

REPORT ON ROTARY AND CORE DRILLING

PROGRAM.

RICHFIELD GROUP : Richfield #1, #2, #3, #4, #5,
& #6 M.Cs., and the CDF #1, #2, & #3 M.Cs.

Omineca M.D.

Latitude : N 54° 34'; Longitude W 126° 14'.

NTS : 93 L 9W & 9E.

Work Program Carried Out by Cobre Exploration Ltd.

Consultants: Whiting Mining Services International Ltd.

Author: F.B. Whiting, Geological Engineer,
Ph.D., P.Eng.

Date of Work : October 5 - 12 1981 and Oct. 26 - 28, 1981.

Date of Report: Oct. 28, 1981.

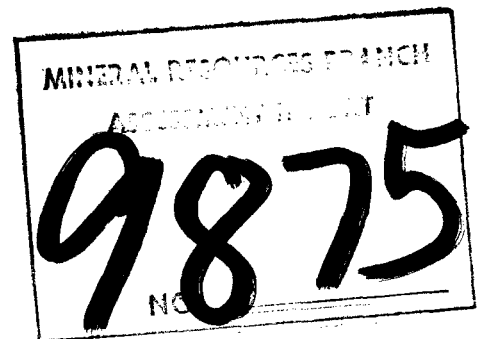


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Log of DDH 81-1, pages 1-7.

A. INTRODUCTION

Property & Location

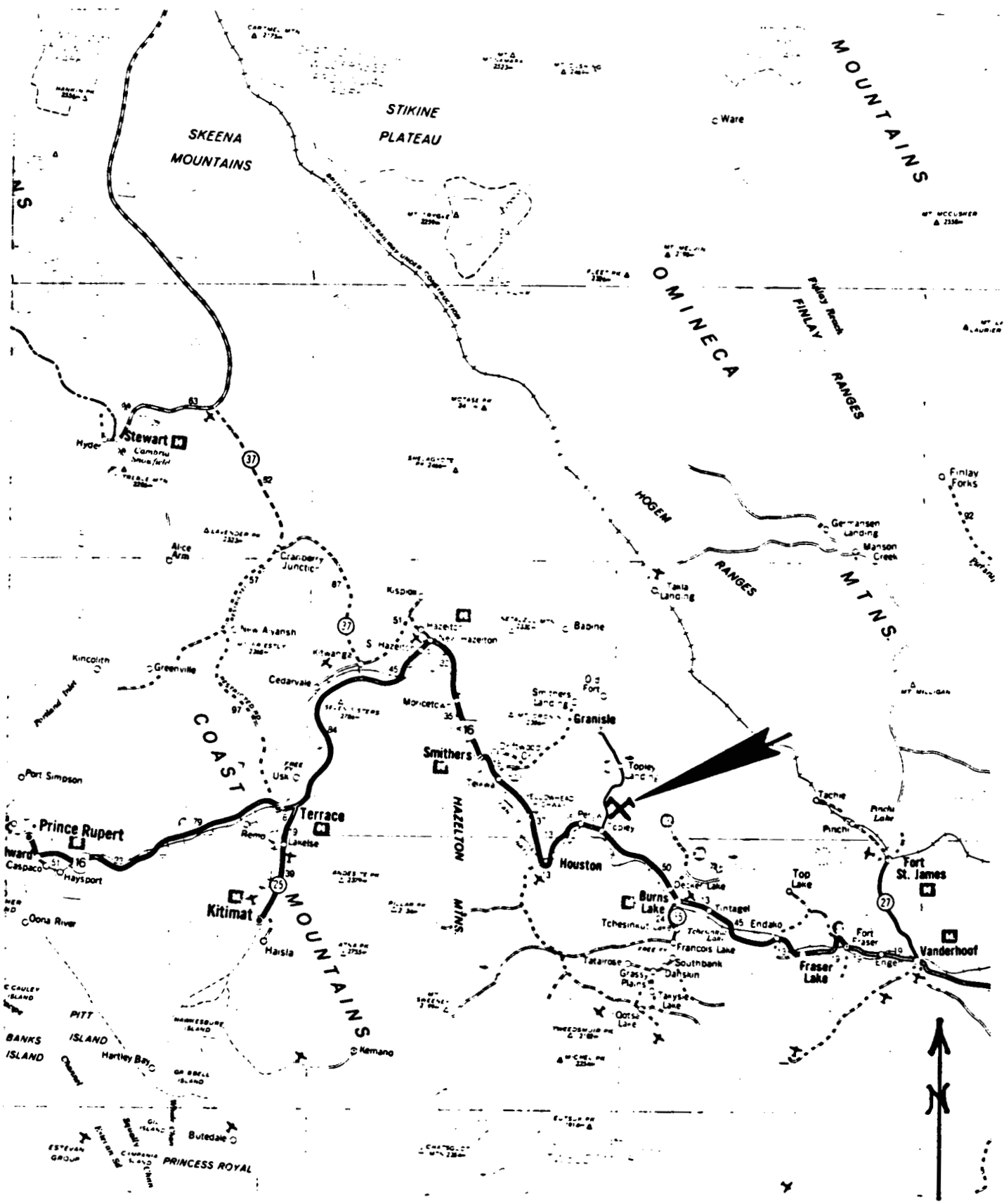
The Richfield Group consists of 100 units, comprised of the Richfield #1 - # 6 M.Cs., Record Numbers 1780 (5), 1781 (5), 2050 (9), 2051 (9), 2397 (12), and 3480 (12) respectively, and the CDF #1 - #3 M.Cs., Record Numbers 1727 (4), 1728 (4), and 1729 (4) respectively. This group is situated 11 km north of the settlement of Topley, B.C., in the Omineca M.D., on NTS maps 93 L 9E and 9W, at an elevation of 1000 - 1100 m, at Latitude N 54°34', Long. W 126° 14 '. Access is by a dirt road branching from the Topley - Granisle highway 10 km north of Topley and thence 3 km to the northeast.

History

The showings were discovered in 1927, and work on surface and on two underground levels was carried out in 1927 - 1929. Some surface work was done in 1934-35. In 1954-57 Silver Standard Mines Ltd de-watered the old workings, re-sampled the veins, and did some drilling from surface. In 1975 Canadian Superior Exploration Ltd drilled four surface holes and had an Induced Polarization survey made. In 1979 Cobre Exploration carried out magnetometer, E.M. 16, and Vector Pulse Electromagnetic surveys; in 1980 Cobre Exploration drilled 28 surface holes totalling some 5439 metres. This report covers one hole, # 81-1, drilled in the period Oct.5 - 12, 1981 by the same company.

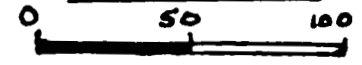
Economic Potential

Reserves exposed by the two underground levels and indicated by former underground drilling and the 28 holes drilled in 1980 amount to 170,000 - 200,000



LOCATION MAP.

FIG. 1.



M 93L/9W

M 93L/9E

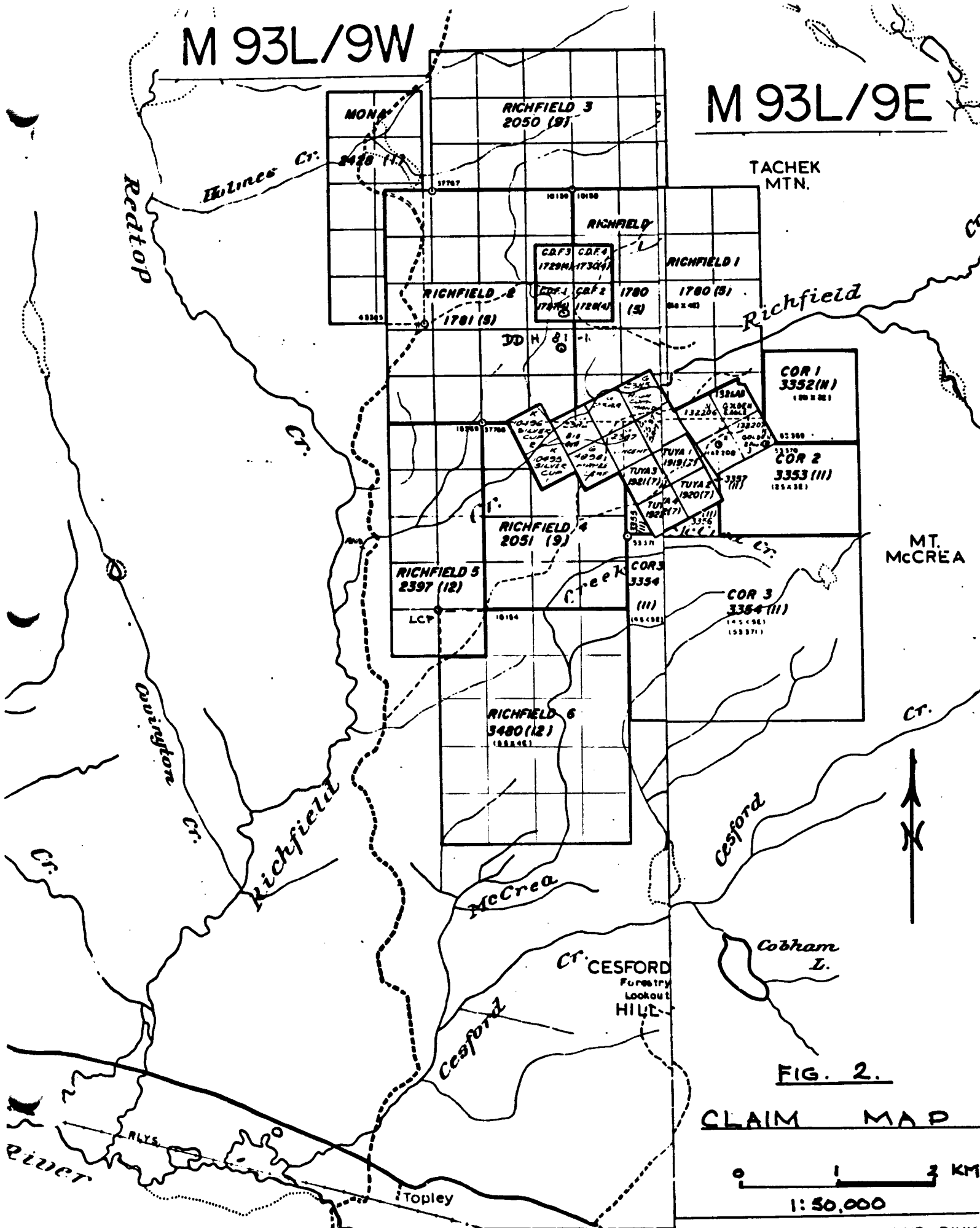


FIG. 2.

CLAIM MAP

0 1 3 KM

1:50,000

OMINECA MINING DIVI

tons grading 4.3 grams of gold per metric ton and 192 grams of silver per metric ton. The ore carried small amounts of lead, zinc, and copper, with some arsenic. The known ore shoots are open at depth, offering the potential for expanding the calculated reserves. Given adequate metal prices, the property could become a small producer in the range of 150 - 200 tons per day. The ore is of the volcanogenic type, occurring as beds parallel to the layering of the enclosing acidic pyroclastics, which appear to form a volcanic pile. Other shoots may exist nearby within the pile which could increase the production potential.

Work Summary

The work done between Oct.5 1981 and Oct.28, 1981 consisted of:

Drilling of D.D.H. # 81-1 to a total depth of : 197.2 metres
Accessory work : Core logging, preparation of plan and cross-section, copying, report-writing. The on-site crew ranged in number from 3 to 5 depending on the work being done.

The hole was drilled on the Richfield #2 M.C.

B. TECHNICAL DATA & INTERPRETATION

Purpose of the Drilling Programs, & Results

The first drilling, in April of 1980 was directed initially to identify the source of a long, strong conductive anomaly detected in a ground E.M. survey that had been carried out in the fall of 1979. Holes #1-3 found a highly-sheared mixture of andesitic and ultrabasic rocks exhibiting strong conductivity, at the indicated position of the anomaly, and it was concluded that those rocks were the source of the geophysical indications, and were in themselves of no economic significance.

Holes #4 -#8 , drilled in May 1980, were designed to test for extensions of the known mineralization exposed in old mine workings a short distance to the east; those down-dip extensions projected beneath the sheared conductive mixed-rock unit, which lies as a cap-rock over the lower, more favorable, and in places mineralized beds. An ore intersection was obtained in Hole 80-4. Holes 80-5,-6, and-7 were drilled to the south on the strike of the "favorable" formation, but found little mineralization, as it appears that the most favorable unit has pinched out there. Hole 80-8 was drilled to fill in between the lowest old underground holes and 80-4, but had to be abandoned short of its objective owing to caving of the walls of the hole.

A second program was begun in September, aimed at tracing the ore layer north, south, and down-dip to the west from the intersection in Hole 80-4. Good mineralization of gold and silver, in bedded pyrite-sphalerite-galena-arsenopyrite layers, was encountered in Holes 80-10, 80-11, 80-13, 80-14, 80-22, 80-23, 80-25, and 80-28. Of the other holes, some were step-outs to the south, looking for new mineralized zones beyond the apparent south border of the known shoot, and the others

were similarly-intended step-outs to the north. The step-outs to the north found much greater thicknesses of the favorable host pyroclastics, with widespread mineralization. Hole 80-26 cut a 7.5-metre section that had numerous thin sulphide seams throughout, accompanied by intense quartz flooding.

Hole 81-1 was drilled at the site of an earlier hole, # 80-27, that was lost just as it was about to enter the ore-host pyroclastic layer; the hole caved and it proved impossible to continue it in the fall of 1980. In October of 1981 a site was chosen 6.6 m due west of DH 80-27 and hole 81-1 was drilled there. The hole was drilled with a rotary bit to 141.72 m, and was cored with NQ bits to the bottom.

The cuttings and the uppermost cored section disclosed the usual stratigraphic succession seen elsewhere on the property : a mixture of green andesite and some ultrabasic rocks, with a large quantity of soft green chloritized gouge near the bottom. The top contact of the Variegated Unit, a clearly-marked horizon at the top of the pyroclastic formation, characterized by thin alternating beds of red and green lapilli tuffs, was encountered. It proved to be intermixed with thin layers of andesite. Mineralization was scarce, but was composed of thin beds of yellow pyrite, following the layering of the enclosing rocks. There was also a small amount of black fine-grained pyrite impregnating a quartz breccia. The total thickness of the acidic pyroclastic unit was 5.59 metres.

Conclusions

It had been hoped that this hole would find a much thicker section of the acidic pyroclastics, that would suggest a build-up of a new volcanic pile to the southwest of the area of earlier drilling. Such did not prove to be the case. The Variegated Unit is present, but thin and containing several beds of andesite.

As far as is indicated at present, the main build-up of the pile is towards the north or northwest, beyond DDH 80-26. It is recommended that further drilling be carried out in that direction to look for new ore-bodies in the presumed center of the pile or on its northern flank. Drilling down-dip from DDH 80-28 to extend the known shoots is of course also recommended. As a lower-priority target, further step-outs to the south could be drilled at spacings of 200 - 300 metres, following the host formation, in the hope of discovering a new separate volcanic pile in the southern area of the claim blocks.

Respectfully submitted,

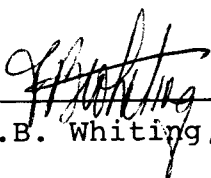


F.B. Whiting, P.Eng.

C. ITEMIZED COST STATEMENT

<u>Item</u>	<u>Dates</u>	<u>Rate</u>	<u>Total \$</u>
<u>Rotary \$ Core Drilling</u>			
J.T.Thomas Drilling Co. Total cost incl. mob/ demob, drilling mud etc.	Oct.5-11 1981	\$ 101.67 per metre for 197.2 m.	\$ 20,050.00
<u>Personnel</u>			
F.B.Whiting, geol.engineer supervision & logging & report preparation	Oct.5-12 Oct.26-28 1981.	\$ 275 per day for 11 days	\$ 3,025.00
<u>Vehicle Rentals</u>			
BowMac Truck rental, Smithers	Oct.5-12		\$ 435.59
<u>Meals , Accomodation, Air Fare</u>			
Taxis to & from airport		\$ 54.00	
Air Fare Vancouver-Smithers return		\$ 235.45	
Motel: Upland Motel room & meals	Oct.5-11	\$ 287.00	
Other meals & groceries		\$ 41.00	
	Total		\$ 617.45
<u>Xeroxing, map prints</u>			\$ 9.30
& report binders			

TOTAL EXPENDITURES..... \$ 24,137.34
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F.B. Whiting, P.Eng.

D. STATEMENT OF QUALIFICATIONS

NAME: WHITING, Francis B., P.Eng.

PROFESSION: Geological Engineer.

EDUCATION: B. App. Sci. in Geological Engineering,
University of British Columbia.
M.Sc. in Geology, McGill University.
Ph.D. in Geology and Economics, Massachusetts
Institute of Technology.

PROFESSIONAL ASSOCIATIONS:

Registered Professional Engineer, Province
of British Columbia.

Registered Professional Engineer, Yukon Terr.
Member, Society of Economic Geologists.

EXPERIENCE:

Pre-graduate experience in Geology with
Geological Survey of Canada and International
Mining Corporation.

One and One-half years Field Geologist for
Hedley Mascot Gold Mines, Placer Development,
and New Jersey Zinc Explorations, in B.C.

Three years as Mine Geologist, Missouri, for St.
Joseph Lead Co.

Six years as Chief Geologist, Aguilar Mine, for
Compania Minera Aguilar, S.A., Argentina.

Seven years as Exploration Chief in Argentina
for Compania Minera Aguilar S.A.

Five years as Exploration Manager, later General
Manager, for Arrow Inter-America Corporation,
in western and eastern Canada.

Three years as Regional Manager for Western
North America for Brascan Resources Limited.

Four years as Consulting Geologist, as President
of Whiting Mining Services International Ltd.

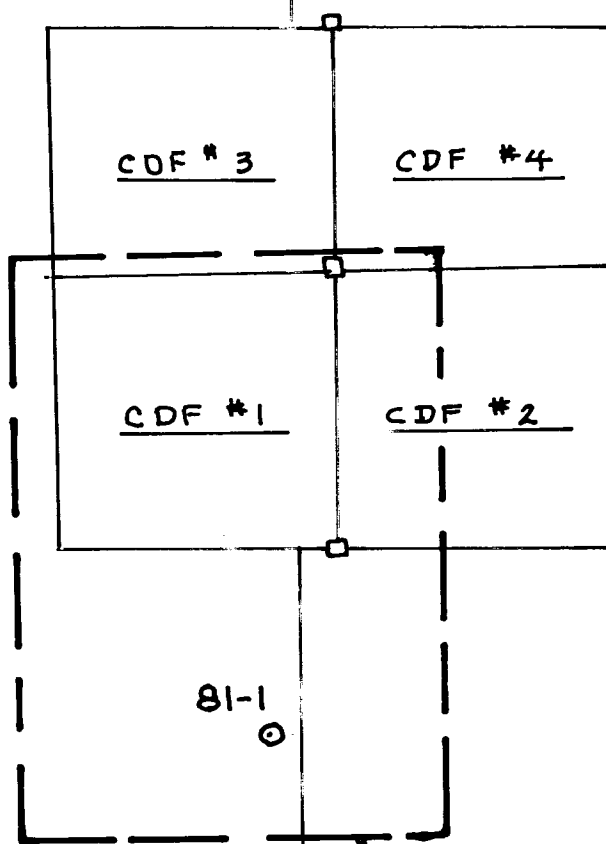
Active experience in Canada, U.S.A., Mexico,
Honduras, Brazil, Chile, Peru, Argentina,
Australia, Bolivia.

INDEX MAP.

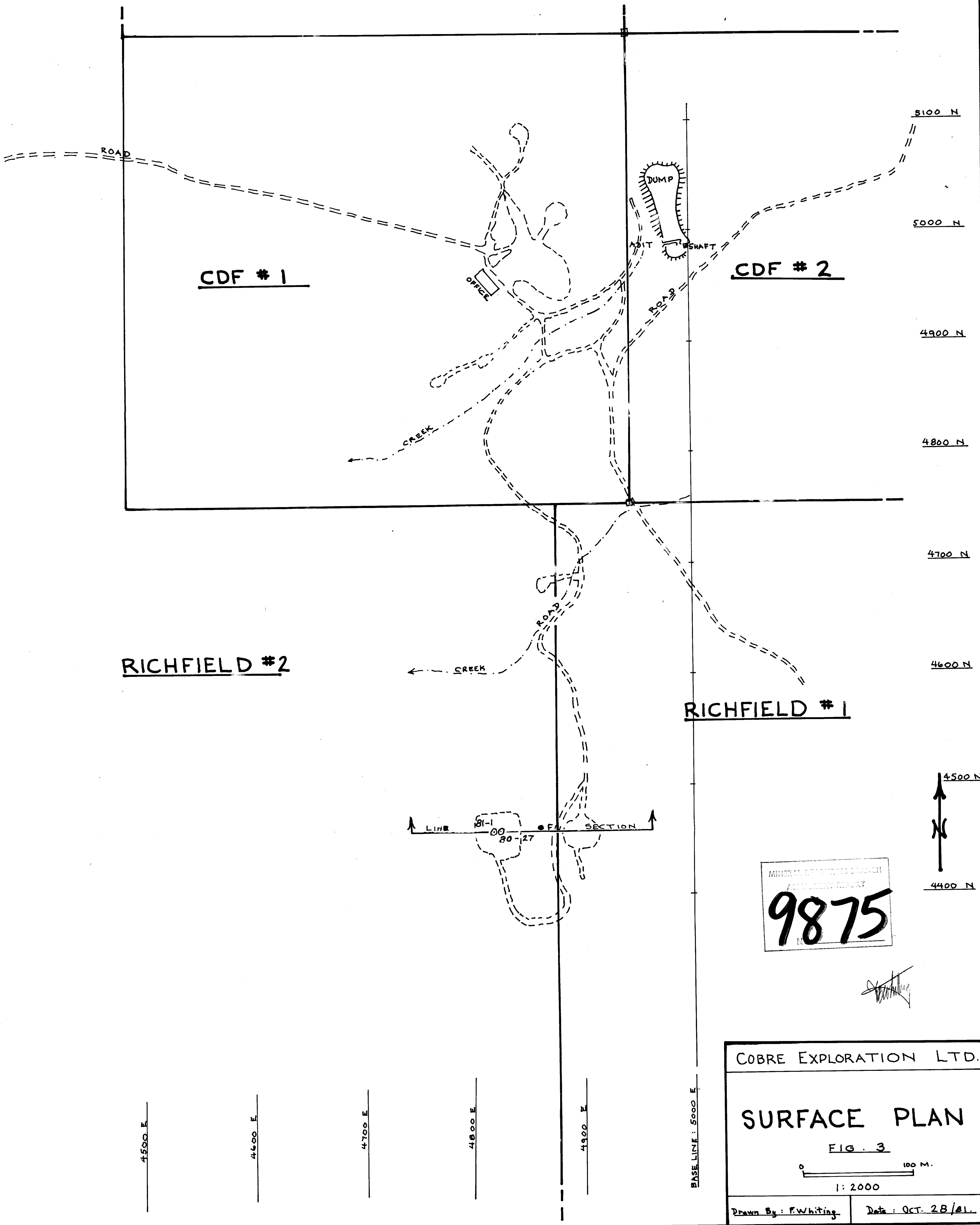


RICHFIELD #2

RICHFIELD #1



AREA OF DETAIL MAP.



CDF #1

CDF #2

RICHFIELD #2

RICHFIELD #1

MINERAL SERVICES DIVISION
ASSURANCE REPORT
9875

COBRE EXPLORATION LTD.

SURFACE PLAN

FIG. 3

0 100 M.
1:2000

Drawn By: F. Whiting

Date: Oct. 28/81

1100m

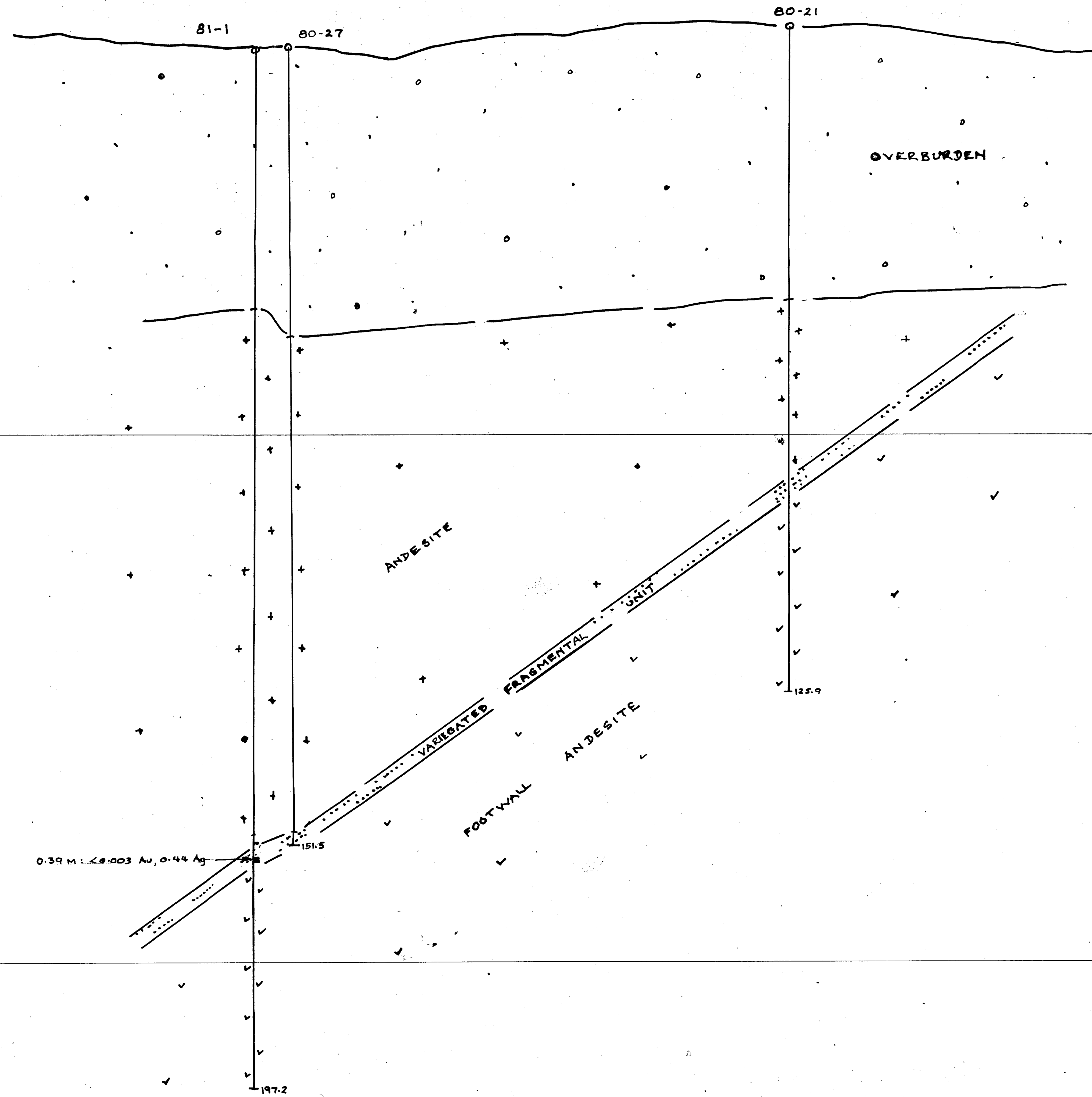
1100m

1000m

1000m

900m

900m



MINERAL RESOURCES BRANCH
 APPROVED REPORT
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LEGEND

- glacial drift
 - overlying andesite
 - basic (and ultrabasic?) rocks
 - fragmental tuffaceous rocks variably altered to ankerite & dolomite = quartz
 - argillite
 - andesite (middle and footwall)
 - gouge
 - breccia
 - layering or banding
 - sulfide mineralization
 - silicification and/or quartz stringers
 - bleaching
 - mineralized horizon
- 76m/262/0.92/
4.96/3.35 sample width (metres)/Au(oz t)/Ag(oz t)/
Pb(%) / Zn(%)
- sampled portion of drill hole

COBRE EXPLORATION LTD.
 RICHFIELD PROPERTY
 Omineca M.D.
 SECTION 81-1 to 80-21

0 50m
 SCALE 1:500
 (metres)

OCT. 1981 Min-Ex Services Ltd.
 WHITING MINING SERVICES INT'L

DRILL HOLE RECORD PROPERTY: RICHFIELD M.D.: OMINECA LOCATION: 6.6 m. WEST OF DH. 80-27 DATE: Oct. 8 / 81
 Commenced : Oct. 6 / 81 . Completed : Oct. / 81 . Core Size : NQ . Init. Brg.: VERT. . Init. Dip: -90°
 Collar Coords: : N: 4465.75 E.: 4821.55 . Collar Elev.: 0.40 m below m. Logged by: F. Whiting
 Dip/Dir. Tests: Nil. Collar of 80-27: 1073.35 m. HOLE #: 81-1

PROP.: RICHFIELD
 HOLE: 81-1
 PAGE: 1 of 7.

Core	m.		Description	Sample	m.		m. Length	/ st.		%	%	%	%
	From	To			From	To		oz. Au	oz. Ag				
	0.0	48.8	OVERBURDEN										
			0.0 - 13.7 m: Boulders & sand										
			13.7 - 28.9 m: Sand, occasional thin boulder layers										
			28.9 - 48.8 m: Clay, " " " "										
	48.8		UPPER ANDESITE										
			48.8 - 104.8 : Normal andesite, moderately magnetic; some parts slightly talcy; parts darker (ultrabasic?)										
			104.8 - 131.0 : Mixed normal green andesite & massive reddish type. - gives red drilling mud.										
			131.0 - 141.1 : Mainly green andesite. Some porphyritic structure - white feldspar laths in medium green matrix.										

9875

