85-735 -13934
7/86

REPORT ON

GEOPHYSICAL, GEOCHEMICAL AND GEOLOGICAL SURVEYS

ON

THE COP CLAIMS

COP 1002 (8)

NANAIMO MINING DIVISION

92F/2

$49^{o}11.5'N$ $124^{o}38'W$

OWNER : Westmin Resources Ltd., Vancouver, B.C.

OPERATOR : Noranda Exploration Company, Limited
(no personal liability)
Vancouver, B.C.

SUBMITTED BY: R. Wilson, Project Geologist
L. Bradish, Division Geophysicist
June, 1985

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1.0 INTRODUCTION

During the first week of June 1985 geological, geochemical, and geophysical surveys were conducted on a section of the Cop claim 12 km ESE of Port Alberni in the Nanaimo Mining Division, Vancouver Island, B.C. The project is part of a joint venture agreement between Westmin Resources Ltd, "Westmin", MacMillan Bloedel Limited, "MB". and Noranda Exploration Company, Limited (no personal liability), "Noranda". The survey is a follow-up of a reconnaissance I.P. survey conducted by Westmin in 1981.

The survey area is underlain by Sicker Group volcanics being mainly andesitic (x-tal, lithic) tuffs. A soil geochemical survey on a 100 x 25 m scale failed to locate any sources of anomalous mineralization.

Two near surface, weak I.P. anomalies could not be detected by an HLEM (Genie) survey. Magnetometer readings did not change significantly across the grid. The source of the I.P. anomalies is thought to be from a graphitic chert horizon found in the vicinity of the I.P. anomalies.

No further work is recommended for the present survey area and future projects should be directed toward other parts of the Cop claim.

1.1 Location and Access

The Cop 1002 (8) claim is located 12 km ESE of Port Alberni, B.C. between the NE flank of McLaughlin Ridge and Cameron River.

From Port Alberni the claim is accessed via Highway 4 (east) and MacMillan Bloedel main logging roads, Summit, Cameron, Cop, and Cop 100 respectively to the western edge of the claim. Several branch logging roads cross the claim providing moderate access to most parts of the claim. At the time of survey some of the roads were overgrown and contained washouts.

1.2 Topography and Physiography

The Cop claim lies within the Vancouver Island Ranges section of the Vancouver Island Mountains sub-division of the Insular Mtns. physiographic zone.

The Cop claim is situated on the NE flank of McLaughlin Ridge lying between 800 m (2624') and 880 m (2886') elevation above sea level and is centered on the Cop Creek drainage valley. The topography varies from steep but low hillsides to flat hilltops and creek valleys. Rock bluffs to 10 m high are present but are generally climbable or easily skirted.

The area is 80% logged with recently planted second growth and juvenile tree plantations. Planted forests consist of balsam, hemlock, cedar and fir with silal and huckleberry ground growth.

1.3 Previous Work

The Sicker Group volcanics in the Port Alberni area have been worked since before the turn of the century but no distinct historical properties in the Cop claim area were found in the literature. Since 1973 many assessment reports have been filed for this general area, however, and the reader is referred to the assessment report index map of 92F for assessment report numbers and general work location.

The Cop claim was staked on August 10, 1981 by Westmin Resources Ltd. who then completed regional mapping and geochemical sampling of the area.

The present work is being conducted under a joint venture agreement between Westmin, MacMillan Bloedel and Noranda.

1.4 Owner - Operator

The Cop 1002 (8) claim is owned by:

Westmin Resources,
Suite 904, Four Bentall Centre,
1055 Dunsmuir Street,
P.O. Box 49066, Bentall Centre,
Vancouver, B.C.
V7X 1C4

under their district office at:

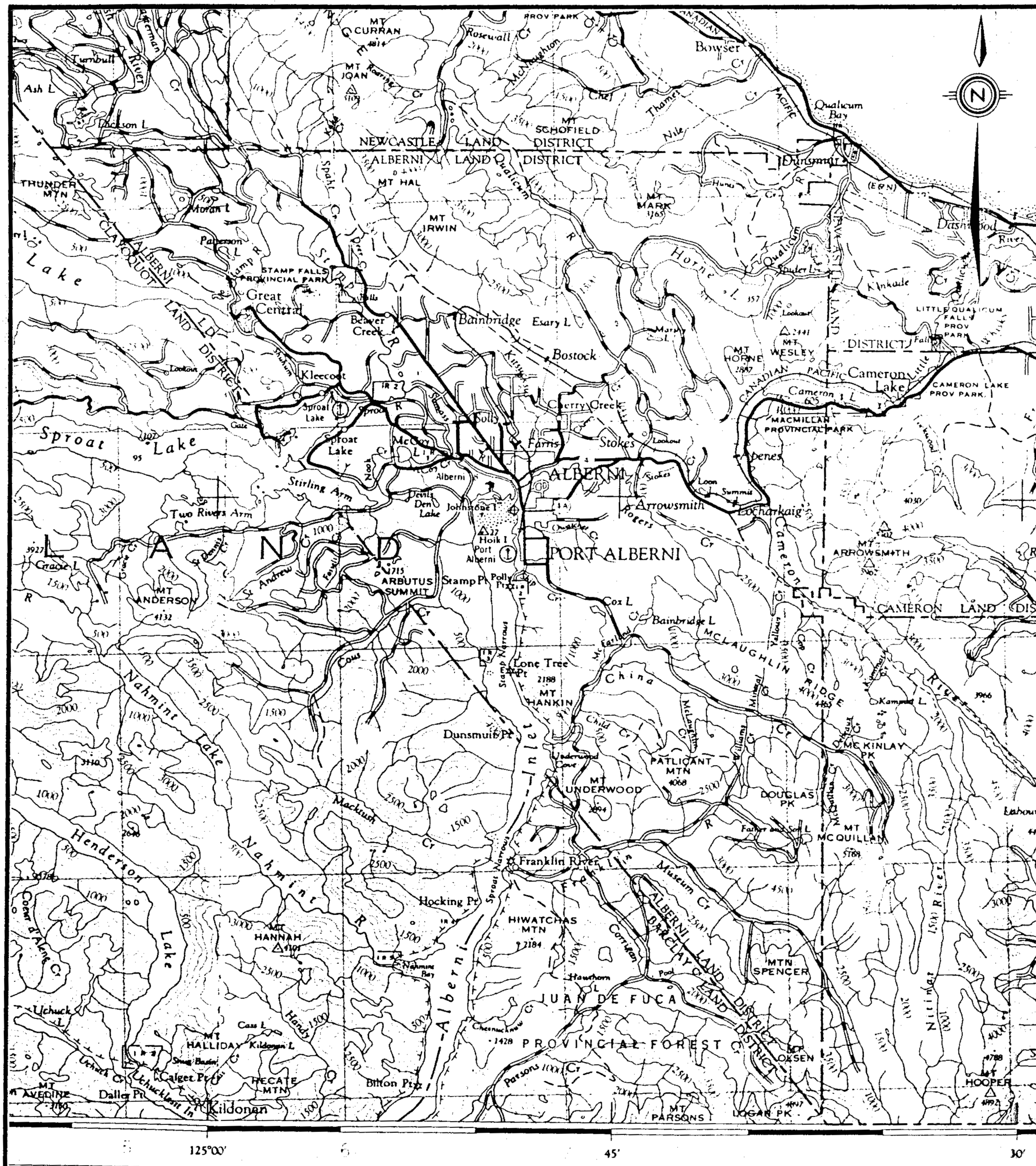
P.O. Box 8000,
Campbell River, B.C.
V9W 5E2

The current operator is:

Noranda Exploration Company, Limited,
P.O. Box 2380,
Vancouver, B.C.
V6B 3T5

1.5 Economic Potential

The Cop claim lies within the Sicker Group volcanic belt. The Sicker is the host geological group for the Buttle Lake massive sulphide ore deposit which is currently being mined by Westmin Resources. Although the minesite is 80 km to the north-west, similar stratigraphic sequences are found in the Port Alberni area including the Cop claim. Thus overall geological potential for the Cop claim remains good although no mineralization has yet been discovered on the property.



ALBERNI

BRITISH COLUMBIA

Scale 1:250,000 Échelle

5 — 10 mi — 15

5 — 10 Km — 15 — 20 — 25

VANCAL 11827

REVISED	COP CLAIM
	LOCATION MAP

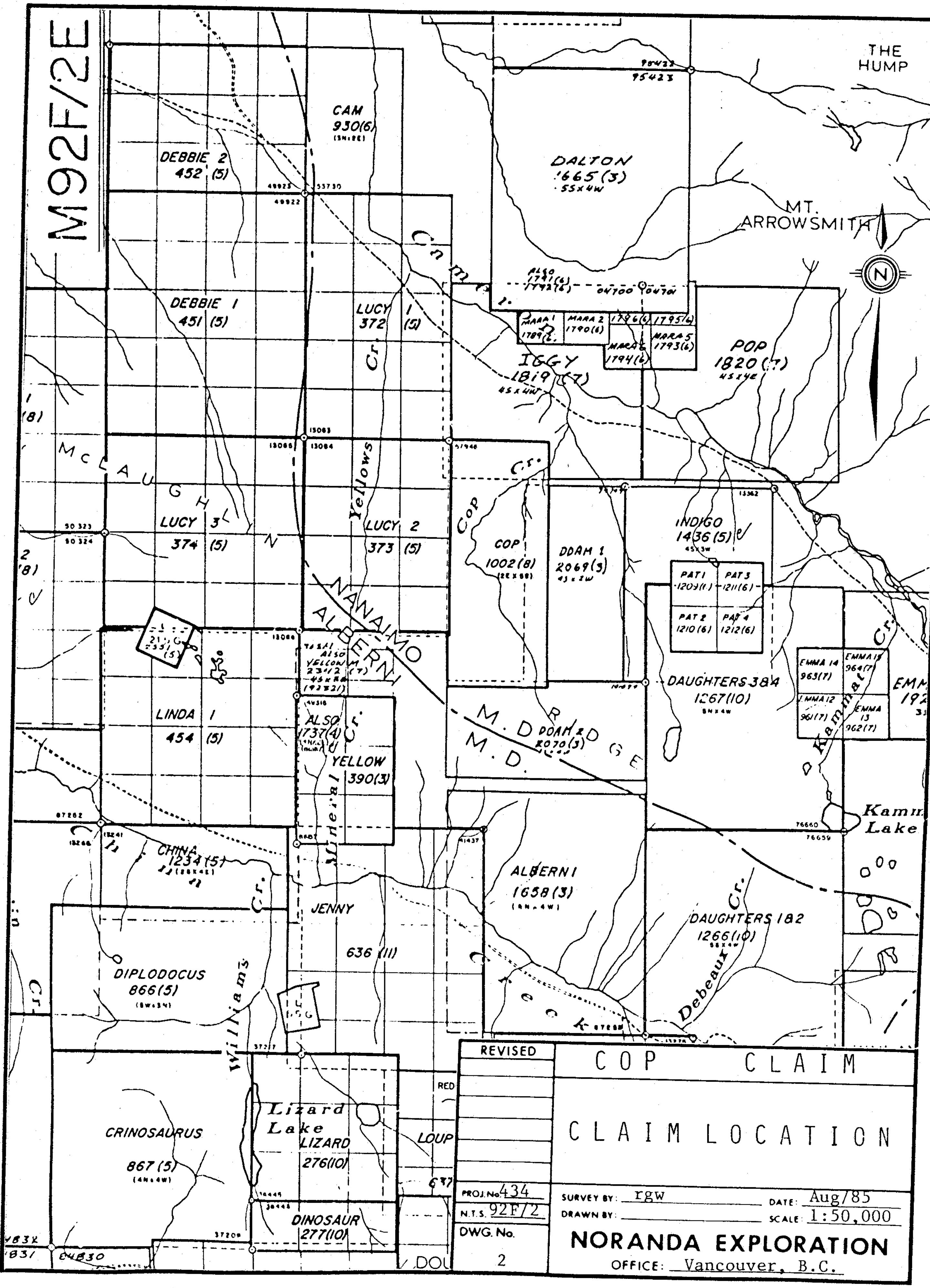
PROJ. No. 434 — SURVEY BY: rgw — DATE: Aug/ 85

N.T.S. 92F/2 — DRAWN BY: — SCALE: 1:250,000

DWG. No. 1

NORANDA EXPLORATION

OFFICE: Vancouver, B.C.



REVISED	COP CLAIM
	CLAIM LOCATION
PROJ. No. 434	SURVEY BY: rgw DATE: Aug/85
N.T.S. 92F/2	DRAWN BY: SCALE: 1:50,000
DWG. No. 2	**NORANDA EXPLORATION** OFFICE: Vancouver, B.C.

2.0 SUMMARY OF WORK DONE

2.1 Line Cutting

A grid was established to provide control for the present surveys. Three crosslines at azimuth 073^{o} and a central baseline at 163^{o} were located by hip chain, compass and flagging using logging roads and Cop Creek as control points. A total of 2.050 line km of grid was placed.

2.2 Geology

Geological mapping at a scale of 1:2,500 was completed along grid lines and logging roads covering an approximate area of .22 square kilometers.

2.3 Geochemistry

A geochemical survey which consisted of soil and rock chip sampling was completed on the Cop grid. The total number of samples are listed below:

Soils: 68 samples analyzed for Cu,Mo,Zn,Pb,Ag,Au,As.

Rocks: 2 samples analyzed for Cu,Mo,Zn,Pb,Ag,Au,As.

2.4 Geophysics

Magnetometer and HLEM (Genie) geophysical surveys were conducted on the Cop grid as listed below:

Magnetometer: 1.600 line kilometers

HLEM (Genie): 1.350 line kilometers.

2.5 Claims Worked

The above mentioned surveys were conducted on the western edge of the Cop claim. It is possible that the grid lines extend onto the western adjoining Lucy 2 claim, also owned by Westmin Resources Ltd.

2.6 Personnel

Geological - geochemical surveys were supervised and conducted by R. Wilson with the able assistance of D. Devin. Geophysical surveys were conducted by geophysical crew chief B. Kirby, assisted by A. Lippert and T. Kelemen and supervised by L. Bradish.

3.0 DETAILED TECHNICAL DATA

3.1 Geology

3.1.1 Purpose

Geological mapping at a scale of 1:2,500 was completed in an attempt to define any geological variations within the gridded area which may aid in the interpretation of geochemical - geophysical data.

3.1.2 Regional Geology

The Cop claim area has been mapped by J.E. Muller and J.T. Carson (G.S.C. Paper 68-50) with revisions by J.E. Muller (G.S.C. Paper 79-30) to be underlain by Devonian and/or older Nitnat ± Myra Formations of the Sicker Group rocks. The Sicker Group consists of the basal Nitnat Formation, middle Myra Formation and upper sediment sill unit or Buttle Lake Formation.

The following descriptions are in part after and in part condensed from J.E. Muller's paper on the Sicker Group, G.S.C. Paper 79-30; The Paleozoic Sicker Group of Vancouver Island, British Columbia, (1980). The reader is referred to this paper for fuller, more concise descriptions of the Sicker Group rocks.

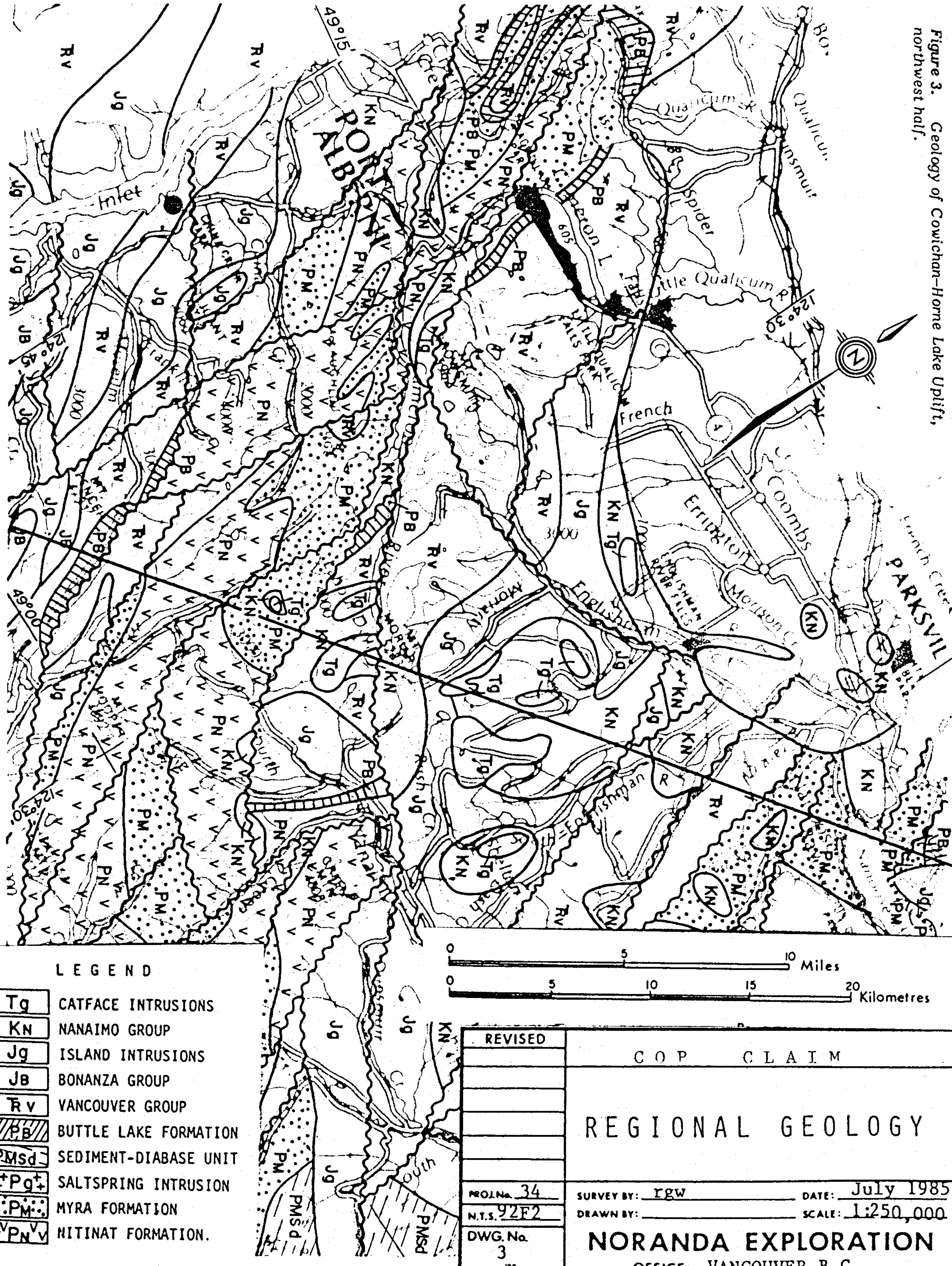
The Nitnat Formation, which is predominantly basic volcanic rocks, and underlies the majority of the Cop claim, is the oldest member of the Sicker Group. It is mainly basaltic flows, flow-breccias, tuffs and rarely pillowed. The rocks are described as "metabasaltic lavas, pillowed or agglomeratic, commonly with large conspicuous uralitized (actinolite pseudomorph of diopside) pyroxene phenocrysts and amygdules of quartz and dark green minerals; minor massive to banded tuff".

Metamorphism is generally lower greenschist facies to occasionally amphibolite grade (near intrusions). The most common alteration assemblage is epidote - actinolite - chlorite - albite. The Nitnat volcanics are shear folded with steeply dipping axial planes and foliated and lineated metamorphic fabrics. Alignment of fibrous and platy minerals are seen parallel to the plane of foliation.

The base of the Nitnat Formation is not well known but is thought to be gabbroic rocks that partly intrude and underlie it. The thickness of the Nitnat is estimated to be around 2,000 m.

The Myra Formation, which is a thick succession of basic to rhyodacitic bedded volcanic and sedimentary rocks, overlies the Nitnat with possible minor unconformity and is the second oldest member of the Sicker Group. Minor sections of the Myra may underlie the Cop claim.

The Myra Formation can be divided into four stratigraphic sections. The base of the Myra is defined as being the first appearance of bedded volcaniclastic rocks. The basal section is maroon and green volcaniclastic greywacke, grit and breccia which displays a crude layering. Occasionally this section contains lenses, layers and fragments of jasper. The maroon and green breccia is succeeded by a section of widely banded basaltic tuff and



LEGEND

Tg	CATFACE INTRUSIONS
KN	NANAIMO GROUP
Jg	ISLAND INTRUSIONS
JB	BONANZA GROUP
Rv	VANCOUVER GROUP
PB	BUTTLE LAKE FORMATION
PMsd	SEDIMENT-DIABASE UNIT
Pg	SALTSPRING INTRUSION
PM	MYRA FORMATION
PN	NITINAT FORMATION.

REVISED	
	COP CLAIM
	REGIONAL GEOLOGY
PROJ.No. 34	SURVEY BY: rgw — DATE: July 1985
N.T.S. 92F2	DRAWN BY: — SCALE: 1:250,000
DWG. No. 3	NORANDA EXPLORATION
	OFFICE: VANCOUVER, B.C.

VANCAL 1927

breccia which may be reworked volcanics. These tuffs and breccias are overlain by light and dark thinly banded petitic albite-trachyte tuff and argillite that appear to be graded greywacke-argillite turbidite sequences. The uppermost section of the Myra is a thick bedded, medium grained albite-trachyte tuff and breccia.

The Myra Formation is the host for the Buttle Lake Kuroko type massive sulphide deposit and is estimated to be between 750 to 1000 m thick in the area of the Cop claim, namely the Cameron River Valley.

The two uppermost divisions of the Sicker Group are not exposed on the Cop claim. They are the Sediment-Sill unit and the Buttle Lake Formation. The main rocks of the uppermost divisions are limestones and clastic sediments of argillite, siltstone, chert, greywacke and calcarenite plus or minus intruded sills of plagioclase diabase.

Sections containing calcareous beds with or without interbedded argillite and greywacke are called Buttle Lake Formation. Sections of interbedded argillite and siltstone without the carbonate but interlayered with basic sills are called the Sediment-Sill unit.

The exact stratigraphic sequence and relationship of these two divisions is not well understood except to say that one or the other generally overlies the Myra Formation and forms the top of the Sicker Group sequence.

The structure of the Sicker Group has not been studied in detail but involves asymmetric folding, normal to transcurrent faulting and repeated intrusions. Following a middle to late Paleozoic Formation, major folding and dynamothermal metamorphism occurred with plutonism during the Jurassic. Major faulting in the Tertiary affected not only the Sicker Group but also the over lying Triassic Vancouver Group volcanics and Upper Cretaceous Nanaimo Group sediments. Intrusive activity occurred during the Devonian, late Triassic, early Jurassic, and early Tertiary times.

3.1.3 Local Geology

Both Nitnat and Myra Formations appear to be exposed within the gridded area, Figure 4. Only the bottom most section of the Myra is exposed in the NW corner of the grid along L.604N from 601+00E to 598+25E. This area is underlain by medium bedded andesitic (lithic crystal) tuffs containing minor amounts of lithic and cherty fragments and very rare thin beds of graphitic argillite. Slightly more regionally to the NW of the grid Westmin mapped a sequence of maroon and green volcaniclastics which Muller says is commonly the basal section of the Myra.

A possible fault bounded downdrop has placed stratigraphically higher banded cherty tuff in contact across a gulley with basal Myra - Upper Nitnat. This possible fault contact occurs on L.604N at 603+00E and follows a SE direction off the gridded area.

To the south along L.602 and L.600N the rocks are possible Nitnat Formation. They are mainly massive bedded andesitic-basaltic lithic (crystal, lapilli) tuffs. These rocks, like the Myra Formation mapped to the north are metamorphosed to lower greenschist facies which occasionally obscures phenocrysts or tuff fragments on fresh surfaces. These particles however can usually be seen on weathered surfaces. Occasional beds of amygdaloidal and vesicular basalt ? are present, often with chlorite altered mafics filling the amygdules.

Foliation attributed to regional metamorphism, varies from weak to moderate with minor alignment of mafic minerals. Quartz calcite veining is present, mainly as fracture fillings and rarer irregular veinlets to 3 mm wide.

Pyrite was the only sulphide noted and occurs locally as trace disseminations. No economic minerals were noted during the survey.

3.2 Geochemistry

3.2.1 Purpose

Soil geochemical sampling along grid lines was completed to compliment the geophysical and geological surveys. The aim was to identify anomalous zones of soil geochemical values which might be related to anomalous geophysical responses.

3.2.2 Techniques

Both soil and rock samples were collected during the Cop geochemical survey. B horizon soil samples were collected from 25 cm deep (average) mattock dug holes and placed in brown Kraft bags. These soil bags were partly air dried prior to being packed for shipment. Rock samples were either collected as whole grab samples or as rock chip samples across a measured width and placed in 6 mil poly bags for shipment.

A total of 68 soil and 2 rock samples were collected on the Cop grid and sent for analysis to Noranda's geochemical laboratory at 1050 Davie Street, in Vancouver, B.C. Appendix I is a flow sheet of the analytical techniques of analysis used by the Noranda laboratory. Appendix II is a list of all rock samples collected together with their rock types and geochemical results.

3.2.3 Results

All soil samples were analyzed for Cu, Zn, Pb, Ag, Mo, As, Au (Figures 5,6,7,8). Except for a few marginally elevated values, results for all elements analyzed were within normal background limits. No significantly anomalous results are recognized hence geochemical maps have not been contoured.

The two rock samples, which contained carbonaceous material, were analyzed by rock geochemistry for Cu, Zn, Pb, Ag, Mo, As, Au. Results for elements analyzed returned values within background limits.

3.3 Geophysics

Instrumentation

3.3.1 SE-88 E.M. System

The SE-88 unit differs from the normal HLEM systems such as the MaxMin II above in that it measures without regard to phase, the ratio of signal amplitude between two frequencies which are transmitted and received simultaneously. A low frequency of 112 Hz is used as a reference frequency. The signal difference is integrated or averaged over a period of time in order to improve the signal to noise ration.

The survey parameters employed on the programme are as follows:

Coil separation	: 100 meters
Frequencies	: 3037, 1012, 337 Hz
Reference frequency	: 112 Hz
Integration period	: 16 or 8 seconds
Reading interval	: 25 meters
Measurement	: ratio of amplitude between reference and signal frequencies (%).

3.3.2 MP-3 Magnetometer System

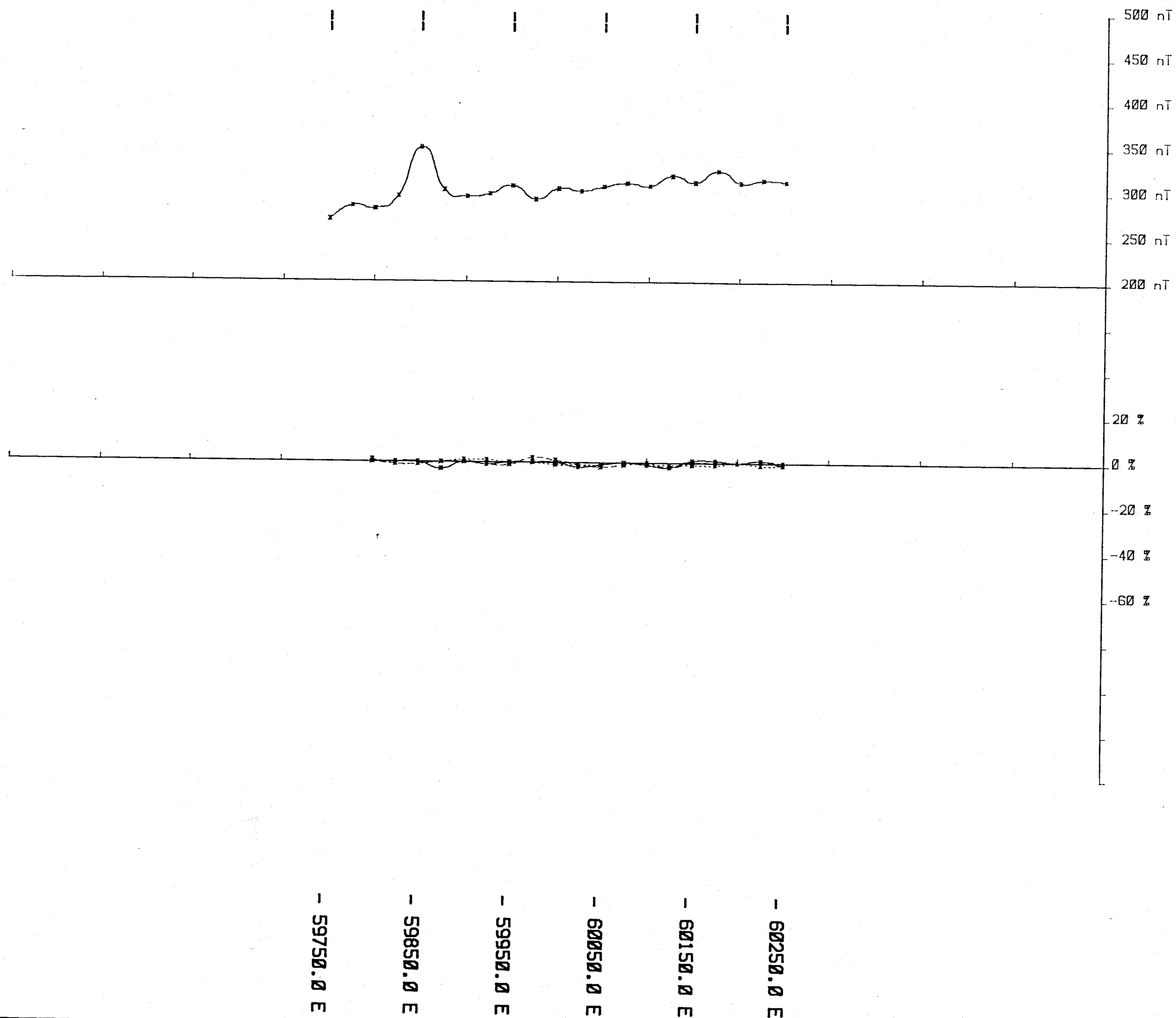
Magnetometers manufactured by Scintrex Ltd. of Concord, Ontario were employed for these surveys. The MP-3 Total Field Magnetometer System consists of one or more field units and a base station. Diurnal and day to day variations are automatically corrected at the end of the survey by the built in microprocessor giving the data a useable accuracy of 0.1 gammas.

3.3.3 Discussion of Results

Three lines of SE-88 E.M. and magnetic surveying were completed on the "Cop" grid. The E.M. results failed to identify any source of bedrock conductivity. Magnetic values show little variation and for the most part are confined within a 100 nT signal envelope.

4.0 SUMMARY AND CONCLUSIONS

No anomalous results were received from either the geochemical or geophysical surveys. The geological stratigraphic position of the rocks in the grid area appears to be upper Nitnat and lower Myra Formations. No showings of economic interest were found in the grid area.



MAGNETOMETER SURVEY

DATUM : 55800 nT
INSTR : MP-3
SCALE : 1:50 nT

SE-88 SURVEY

Coil separation : 100
Integration : 16
337 Hz ———
1012 Hz - - -
3037 Hz .....
112 Hz (ref)

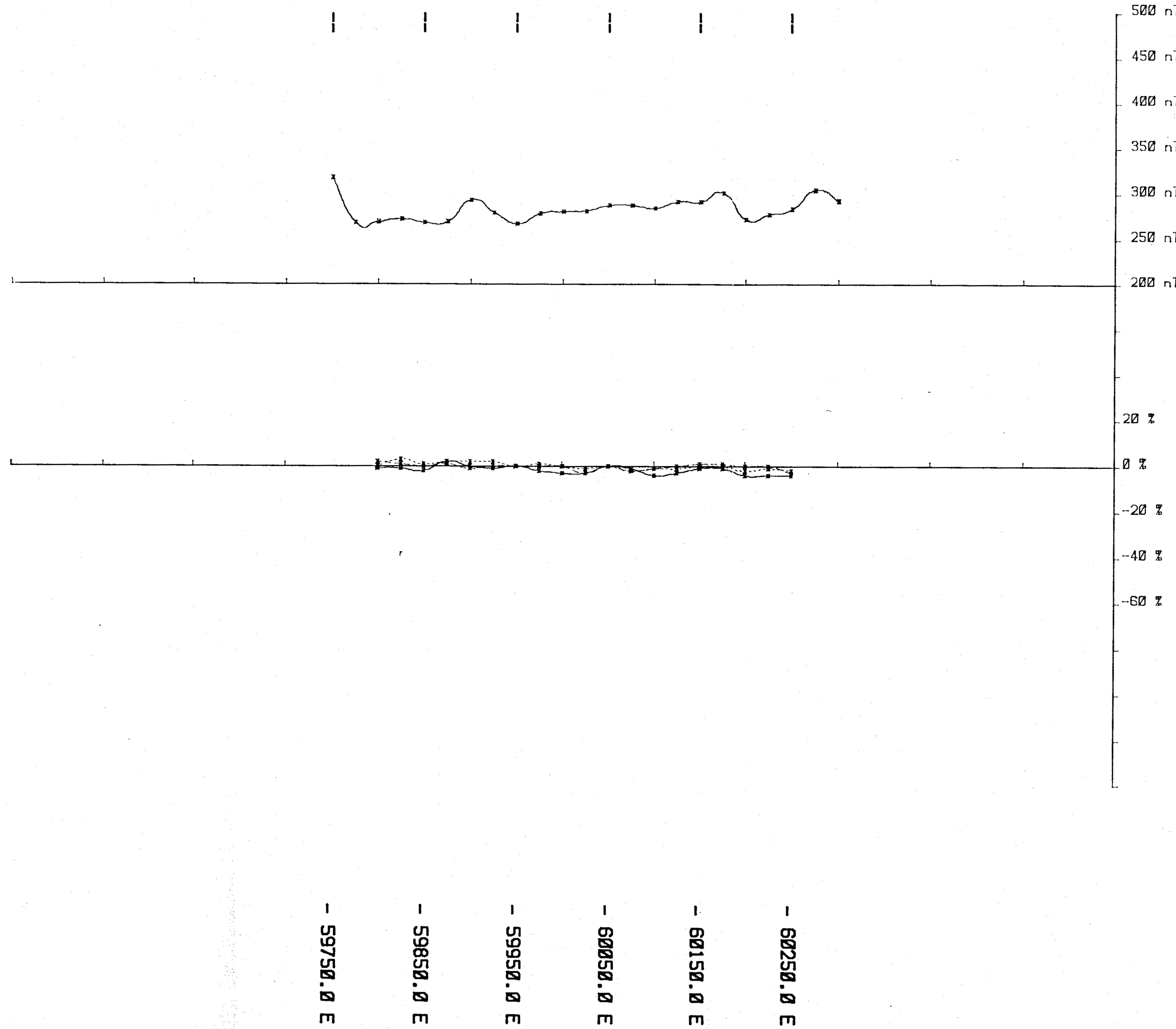
100 50 0 100 200

COP GRID
HLEM SURVEY
LINE : 60000N

FILE B:34COP3.SEM PROJECT 34

SCALE : 1:5000 DATE : 85/06/06
SURVEY BY : T.L/T.K N.T.S : 92 F/2

1 NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 55800 nT
INSTR : MP-3
SCALE : 1:50 nT

SE-88 SURVEY

Coil separation : 100
Integration : 16
337 Hz ———
1012 Hz - - -
3037 Hz .....
112 Hz (ref)

100 50 0 100 200

COP GRID

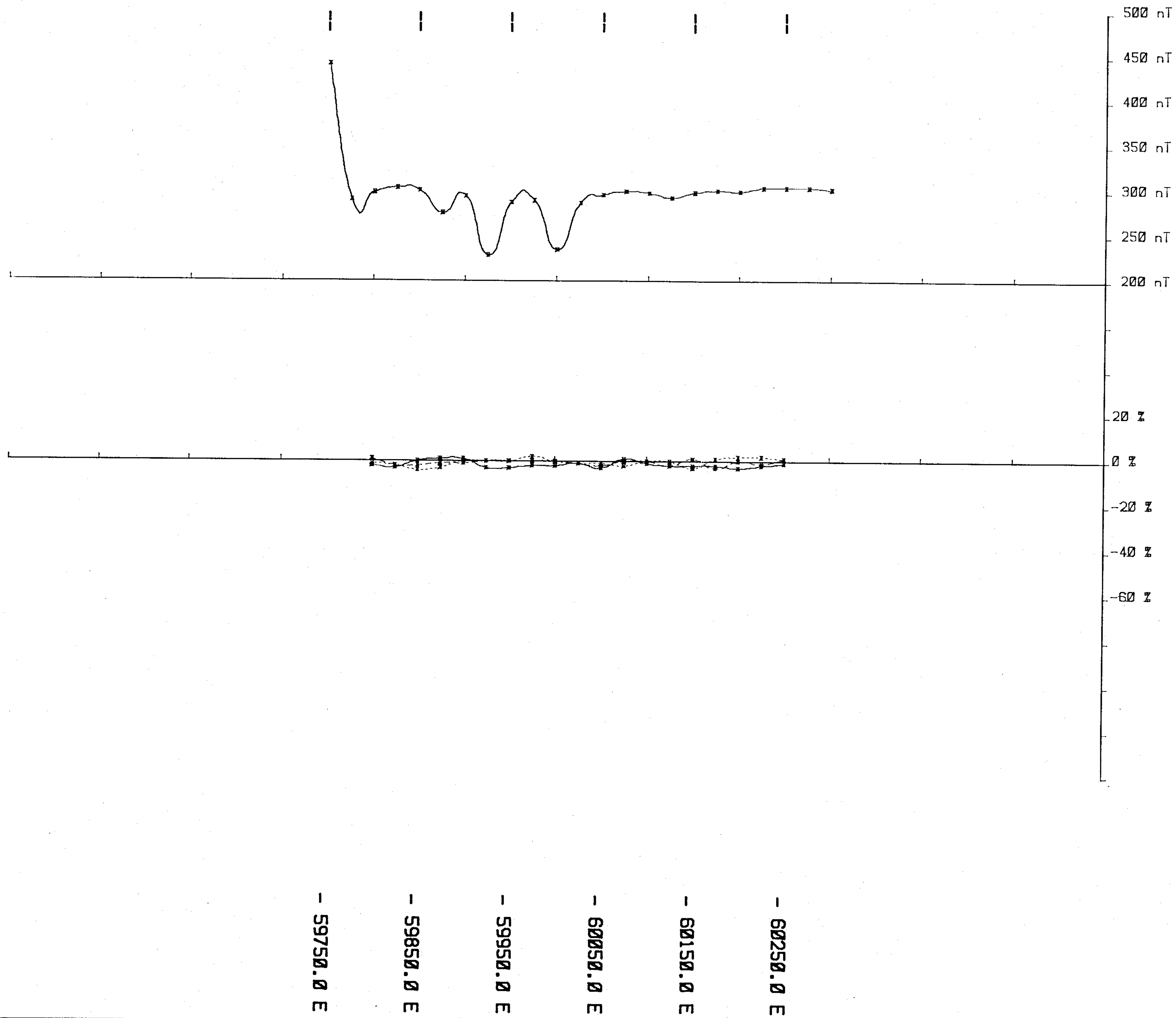
HLEM SURVEY

LINE : 60200N

FILE B:34COP2.SEM PROJECT 34

SCALE : 1:5000 DATE : 85/06/0
SURVEY BY : T.L/T.K N.T.S : 92 F/2

2 NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 55800 nT
INSTR : MP-3
SCALE : 1:50 nT

SE-88 SURVEY

Coil separation : 100
Integration : 16
337 Hz ———
1012 Hz - - -
3037 Hz .....
112 Hz (ref)

100 50 0 100 200

COP GRID

HLEM SURVEY

LINE : 60400N

FILE B:34COP1.SEM PROJECT 34

SCALE : 1:5000 DATE : 85/06/0
SURVEY BY : T.L/T.K N.T.S : 92 F/2

3 NORANDA EXPLORATION

NORANDA EXPLORATION COMPANY, LIMITED

DETAILS OF ANALYSES COSTS

Project: MB-WESMIN - Cop Claim

Element	No. of Determinations	Cost per Determination	Total
Cu	68	1.60	108.80
Zn	68	.60	40.80
Pb	68	.60	40.80
Ag	68	.60	40.80
Mo	68	.60	40.80
Au	68	3.50	238.00
As	68	1.50	102.00
TOTAL COSTS			$1,224.00

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

****

I, Robert G. Wilson of 3328 West 15th. Avenue, City of Vancouver, Province of British Columbia, do hereby certify that:

1. I have been employed as a Project Geologist for Noranda Exploration Company, Limited (no personal liability) since 1983 to the present.

2. I graduated from the University of British Columbia in 1976 with a B.Sc degree in geology.

3. I have worked in mineral exploration since 1973 and have practiced my profession as a geologist since 1976.

4. I am a member of the Geological Association of Canada (Cordillera Division)

R. Wilson
Project Geologist

STATEMENT OF QUALIFICATIONS
****

I, Lyndon Bradish of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a Geophysicist residing at 1826 Trutch Street, Vancouver B.C.

2. I am a graduate of the University of British Columbia with a B.Sc. (geophysics).

3. I am a member in good standing of the Society of Exploration Geophysicists, Canadian Institute of Mining and the Prospector´s and Developer´s Association.

4. I presently hold the position of Division Geophysicist with Noranda Exploration Company, Limited and have been in their employ since 1973.

L. Bradish
Division Geophysicist

REFERENCES

Muller, J.E. and Carson, D.J.T	Geology and Mineral Deposits of Alberni Map Area, British Columbia (92F). Geological Survey of Canada Paper 68-50, 1969
Muller, J.E.	The Paleozoic Sicker Group of Vancouver Island, British Columbia. Geological Survey of Canada Paper 79-30, 1980.

APPENDIX I

ANALYTICAL METHOD DESCRIPTIONS FOR

GEOCHEMICAL ASSESSMENT REPORTS

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver.

Preparation of Samples

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for geochemical analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples * from constant volume), are analysed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.4 g and chemical quantities are doubled relative to the above noted method for digestion.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn can be determined directly from the digest (dissolution) with a conventional atomic absorption spectrometric procedure. A Varian-Techtron, Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method:

Antimony - Sb: 0.2 g sample is attacked with 3.3 ml of 6% tartaric acid, 1.5 ml conc. hydrochloric acid and 0.5 ml of conc. nitric acid, then heated in a water bath for 3 hours at 95°C. Sb is determined directly from the dissolution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.3 g sample is digested with 1.5 ml of perchloric 70% and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL is used to measure arsenic content in the digest.

Barium - Ba: 0.1 g sample digested overnight with conc. perchloric, nitric and hydrofluoric acid; Potassium chloride added to prevent ionization. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest with an AA-475 complete with EDL.

Gold - Au: 10.0 g sample is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with MIBK from the aqueous solution. AA is used to determine Au.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with the use of a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot from a perchloric-nitric decomposition, usually from the multi-element digestion, is buffered. The aqueous solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

* N.B. If additional elemental determinations are required on panned samples, state this at the time of sample submission. Requests after gold determinations would be futile.

LOWEST VALUES REPORTED IN PPM

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01
Cd - 0.2	Mo - 1	Sb - 1	W - 2
Co - 1	Ni - 1	As - 1	U - 0.1
Cu - 1	Pb - 1	Ba - 10	
Fe - 100	V - 10	Bi - 1	

EJvL/ie
March 14, 1984

APPENDIX II

ROCK DESCRIPTIONS AND RESULTS

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 92F/2

PROPERTY COP. (WESTMIN-MB J.V.)

DATE JUNE 7/85

SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS Cu	Zn	Pb	Ag	Mo	As	Au	SAMPLED BY
4113	Graphitic black chart	GRAB		140	56	1	0.2	4	2	10	
	Narrow banding, no pyrite, appears slightly										
	sheared.										
4114	Wide zone of black chart with graphitic fractures	GRAB		56	56	1	0.4	14	32	30	
	and 1% disseminated pyrite.										
	* Rock Geochemistry										
	Cu, Zn, Pb, Ag, Mo, As in ppm, Au in ppb.										

STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE JULY 1985

PROJECT - MB-WESMIN - Cop Claim
TYPE OF REPORT Geology, Geochem & Geophysics

a) **Wages:**

No. of Days -	14 mandays	
Rate per Day -	$91.00	
Dates From -	June 3 - June 7, 1985	
Total Wages	19 X $91.00	$1,274.00

b) **Food and Accommodation:**

No. of Days -	14	
Rate per Day -	$45.00	
Dates From -	June 3 - June 7, 1985	
Total Cost -	14 X $45.00	$ 630.00

c) **Transportation:**

No. of Days -	8	
Rate per Day -	$75.00	
Dates From -	June 3 - June 7, 1985	
Total cost	14 X $75.00	$ 770.00

d) **Instrument Rental:**

Type of Instrument - Magnetometer MP-3

No. of Days -	1	
Rate per Day -	75.00	
Dates From -	June 6, 1985	
Total cost -	1 X $75.00	$ 75.00

Type of Instrument - HLEM SE-88

No. of Days -	1	
Rate per Day -	100.00	
Dates From -	June 6, 1985	
Total cost -	1 X $100.00	$ 100.00

e) **Analysis** $1,224.00

f) **Cost of Preparation of Report**

Author	$ 91.00
Drafting	$ 91.00
Typing	$ 91.00

g) **Other:**
Contractor

Total Cost	$4,346.00

UNIT COSTS

Unit Costs for Geology

No. of Days - 4
Unit costs - 250.88/md

Total Cost - 4 X 250.88	$1,003.50

Unit Costs for Geochem

No. of Units - 68 Samples
Unit Costs - 28.74 / Sample

Total Cost - 68 X 28.74	$1,954.50

Unit Costs for Geophysics

No. of Units - 2.9 L Km
Unit Costs - 478.62 / L Km

Total Cost - 2.9 X 478.62	$1,388.00
Total Cost	$4,346.00

LUCY 1
LUCY 2 COP
COP
Creek
Cop
700
800
900
1000
1100
COP 100 ROAD
TO COP MAIN ROAD
604+00N
602+00N
600+00N
598+00E
599+00E
600+00E
601+00E
602+00E
603+00E
R64113
R64114
LEGEND
SYMBOLS
STATION LOCATION
OUTCROP
ROCK BLUFF
FAULT (Assumed)
GEOLOGIC CONTACT (Assumed)
BEDDING (With Dip)
FOLIATION (With Dip)
ROCK SAMPLE LOCATION
MARSH
SICKER GROUP
MYRA FORMATION
4 ANDESITIC CRYSTAL TUFF
Green to buff brown weathering, medium to dark green, coarse grained, moderately hard. 15-20% chert bands (2cm - 15cm wide) of variable frequency showing minor fracture offset (>20cm.) and slight warping.
3 ANDESITIC (LITHIC, CRYSTAL) TUFF
Pale green to buff to orange brown weathering, medium green, fine grained (lithic, crystal fragments of chert, feldspar (plagioclase?) and mafics to 2mm dia.) Medium bedded with occasional black cherty bands. Quartz veinlets weather up in relief.
NITNAT FORMATION
2 ANDESITIC TO BASALTIC (LITHIC, CRYSTAL, LAPILLI) TUFF
Pale green to buff weathering, medium to dark green, fine to coarse grained, moderately soft tuff. Massive bedded within outcrops. Tuff fragments subangular, fine tolapilli sized, lithic and lapilli composition.
1 ANDESITIC TO DACITIC TUFF
Buff to brown weathering, grey green, fine grained moderately hard tuff. Massive bedded, well fractured in random directions. Trace disseminated pyrite.
GEOLOGICAL BRANCH ASSESSMENT REPORT
13,934
SCALE
1:2500
Metres 50 0 50 100 150 200 250 Metres
GCI: 51154, 51274
REVISED
WESTMIN-M.B. J.V.
CAMERON RIVER - COP CREEK
(CAMERON DIVISION)
GEOLOGY
PROJ. No. 34
N.T.S. 92F/2
DWG. No. 4
SURVEY BY: R.G.W. & B.K.
DATE: June/85
DRAWN BY:
SCALE: 1:2500
NORANDA EXPLORATION
OFFICE: Vancouver

LEGEND

10 —— Au in ppb

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,934

SCALE
1:2500

Metres 50 0 50 100 150 200 250 Metres

REVISED	WESTMIN-M.B. J.V.
	CAMERON RIVER - COP CREEK (CAMERON DIVISION)
	SOIL GEOCHEM - *Au*
PROJ. No. 34	SURVEY BY: R.G.W. & B.K. DATE: June/85
N.T.S. 92F/2	DRAWN BY: [signature] SCALE: 1:2500
DWG. No. 5	NORANDA EXPLORATION OFFICE: Vancouver

LUCY 1
LUCY 2 COP
COP
Cop Creek
Cop Creek
COP 100 ROAD
TO COP MAIN ROAD
900
1000
1100
800
700
604+00N
602+00N
600+00N
LEGEND
32/8 Cu in ppm
As in ppm
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,934
SCALE 1:2500
Metres 50 0 50 100 150 200 250 Metres
REVISED
WESTMIN-M.B. J.V.
CAMERON RIVER - COP CREEK
(CAMERON DIVISION)
SOIL GEOCHEM - Cu/As
PROJ. No. 34
N.T.S. 92F/2
DWG. No. 6
SURVEY BY: R.G.W. & B.K.
DATE: June/85
DRAWN BY:
SCALE: 1:2500
NORANDA EXPLORATION
OFFICE: Vancouver

LUCY 1
LUCY 2 COP
COP
Creek
Cop
COP 100 ROAD
604+00N
602+00N
600+00N
TO COP MAIN ROAD
900
1000
1100
800
700
LEGEND
Pb in ppm
Ag in ppm
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,934
SCALE
1:2500
Metres 50 0 50 100 150 200 250 Metres
REVISED
WESTMIN-M.B. J.V.
CAMERON RIVER - COP CREEK
(CAMERON DIVISION)
SOIL GEOCHEM - Pb/Ag
PROJ. No. 34
N.T.S. 92F/2
DWG. No. 7
SURVEY BY: R.G.W. & B.K.
DATE: June/85
SCALE: 1:2500
NORANDA EXPLORATION
OFFICE: Vancouver

LUCY 1
LUCY 2 COP
COP
Cop Creek
COP 100 ROAD
TO COP MAIN ROAD
604+00N
602+00N
600+00N
900
1000
1100
800
700
LEGEND
34/1
Zn in ppm
Mo in ppm
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,934
SCALE
1:2500
Metres 50 0 50 100 150 200 250 Metres
REVISED
WESTMIN-M.B. J.V.
CAMERON RIVER - COP CREEK
(CAMERON DIVISION)
SOIL GEOCHEM - Zn/Mo
PROJ. No. 34
N.T.S. 92F/2
DWG. No. 8
SURVEY BY: R.G.W. & B.K.
DRAWN BY:
DATE: June/85
SCALE: 1:2500
NORANDA EXPLORATION
OFFICE: Vancouver