456

GEOPHYSICAL REPORT

on

HAZEL GROUP, NIMPKISH LAKE AREA, B. C.

NANAIMO M.D.

(50° - 126° S.E. W)

under option to CAMLOC COPPER LTD. (N.P.L.)

Covering work done during May 8 - July 7, 1962

under the direction of

C. F. MILLAR, P.Eng.

92L/7W

TABLE OF CONTENTS

Introduction	Page 1
Conclusions and Recommendations	Page 1 - 2
Description of Work	Page 2 - 3
Cost of Work Done	Page 3
Application of Work Done	Page 4
Maps:-	
General plan of old workings	Plate I
General plan of magnetometer survey	Plate II
Detailed portion of magnetometer survey	Plate III
Detailed Portion of magnetometer survey	Plate IV

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 456 MAP

REPORT ON HAZEL GROUP

NIMPKISH LAKE AREA, B. C.

October 25, 1962.

1. INTRODUCTION

Certain works were carried out by Camloc Copper Ltd. (N.P.L.) on the Hazel Group of claims during 1962. This work is requested to be applied toward the annual assessments due on these claims.

The claims cover an old property which was investigated in 1929 and 1930 by the Consolidated Mining and Smelting Co. Ltd., under the names "Kinman Copper" or "Nimpkish Copper".

The property is situated near Kinman Creek, which flows westerly into the southern end of Nimpkish Lake, Vancouver Island. Descriptions of the property can be found in the Minister of Mines reports for 1929 and 1930, in Geological Survey of Canada Memoir 272, and in several old maps made by the Consolidated Company.

The scope of the work carried out was essentially geophysical. A considerable amount of surveying and a small amount of geological scouting were attendent requirements.

2. CONCLUSIONS AND RECOMMENDATIONS

Work done by the former operators demonstrated the existence of many small contact metasomatic bodies along a granite-limestone contact, some of which contain commercial values in copper, zinc, gold and silver.

Work done by Camloc Copper Ltd. (N.P.L.) demonstrated that all of the larger known bodies cast magnetic anomalies, also that several magnetic anomalies were found in areas previously unexplored by C.M.&S. However, since not all of these magnetic replacement bodies contain economic mineralization, it does not follow that new magnetic anomalies denote new ore. Nevertheless, the economics applicable to mining in this area, indicate that while the known ore is of marginal quantity, even a small addition to the ore reserves could enable a profitable operation to ensue.

It is recommended that consideration be given to extending the magnetometer work to cover a greater portion of the contact zone, and that anomalies over areas unexplored by the former operators be checked by diamond drilling or other suitable means. Estimated cost

2. CONCLUSIONS AND RECOMMENDATIONS - Continued

of this additional program would be roughly $2,000 to extend the magnetometer survey, plus perhaps $8,000 for 1,000 feet of drilling, assaying, and engineering. In the writer's opinion, the chances of developing a profitable operation are at least equal to the average mining venture and consequently the property is a worthy target for risk capital.

3. DESCRIPTION OF WORK DONE

A preliminary reconnaissance was first made to establish the location of the most favourable areas and to lay out a survey grid for subsequent mapping. Old maps showing the geology and workings were of great help in this regard.

The portion chosen as having the best potential lay between the "tunnel showing" on Copper Creek and the "big showing" roughly 3,000 feet westerly on the 2,700 foot contour. A survey between these points was made and a base line established, roughly parallel to the geological contacts. Heavy brush in some areas considerably hampered the surveyors progress.

Stations were chained in at 100 foot intervals along the base line, commencing just west of the "big showing" and continuing easterly for 3,400 feet. Sidelines were turned off at right angles at each station and extended with pickets until well past the contact. The base line itself was tied in to existing features such as drill holes, and stations were chained along each side line for the magnetometer readings.

Magnetometer readings were taken with a Jalander (serial #5779) instrument, which can be read directly in gammas above or below background. Limitations in the budget forced the survey grid work to cease before being completed over the whole area, and consequently the magnetometer survey did not cover all the areas originally intended.

Readings were taken both at the survey grid points and at random outside the grid area. The random readings were taken while waiting for the transit survey and served to locate many anomalous areas, some of which were not covered by the grid and consequently not defined sufficiently well to be useful information at present.

A good check on the usefulness of the magnetometer was obtained by first making readings over known orebodies, showing these to be definitely anomalous in all cases. Grid spacings were reduced to 25' x 25' over anomalous areas (for best results the grid spacing should be even less), otherwise readings were taken at 50 foot intervals along side lines 100 feet apart.

3. DESCRIPTION OF WORK DONE - (Continued)

The resulting readings are plotted on plates II, III and IV in the map pocket. It can be seen by comparison with Plate I (Consolidated's work plan) that the "big showing" cast a definite anomaly and that two roughly similar anomalies were found on virgin ground just east of the "big showing". Limestone overlies the first anomaly, overburden obscures bed rock in the second. Other anomalies were located south of the "big showing" and at station 26+50 on the base line, and in each case work by Consolidated at these locations demonstrated small medium-low grade deposits.

Random readings also roughly located six other undefined anomalies. Their position is marked on Plate I by dotted lines.

4. COST OF WORK DONE

a. Wages Paid

Name	Occupation	Rate	Duration	Amount
C. Millar	Engineer	$ 75.00/day	17 days	$1,275.00
W. Einarson	Surveyor	400.00/mo.	May 8 - June 30	776.34
B. Hugo	Helper	300.00/mo.	May 14 - June 22	478.49

b.	Camp and Board Costs	723.09
c.	Travel, freight on equipment, etc.	438.88
d.	Miscellaneous costs	204.65
	Total expenditure	$3,896.45
	Say 38 assessments value	

I declare that the above expenditure was necessary to complete the work done and that the amounts of money shown are accurately recorded and that receipts are available proving such expenditures.

C. F. Millar

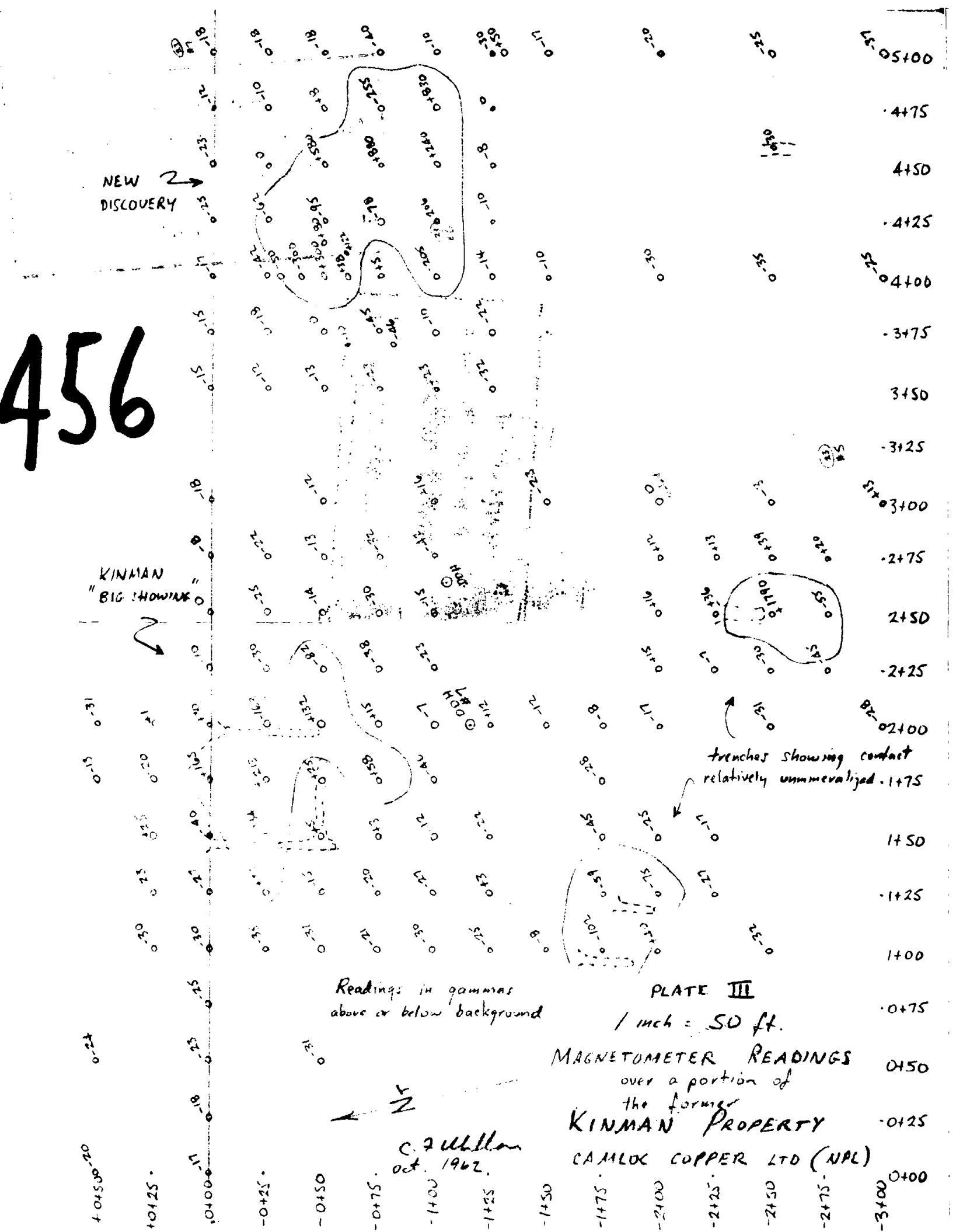
C. F. Millar, P.Eng.

CFM/bm

APPLICATION OF WORK DONE

Name	Record No.	Expiry Date	Assessments Requested
Hazel No. 1	14573	Nov. 3, 1962	4
Hazel No. 2	14574	Nov. 3, 1962	4
Hazel No. 3	14575	Nov. 3, 1962	5
Hazel No. 4	14576	Nov. 3, 1962	5
Hazel No. 5	14577	Nov. 3, 1962	5
Hazel No. 6	14578	Nov. 3, 1962	5
Hazel No. 7	14579	Nov. 3, 1962	5
Hazel No. 8	14580	Nov. 3, 1962	5
		TOTAL	38

456


NEW DISCOVERY
KINMAN "BIG SHOWING"
trenches showing contact relatively unmineralized
Readings in gammas above or below background
N
C. Fullerton Oct. 1962.
PLATE III
1 inch = 50 ft.
MAGNETOMETER READINGS
over a portion of the former
KINMAN PROPERTY
CAMLOC COPPER LTD (NPL)

456

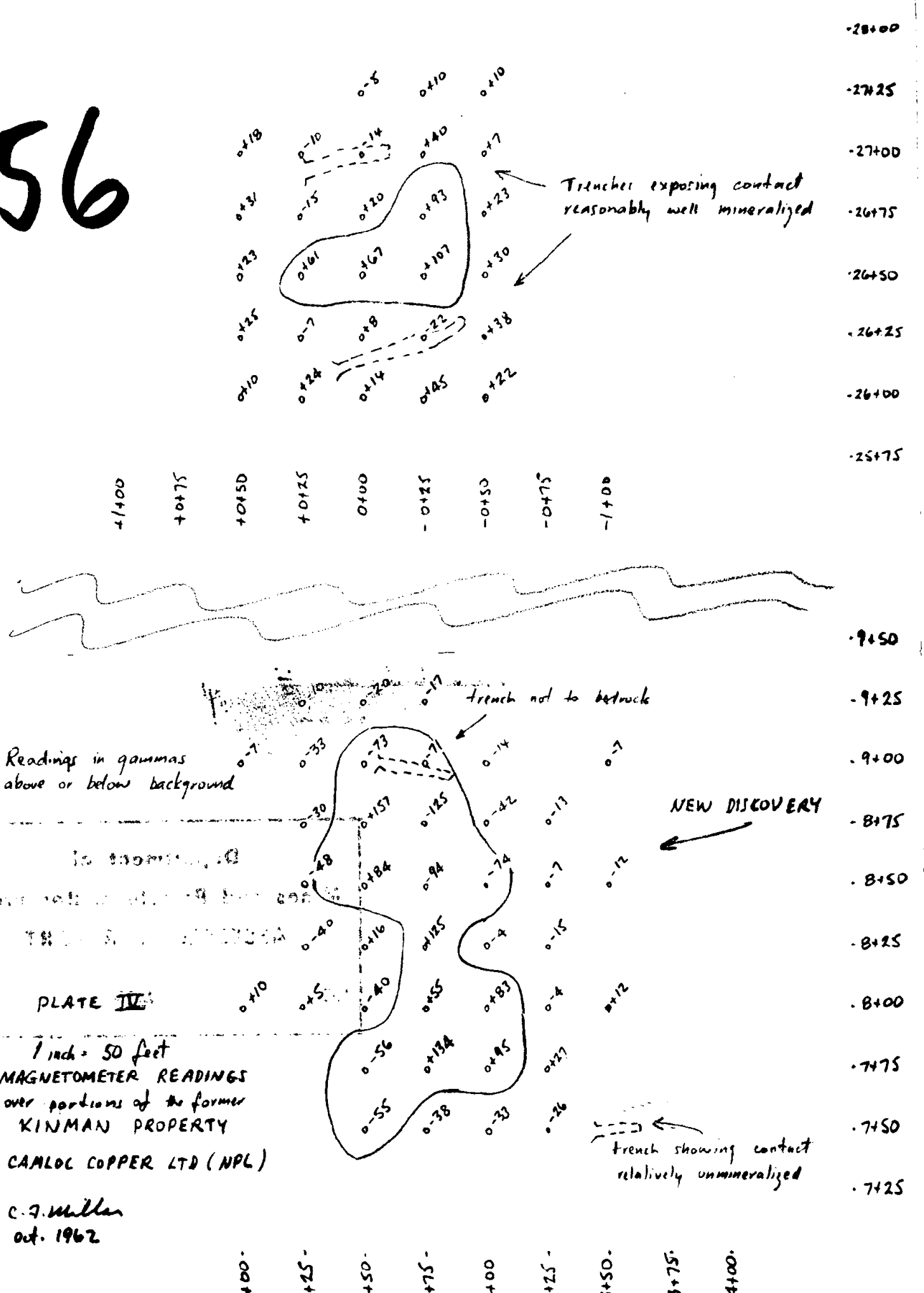


PLATE IV

1 inch = 50 feet

MAGNETOMETER READINGS over portions of the former KINMAN PROPERTY

CAMLOC COPPER LTD (NPL)

C. J. Miller
Oct. 1962

PLATE I

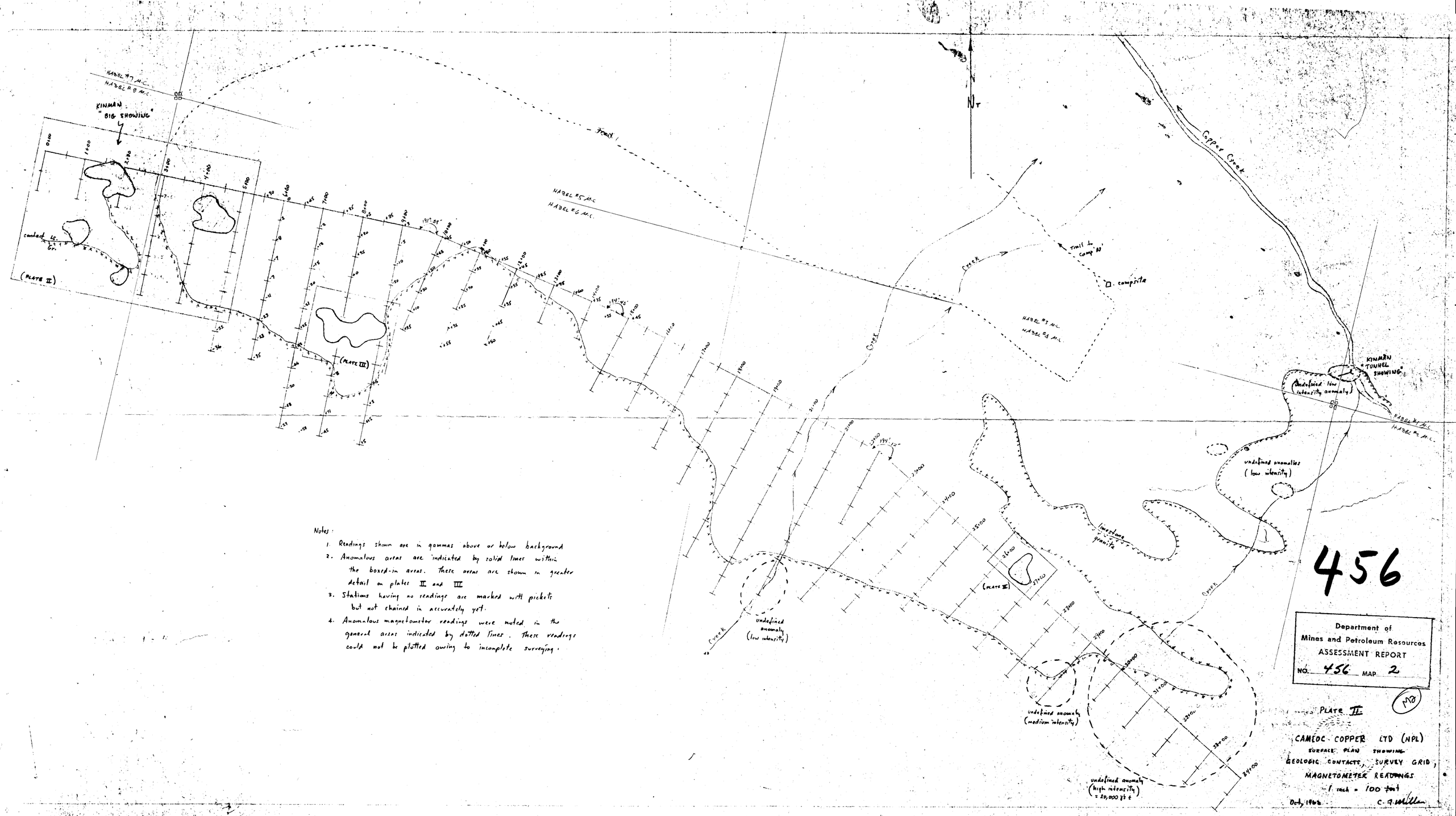
Revised to
Issued

CONSOLIDATED MINING & SMELTING CO. Ltd.
VANCOUVER OFFICE
Plan of: MINING DEPARTMENT
KINMAN PROPERTY
GENERAL PLAN
SHEET I
NANAIMO MINING DIVISION
Scale: 100' = 1" Date: Feb 19, 57
Drawn by: Jack D Shannon
Traced by Approved
FILE NO

Legend
Granite
Sinkhole
Trench

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 456 MAP 1

CYPRESS No 2 M.C.
CYPRESS No 1 M.C.
CYPRESS No 3 M.C.
CYPRESS No 9 M.C.
COPPER CONTACT No 2 M.C.
COPPER CONTACT No 3 M.C.
COPPER CONTACT M.C.
Copper Creek
Trail
To Float - Peck Trail
PLATE B'
PLATE 'C'
PLATE 'A'
New Workings
April
No 27 Open Cut
No 27 A Open Cut
No 26 Trench
No 25 Trench
No 24 Trench
No 23 Trench
No 22 Trench
No 21 Trench
No 20 Trench
No 19 Trench
No 18 Trenches
No 17 Trench
No 16 Trench
No 14 A Trenches
No 14 Trench
No 12 Trench
No 11 Trench
No 10 Trench
No 9 Trench
No 7 Trenches
No 7 A Open Cut
No 7 B Open Cut
No 7 C Open Cut
No 8 Open Cut
No 5 Open Cut
No 5 A Open Cut
No 5 B Open Cut
No 5 C Open Cut
No 5 D Open Cut
No 5 E Open Cut
No 5 F Open Cut
No 3 Open Cut
No 3 A Trenches
No 2 Open Cut
No 1 Open Cut
No 76 Open Cut
No 74 Open Cut
No 57 Open Cut
No 58 Open Cut
Open Cuts on lower showing in Copper Creek
Compressor
Blacksmith Shop
Boarding House
Change Hse
Office
Trench Shelter
Portal
Drift
Adit
Cross Cut
Contact barren
Barren
Granite
Limestone
Slightly min. Andesite dyke 10ft.
Gossanite
Magnetite
Garnetite
Epidote
Garnet-Epidote
Barren Granite
Garnet Granite
Sericite
Chlorite
Pyrite
Chalcopyrite
Bornite
Malachite
Azurite
Copper stain
Fault
Shear
Bedding
Joint
Vein
Outcrop
Creek
Road
Fence
Power line
Elevation
Contour
Sample
Diamond drill hole
Drill hole
Shaft
Adit
Cross cut
Drift
Raise
Winze
Stope
Open cut
Trench
Dump
Tailings
Building
Mine workings
Prospect
Claim boundary
Lease boundary
Property boundary
Section line
Township line
Meridian
Baseline
Datum
Benchmark
Triangulation station
Survey monument
Control point
Traverse station
Azimuth
Bearing
Distance
Coordinates
Grid
Scale
Legend
Key plan
Index map
Location map
Vicinity map
Regional map
Geological map
Topographic map
Cadastral map
Survey plan
Mine plan
Section
Elevation
Plan
Detail
Inset
Enlargement
Reduction
Revision
Issue
Date
Drawn by
Traced by
Checked by
Approved by
Scale
Title
Number
Sheet
Of
Sheets
Mining Division
Nanaimo Mining Division
Department of Mines and Petroleum Resources
Assessment Report
No. 456
Map 1
456
M1



Notes:

1. Readings shown are in gammas above or below background
2. Anomalous areas are indicated by solid lines within the boxed-in areas. These areas are shown in greater detail on plates II and III
3. Stations having no readings are marked with pickets but not chained in accurately yet.
4. Anomalous magnetometer readings were noted in the general areas indicated by dotted lines. These readings could not be plotted owing to incomplete surveying.

456

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 456 MAP 2

PLATE II

CAMEDC COPPER LTD (NPL)
SURFACE PLAN SHOWING
GEOLOGIC CONTACTS, SURVEY GRID,
MAGNETOMETER READINGS
1 inch = 100 feet
Oct, 1962
C. J. Mullen