85-62-13468 3186

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
Geophysical	$ 10,249.00

AUTHOR(S) A.M.S. Clark SIGNATURE(S)
Peter E. Walcott & Assoc.

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED 4 March 85 YEAR OF WORK 84

PROPERTY NAME(S) ~~Haslam~~ Imp

COMMODITIES PRESENT ~~Cu, Zn, Ag~~ —

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN —

MINING DIVISION Nanaimo NTS 92C/16E, 92B/13W

LATITUDE 48°58' ~~49°00'N~~ LONGITUDE 124°02'W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Imperial H #1137 (4) Imp L #1247 (5)
Imp. J #1245 (8) Imp M #1248 (8)
Imp. K #1246 (8) Imp. S #1268 (10)

OWNER(S)

(1) Imperial Metals Corporation (2)

MAILING ADDRESS
#1300 - 409 Granville Street
Vancouver, B.C. V6C 1T2

OPERATOR(S) (that is, Company paying for the work)

(1) Imperial Metals Corporation. (2)

MAILING ADDRESS
#1300 - 409 Granville Street
Vancouver, B.C. V6C 1T2

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Upper Sicker Group ~~sediments~~ graywackes and cherts ~~and~~ are intruded by gabbroic sills and dykes. The geophysical survey outlined two flat-lying conductors.

REFERENCES TO PREVIOUS WORK

Clark, A.M.S., October 1984. Assessment Report-Geochemistry & Geophysics #11099 #11098 #12678.

(over)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic EMGR	9.5 kms	Imperial H, Imp L and Imp J	$ 10,249.00
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
		TOTAL COST	$ 10,249.00

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) 10249.00	Imperial Metals Corp.			
Value of work approved				
Value claimed (from statement) 11200-				
Value credited to PAC account /				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

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Itemized Cost Statement	7
Certificate	8
Report by Peter E. Walcott & Associates	

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Figure 2: Location Map 4

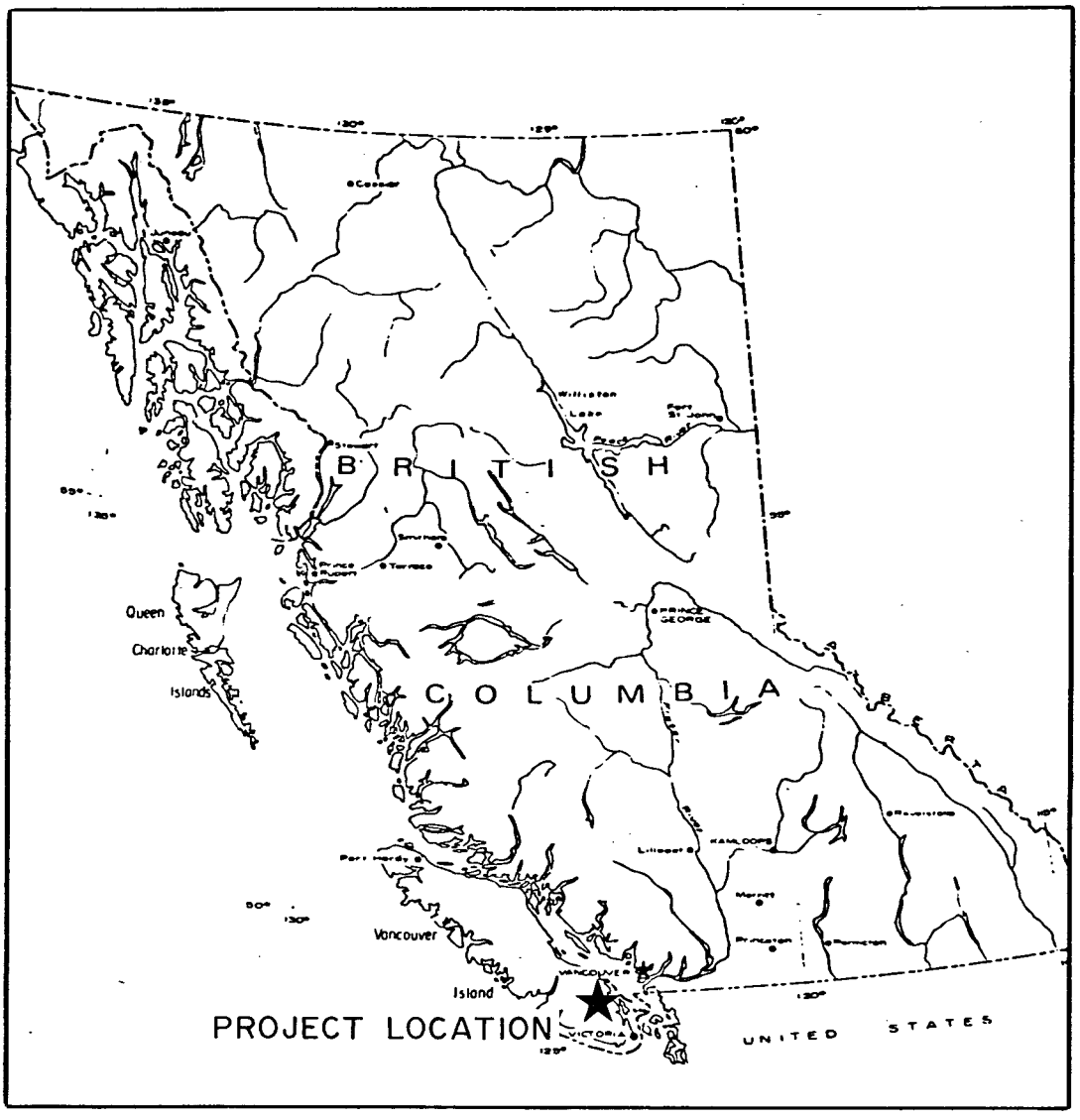
Figure 3: Claim Map 5

Figure 4: Grid Location Map 6

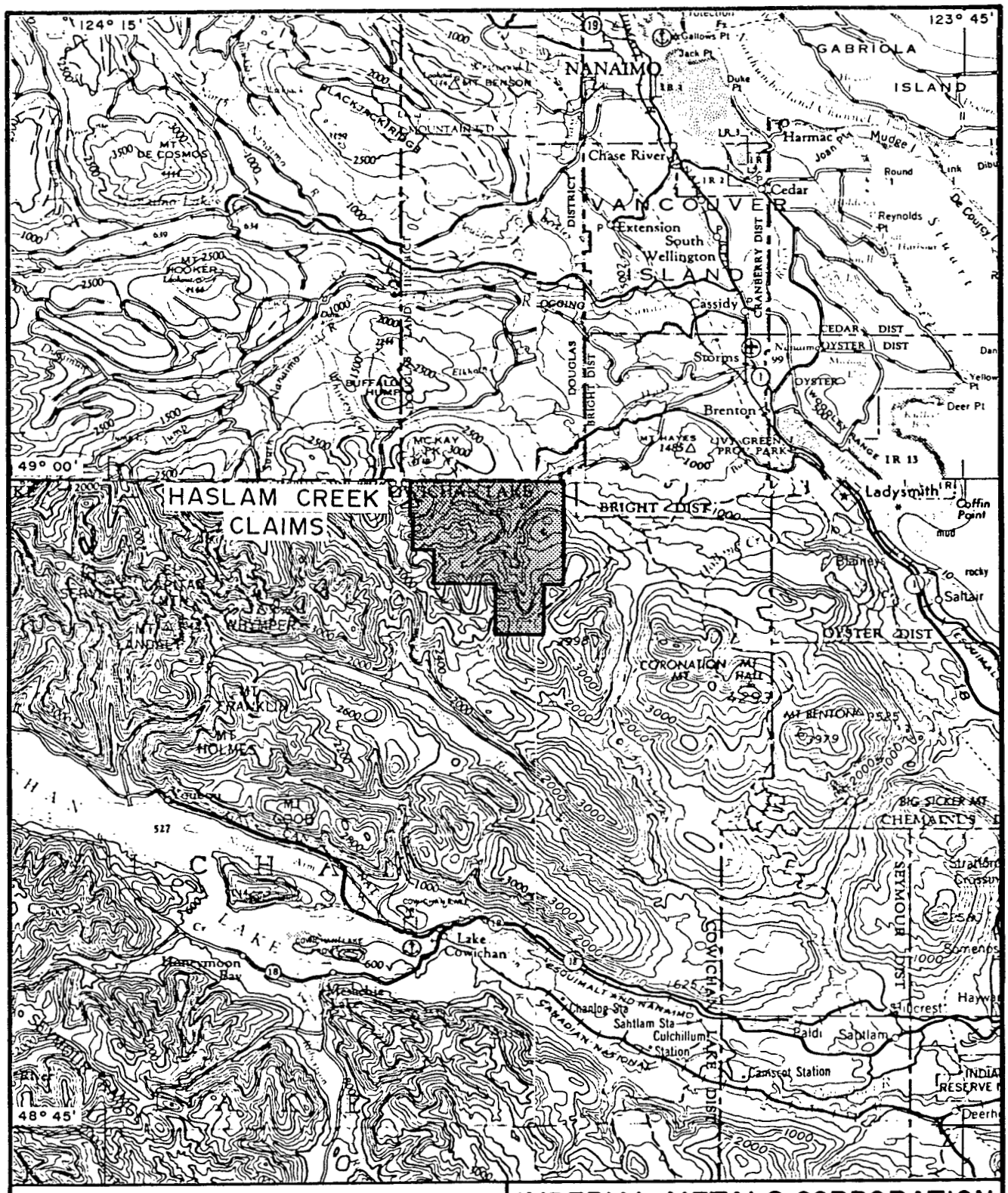
Geophysical Maps listed in Walcott's Report

SUMMARY

An electro-magnetic survey using a Scintrex Genie SE-88 unit was carried out by Peter E. Walcott & Associates under contract to Imperial Metals Corporation. The report and discussions by Walcott are appended.



IMPERIAL METALS CORPORATION	
HASLAM CREEK	
FIGURE 1	
REGIONAL MAP	
SCALE:	GEOLOGIST: A. CLARK
DATE: OCTOBER 1984	DRAWN BY: S. HAWORTH



IMPERIAL METALS CORPORATION

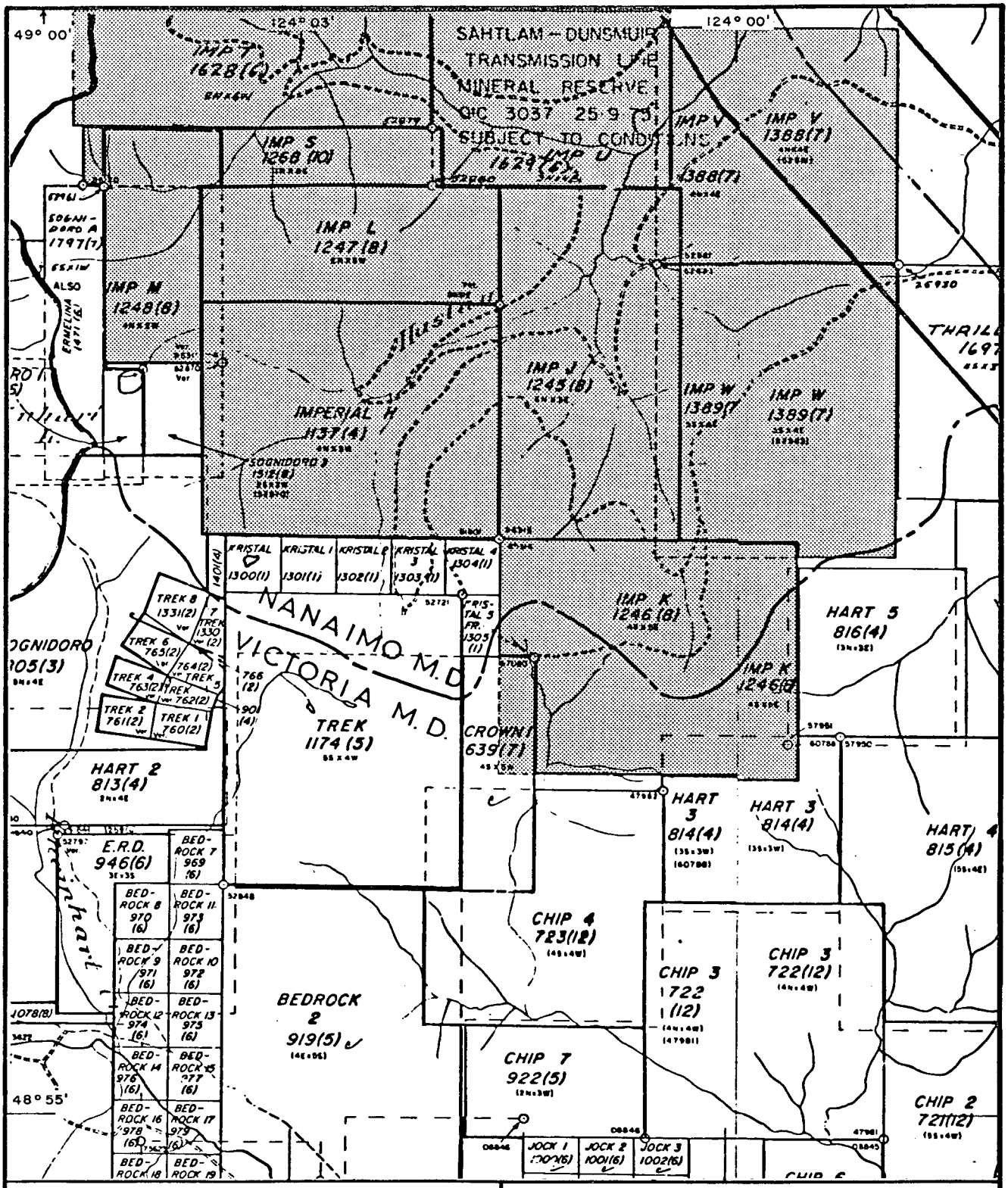
HASLAM CREEK

FIGURE 2 N.T.S. 92C

LOCATION MAP

Km 5 0 5 10 Km

SCALE: 1:250 000	GEOLOGIST: A. CLARK
DATE: OCTOBER 1984	DRAWN BY: S. HAWORTH



IMPERIAL METALS CORPORATION

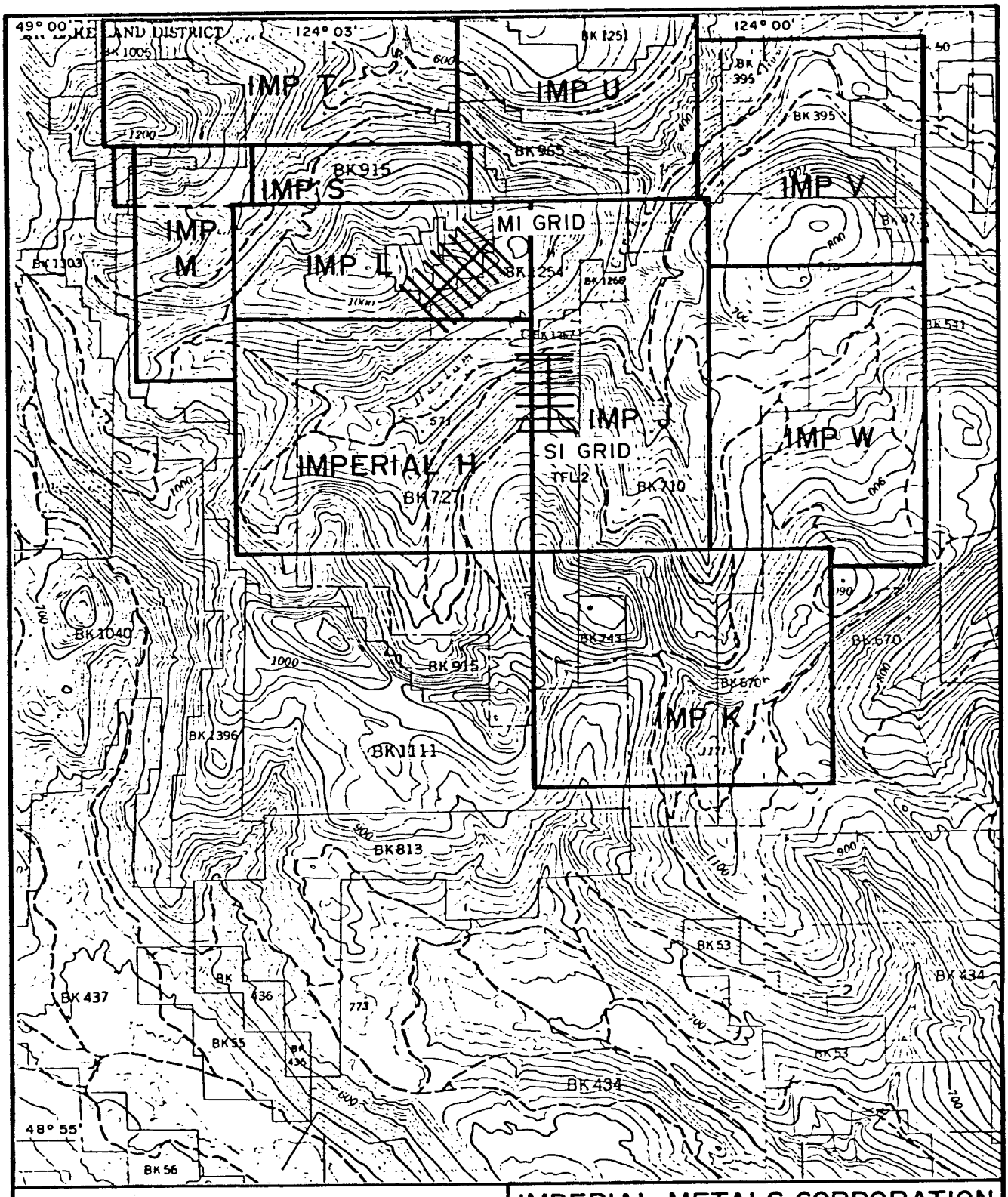
HASLAM CREEK

FIGURE 3 — N.T.S. 92B/13W & C/16E

CLAIM MAP

Km 1 0 1 2 Km

SCALE: 1 : 50 000	GEOLOGIST: A. CLARK
DATE: OCTOBER 1984	DRAWN BY: S. HAWORTH



IMPERIAL METALS CORPORATION

HASLAM CREEK

FIGURE 4 N.T.S. 92B/13W & C/16E

GRID LOCATION

Km 1 0 1 2 Km

SCALE: 1:50000	GEOLOGIST: A. CLARK
DATE: OCTOBER 1984	DRAWN BY: S. HAWORTH

ITEMIZED COST STATEMENT

Planning and Supervision		$ 200
Contract Geophysics: Peter E. Walcott & Associates		9,117
	SUB-TOTAL	$ 9,317
	OVERHEAD 10%	932
	TOTAL	$10,249

CERTIFICATE

I, Anthony Miles Stapleton Clark, geologist, residing at 2988 Fleet Street, in the Municipality of Coquitlam, Province of British Columbia, hereby certify that:

1. I received a Bachelor of Science degree in geology from the University of Cape Town, Cape Town, South Africa, in 1963, and a Doctor of Philosophy degree in geology from the Memorial University of Newfoundland, St. John's, Newfoundland in 1974.

2. I have been practising my profession as an exploration geologist since 1963.

3. I am a registered Professional Geologist of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

4. I am a Fellow of the Geological Association of Canada and a Member of the Society of Economic Geologists.

5. I am employed by Imperial Metals Corporation of 1300 - 409 Granville Street, in the City of Vancouver, Province of British Columbia.

6. The work described in this report was undertaken at my request by Peter E. Walcott & Associates.

21 day of February, 1985

Vancouver, British Columbia

A.M.S. Clark, Ph.D., FGAC, MSEG
Senior Geologist

A REPORT

ON

AN ELECTROMAGNETIC SURVEY

Nanaimo Area, British Columbia

49° N, 124° W

N.T.S. 92 B, C, F & G

Survey Dates: Oct. 16th - 28th, 1984

FOR

IMPERIALS METALS CORPORATION

Vancouver, B.C.

BY

PETER E. WALCOTT AND ASSOCIATES LIMITED

Vancouver, B.C.

JANUARY 1985

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APPENDIX

COST OF SURVEY	i
PERSONNEL EMPLOYED ON SURVEY	ii

ACCOMPANYING MAPS - Scale 1:2500

			MAP POCKET
M-1 Grid			
ELECTROMAGNETIC PROFILES	a = 75 m	337/112	W-357-1
"	"	1012/112	W-357-2
"	"	3037/112	W-357-3
"	a = 100m	337/112	W-357-4
"	"	1012/112	W-357-5
"	"	3037/112	W-357-6
S-1 Grid			
ELECTROMAGNETIC PROFILES	a - 75 m		W-357-7
"	a = 100m		W-357-8

INTRODUCTION.

Between October 16th and 28th, 1984, Peter E. Walcott & Associates Limited carried out a small Genie electromagnetic survey programme over two grids on a property, located in the Nanaimo area of British Columbia, for Imperial Metals Corporation.

The survey was carried out over the N 45° W and E-W lines on the two grids previously established by the personnel of Imperial Metals.

Readings at three frequency pairs, 3037.5/112.5, 1012.5/112.5, and 337.5/112.5 were taken at 25 metre intervals along the lines using a Scintrex SE 88 electromagnetic unit with coil separations of 75 and 100 metres respectively.

The data are presented in profile form on plan maps of the line grids that accompany this report.

The progress of the survey was hampered also by the snow and rain. This inclement weather also caused one operator to slip off a log and injure himself, with the result that he had to be replaced.

LOCATION AND ACCESS.

The grids are located in the Nanaimo Mining Division of British Columbia. They are situated on Haslam Creek some 15 kilometres west of the town of Ladysmith, on Vancouver Island.

Access was obtained from Ladysmith by four wheel drive vehicle along the logging roads that criss cross the area.

PREVIOUS WORK.

Previous work on the property consisted of airborne electromagnetic surveying (Input) by Qestor Limited, some Genie follow-up by Imperial Metals plus geological mapping and soil sampling.

PURPOSE.

The purpose of the survey was to locate on the ground and to investigate the airborne conductors considered favourable to the location of economic mineralization on the basis of geology and geochemistry.

GEOLOGY.

The reader is referred to reports by the staff of Imperial Metals Corporation.

SURVEY SPECIFICATIONS.

The basic principle of any electromagnetic survey is that when conductors are subjected to primary alternating fields secondary magnetic fields are induced in them. Measurements of these secondary fields give indications as to the size, shape and conductivity of conductors. In the absence of conductors no secondary fields are obtained.

The electromagnetic survey was carried out using a SE 88 Genie-electromagnetic system manufactured by Scintrex Limited of Metropolitan Toronto, Ontario. The operation of this system is based on the simultaneous transmission of two preselected, well-separated frequencies from the transmitter, and the simultaneous reception and amplitude comparison of the resultant signals by that single receiver. There is no cable or radio link between the coils, and since there are effectively no coil geometry errors, the instrument is very effective in rugged topography and heavily forested areas. In the absence of atmospheric noise useful amplitude ratio changes may be made up to a transmitter-receiver separation of 200 metres.

On this survey measurements were made at three frequency pairs at 75 and 100 metre coil separations.

In all some 9.5 kilometres of electromagnetic surveying were carried out.

DISCUSSION OF RESULTS.

M-1 Grid. As can be readily discernible from the respective profiles - Maps W-357-1 to 6 - a broad complex flat lying conductive zone extends across the entire grid.

The outline of this zone of good conductivity is shown on Map W-357-4, the 337/112 response on the 100 metre separation, the edge of which is marked by the negative peaks on the profile.

This zone most probably consists of flatlying (shallowly dipping) forementioned conductors within the underlying shallowly dipping sediments as indicated by the positive or less negative peaks on the profiles as exemplified on Map W-357-1.

Depths to the top of the conductors have not been calculated as additional readings on the 25 and 50 metre coil separation would be needed but are less than 25 metres as negative peaks over the edge of the conductive zone dominate the central positive peak. It should be mentioned here that for flat-lying conductors (a) when the coil spacing is less than the depth of burial only positive readings are observed (b) when the coil spacing is larger than 1.5 times the depth of burial negative peaks start to appear over the edge of the body which continue to grow at the expense of the central positive high and finally predominate when the coil spacing becomes greater than twice the depth of burial.

As no carbonaceous material was observed on the property as per the geologist's report the causative source of this zone is suspected to be sulphide mineralization.

S-1 Grid. The profiles on this grid are very flat except for the disturbances on Lines 0, 1S and 2S respectively as can be seen on Maps W-357-7 and 8.

Here the flatlying zone - again a flatlying one - of moderate conductivity is more deeply buried than on the previous grid as seen by the positive only response on Lines 0 and 2 respectively.

On Line 1 S on the 75 metre separation the positive peak still dominates the profile on the more westerly conductor, whereas on the 100 metre separation the negative response dominates on both conductors suggesting forementioned conductors dipping slightly to the west at a depth of burial of some 50 metres.

DISCUSSION OF RESULTS cont'd

Presumably some anticlinal structure exists as the depth of burial on either side is in the order of 100 metres, and the conductors could be beneath the range of the instruments' penetration to the north and south respectively.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between October 16th and 28th, 1984, Peter E. Walcott & Associates Limited undertook a small Genie electromagnetic survey over two grids in the Nanaimo area of British Columbia for Imperial Metals Corporation.

The survey outlined zones of flatlying conductors within the flat-lying sediments on each grid which in each case appeared to be undefined.

The zone(s) on the M-1 grid exhibited good conductivity whereas that (those) on the S-1 grid exhibited only moderate conductivity.

Although the causative sources of these zones would at first thought appear to be of graphitic nature to the writer, in view of the fact that no occurrence of which has been noted in the rocks in the immediate vicinity, sulphide mineralization is considered to be a source for the anomalous responses.

Again although additional work at smaller separations would be necessary to get a better idea of the depth of burial the writer considers it possible to investigate the same with steeply dipping holes collared near the positive peaks, the direction of which should be determined from the geology.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Peter E. Walcott, P.Eng.
Geophysicist

Vancouver, B.C.

January 1985

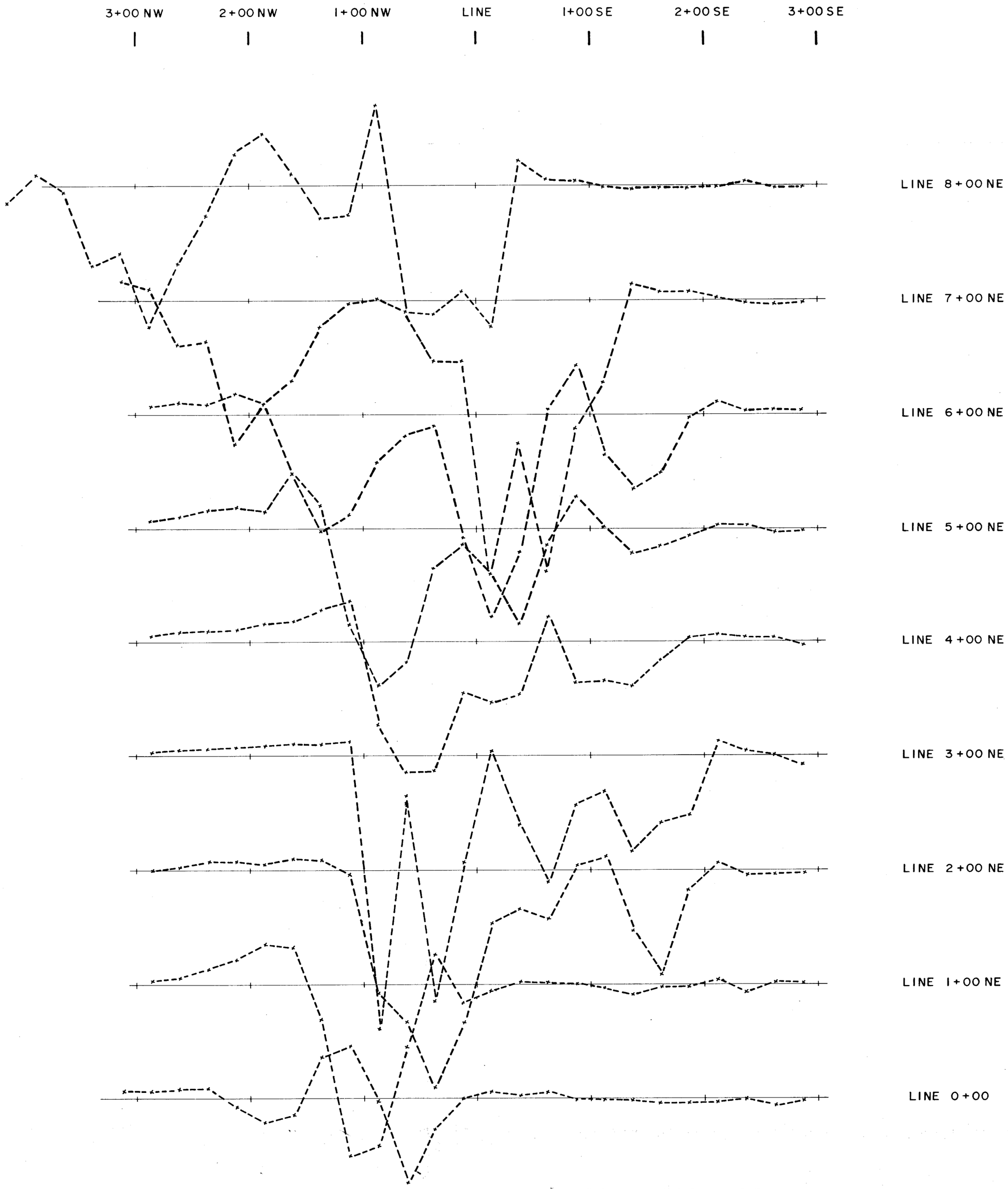
A P P E N D I X

COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization and reporting costs were extra so that the total cost of services provided was $9,117.09.

PERSONNEL EMPLOYED ON SURVEY

NAME	OCCUPATION	ADDRESS	DATES
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C. V3J 3T8	Jan 29th - 31st, 85
R. Summerfield	Geophysical Operator	"	Oct. 16th - 28th, 1984
D. Jensen	"	"	Oct. 16th - 24th, 1984
B. Newman	"	"	Oct. 25th - 28th, 1984
G. MacMillan	Draughting	"	Dec. 1st - 7th, 84
J. Walcott	Typing	"	Jan 31st, 1985



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- 20 %

CONDUCTOR AXIS
GOOD CONDUCTOR
MODERATE CONDUCTOR
POOR CONDUCTOR

IMPERIAL METALS CORPORATION

IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 75 METRES ; RATIO - 1012 / 112

SCALE 1: 2,500

0 50 M

MAP No. W-357-2
TO ACCOMPANY A REPORT BY
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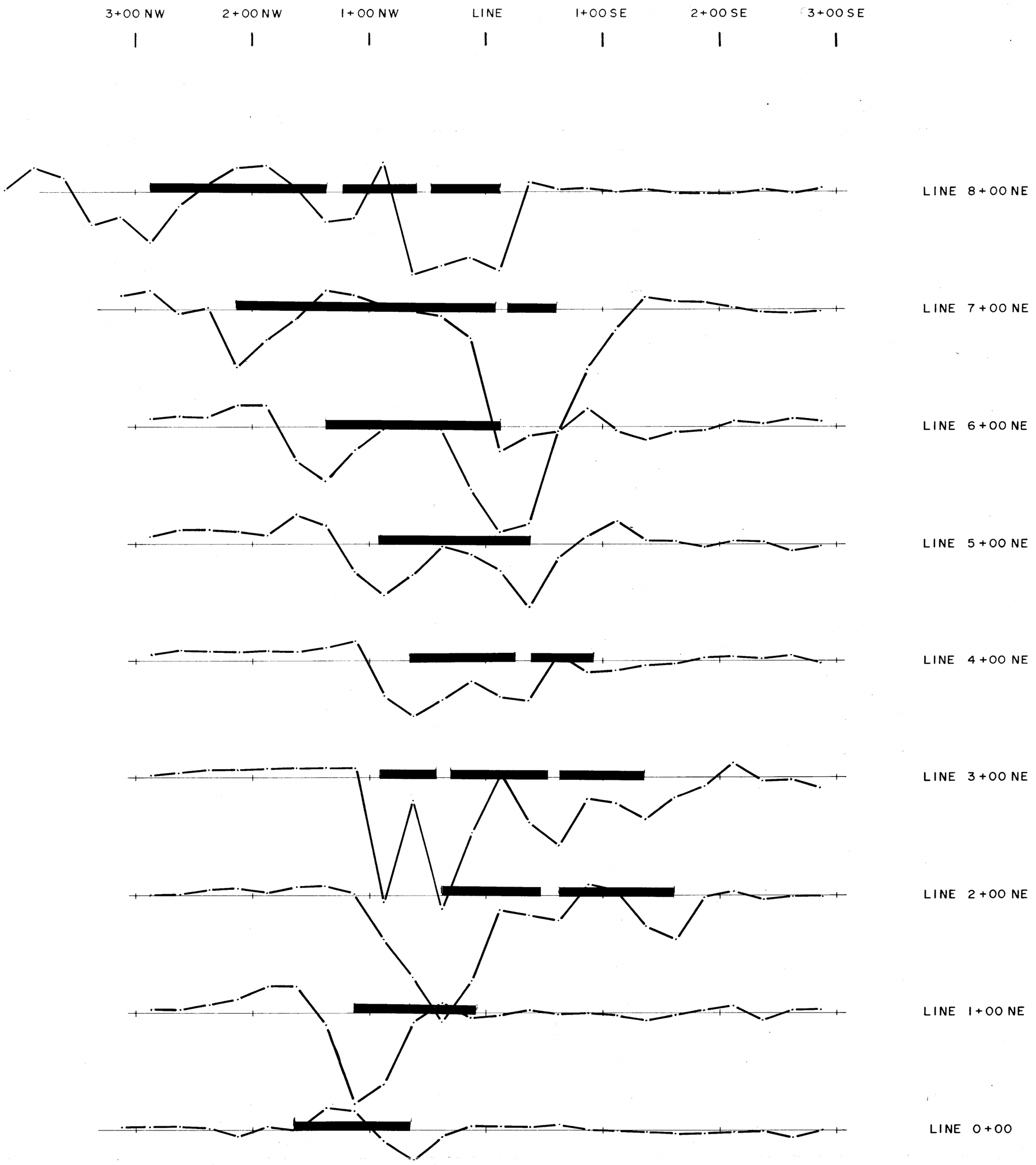
OCTOBER - 1984



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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POOR CONDUCTOR

IMPERIAL METALS CORPORATION

IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 75 METRES ; RATIO - 337 / 112

SCALE 1:2,500

0 50 M

MAP No. W-357-1
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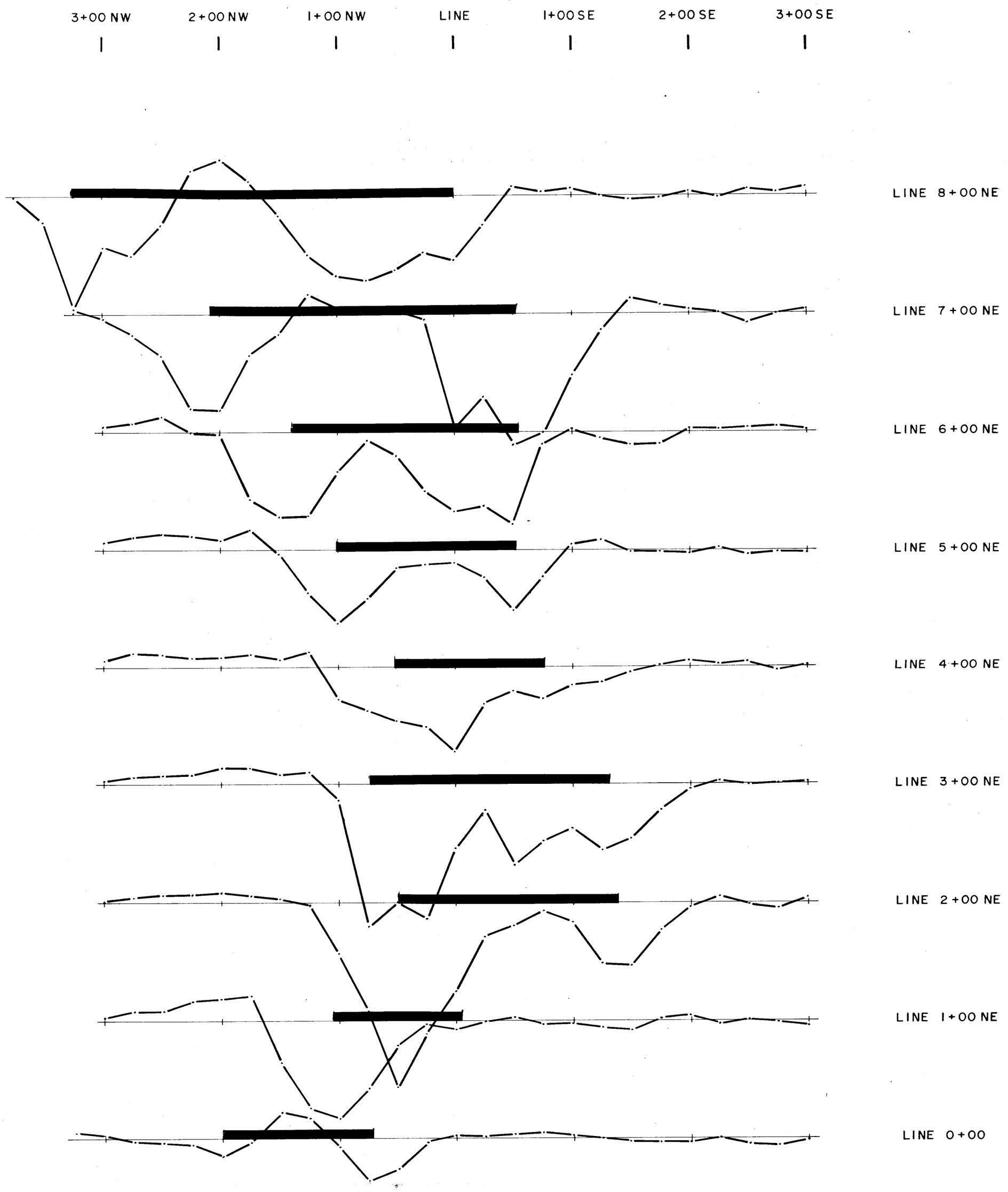

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IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 100 METRES ; RATIO - 337 / 112

SCALE 1:2,500

0 50 M

MAP No. W-357-4
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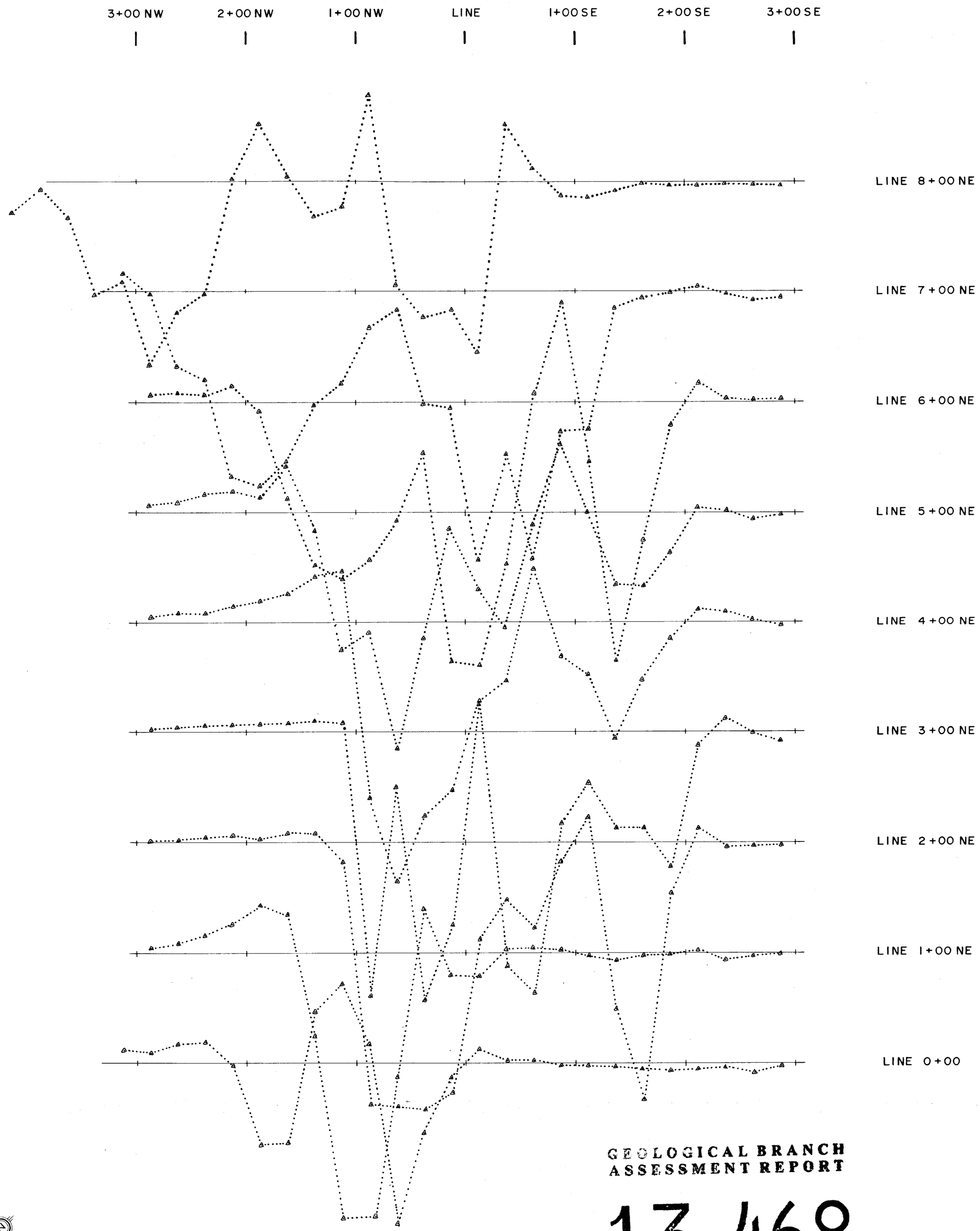

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IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 75 METRES ; RATIO - 3037/112

SCALE 1:2,500

0 50 M

MAP No. W-357-3
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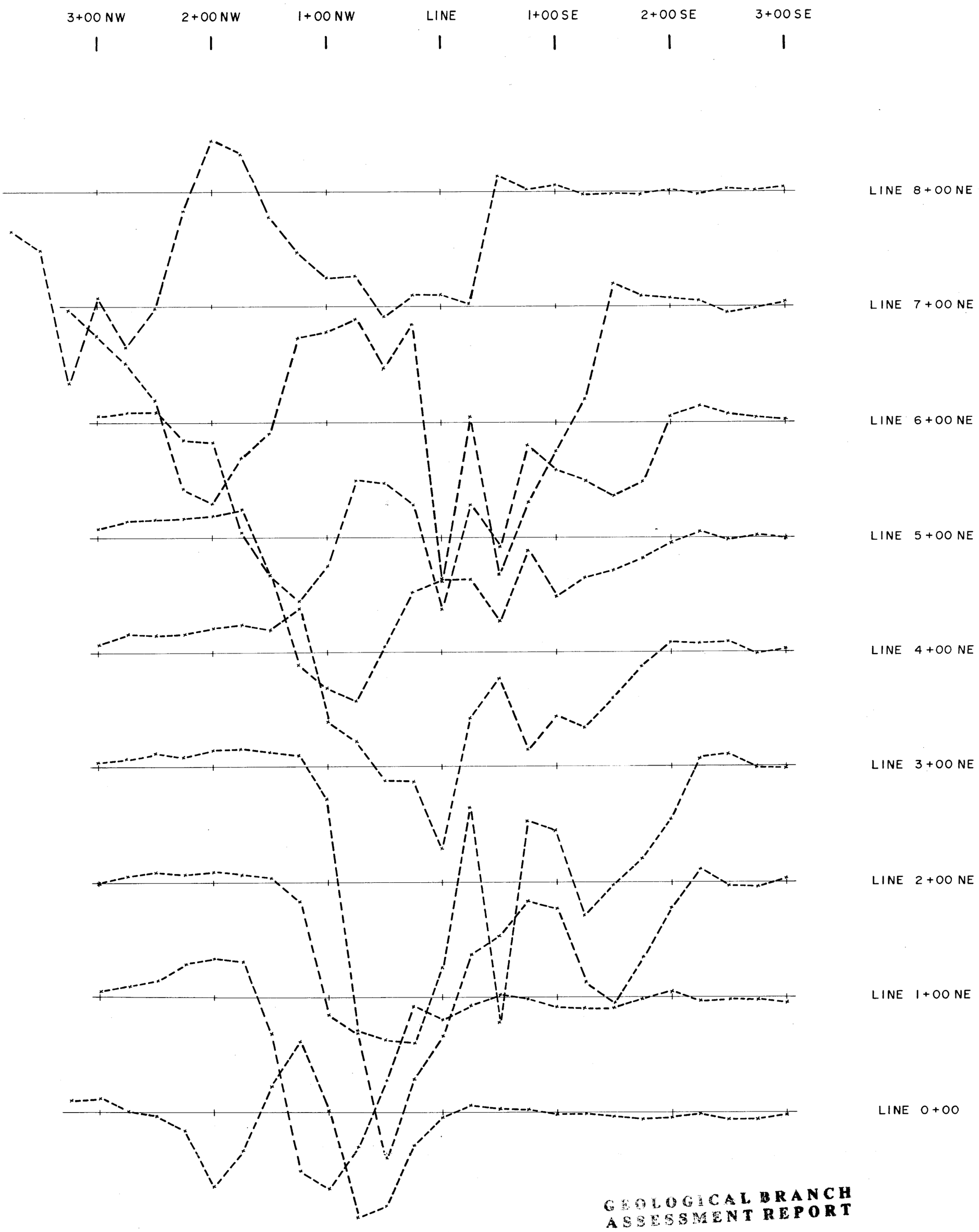

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IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 100 METRES ; RATIO - 1012 / 112

SCALE 1: 2,500

0 50 M

MAP No. W-357-5
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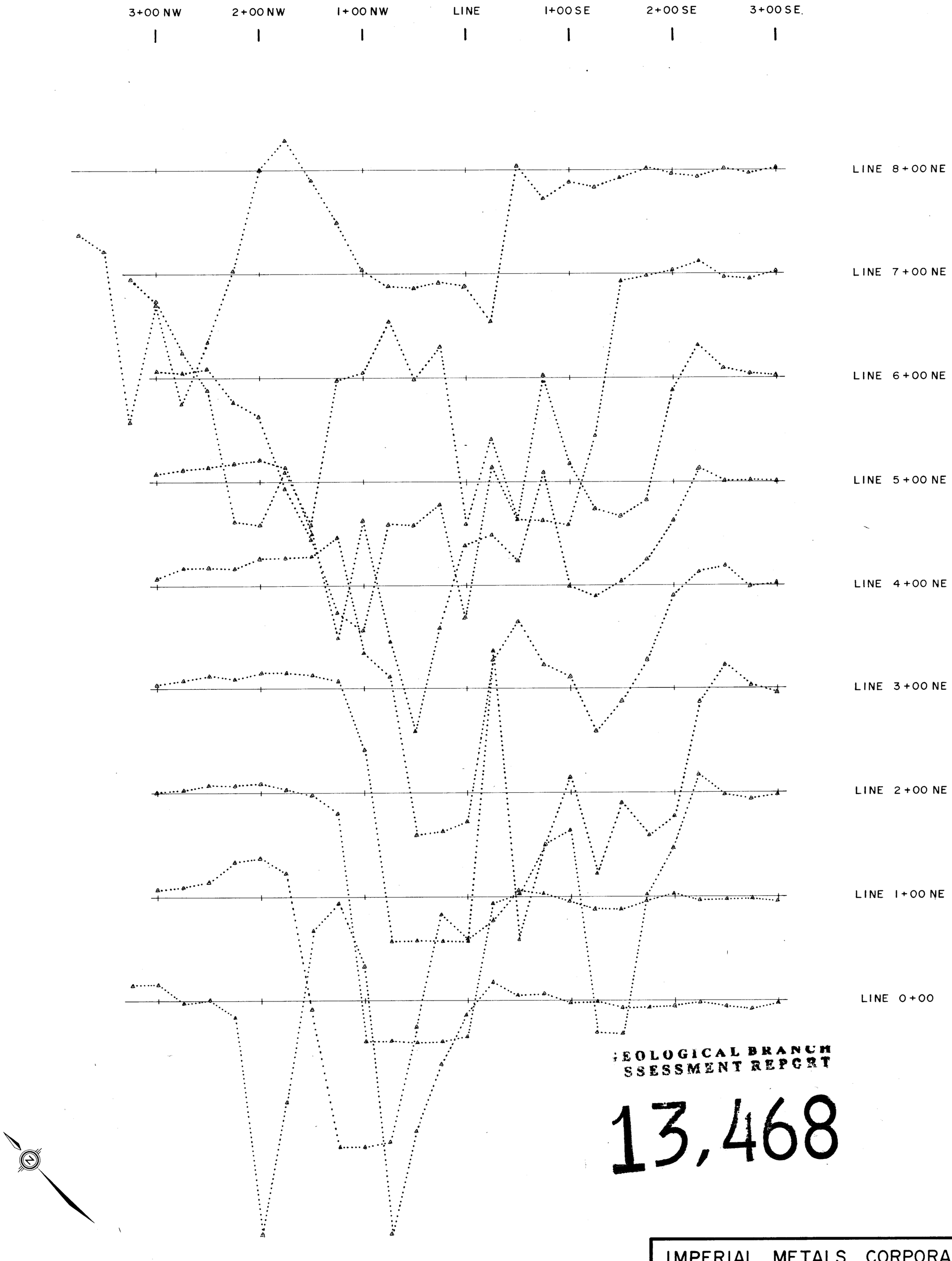

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IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

M.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 100 METRES ; RATIO - 3037/112

SCALE 1:2,500

0 ——— 50 M.

MAP No. W-357-6
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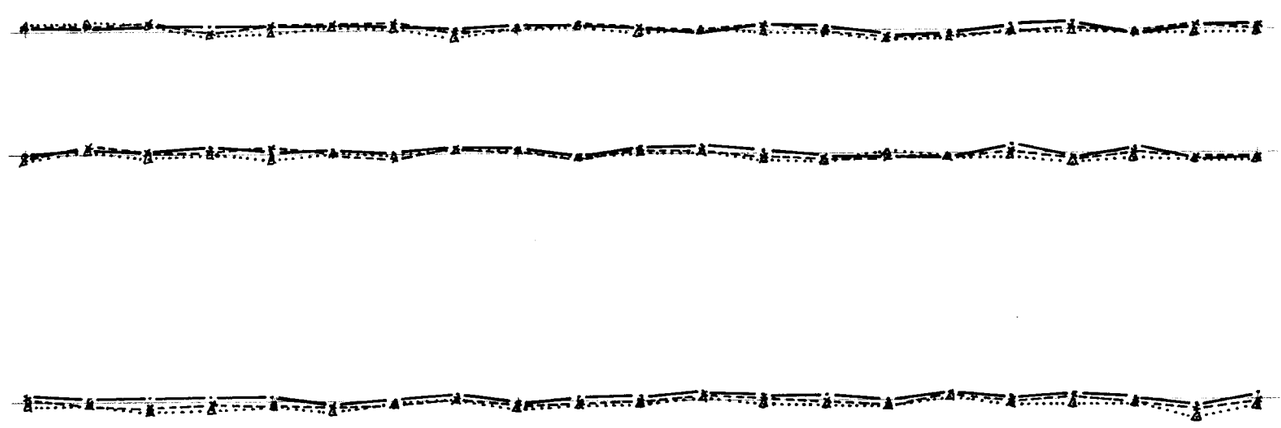
4+00 W | 3+00 W | 2+00 W | 1+00 W | BASE LINE | 1+00 E | 2+00 E



LINE 4+50 N

LINE 4+00 N

LINE 3+00 N

LINE 2+00 N

LINE 1+00 N

LINE 0+00

LINE 1+00 S

LINE 2+00 S

LEGEND

RATIO 337 / 112

RATIO 1012 / 112

RATIO 3037 / 112

CONDUCTOR AXIS

GOOD CONDUCTOR

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POOR CONDUCTOR

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IMPERIAL METALS CORPORATION

IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

S.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 100 METRES

SCALE 1:2,500

0 50 M

MAP No. W-357-8
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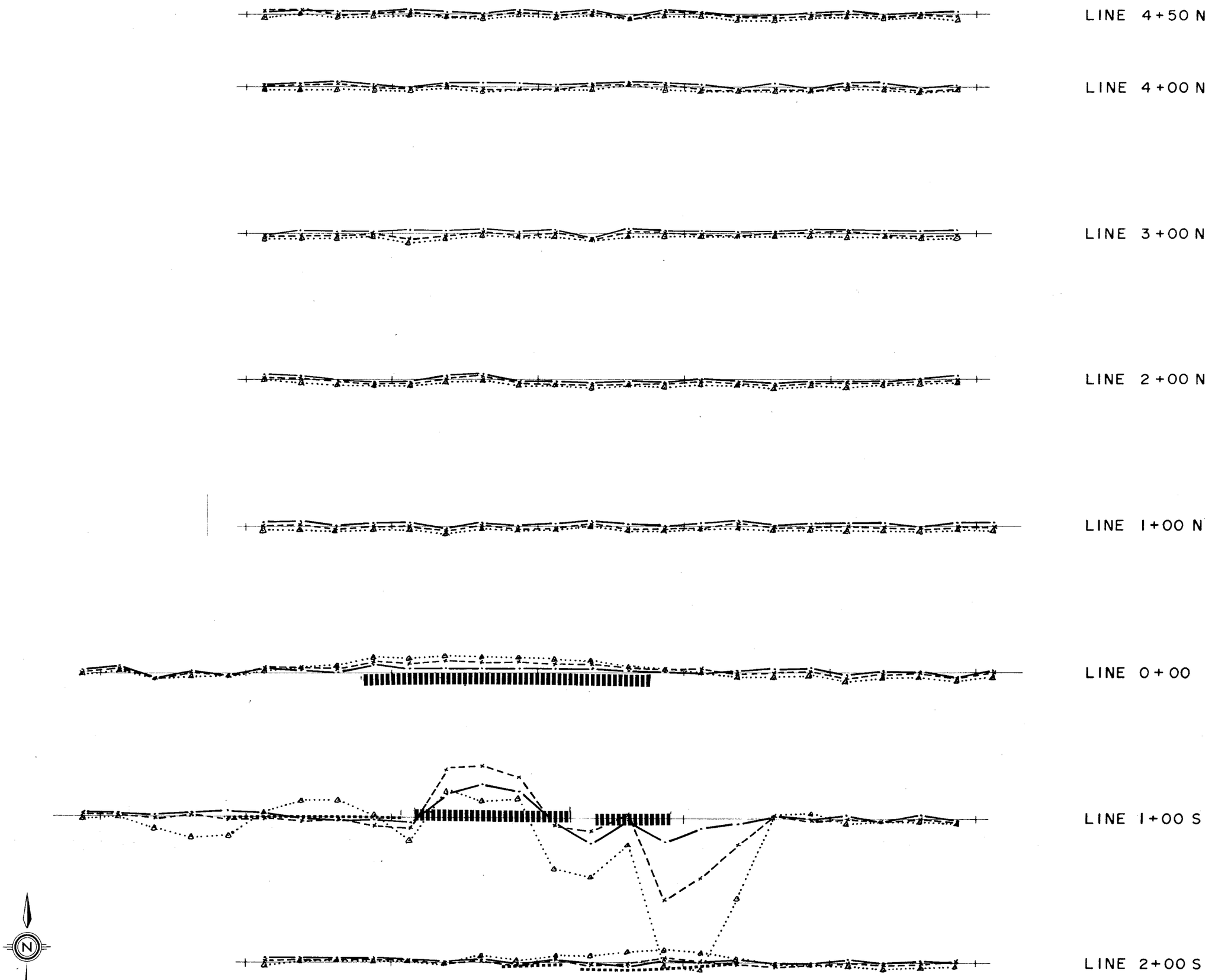
OCTOBER - 1984

4+00 W | 3+00 W | 2+00 W | 1+00 W | BASE LINE | 1+00 E | 2+00 E



LEGEND

RATIO 337 / 112

RATIO 1012 / 112

RATIO 3037 / 112

CONDUCTOR AXIS

GOOD CONDUCTOR

MODERATE CONDUCTOR

POOR CONDUCTOR

+20 %
+10 %
0 %
-10 %
-20 %

IMPERIAL METALS CORPORATION

IMP CLAIMS ; HASLAM CREEK ; NANAIMO M.D. , B.C.

S.I. GRID

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 75 METRES

SCALE 1:2,500

0 50 M

MAP No. W-357-7
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