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THE CONSOLIDATED MINING AND SMELTING COMPANY
OF CANADA LIMITED

CABLE ADDRESS
"COMINCO"

REPORT ON THE GEOLOGY OF THE HERB AND TRAX MINING CLAIMS
ATLIN DIVISION, CASSIAR MINING DISTRICT

Rec'd. for
filing 2/3/51
S.A.K.

Introduction

During parts of June, July, and August, 1948, the writer, while employed in making a geological study of the Tulsequah Chief and Big Bull properties, spent the equivalent of 8 days studying and mapping the geology on the Herb and Trax mineral claims. The following report embodies the results of that study.

Location

The Herb and Trax mineral claims lie south of, and immediately adjoining previously staked claims of the Tulsequah Chief property, on the east bank of the Tulsequah river, in the Atlin Division of the Cassiar Mining District.

General Geology

The area surrounding the lower Tulsequah river is underlain by Palaeozoic sediments and Mesozoic volcanic rocks. These have been folded into a broad synclorium whose axis corresponds roughly with the river itself. The secondary folds which occur along the limbs of the synclorium, have variously striking axes, which nevertheless trend in a north south direction. In general these folds plunge to the south.

The area immediately east of the lower Tulsequah river is traversed by a number of prominent north-south trending regional breaks which have been traced from the Taku river to north of Shazah creek. In certain favourable rocks these regional breaks branch into subsidiary breaks and shears which have acted as localizing influences for ore-bearing solutions. At the Tulsequah Chief property the favourable rocks appear to be acid fragmentals, especially those which occur in the trough of a syncline of acid volcanics of several types.

Topography of the Claims

The location lines of the claims lie along Greenstone creek, a tributary of the Tulsequah river. The creek is a fast flowing glacier-fed stream which occupies a broad but steep valley and plunges over a short falls, in its lower part, to flow on to a gravel and silt covered flat which is an old flood plain of the Tulsequah river. The Herb claim lies mainly on the flat and the Trax claim is entirely on the hillside.

Geology on the Claims

(a) Rock Types. The bed rock exposed on these claims consist of volcanic rock of two main types. On the western half of the Trax claim, and the eastern portion of the Herb, the underlying rock is a massive greenstone, apparently andesitic in original composition. The Western exposures of this rock type have the characteristics of a flow rock which grades into a medium to fine grained fragmental going to the east.

The eastern portion of the Trax claim is underlain by a band of pale green volcanic flow rocks which is about 500 feet wide and strikes N 30 degrees W. This is a hard, brittle rock, quite acid in character. It appears to line up with the acid volcanics which form part of a mapped syncline of these rocks near the ore zone of the Tulsequah Chief property.

The north east corner of the Trax claim, to the east of the band of pale volcanics, lies in massive chloritic greenstone.

(b) Structure. The axis of the syncline, which was found to be a favourable locality for ore shoots on the Tulsequah Chief property, when projected to the south, traverses the central portion of the Herb claim. Due to the southerly plunge of this syncline, the favourable area at the trough of the fold must be very deep on the Herb claim. The volcanic rocks exposed to the east of this axis, on the Herb and Trax claims, must be on the eastern limits of this synclinal fold.

Two north-westerly striking regional breaks traverse the claims. Nowhere on these claims was there any evidence of the branching subsidiary shears which have formed channels for mineralizing solutions on the Tulsequah Chief property.

signed (W. T. Irvine)
per J. C. MacLean
(W. T. Irvine) P. Eng.

Tulsequah Chief Mine.

August 27, 1948.

Geological map of claims attached.

The Consolidated Mining & Smelting
Company of Canada, Limited.

Tulsequah Office

Tulsequah, B.C.
August 31st., 1948

Statement of Charges for Geological
Investigation of Herb & Trax Mineral
Claims - Months of July & August, 1948

Geological Time.

July 8th, 9th, & 10th.	2 Geologists for 3 days.	6 days	
August 26th.	2 Geologists for 1 day	2 days	
August 27th.	1 X Geologist for 1 day	1 day	
	Total Geologist days	<u>9 days</u>	
	Charge; 9 days @ 15.00 per day		\$ 135.00

Labour;

Packing supplies for geologists. 8 hrs @ .915	\$ 7.32	
Cutting Trail for packing 24 hrs @ .915	<u>21.96</u>	29.28
Payroll Provisions; 17% of 29.28		4.98

Miscellaneous;

Free board supplied to Geologists; 9 days @ 2.00		18.00
Proportion of Transportation costs for geologists;		
Trail to Tulsequah & Return for W.T.Irvine	\$ 240.00	
Trail to Tulsequah for A.Morris	<u>102.00</u>	
Total transportation cost	<u>\$ 342.00</u>	
Herb & Trax proportion; $9/75 \times \$342.00$		<u>40.80</u>
TOTAL COST OF GEOLOGICAL INVESTIGATION		<u>\$ 228.06</u>

Certified Correct;

W. H. ...
Accountant


Approved;

W. H. ...
Superintendent

1 Geological Map of Herb & Trax Claims

LEGEND

SUPERFICIAL DEPOSITS

 SILT, SAND, FINE GRAVEL

 COARSE GRAVEL

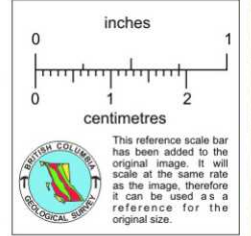
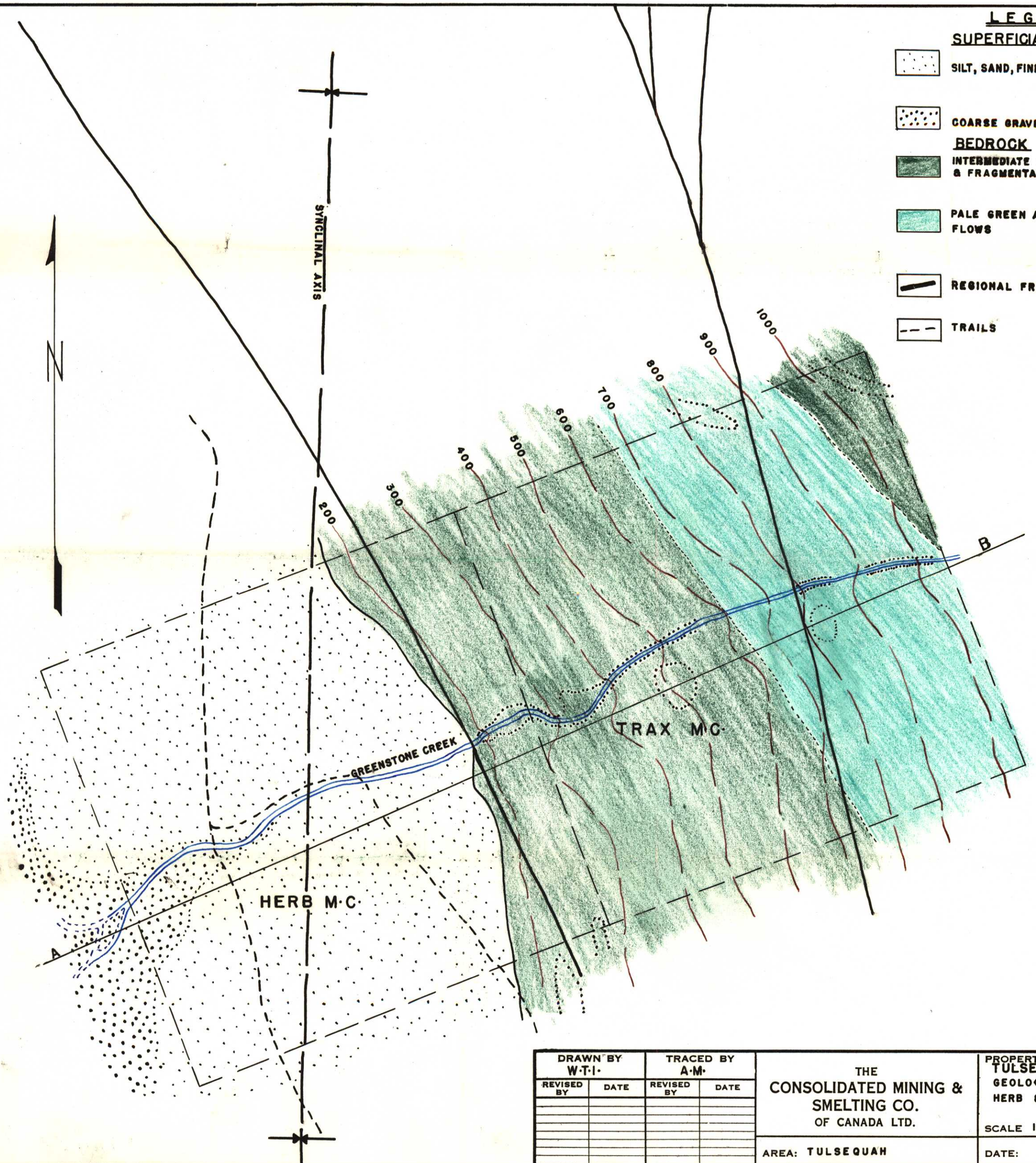
BEDROCK

 INTERMEDIATE VOLCANIC FLOWS & FRAGMENTALS HIGHLY CHLORITIZED

 PALE GREEN ACIDIC VOLCANIC FLOWS

 REGIONAL FRACTURES

 TRAILS



DRAWN BY W.T.I.		TRACED BY A.M.	
REVISED BY	DATE	REVISED BY	DATE

THE
CONSOLIDATED MINING &
SMELTING CO.
OF CANADA LTD.

AREA: TULSEQUAH

PROPERTY:
TULSEQUAH CHIEF
GEOLOGICAL MAP OF
HERB & TRAX CLAIMS

SCALE 1" = 300'

DATE: PLATE No.