

84-#91 - 12102

REPORT ON
GROUND MAGNETIC SURVEY
OF
THE PETE #1 CLAIM GROUP
NANAIMO MINING DIVISION
SAYWARD AREA, VANCOUVER ISLAND
BRITISH COLUMBIA

LONGITUDE 125° 58'

LATITUDE 50° 18'

NTS 92K/5

FOR

OPERATOR AND OWNER
DICKENSON MINES LIMITED
TORONTO - ONTARIO

CLAIMS

PETE #1 RECORD NO. 1293(1)

BY

PETER G. ATHERTON B.Sc.
H. E. NEAL & ASSOCIATES LTD.
TORONTO - CANADA

DECEMBER 29, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,102

**PART
2 OF 3**

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IN POCKET

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DICKENSON MINES LTD.

KEY MAP

SCALE: 1:2,000,000

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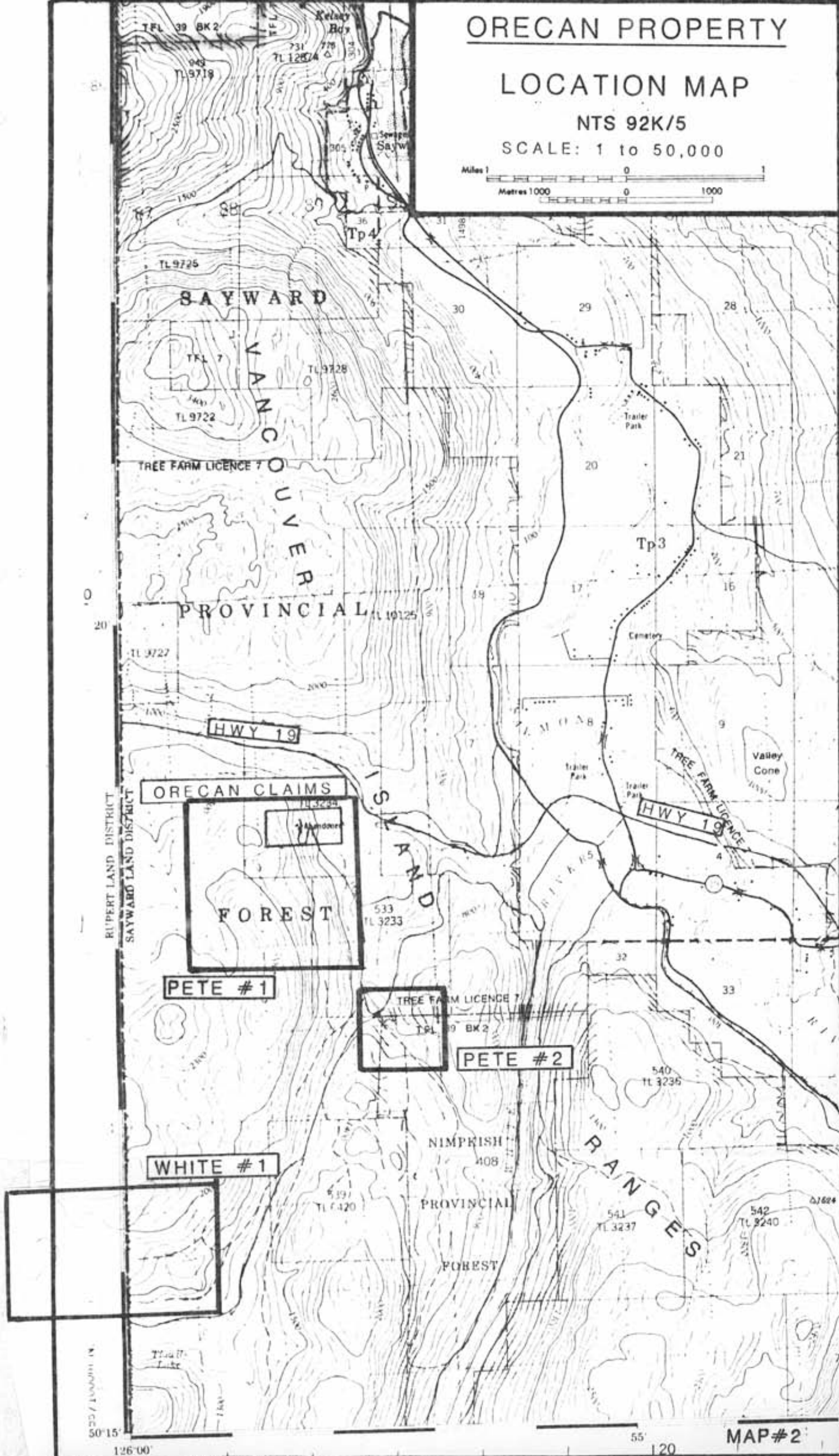
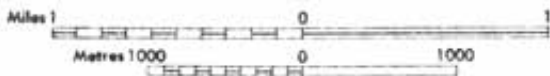
MAP#1

ORECAN PROPERTY

LOCATION MAP

NTS 92K/5

SCALE: 1 to 50,000



50°15'

126°00'

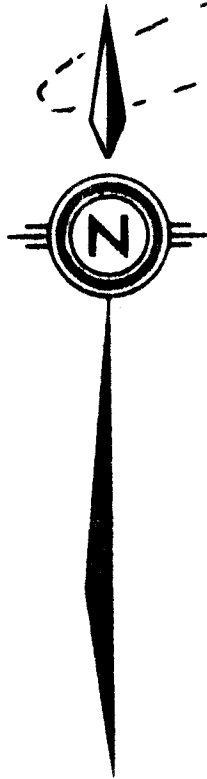
55'

120

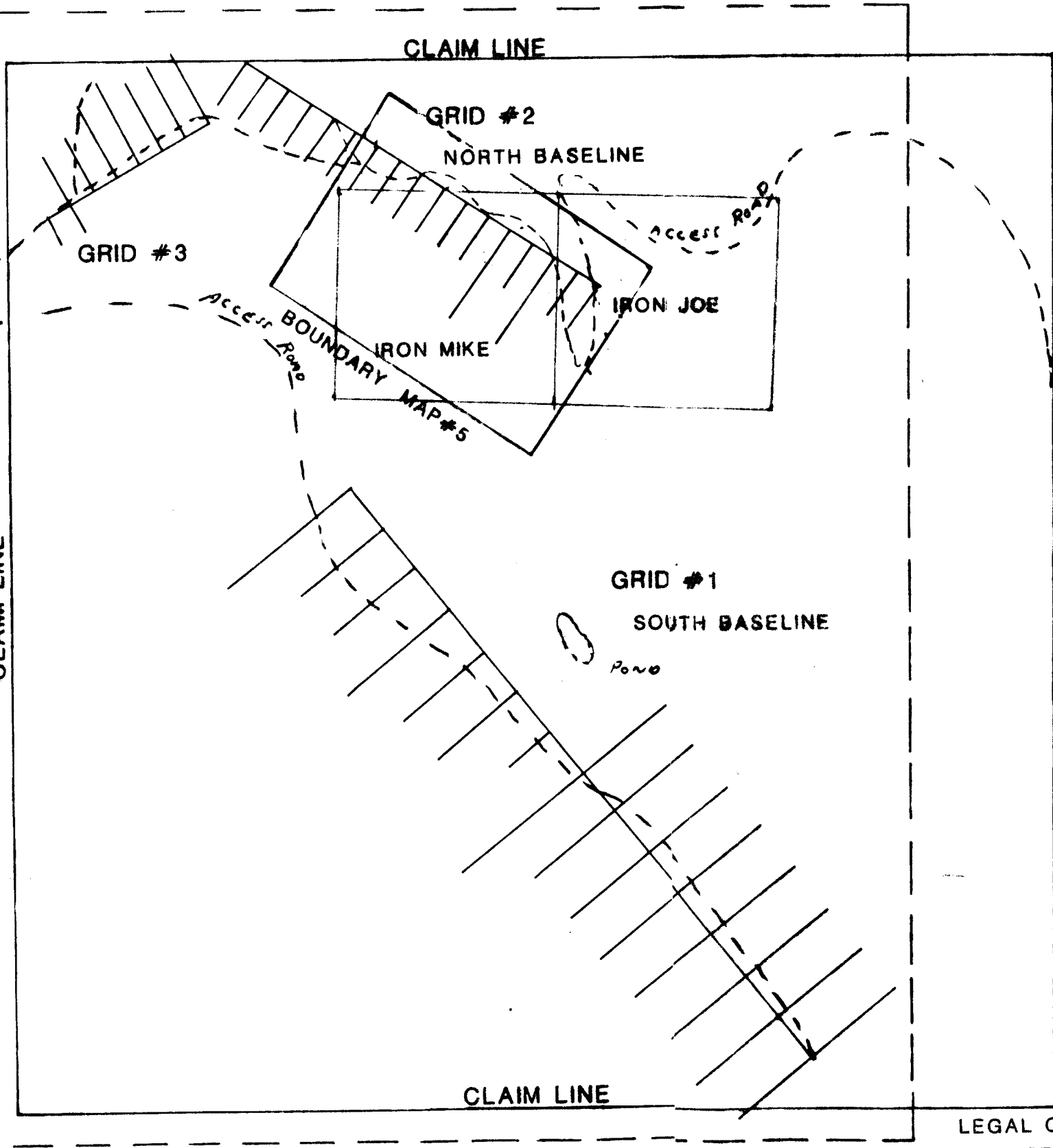
MAP #2

715000m. E

MAP BOUNDARY MAP #4&8



CLAIM LINE



CLAIM LINE

GRID #2

NORTH BASELINE

GRID #3

IRON JOE

IRON MIKE

BOUNDARY MAP #5

GRID #1

SOUTH BASELINE

Pond

CLAIM LINE

CLAIM LINE

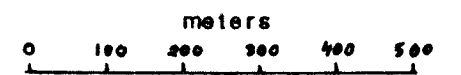
L.C.P.
LEGAL CORNER POST
PETE #1

NTS. 92K/5

SKETCH OF MAP OUTLINE

PETE No. 1 GROUP
DICKENSON MINES LIMITED

SCALE 1:10000



CLAIM BOUNDARIES LOCATED
BY AIRPHOTO

MAP #3

1.0 INTRODUCTION:

The Pete #1, Record No. 1293(1) claim group is located 8 Km south of Sayward, British Columbia in the Nanaimo Mining Division. The claims are accessible by all-weather logging roads to within 2.5 Km of the property and by seasonal road to within the claim block.

The claim group was staked in January 1983. The Pete #1 claim group is owned by Dickenson Mines Limited.

The claim group also encompasses the Iron Joe Record No. 14618(3) and Iron Mike Record No. 14619(3) claims which have been optioned to Dickenson Mines Limited. These were not covered by the present survey.

The Pete #1 claim group extends 4 units north of the Legal Claim post and 4 units west of the Legal Claim post for a total of 16 units. The terrain is steep to moderately rugged.

1.1 History Of The Property (Iron Mike)

1959 - Iron ore discovered by R. Hartt.

1960 - Property optioned to Marwell Construction from R. Hartt.

- 19 drill holes for 1924 feet (Ex diameter)

- 13 were drilled on Iron Mike claim.

- Dip needle survey over Iron Mike (Main Zone) deposit and

Iron Mac, Iron Dick and West Zone deposits (all on Pete #1 claims.)

- 1961 - Hartt & Associates diamond drilling (Ex diameter) (24 drill holes of 2100 feet) and prospecting of claim.
- 1963 - Inter-Can Development Ltd. optioned the property on a ten year renewable lease royalty agreement.
 - stripping and diamond drilling began, claims assigned to Orecan Mine Ltd.
- 1964 - 5,000 feet diamond drilling by Orecan.
 - Stripping in preparation for open pit mining.
 - Reserves 700,000 tons to 1.15 million tons @ 62% Fe.
- 1965-66 - Most of magnetite in Main and West pit zones that was available to open pit mining, no methods are recorded.
 - Mine closed, mill sold.
- 1966 -
- 1983 - No known work on claims.

Enough high grade magnetite remains in the Main Pit and West Pit Zones as well as the untouched Iron Dick, Iron Mac and Iron Herb I and II magnetite deposits to be a source of high grade concentrate.

1.2 Geophysical Survey

The present ground magnetic survey was conducted on grids #1 and #3.

The grids consist of:

GRID #1	6.25 Km.
GRID #3	1.4 Km.

The line spacing was 60 M for Grid #1 and 50 M for grid #3. The line spacing was found to be inadequate over anomalous areas on grid #1 and intermediate lines were cut as shown on Map # 8 scale 1:2500. The total number of kilometres for the survey was 8.62 Km.

1.3 Geology

The rocks underlying the claim group are part of the eastern limb of regional synclinal structure. The oldest rocks in the area are Late Triassic, pillowed and porphyritic basalt of the Karmutsen Formation. This formation is estimated to be greater than 3000 M thick.

The Quatsino Formation conformably overlies the Karmutsen Formation. The formation consists of limestone up to 900 M thick. Granitic intrusives are common within the formation and the limestone has been converted to marble and skarn.

The early Jurassic Bonanza Formation conformably overlies the Quatsino limestone. The lower part of the formation is composed of carbonaceous shale, calcareous shale and greywacke, occasional tuff units are present. The upper half of the formation is composed of dacitic to andesitic lavas with tuffs and breccias.

The Adams River intrusive intrudes all of the above rock types. In the Adams River areas the intrusive is mainly granodiorite in composition with some diorite along the lower contacts. The intrusive is early Jurassic in age. The contact with the lower Quatsino Formation is concordant in most places.

Magnetite occurs in the same horizon as an intravolcanic limestone band in place of the limestone and is part of the Karmutsen Formation.

1.4 Claims

The present survey was conducted on the Pete #1, Record No. 1293(1) claims.

2.0 GEOPHYSICS:

2.1 Ground Magnetic Survey

The purpose of the ground magnetic survey was to follow up broad magnetic anomalies located by an airborne magnetic survey conducted during April, 1983. For this reason grids #1 and #3 were located along the axes of broad magnetic highs.

The instrument used was a Scintrex MF-1 Fluxgate magnetometer which has the following accuracy scale $\pm .5\%$ 100 to 10,000 gammas and $\pm 1\%$ 10,000 gammas.

The method used for diurnal correction was a progressive adjustment for each survey loop and using BL 7+00W on grid #1 and BL 3+00E on grid #3 as the base station. The time interval for base station checks was 1 to 2 hours.

The results are presented on map # 8 with the unit measured in gammas. The contour interval is 1000 gammas which is considered adequate for locating magnetite concentrations. The readings were measured at 25 M intervals and less over anomalous areas.

The values represent vertical intensity and are relative only to the individual base stations for each grid. The primary base station for both grids was BL 2+00E on grid #3 and all values are relative to that station.

3.0 DISCUSSION OF RESULTS:

The survey outlined four areas of interest on the two grids. They are designated Iron Mac, Iron Dick, Iron Herb I and Iron Herb II. They are shown on map # 8 scale 1:2500.

3.1 Iron Mac

The Iron Mac anomaly is located between lines 7W and 8+25W south of the base line on grid #1. Readings up to 15,550 gammas were obtained.

The anomaly represents an area 60 M by 40 M. The shape of the anomaly indicates a shallow S.W. dip to the magnetite concentration. The anomaly is confirmed by the presence of magnetite occurrence between 7+50W and 7+25W along the logging trail.

The smaller magnetic loop located a line 7W 0+50 MS is likely an extension of the Iron Mac anomaly.

3.2 Iron Dick

The Iron Dick anomaly is located between 10+75W and 11+50W on grid #1.

The anomaly is 100 M south of the baseline. Readings up to 11,000 gammas were obtained. The anomaly covers an area 120 M by 60 M as defined by the 5,000 gamma contour. Outcrop evidence confirms that this anomaly is caused by magnetite.

3.3 Iron Herb I

This anomaly consists of two magnetic highs with readings up to 18,100 gammas. The magnetic highs are separated by a magnetic low. The south anomaly is from 1+75 E to 2+00 E on the baseline to 75 M north on lines 2E and 2+50 E. This anomaly represents an area 85 M by 50 M. The northern anomaly centred at 1+00 N on line 2+50 E and 0+75 N on line 3 E.

The anomaly covers an area 35 M by 95 M. No outcrop evidence was found to confirm this anomaly. The presence of large boulders located in the same area as the magnetic low dividing the two anomalies indicate magnetite is the source.

3.4 Iron Herb II

The Iron Herb II anomaly is located from 0+12.5 W as the baseline to 0+50 E as the baseline to 0+45N on line 0+50 E. The anomaly covers an area 120 M by 50 M as defined by the 5000 gamma contour.

3.5 Other

A smaller anomaly was located at 1+50 N on line 3+00 W. This was located over an area of slightly magnetic basalt.

4.0 CONCLUSIONS AND RECOMMENDATIONS:

The ground magnetic survey was useful in determining the location and possible extent of 4 magnetite occurrences. It did not show general geological trends but that was not the purpose of the survey. All of the anomalies are on bench areas on the sides of hills, clear of trees and easily accessible by logging roads. Future work should include stripping, bulk sampling and diamond drilling.

H. E. Neal P. Eng.

Peter G. Atherton B.Sc.

H.E. Neal & Associates Ltd.

5.0

STATEMENT OF EXPENDITURES

PETE No. 1 CLAIMS

For

Dickenson Mines Ltd.

GROUND MAGNETOMETER SURVEY

Field Labour -	
<u>Senior Geologist</u> 9 days at \$300/day	\$ 2700.00
(June 3/83 - June 6/83; Sept. 3/83 - Sept. 7/83)	
Travel in B.C.	21.00
Accommodation 7 days at \$23.45/day	164.12
Food Charged to Motel & travel costs-9 days as above.	146.26
Truck Rental & Gas - 9 days as above.	433.85
Misc. Hardware & field expenses	17.70
Report Preparation - drafting, compilation, writing, map preparation, typing & printing	2589.00
	<hr/>
	\$ 6071.93

H. E. Neal
President

H. E. NEAL & ASSOCIATES LTD.

6.0 BIBLIOGRAPHY:

- Reeves, C.V. - 1982 - MAGNETOMETER SURVEYS IN DIRECT AND SEMI-DIRECT EXPLORATION - Mining Geophysical Workshop, Sutton, Ontario.
p.p. 3.1 - 3.24, Paterson, Grant and Watson Limited/
Consulting Geophysicists, Toronto, Ontario.
- Sheldrake, R.F. - 1983 - Report on a Helicopter Magnetometer Survey, Pete 1, Pete 2 and White 1 claims, Nanaimo Mining Division, Sayward Area, Vancouver Island, British Columbia for Dickenson Mines Limited.

7.0 CERTIFICATION:

I, Peter G. Atherton of the City of Burlington, Province of Ontario, hereby certify as follows:

1. I am Senior Geologist for H.E. Neal & Associates Ltd., a company incorporated under the laws of the Province of Ontario.
2. The Toronto office of H.E. Neal & Associates Ltd. is located at Suite 606, 55 Queen Street East, Toronto, Ontario.
3. I received my Honours B.Sc. in Geology from Brock University, St. Catharines, Ontario in May 1975.
4. I have practiced my profession since that date.
5. I personally conducted the ground magnetic survey and supervised all other work connected with the above.
6. I have no interest, direct or indirect, with any clients of H.E. Neal & Associates Ltd.
7. I am a Fellow in good standing of the Geological Association of Canada.

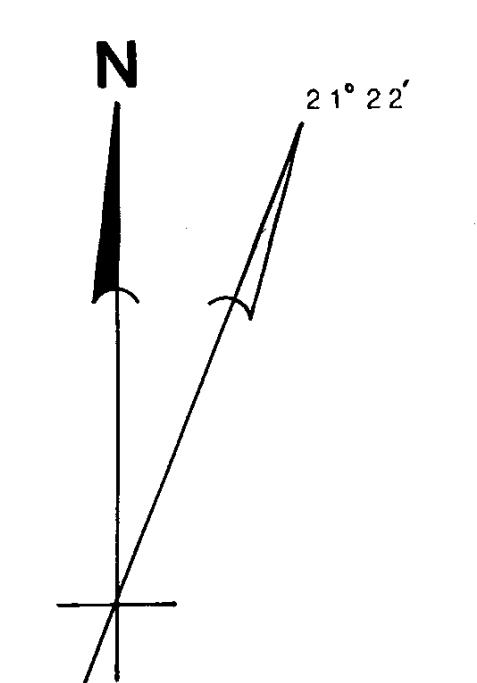
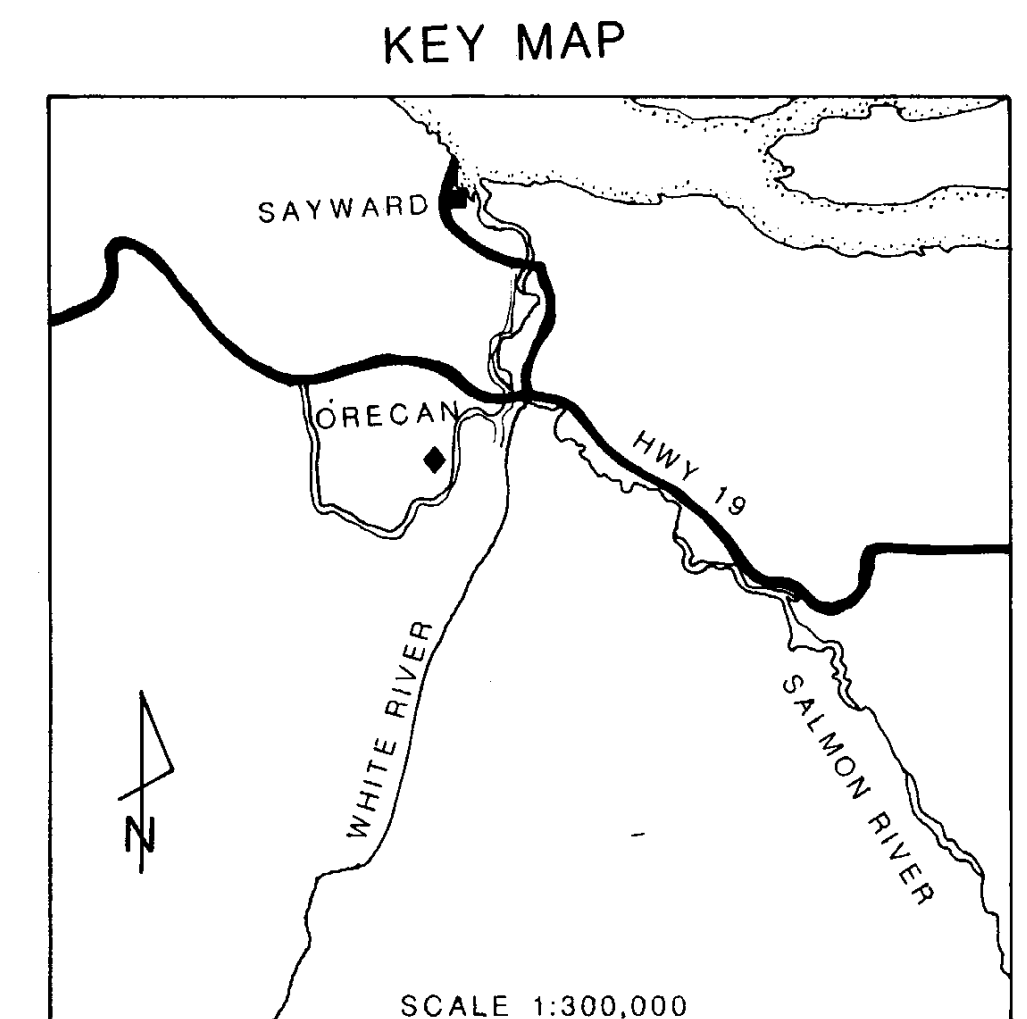
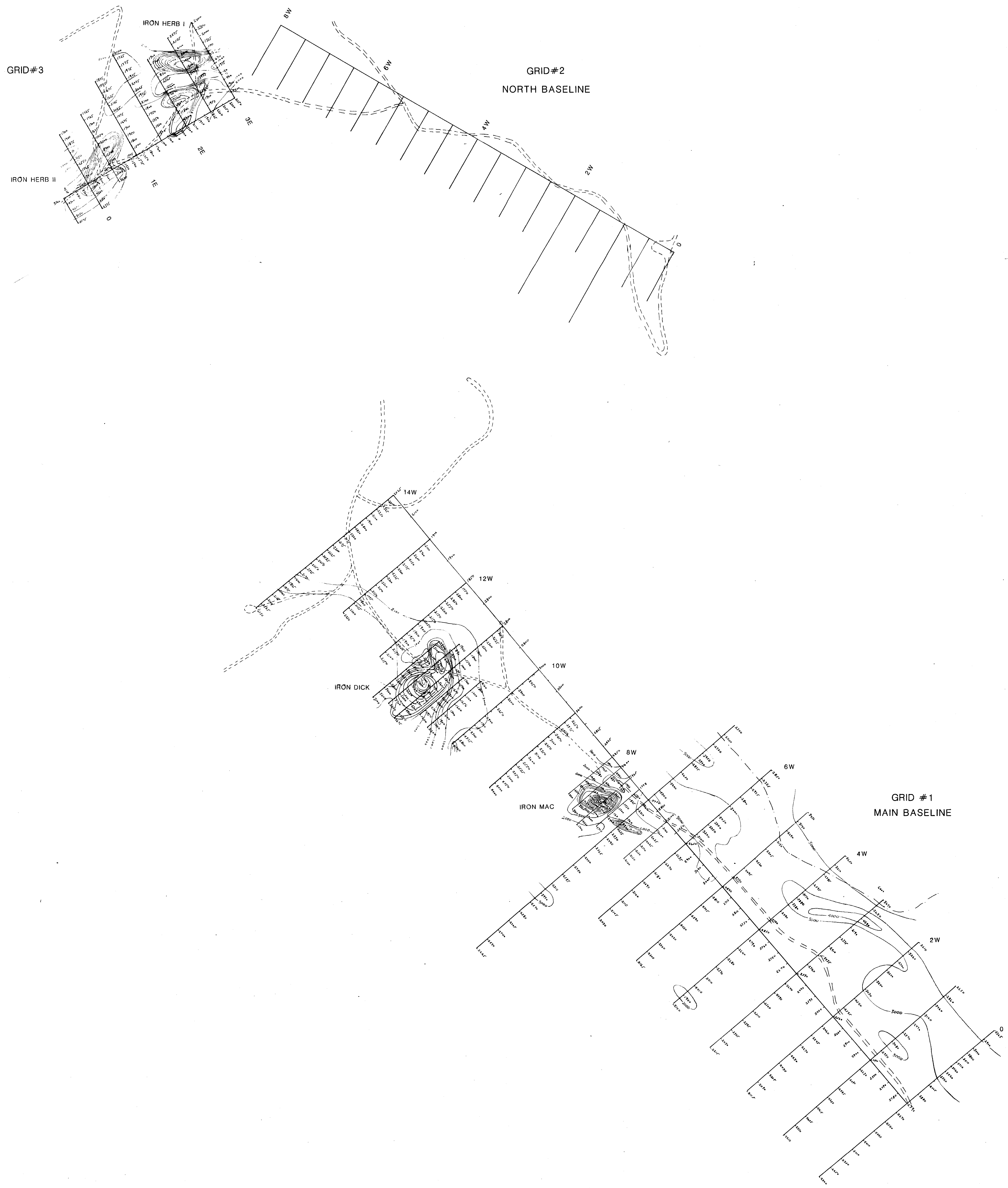
Dated at Toronto, Ontario

December 29, 1983

Peter G. Atherton B.Sc.

Peter G. Atherton B.Sc.

H.E. Neal & Associates Ltd.

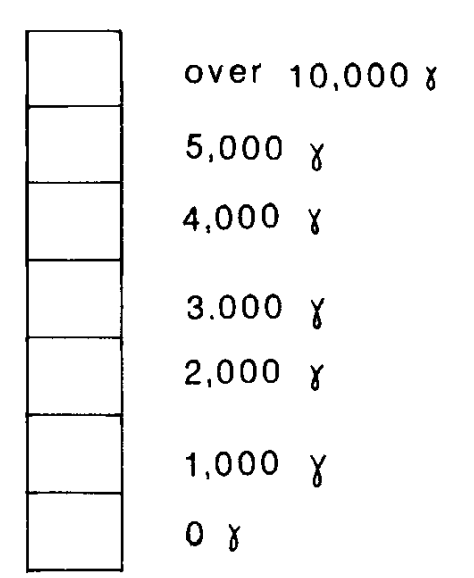


SYMBOLS

- STREAM
- === ROAD

Contour Interval 1000 γ

LEGEND



INSTRUMENT

SCINTREX MF-1 MAGNETOMETER

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,102
MAP#8

DICKENSON MINES LIMITED
B.C. ORECAN PROJECT
PETE #1 CLAIMS

GROUND MAGNETOMETER MAP

SAYWARD AREA
VANCOUVER ISLAND
BRITISH COLUMBIA

SCALE 1:2500

H.E. NEAL & ASSOCIATES LTD.
TORONTO CANADA

DRAWN BY: P.G.A.	DRAWING No.	DATE:
APPROVED BY: HEN.	83-05-02	JUNE 1983

REVISED SEPT 1983