partly porphyritic. No contact metamorphism was noted in the non-siliceous hornfels.

Structure:

This property is remarkable for its uniformity of strikes and dips. However there is considerable vertical isoclinal folding and structure may be more complicated than noted in the mapping to date. The controlling structure on the property may be a large tight syncline in the hornfels member as discussed in the geology section of this report.

Some major transverse faulting may exist but insufficient detailed mapping has been done to confirm this. Bedding plane shears are recognized and are considered to be an ore control.

Rock Alteration:

The most obvious alteration is the overall silicification in the hornfels. Sericitization and buff carbonate alteration is also recognized along with minor chloritization in the mineralized zones. Silicification is intense.

MINERALIZATION:

The mineral deposits are here classified as long, narrow bedding plane or near bedding plane shears in hornfels in close proximity to a granitic intrusion. These shear zones are essentially continuous across the property and beyond the present boundaries for more than 30,000 feet and are within the centre section of the hornfels. Mineralization within the shear zones consists of chalcopyrite, pyrrhotite, bornite, and pyrite in sections of heavy quartz and general silicification. Except where noted by heavy quartz veining, the shear zones are tight to unrecognizable but are nevertheless considered to be a controlling factor in the localization of mineralization as distinct from simple quartz veining. The best mineralized section in the area is covered by the Val and Rabo claims.

Although mineralization has been traced almost continuously for +30,000 feet along the strike of the sheared zone, most of the previous examination work has been concentrated along the 1,600 foot section that is now covered by the Val and Rabo claims and considered to be the key to the whole structure. This work was done on three mineralized sections called A, B and C zones.

A Zone:

Eight rock trenches along a 300 foot strike length showed an average width of quartz and silicification of 15.3 feet within which, a best mineralized section along the length, averaged 3.13% Cu across 7.7 feet. This zone was extended 30 feet northwest and 120 feet southeast by three additional trenches in 1970 by Wyo Lake Resources and the results to date are 450 feet of length by 6.2 feet of width with a grade of 3.05% Cu. This zone remains open along strike. The chalcopyrite and minor bornite in this zone occur as massive pods, lenses, and stringers which can be correlated from trench to trench along strike.

B Zone:

Three trenches along a length of 120 feet by Newmont in 1956 showed a good width of +35 feet of quartz and silicification but the best section of continuous mineralization within this was found to be 45 feet long by 5.8 feet wide with a grade of 4.46% Cu. Three additional random spaced pits along an additional 560 feet of length to the east by Wye Lake in 1970 gave results that are here averaged with the Newmont results but because of the wide trench spacing they are not considered representative over the total length. The results are 700 feet of length by 4.9 feet wide with a grade of 3.18% Cu. The mode of occurrence of the sulphide mineralization in this zone is similar to the A Zone except that a small pod of massive pyrrhotite was found by Newmont in #3.

C Zone:

This is now regarded as a part of the B Zone and is here included with it.

Persistence of the mineralization at depth was tested by seven diamond drill holes in 1957 by Newmont. Drilling under extremely difficult conditions necessitating the blasting of bedrock set ups on precipitous rock slopes, mineralized intersections correlating to surface showings were encountered in every hole. However, copper assays from the drilling averaged only about one-third of the values obtained in the trenching work. The average depth of intersection below the surface showings was greater than 500 feet and such a vertical step out is considered excessive. These seven deep intersections over a strike length of 1,500 feet are not considered to be a conclusive evaluation of persistence of mineralization with depth.

Gold and silver assays of the sulphide mineralization are uniformly low and at this time of no significance.

ASSAYS:

Only assays on zones that are assumed to be continuous are here shown. Most of the 149 Newmont samples of 1956 are omitted because they were taken from scattered and isolated quartz areas which cannot be correlated over any appreciable distance, and are mostly very low in copper content.

A ZONE

<u>Trench</u>	<u>Sample No.</u>	<u>Width</u>	<u>% Cu</u>
1	509	5.0'	3.10
2	404	6.1'	3.86
3	514	5.0'	0.60
4	518	4.7'	4.95)
4	519	5.0'	0.90) adjacent
5	522	6.6'	4.80)
5	523	5.0'	0.93) adjacent
5	524	3.4'	0.90)
6	526	4.4'	5.93)
6	527	5.0'	6.14) adjacent
6	528	3.4'	1.95)
7	532	4.0'	2.60
8	535	4.5'	2.55

Newmont 1956 - assayed by Eldridge, Vancouver ?

B ZONE

<u>Trench</u>	<u>Sample No.</u>	<u>Width</u>	<u>% Cu</u>
1 (B)	611	6.2'	5.65
2 (B)	606	6.1'	5.31
2 (B)	607	5.2'	2.06

Newmont 1956 - assayed by Eldridge, Vancouver ?

A ZONE

<u>Trench</u>	<u>Sample No.</u>	<u>Width</u>	<u>% Cu</u>
1 (A)	70 - 321	2.00'	3.62
9	70 - 320	2.20'	0.12
10	70 - 319	2.00'	3.02

Wye Lake 1970 - assayed by Bender Clegg.

B ZONE

<u>Trench</u>	<u>Sample No.</u>	<u>Width</u>	<u>% Cu</u>
3	70 - 317	3.75'	0.31
Blast #1	70 - 316	5.50'	3.26
Blast #2	70 - 315	2.25'	1.30
C Creek	70 - 323	5.50'	1.80

Wye Lake 1970 - assayed by Bondar Clegg.

SUMMARY OF THE BEST DIAMOND DRILL INTERSECTIONS

<u>Hole No.</u>	<u>Interval</u>	<u>Core Length</u>	<u>Zone</u>	<u>% Cu</u>
1	698 - 708	10'	A	0.62
2	941 - 946	5'	B	0.25
3	752½ - 786	33½'	A & B	0.20
4	908 - 920	12'	B	2.45
5	760 - 772	12'	A	0.29
6	900.7 - 911	10.3'	B	2.37

Newmont 1957 - assayed by Eldridge?

ORE RESERVES:

There are no ore reserves in any category on the property. Without substantiation by the diamond drilling the combined A and B Zones as now known have a potential tonnage and grade of 500 tons per vertical foot of +3% copper. It is the writer's opinion that a minimum two million tons of 2% copper across a width of five feet would be required in the geographical setting of this property to support a profitable mining operation.

EXPLORATION POSSIBILITIES:

Since the showings covered by the Val and Rabo claims can be considered the key to the potential of the whole regional structure, exploration work need only be concentrated on them for the present time. If the key showings respond favorably to E.M. work and show strength and persistence with depth using this method, then the potential of the whole structure will be enhanced.

Some mineralization controls that have been noted to date include near-bedding plane shears, the contact between the siliceous and non-siliceous hornfels, heavily silicified and quartzose sections of the shears, and zones of almost horizontal drag folding along the shears. The shear structures do not conformably follow one rock type or bedding plane, but cut across the bedding trend at small angles. There is a possibility that the good mineralization in the A Zone has a rake of about 20° to the northwest and is controlled by many strong drag folds often noted in the drill core but not readily recognized on surface.

Using this knowledge of the known mineralization controls, an intensive detailed geological mapping program should produce more conclusive results per exploration dollar at this stage than any other exploration tool and combined with the results of a deep E.M. program to indicate depth persistence, further conclusive evidence should be obtained to again warrant a diamond drilling program. Because of the rugged terrain, follow-up diamond drilling may not be practical but must be considered as the next logical step in development. Where warranted, underground drifting and crosscutting along with supporting underground drilling is of course the final and most conclusive type of program which is best suited to this property.

CONCLUSIONS:

Structures controlling potentially economic concentrations of copper mineralization on this property are more complex than the simple quartz veining originally assumed.

Exploration work to date on the Val and Rabo claims has shown at least on surface, bodies of mineralization with widths, lengths and grades of copper mineralization that are of economic interest.

The persistence to depth of the mineralization has not been completely assessed to this date. If this can be shown in strength by an E.M. survey the property will warrant considerably more exploration work.

The current attractive copper price makes a re-appraisal of this property in the 1972 field season a warranted venture. A minimum \$20,000 should be budgeted for this work to take the form of detailed geological mapping and E.M. surveying and possible rock trenching.

Should this initial \$20,000 produce encouraging results, a larger more expensive follow-up program costing between \$50,000 and \$100,000 in the form of diamond drilling and possible underground exploration would have to be considered.

Respectfully submitted,



K.G. Sanders, P. Eng.

North Vancouver, B.C.

December 22, 1971.

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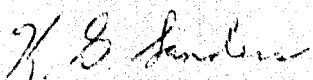
3844.

PART D
CERTIFICATE

I, Kenneth G. Sanders, of 1940 Limerick Place, North Vancouver, British Columbia, do hereby certify that:

1. I am a geological engineer registered in the Association of Professional Engineers of the Province of British Columbia.
2. I am a graduate of the University of Toronto, Ontario (B.A.Sc. Mining Geology 1949).
3. I have practiced my profession for twenty-two years, mainly in British Columbia and Yukon Territory.
4. I personally performed and supervised claim staking, geological mapping, and rock trenching in 1955 and 1956, while in the employ of Newmont Mining Corporation of Canada Limited on the property described in this report.
5. I have not verified the present field staking of the Val and Rabo claims but I have verified that they are registered in the name of Wye Lake Resources Ltd. (N.P.L.).
6. I have not received, nor do I expect to receive any interest either directly or indirectly in the properties or securities of Wye Lake Resources Ltd. (N.P.L.) or Selwyn Explorations Ltd. (N.P.L.) or in any of their affiliated companies.
7. I hereby consent to the use of this report in any Prospectus or Statement of Material Facts as may be required by the B.C. Securities Commission, or Vancouver Stock Exchange.

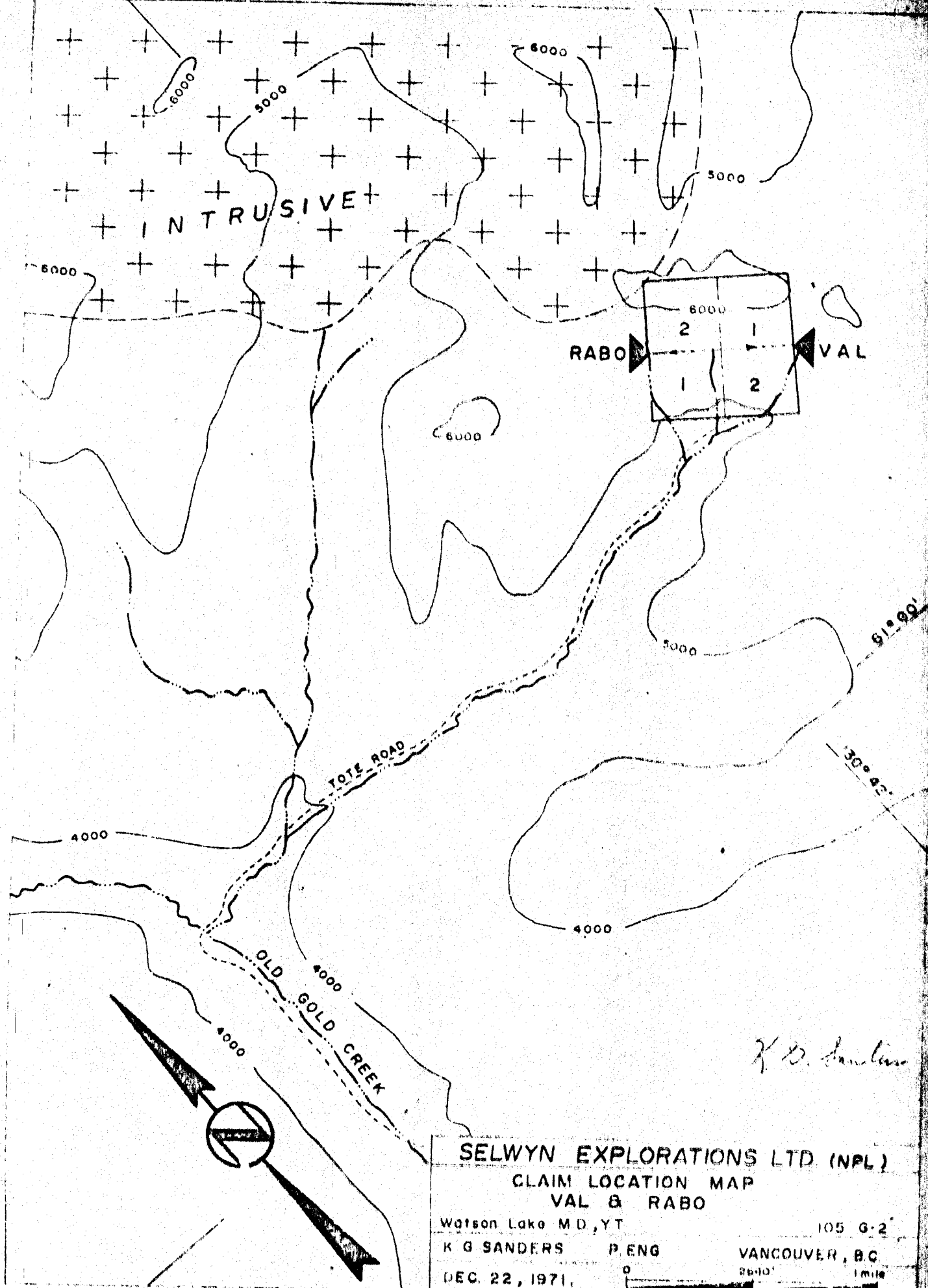
DATED at North Vancouver, B.C., this 22nd day of December, 1971.


K.G. Sanders, P. Eng.

APPENDIX

Maps:

- Location Map - Yukon General
- Claim Map - 1 inch = $\frac{1}{2}$ mile
- A and B Zone
- Geology and sampling - 1 inch = 100'



K. D. Sanders

SELWYN EXPLORATIONS LTD. (NPL)
CLAIM LOCATION MAP
VAL & RABO

Watson Lake MD, YT

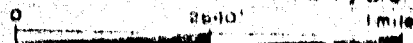
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K G SANDERS

P ENG

VANCOUVER, B.C.

DEC. 22, 1971.



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(4950)

WILSON
5620

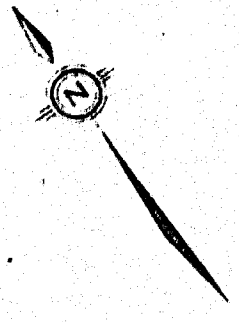
(5000)

(5550)

(5425)

"A" ZONE

"B"



N
O
2
C
R
E
E
K

D
D
H
5
D
D
H
1
D
D
H
3
(5150) Y
Arch
Trail

(4975)

Elevation by Altimeter & Brunton Triangulation Datum = Camp at elev 4500'

RABO 2
No. 89180

VAL 1
No. 89201

(4940)

loc GDDFOX

~1500' to no. 2 posts →

RABO 1
No. 89179

VAL 2
No. 89202

HELIPORT
(4920)

(4950)

STEEP

(5075)

(5550)

ROCK
PILE

ROCK
PILE

"B" ZONE

VAL
ZONE

VAL 3 CREEK

Rock Trail

(4975)

Camp

5042
5044
5046

TECH
W
K
D

Trangulation Datum = Camp at elev. 4300'

H. W. Sanders

VAL 1

No 89201

→ 1500 10 no. 2 posts →

VAL 2

No 89202

Ve 1 (4940)
Sweep

Matichite & Extensive Gossan

(5700)

(4800)

SLIDE

(540)

(5300)

(515)

(500)

Creek

LEGEND

- Core Number
- (5300) Elevation
- Trench Outline
- Near Massive Sulphides - shaded
- D D H Intersection
- (4750) Elevation of intersection
- Silicified zone

"A" Zone averages 3.05% Cu. over 6.2' x 450'

"B" Zone averages 3.18% Cu. over 4.9' x 700'

DDH 2
DDH 4
DDH 6

(5175)

SELWYN EXPLORATIONS LTD (NPL)

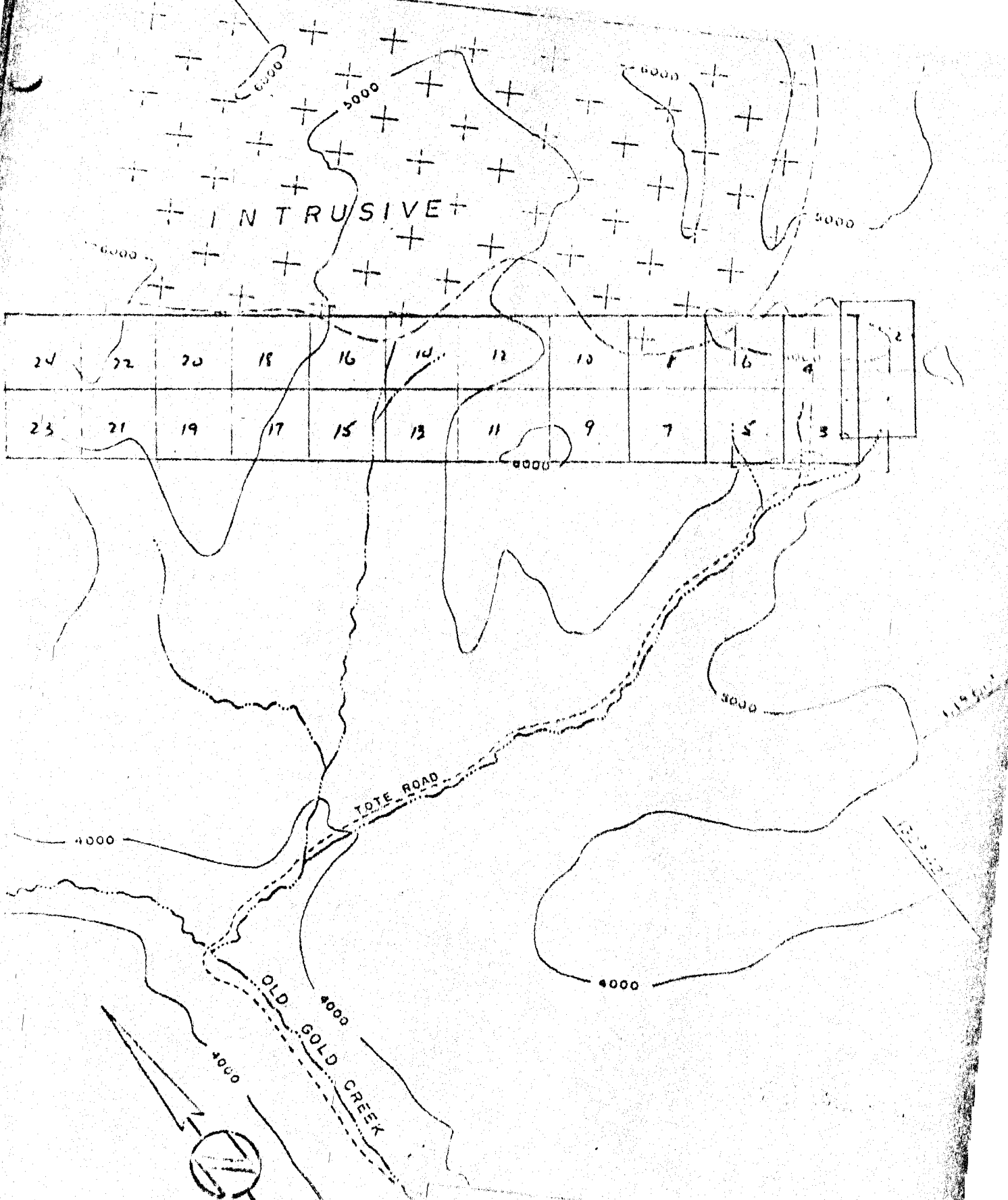
Trenching & Diamond Drilling on A & B Zones - VAL, RABO claims

Watson Lake MD - Y T 105 B-147G-2-2

KG SANDERS P. Eng Vancouver, B.C.

DEC. 22, 1971 Scale 1" = 100'

Handwritten signature



24	22	20	18	16	14	12	10	8	6	4	2
23	21	19	17	15	13	11	9	7	5	3	1

CLAIM LOCATION MAP

East Lake M.D., VT
 SANDERS FEN
 DEC. 22, 1971
 0
 1

(1) Preproduction Expenses

(a) Anglo Rouyn - 900 t.p.d., 2,000,000 Res. @ 2.04% Cu.

Exploration	\$ 600,000
Mine Prep.	1,400,000 (Shaft)
Mill & other	2,500,000
Misc.	1,000,000

TOTAL \$5,500,000

(b) New Imperial - 2,500 t.p.d., 1,500,000 T. @ 1.16% Cu.
(3 small pits - near railroad)

Acquisition	400,000
Exploration	+ 600,000
Mine Prep.	465,000
Mill & Plant	6,900,000
Other	2,675,000

Note: Open Pit + U/G mine in Southern Yukon - recent development.

TOTAL 511,040,000

(c) Rio Algom (Pronto) 700 t.p.d. - 1,000,000 T. @ 1.71% Cu.

Mine Prep.	675,000
Mill & Plant	760,000
Prior Expense	1,111,000

TOTAL \$2,554,000

(2) Mining Costs

	<u>Method</u>	<u>Size - L x W x H</u>	<u>Dip</u>	<u>Cost Per Ton</u>
(a) Anglo Rouyn -	Shrink & panel	150' x 10' x 200'	50°	\$ 5.00
(b) Bruneau Mines -	Shrink	150' x 5' x 200'	75°	\$ 8.00
(c) Dickenson ML -	Shrink - C & F	300' x 7.2' x 140'	70°	\$10.75
(d) Discovery ML -	Shrink	100' x 5.0' x 140'	80°	\$10.00
(e) McIntyre Porcupine -	C & F	150' x 9.0' x 125'	70°	\$15.00
(f) Solbec Copper Mines -	C & F	200' x 12.0' x 150'	60°	\$ 5.97
(g) Upper Canada ML -	Shrink - C & F	100' x 8.0' x 135'	85°	\$ 6.80
(h) Rio Algom -	Hyd. C & F	330' x 18.0' x 10'	85°	\$ 5.97

(3) Milling Costs

(a) Anglo Rouyn -	900 t.p.d., Flotation, Rec. 96%, Cons. 30%	0.967
(b) Atlantic Coast Cpr. -	(873) t.p.d. Flotation, Rec. 95.7% " 29.3%	1.37
(c) Orchan -	1,000 t.p.d., Diff. Flot. " 84.1% " 15.7%	1.60
(d) Rio Algom -	800 t.p.d., Flotation " 96.5% " 26.0%	0.98
	(Pronto)	

(1) COST ESTIMATE

Exploration	\$ 500,000	
Mine Prep.	1,500,000	
Mill & Plant	4,000,000	
Other	2,000,000	
Total Preprod Expense	\$8,000,000	
Equity Financing	\$3,000,000	
Debt Financing	\$5,000,000	@ 7.5% over 6 years.

Based on 2,000,000 tons @ 2% Cu, 1,000 t.p.d. mill, Roads, Power, Services, etc.

(2) Mining Costs

	Method	Size - L x W x H	Rate	Cost Per Ton
(a) Anglo Rouyn -	Shrink & panel	150' x 10' x 200'	50 ⁰	\$ 5.00
(b) Bruneau Mines -	Shrink	150' x 5' x 200'	75 ⁰	\$ 3.00
(c) Dickenson ML -	Shrink - C & F	300' x 7.2' x 140'	75 ⁰	\$10.75
(d) Discovery ML -	Shrink	100' x 5.0' x 140'	80 ⁰	\$10.00
(e) McIntyre Porcupine -	C & F	150' x 9.0' x 125'	70 ⁰	\$13.00
(f) Solbec Copper Mines -	C & F	200' x 12.0' x 150'	80 ⁰	\$ 5.97
(g) Upper Canada ML -	Shrink - C & F	100' x 8.0' x 125'	85 ⁰	\$ 5.00
(h) Rio Algom -	Hyd. C & F	330' x 18.0' x 10'	85 ⁰	\$ 5.97

(3) Milling Costs

(a) Anglo Rouyn -	900 t.p.d., Flotation, Rec. 95%, Cons. 30%	0.937
(b) Atlantic Coast Cpr. -	(873) t.p.d. Flotation, Rec. 95.7% "	1.37
(c) Orchan -	1,000 t.p.d., Diff. Flot. " 84.1% "	1.60
(d) Rio Algom -	800 t.p.d., Flotation " 96.5% "	0.98
	(Pronto)	

(1) COST ESTIMATE

Exploration	\$ 500,000	
Mine Prep.	1,500,000	Based on 2,000,000 tons @ 2% Cu.
Mill & Plant	4,000,000	1,000 t.p.d. mill.
Other	2,000,000	Roads, Power, Services, etc.
Total Prepared Expense	\$8,000,000	
Equity Financing	\$3,000,000	
Debt Financing	\$5,000,000	@ 7.5% over 6 years.

(2) OPERATING COST ESTIMATE

Amortization & Int.	\$3.50 per ton
Mining	\$8.00 per ton
Milling	\$1.50 per ton
Transport & Marketing	\$3.00 per ton
Total Cost	\$16.00 per ton

(3) PRODUCTION & RECOVERY ESTIMATE

Ore Grade = 40 lb. per ton
 Recovery 95% x 40 = 38 lb. per ton
 Gross Value 38 x 0.50 = \$19.00 per ton (At mill site)

Indicated profit before taxes \$3.00 per ton

Est. annual profit (300 days @ 1,000 t.p.d. = 300,000 tons)
 \$3.00 x 300,000 = \$900,000 per year (before taxes)