

October 15th, 1957.

REPORT

on

TROJAN CONSOLIDATED MINES LTD.ASHCROFT, B. C.

This report is based on an examination of the property by Mr. L. P. Starek and the writer, on October 1st and 2nd, 1957. A previous report was made on January 9th, 1957.

SUMMARY AND CONCLUSIONS

Trojan Consolidated Mines Ltd. is actively developing a copper property in the Highland Valley, about 30 miles south east of Ashcroft, B. C.

After completing a surface diamond drilling program, the results of which were analyzed in our report of January 9th, an underground exploration program consisting of shaft sinking and drifting was initiated to confirm the size and grade of ore indicated by diamond drilling. A comparison of the diamond drill and the limited underground results, on the main ore zone, is shown below:

<u>Diamond Drill Results</u>		<u>Underground Results (9850 Level)</u>	
<u>Tons/Vertical Foot</u>	<u>% Copper</u>	<u>Tons/Vertical Foot</u>	<u>% Copper</u>
2170	1.28	2000	2.01

The East ore zone, estimated from diamond drilling to contain 3,000 tons per vertical foot averaging 0.68% copper, has not yet been investigated underground.

To determine the full extent of the main ore zone on the 9850 level, it is recommended that drifting be continued to the north, and that underground diamond drilling be undertaken to outline the ore body. It is also recommended that a 350 foot crosscut be driven from the East drift to explore the East zone on the 9850 horizon.

#### LOCATION

The Trojan Consolidated Mines property, which consists of 110 claims, is situated in the Highland Valley about 30 miles south east of Ashcroft. Ashcroft is about 203 miles north of Vancouver on the main line of the Canadian Pacific Railway.

The Bethlehem Copper property, which is being actively explored by the American Smelting and Refining Company, lies 5 miles south of Trojan.

#### CLAIMS (Map C)

Jan 1 to 16 inclusive	Krain 7 Fr.
Jan 1 and 2 Fr.	A.J. 1 Fr.
Max 1 to 3 inclusive	B.E. Fr.
Max Er.	C.N. 1 to 8 inclusive
Max 1 Fr.	C.N. 4 to 6 Fr. inclusive
A.J. 1 to 8 inclusive	C.N. 2 Fr.
Mars 1 to 5 inclusive	Pad Fr.
Hill 1 to 16 inclusive	Opal 2 Fr.
Calce 1 to 4 inclusive	Sax 1 and 2
D.D. 1 to 10 inclusive	E.D. 15 to 28 inclusive
D.D. 1 and 2 Fr.	B.C. 2 to 4 Fr.
S.B. Fr. and 1 to 3 inclusive	Venus 1 and 2 Fr.
Mafeking Fr.	

### UNDERGROUND WORKINGS

South of the main ore zone a two compartment, 7 ft. by 14 ft. vertical shaft has been sunk 161 feet. The 9850 level station was cut 150 feet below the collar, thereby allowing an 11 foot susp. The shaft is equipped with an aluminum cage, which will handle six men or one 1 ton mine car. The skip is in counterbalance with a 2500 pound counterbalance, consisting of a 22 ft. 5 in. diameter lead-filled pipe which runs in a 6 in. diameter guide pipe. The hoisting plant consists of a double drum air-powered Jenkins hoist.

The 9850 level is developed by the main crosscut, which extends 225 feet northerly from the shaft station.

Two crosscuts have been driven off this drift. The South crosscut was collared 65 feet from the station, and driven 156 feet to the east, whereas the North crosscut was started 150 feet from the station and extended 127 feet north westerly.

These headings have been driven with jacklegs, Race type mucking machines and hand tramping.

Ventilation for this level is supplied by a M. D. 30 Canadian Blower Exhaust fan, driven by an 8 $\frac{1}{2}$  HP Wisconsin gas engine.

### GEOLOGY

Surface work and diamond drilling exposed a northerly trending breccia zone, 1500 feet long by 800 feet wide. This breccia is bounded on the north and east by porphyry, and to the south and west by quartz diorite.

The main ore zone occurs in breccia in a diorite bay.

The shaft and the first 90 feet of the crosscut, on the 9850 level and the south drift, were driven in diorite. The remainder of the working is in copper mineralized breccia.

### GEOLOGY (Continued)

The breccia, particularly in the last 50 feet of advance in the main crosscut and the North drift, showed only chlorite alteration.

Shearing and faulting, although strong, rapidly change strike.

### MINERALIZATION

Chalcopyrite is disseminated throughout the entire breccia mass, as developed to date, on the 9850 level. The heavily chloritized breccia appears to be the most favorable host rock.

A few narrow bands and some disseminated chalcocite occurred in the breccia close to the quartz diorite contact.

### SURFACE DRILL RESULTS

#### (a) Main Ore Zone

This zone has been explored by the following drill holes:

<u> Hole No. </u>	<u> Length Intersection </u>	<u> Assay-Sludge % Cu. </u>
11	240'	1.66
20	244'	1.00
30	173'	1.11
31	185'	1.44
26	120'	1.02
27	19'	0.85

The weighted average of the above samples is 1.28% copper.

#### (b) East Ore Zone

Diamond drilling has indicated a potential ore zone 60 feet wide by 600 feet long, averaging 0.68% copper.

UNDERGROUND SAMPLE RESULTS

After every blast, four shovels full of muck were taken out of each car. This sample was crushed and split in the sampling plant.

Bulk and channel samples, taken by the writers, checked the results of the above sampling method.

The following list shows the assay results from the underground work on the 9850 level.

Main Crosscut

<u>Trojan Assays</u>		<u>H. L. Hill &amp; Associates Assays</u>	
<u>Footage</u>	<u>% Copper</u>	<u>Footage</u>	<u>% Copper</u>
92 - 100	6.50		
100 - 108	1.50		
108 - 114	2.22		
114 - 119	1.19		
119 - 124	2.90		
124 - 131	4.90		
131 - 136	2.40		
136 - 144	1.88		
144 - 152	2.20		
152 - 157	1.55		
157 - 164	0.90		
164 - 171	1.35		
171 - 179	0.55		
179 - 185	0.68		
185 - 190	0.50		
190 - 197	0.30	193 - 196	0.4
197 - 204	0.55	196 - 202	0.4
204 - 210	0.86	202 - 208	2.0
210 - 215	4.40	208 - 214	4.2
215 - 220	1.55	214 - 220	2.9
220 - 225	1.99		

Length - 133 feet: Average 1.99% Copper.

A bulk sample, taken by the writers from 202 to 220, averaged 3.5% copper.

North Drift

Trojan Assays

<u>Footage</u>	<u>% Copper</u>
0 - 5	0.61
5 - 10	0.43
10 - 15	0.84
15 - 20	1.06
20 - 25	1.03
25 - 30	0.81
30 - 35	0.41
35 - 40	0.41
40 - 45	0.30
45 - 50	1.30
50 - 55	0.90
55 - 60	1.15
60 - 65	1.15
65 - 70	1.50
70 - 74	3.22
74 - 79	4.30
79 - 83	2.50
83 - 87	1.52
87 - 92	2.25
92 - 97	1.60
97 - 101	4.15
101 - 105	3.40
105 - 110	3.30
110 - 115	3.90
115 - 120	6.90
120 - 127	4.20

H. L. Hill & Associates

<u>ASSAYS</u>	
<u>Footage</u>	<u>% Copper</u>
54 - 61	0.40
61 - 68	1.30
68 - 74	2.65
74 - 80	3.15
80 - 85	0.80
85 - 91	0.80
91 - 96	1.40
96 - 100	4.30
100 - 105	2.60

Length - 127 feet: Average - 2.03% Copper.

A one ton bank sample, taken by the writers from 74 to 100 feet, averaged 3.1% copper.

The ore zone developed in the North drift and the main crosscut, averaged 2.01% copper.

EQUIPMENT

Air for the underground operation is supplied by a 500 c.f.m. stationary Helesman compressor V to V connected to a General Motors diesel engine, and a 500 c.f.m. portable compressor direct connected to a 1300 Caterpillar diesel engine. The building, which houses these units, also contains the repair shop and lamp room.

CAMP

Camp facilities, consisting of bunk-houses, office, core shed, change house, etc., provided adequate facilities for the development crew.

GENERAL

The present program is being efficiently carried out under the direction of Mr. Max Hunt, Resident Manager.

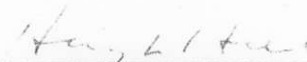
CONCLUSIONS

Underground results to date are considered most encouraging, as both the grade and tonnage of ore developed are greater than indicated by surface diamond drilling.

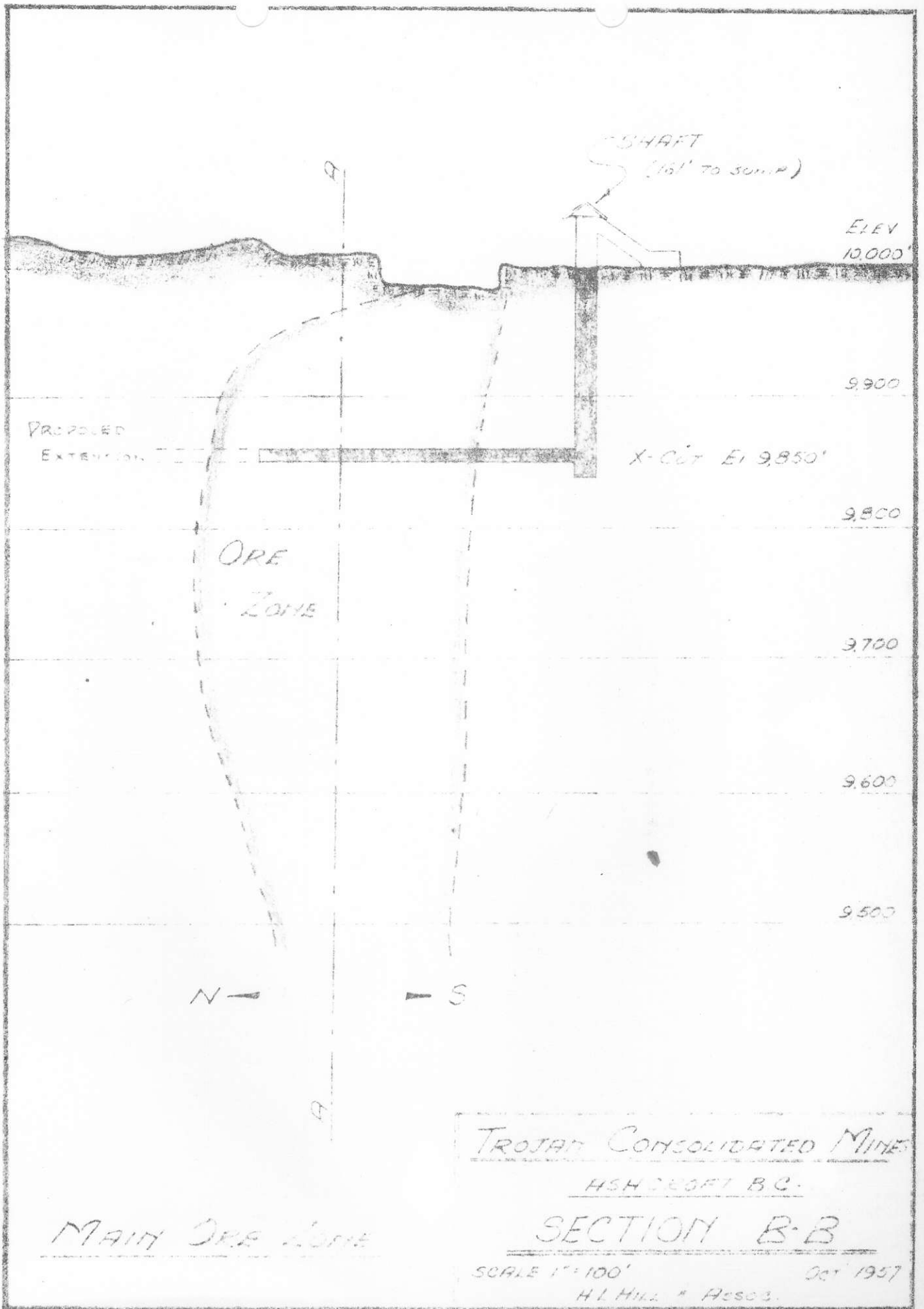
Expenditure necessary to continue exploration work underground is hereby recommended.

Respectfully submitted,

HENRY L. HILL & ASSOCIATES

  
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Henry L. Hill

  
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Louis P. Starok.



MAIN ORE ZONE

TROJAN CONSOLIDATED MINES  
 HSH DEPT B.C.

SECTION B-B

SCALE 1" = 100'      Oct 1957  
 H.I. Hill & Assoc.