

93

Geological & Magnetometer Surveys

of the

Magnet Group No. 2

Nimkish Lake, 17 miles South

of

Alert Bay, Vancouver Island

50 126 SE.

M. M. Menzies

B. O. Brynelsen

Sept.- Oct.- Nov
1953

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Horanda Exploration Company Limited

Cost of Geological and Magnetic Surveys
of the Magnet Group No. 1 and Magnet Group No. 2
Nimkish Lake, B.C. - 1953

Survey Lines:

Engineer	10 days	\$15.00 per day	\$ 150.00
2 Helpers	20 days	\$10.00 per day	200.00

Geological and Magnetic Surveys:

Engineer	40 days @	\$15.00 per day	600.00
Helper	40 days @	\$10.00 per day	<u>400.00</u>

\$ 1,350.00

Cost Proportions:

Magnet Group No. 1	\$ 900.00
Magnet Group No. 2	<u>450.00</u>
	\$ 1,350.00

Magnet Group

Noranda Mines, Limited,

Alert Bay, B. C.

Nanaimo Mining Division

The Magnet Group is 17 miles south of Alert Bay, Vancouver Island, and lies on the east side of Nimpkish Lake about one mile south of Halfway Island. The property is accessible by plane or by a rail-boat service operated by Canadian Forest Products, Limited.

Nimpkish Lake, which lies 60 feet above sea level, is flanked on both sides by mountain ranges with peaks rising to 4000 feet. The Magnet Group rises from lake level to 1500 feet and is timbered by Douglas fir, hemlock and cedar.

The property is divided into two claim groups. Claim Group "1" includes mineral claims Magnet Nos. 1 - 8 inclusive, and Claim Group "2" Magnet Nos. 9 - 12 inclusive.

Some trenching, sampling and dip needle work was done in 1952 by Noranda Exploration, Limited. Early in 1953 a camp was built near the shore of Nimpkish Lake and a small crew hired to trench the chalcopyrite - magnetite showings found along the lava-limestone contact. Surface work, discontinued in late July, was followed by a thorough transit-controlled magnetometer and geological survey of the property.

The rocks of the area are the basic Karmutsen volcanics, Quatsino limestone and the Bonanza argillites, tuffs and flows. The formations are conformable and an Upper Triassic age has been assigned the Quatsino limestone on fossil evidence. The volcanics and sediments are cut by Coast Range stocks and dykes. Structure of the Nimpkish Valley is synclinal with a northwesterly axis. This syncline is locally complicated by close folding and faulting near the larger stocks.

The Magnet Group is two claims wide, runs three claims lengths back from the lake shore at a bearing of north 23 degrees east and from there an additional two claim lengths in a northeasterly direction. The main lava-limestone contact forms an arc which crosses to the west of the group's centre line 2400 feet north of the lakeshore and re-crosses at 4800 north. From 5000 north to the end of the property the contact runs along a relatively straight northeasterly line and is marked by sheer limestone cliffs along its northwest side. A small granite stock intrudes the lava in the low lying ground between 2000 north and 5000 north, closely following the lava-limestone contact. A northerly trending fault is assumed to lie between trenches 1b. and 2. Local strikes and dips are uncertain but a northeasterly strike and steep northwesterly dip is probable.

Showings of contact metamorphic origin have been found along the lava-limestone contact within a few feet of the granite stock. The skarn zone has formed mainly in the limestone and varies from a few feet to 35 feet in width. Silicates developed are probably dopside and

epidote. Showings below trench 3 have some good copper values although the occurrences are somewhat spotty. Sulphides are weak in the upper showings.

The geological condition required for the emplacement of the chalcopyrite - magnetite deposits was the proximity of the granite stock to the lava-limestone contact. This condition exists along a 3000 foot section of the contact in which the ground rises 400 feet in elevation. It seems likely therefore, that the required structural relationship may extend at least several hundred feet down the dip of the contact. The deposits have good depth possibilities and it should be noted that better chalcopyrite values are indicated below the upper magnetite showings.

Submitted by

M. M. Menzies
Morris M. Menzies

B. O. Brynelsen
B. O. Brynelsen, P.E.

Magnetometer Survey

Magnet Groups

Noranda Mines Limited

Alert Bay, B.C.

Nanaimo Mining Division

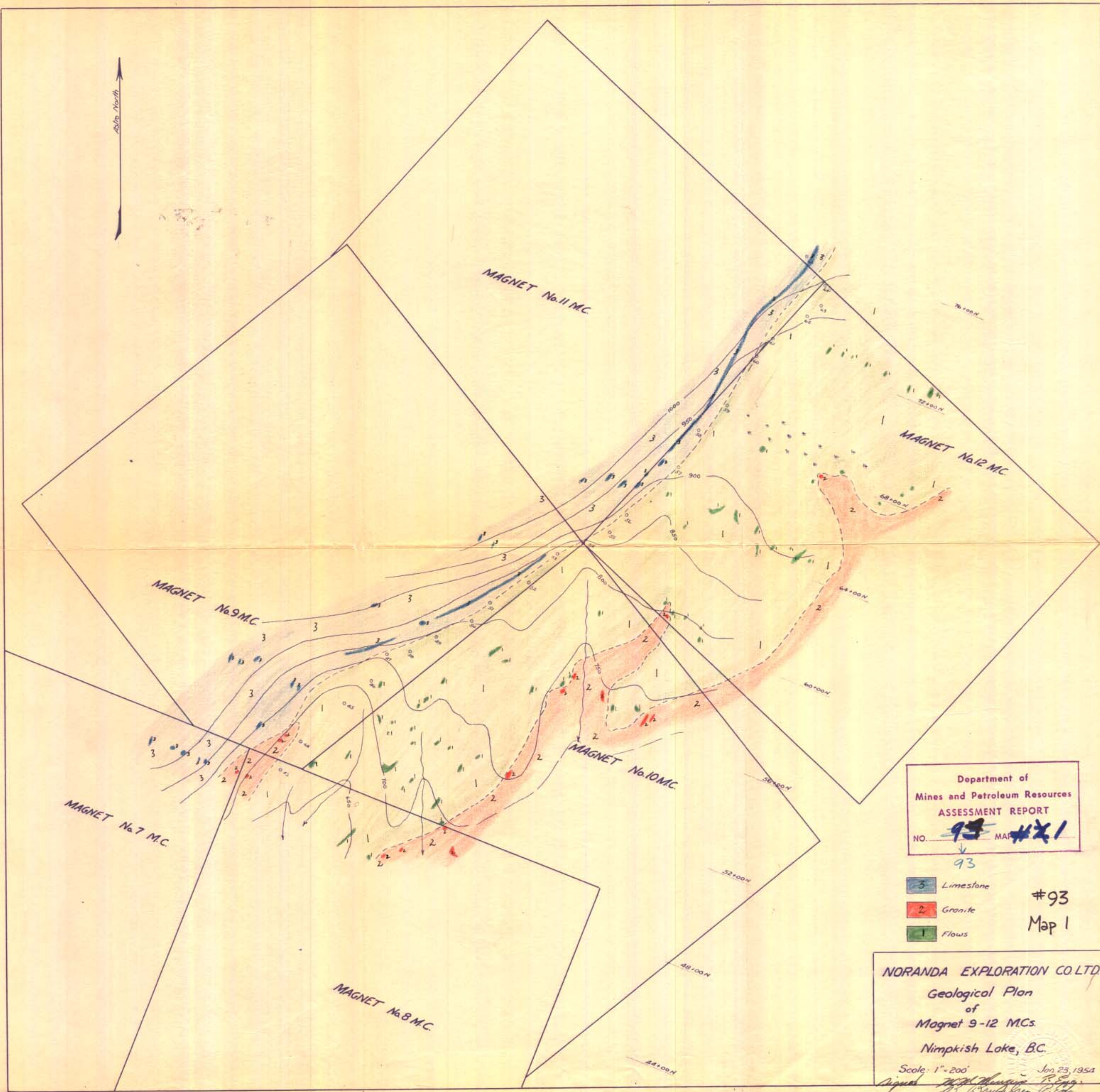
The Magnet Groups were prepared for geological and magnetic mapping by surveying a base-line along the lava-limestone contact. The transit was a re-conditioned British instrument of good accuracy. Cross lines were turned off at 400 foot intervals along the base line and magnetic readings taken at 50 foot intervals with a Sharpe D.L.M. magnetometer. Where magnetic values were above normal, additional section lines and closer readings were taken. Along that part of the contact where the main sulphide - magnetite showings were found, section lines were spaced at 100 foot intervals and readings taken at 25 foot intervals or less.

Conclusions:

1. The lava-limestone contact is clearly shown by magnetic contours
2. Main sulphide-magnetite showings lie along that portion of the lava-limestone contact nearest the granite stock and in tongues of lava within the stock.
3. The upper showings of low sulphide content have a high magnetic intensity and profiles suggest deep deposits.
4. The lower showings with higher sulphide content are not so clearly defined by magnetic contours.

M.M.H.
B.O.B.

As to North

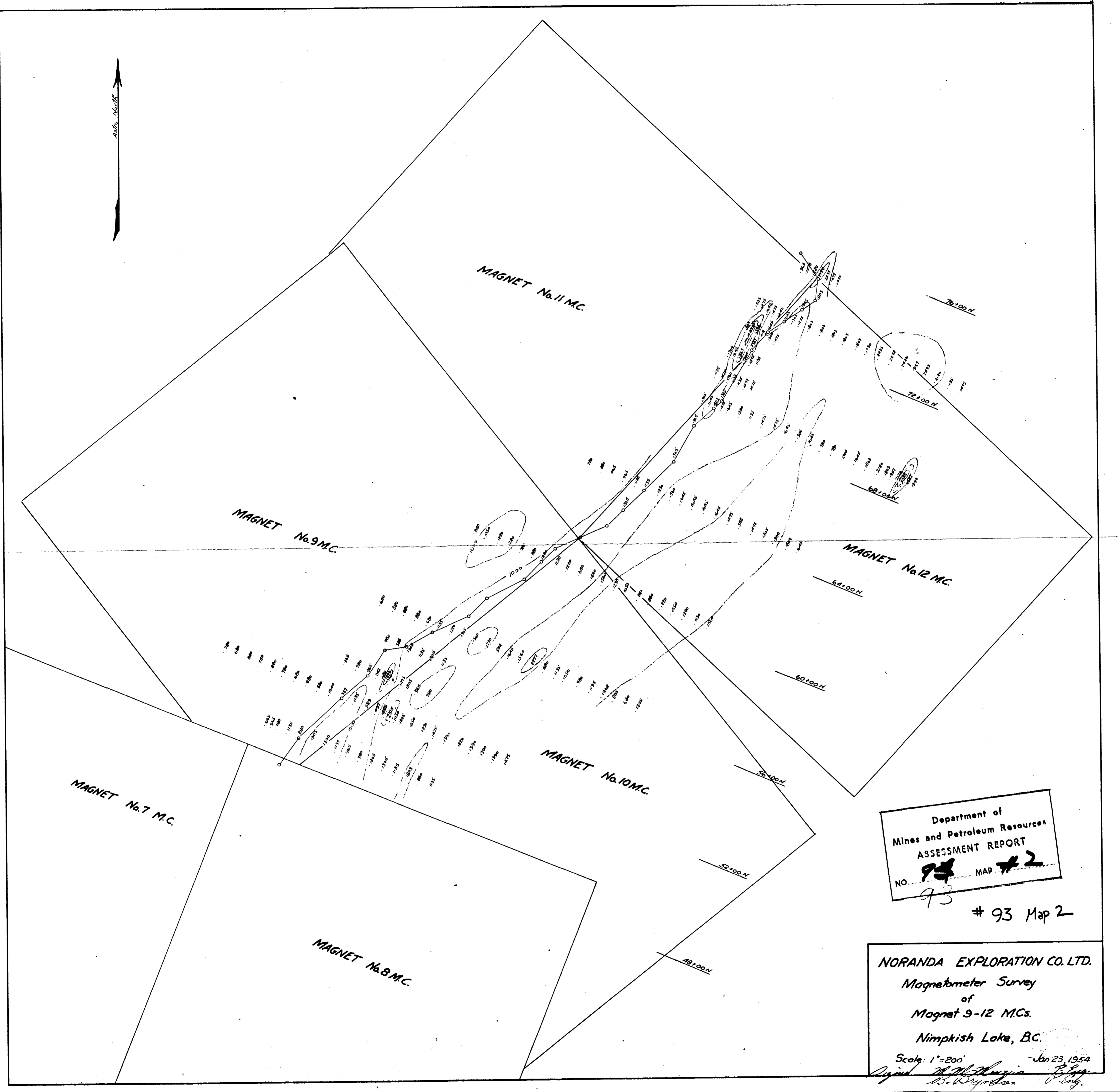


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ASSESSMENT REPORT
NO. **93** MAP **#21**

3 Limestone
2 Granite
1 Flows

#93
Map 1

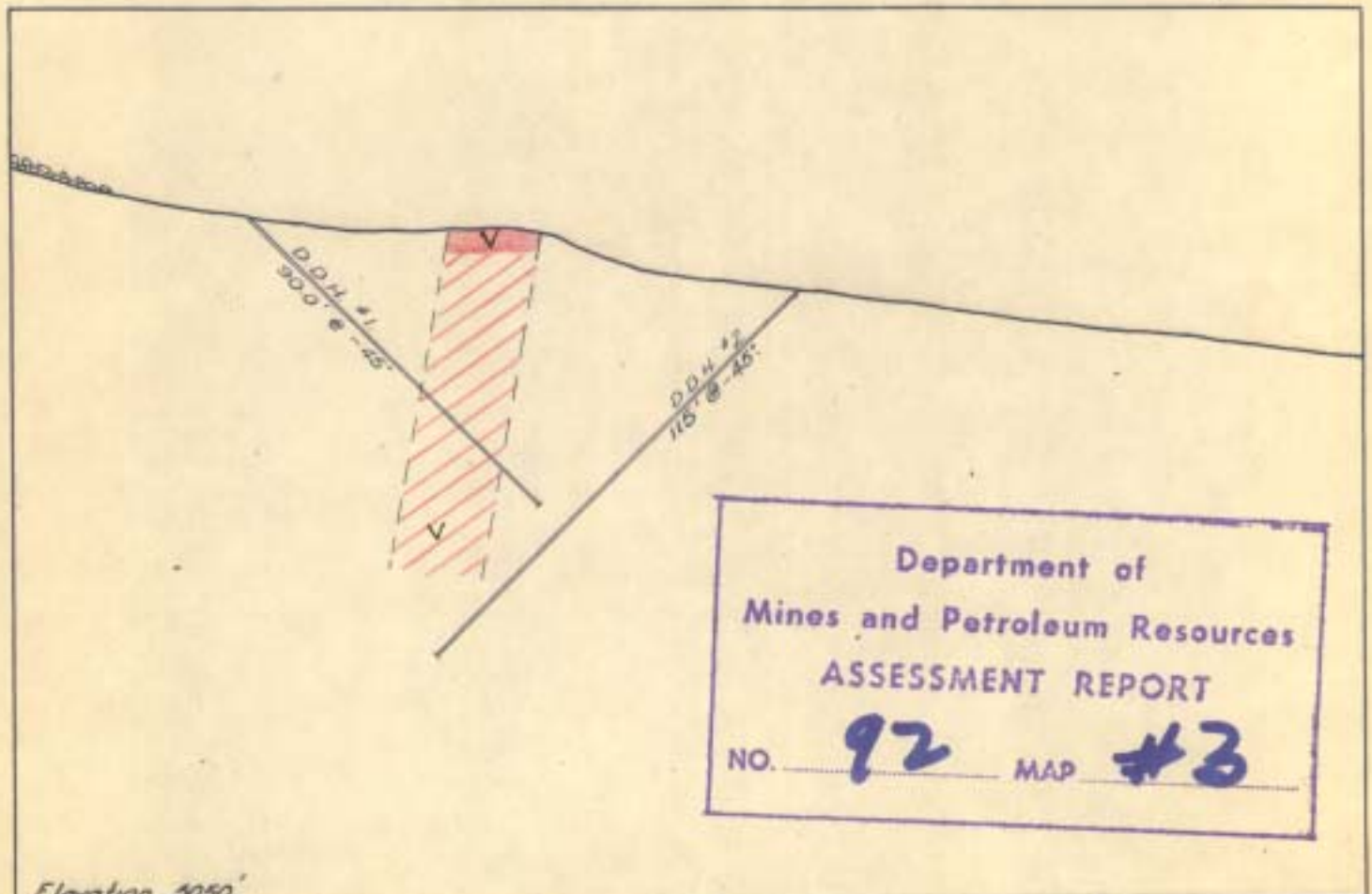
NORANDA EXPLORATION CO. LTD.
Geological Plan
of
Magnet 9-12 M.Cs.
Nimpkish Lake, B.C.
Scale: 1" = 200'
Jan 23, 1952
Signed *[Signature]* P. Eng.
[Signature] P. Eng.



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ASSESSMENT REPORT
NO. ~~93~~ MAP # 2
93

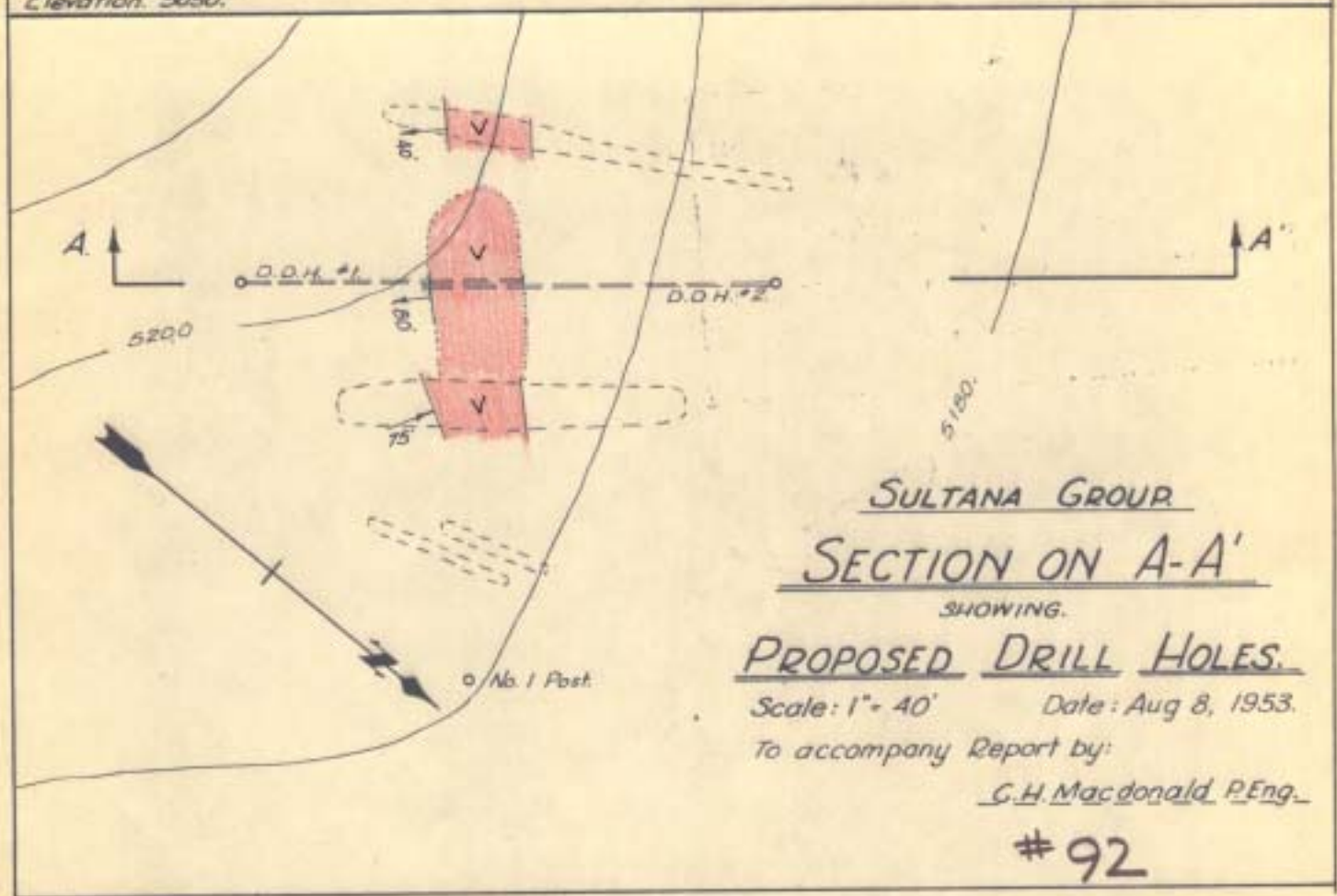
93 Map 2

NORANDA EXPLORATION CO. LTD.
Magnetometer Survey
of
Magnet 9-12 M.Cs.
Nimpkish Lake, B.C.
Scale: 1"=200'
Jan 23, 1954
Signed *W. M. Ferguson*
R. G. P. G. G.
R. S. K. Drysdale



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 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **92** MAP **#3**

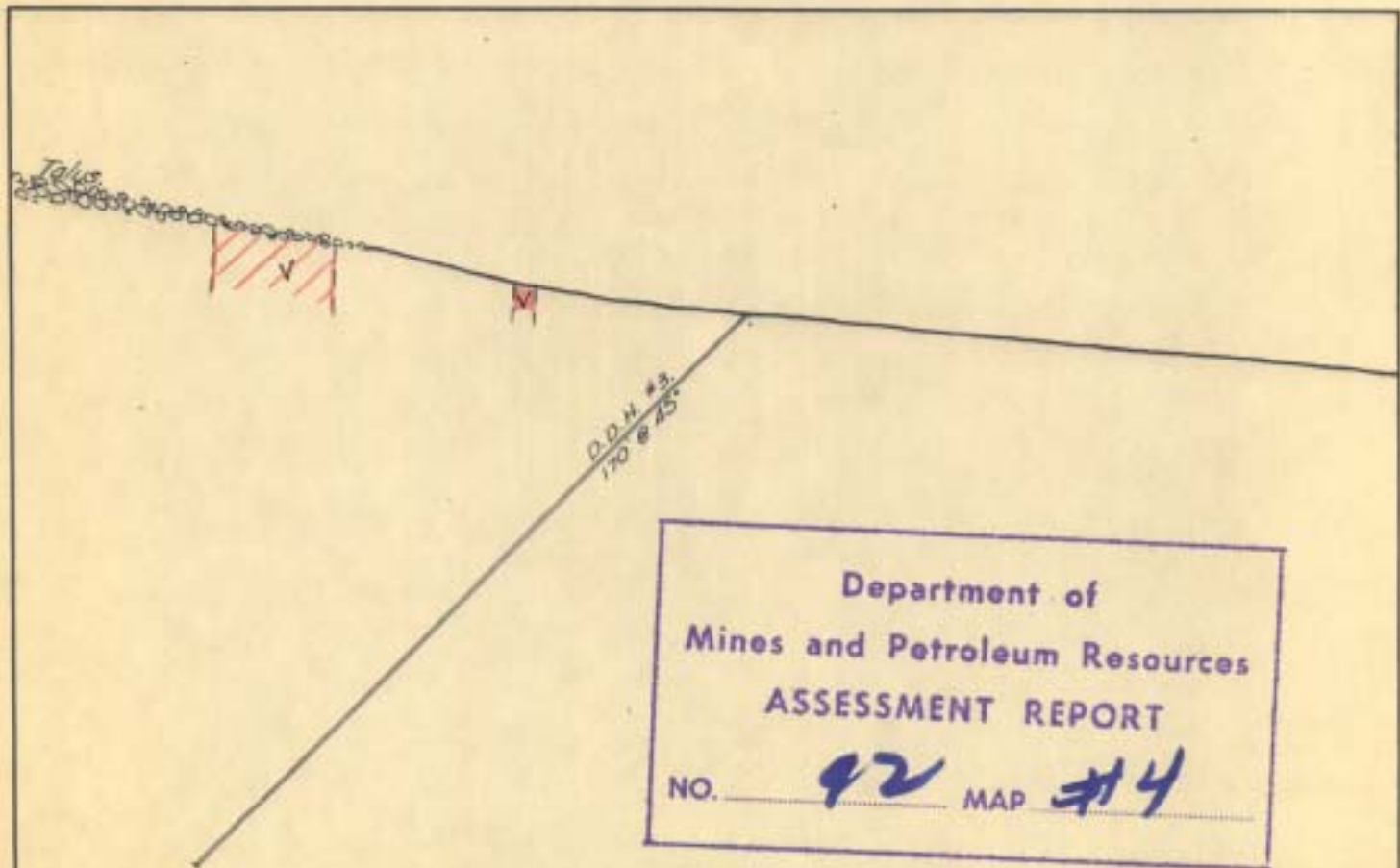
Elevation 5050'



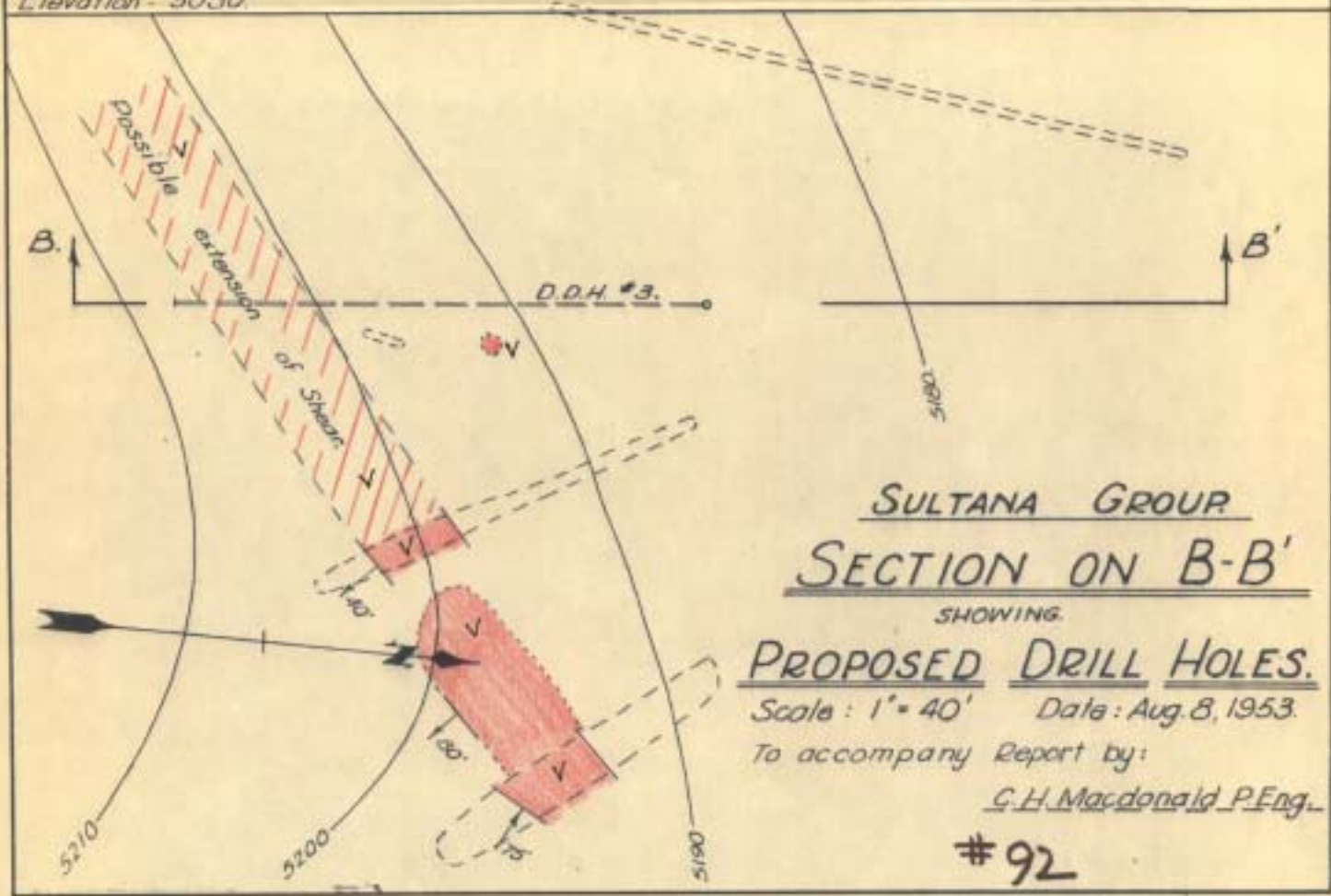
SULTANA GROUP
SECTION ON A-A'
 SHOWING
PROPOSED DRILL HOLES.
 Scale: 1" = 40' Date: Aug 8, 1953.
 To accompany Report by:
G.H. Macdonald, P.Eng.

#92

MAP 3



Elevation - 5050



SULTANA GROUP
SECTION ON B-B'

SHOWING
PROPOSED DRILL HOLES.
 Scale: 1" = 40' Date: Aug. 8, 1953.
 To accompany Report by:
 G.H. Macdonald P.Eng.

#92
 MAP 4

Department of
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ASSESSMENT REPORT

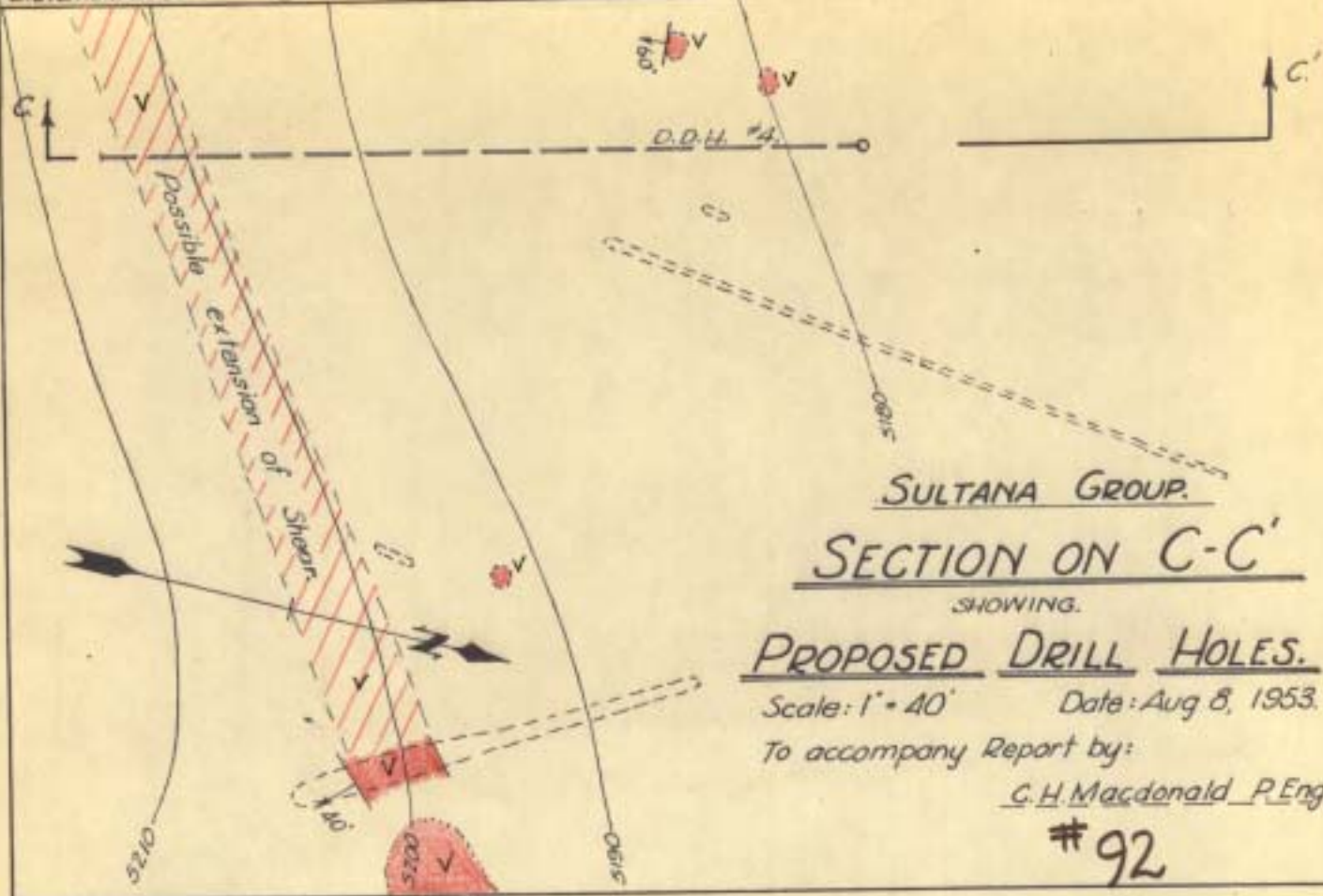
NO.

92

MAP

#5

Elevation 3050



SULTANA GROUP.

SECTION ON C-C'

SHOWING.

PROPOSED DRILL HOLES.

Scale: 1" = 40'

Date: Aug 8, 1953.

To accompany Report by:

C.H. Macdonald P.Eng.

#92

Map 5