

1980

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL

Report on the

CEDARFLAT CREEK PROPERTY

Centered at Coordinates:

49° 28'N, 121° 6'W

N.T.S. 92H/6E

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

8253

G. Mathieson

T.D.Lewis, P. Eng.

Noranda Exploration Co., Ltd. (N.P.L.)

Kamloops, B.C.

July, 1980

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INTRODUCTION

Noranda Exploration Company, Limited (No Personal Liability) optioned the Cedarflat Creek Property from Chris Larsen in January, 1980. The property consists of one 12 unit claim called C.F.#27333, located on June 30, 1979.

Previous work on the property consists of numerous partially caved trenches and a slumped adit. It is not known when this work was completed, probably 30 or 40 years ago. In 1967, Craigmont Mines Limited optioned the property for the purposes of magnetic, geochemical and geological surveys (see Report on Geological, Geophysical, and Geochemical Surveys on the Rainy Nos. 1 to 32 mineral claims by R.J. Young, 1967).

During late June, 1980, Noranda crews established a 17.9 km grid, to follow-up and extend the Craigmont work. Magnetometer, C.E.M., soil geochemistry, and geological mapping surveys were performed to further assess the property.

LOCATION AND ACCESS

The Cedarflat Creek Property is situated at the headwaters of Cedarflat Creek, which is 27 (air) kilometers at 075 (true) from Hope, B.C. Cedarflat Creek is a northwesterly draining tributary of Dewdney Creek, which in turn empties into the Coquihalla River.

Access to the property is gained by a fifteen minute helicopter trip from Hope, B.C. A logging landing offers good landing site, and is only .5 km. from the showings (adit). Until recently, a four wheel drive road offered access from the Coquihalla River, up Dewdney Creek, and on to a side road up Cedarflat Creek. However, bridge washouts and numerous slides have rendered the road impassible.

CLAIM STATISTICS

The Cedarflat Creek Property is covered by one 12 unit claim staked by Chris Larsen, R.R. #3, Chilliwack, B.C., V2P 6H5. The claim was optioned to Noranda Exploration Company, Limited (No Personal Liability) in December, 1979. The claim is located within the New Westminster Mining Division.

<u>Claim Name</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Units</u>
C.F. No. 27333	495	July 9, 1979	12

CONTROL GRID

A 17.9 km. grid was established in June, 1980 by Noranda Exploration crews using chain and compass techniques. A 1.8 km. baseline (L100E) was flagged and stations established at 25 meter intervals. The baseline passes in front of the adit at B/L 100N, 100E, and extends to station 110N, to the north, and to station B/L 92N to the south. Crosslines were established at 100 meter intervals and extended 1000 meters at right angles to the baseline. Stations were established at 25 meter intervals, and marked on teflon tags with felt pens.



FIG. 1

INDEX MAP

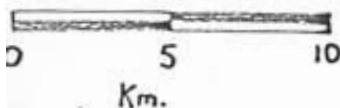
Showing the General Location
of

C.F.NO. 27333 Mineral Claim
Cedarflat Creek Area, B.C.
Noranda Exploration Company, Limited

New Westminster
Mining Division
July 1980



1:250,000



GEOLOGICAL SURVEY

The property is situated within a series of sediments belonging to the Pasayten Group of Lower Cretaceous age (G.S.C. Paper 69-47; Monger, J.W.H.; 1969). Intruding the sediments is a medium grained diorite of uncertain age.

Within the property, four main rock types occur, the predominant being a conglomerate which appeared to coarsen south wards and consisted of granitic and quartzitic pebbles to boulders in a sandy matrix. The conglomerate was seen to be interbedded with a coarse grit in places which contained occasional cherty clasts, rock fragments and sub-angular to sub-rounded crystalline material. In some places the pebbles in the conglomerate had their long axes aligned in a N-S direction.

Conglomerate covers most of the property area except for the NE corner near lines 105-106N, where a felsic, fine to medium crystalline intrusion occurs. In the southwest corner of the grid, volcanic andesite outcrops, but does not appear to be related to mineralization on the property.

Close to the intrusion, quartz veining became more abundant in the conglomerates and grits, but no mineralization was observed in them.

MINERALIZATION

The main showing on the Cedarflat property occurs at the site of the caved-in adit (100N; 100E) where a high grade muck pile is found. The mineralization consists of massive sphalerite, minor pyrite and pyrrhotite in a quartz gangue. All the mineralized rocks appear very rusty and weathered.

Minor amounts of magnetite may occur in somewhat brecciated and veined pelitic sediments also found at the adit.

A number of old trenches occur on the property which carry sphalerite, pyrite, pyrrhotite and occasionally minor chalcopyrite. The mineralization occurs parallel to the foliation, in rusty black phyllites interbedded with conglomerate.

GEOPHYSICAL SURVEYS

A Vertical Shootback E.M. Survey and Magnetic Survey were carried out over sections of the C.F. #27333 Mineral Claims. The survey operators were I. Saunders, T. Lewis, L. Warner, N. Mathieson and N. Sutherland.

C.E.M. VERTICAL SHOOTBACK SURVEY

C.E.M. Transievers, manufactured by Crone Geophysics, of Ontario, were utilized for this survey. Approximately 10 km. of line were surveyed with readings recorded every 25 m. The coil spacing was maintained at 75 m. with an operating frequency of 1830Hz.

METHOD

The two operators, in turn, transmit and receive at each set up. To obtain a reading, operator #1 transmits with his coil in the vertical plane perpendicular to the line direction. Operator #2 first aligns his coil with the field direction and then detects the dip angle of the null. The

two operators then reverse procedures (operator #2 transmits, operator #1 receives). The two dip angle null readings are then added together algebraically. This resultant Dip Angle constitutes a reading for the set up and is plotted midpoint between the two operator locations on the survey line.

PRESENTATION OF RESULTS

The C.E.M. results are plotted in profile form on a grid plan map at a scale of 1:5000. The vertical scale of the profiles is 1 cm equals 20 degrees.

MAGNETOMETER SURVEY

The Magnetic Survey utilized a Scintrix MF-2 vertical Field Fluxgate Magnetometer. Approximately 10 km. of line were surveyed with readings recorded every 25 meters.

METHOD

Initially, readings were recorded along the base line in order to establish a series of base stations. During the course of the survey, readings were recorded at these base stations and differences plotted against time to obtain the diurnal variations. Reduced data was obtained by "removing" the diurnal and day to day variations of the magnetic intensity.

DISCUSSION OF RESULTS

The results of the magnetometer survey turned up an obvious anomaly. The anomaly contrasts with background reading by a difference of approximately 1000 gammas. It occurs at co-ordinated L103+00N, and 103+00E. To appreciate the significance of this anomaly, more data will be required along lines to the north.

The results of the C.E.M. survey have been plotted on the grid map, on a vertical scale of 1 cm=20. A prominent anomaly occurs on the northeast quadrant of the grid between lines 103N and 98N. The anomaly extended off the east side of the grid. In an effort to locate the anomaly, lines 98N and 97N were extended to the east, but apparently the anomaly could not be traced.

GEOCHEMICAL SURVEY

The geochemical survey involved soil sampling over the control grid at 50 meter intervals. A total of 289 samples were taken from the "B" horizon, immediately below the humus layer. The samples were collected in brown paper kraft bags, dried, and sent to the Noranda Exploration Company, Limited, 1050 Davie Street, Vancouver, for analysis.

The samples were analyzed for copper, zinc, lead, and molybdenum by standard atomic absorption methods which is described in the literature. The analyst was R. Fenton.

The results have been plotted (see map #4 in pocket) on a 1:5000 scale map. The results and conclusions of each element are discussed as follows:

(i) Copper

The copper values range from a low of 6 ppm to a high of 110 ppm. The greatest concentration of values occurs between 0 ppm to 40 ppm, and anomalous values were considered greater than 30 ppm.

The copper response tends to have higher values on the northern half of the grid, with a weak anomaly on the east portions of lines 100N to 106N. The rest of the high copper values are erratically distributed, and not considered important.

(ii) Molybdenum

The molybdenum values do not show any anomalous concentration within the confines of the sampled grid.

(iii) Zinc

The zinc values range from a low of 6 ppm to a high of 1200 ppm. The greatest frequency of zinc concentration occurs between 0 ppm to 150 ppm. Anomalous values were taken to be greater than 150 ppm.

The zinc values have been plotted (see back pocket), with an anomaly in the northeast quadrant of the grid. The anomaly appears to run nearly north-south, with an anomalous dispersion train extending down into the creek draining west.

(iv) Lead

The lead values range from a low of 2 ppm to a high of 420 ppm. The highest frequency of lead values occurred between 0 to 30 ppm, with anomalous values considered to be greater than 30 ppm.

The plot of the lead values illustrates a weak anomaly in the northeast portion of the grid.

CONCLUSIONS AND RECOMMENDATIONS

The copper, lead and zinc geochemistry indicates a north-south trending anomaly in the north-east quadrant of the grid. To some extent the magnetometer survey, and to an even greater extent the C.E.M. survey, supports this conclusion.

To further explore this anomaly, it is recommended that the grid be extended 300 meters towards the east between lines 98N and 110N. In addition the lines omitted in the original survey could be tested.

The anomalies located in this survey appear to be related to the intrusion located in the north-east corner of the grid. Due to poor outcrop occurrence, the contact between the sediments and the intrusion was not found. However, the shape of the geophysical and geochemical anomalies appears to parallel the sedimentary-igneous boundary.

APPENDIX I

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Thomas D. Lewis of the City of Kamloops, Province of British Columbia, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited since April, 1979.
2. I am a graduate of Queen's University with a Bachelor of Applied Science in Geology (1975).
3. I am a member of the Association of Professional Engineers of the Province of British Columbia.
4. I am a member of the Canadian Institute of Mining and Metallurgy.



Thomas D. Lewis, P.Eng.,
Geologist
Noranda Exploration Company, Limited
(No Personal Liability)

APPENDIX II

Statement of Costs

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT LARSEN OPTION - CEDAR FLAT

DATE June 1980

TYPE OF REPORT Combined Geological, Geochemical, geophysical Surveys.

a) Wages:

No. of Days 80

Rate per Day \$ 55.00275

Month Of: June 22 - June 27, 1980

Total Wages 80 x \$ 55.00275 4,400.22

b) Food and Accomodation:

No of days 80

Rate per day \$ 9.463875

Month of: June 22 - June 27, 1980

Total Cost 80 x \$ 9.463875 757.11

c) Transportation:

No of days 80

Rate per day \$ 13.7015

Month of: June 22 - June 27, 1980

Total Cost 80 X \$ 13.7015 1,096.12

d) Instrument Rental:

Type of Instrument

No of days

Rate per day \$

Month of:

Total Cost X \$

Type of Instrument

No of days

Rate per day \$

Month of:

Total Cost X \$

f) Analysis 700.00
(See attached schedule)

g) Cost of preparation of Report

Author	3 Days @ 55.00275	110.00	
Drafting		200.00	
Typing	2 Days @ 100.00	100.00	<u>410.00</u>

h) Other:

Field & Camp Costs		5.05	
Supervision:	D.E. Cross P. Eng.		
	G.E. Dirom P. Eng.	400.00	

Total Cost 405.05

7,768.50

e) Unit costs for

No of days	
No of units	
Unit costs	/
Total Cost	x

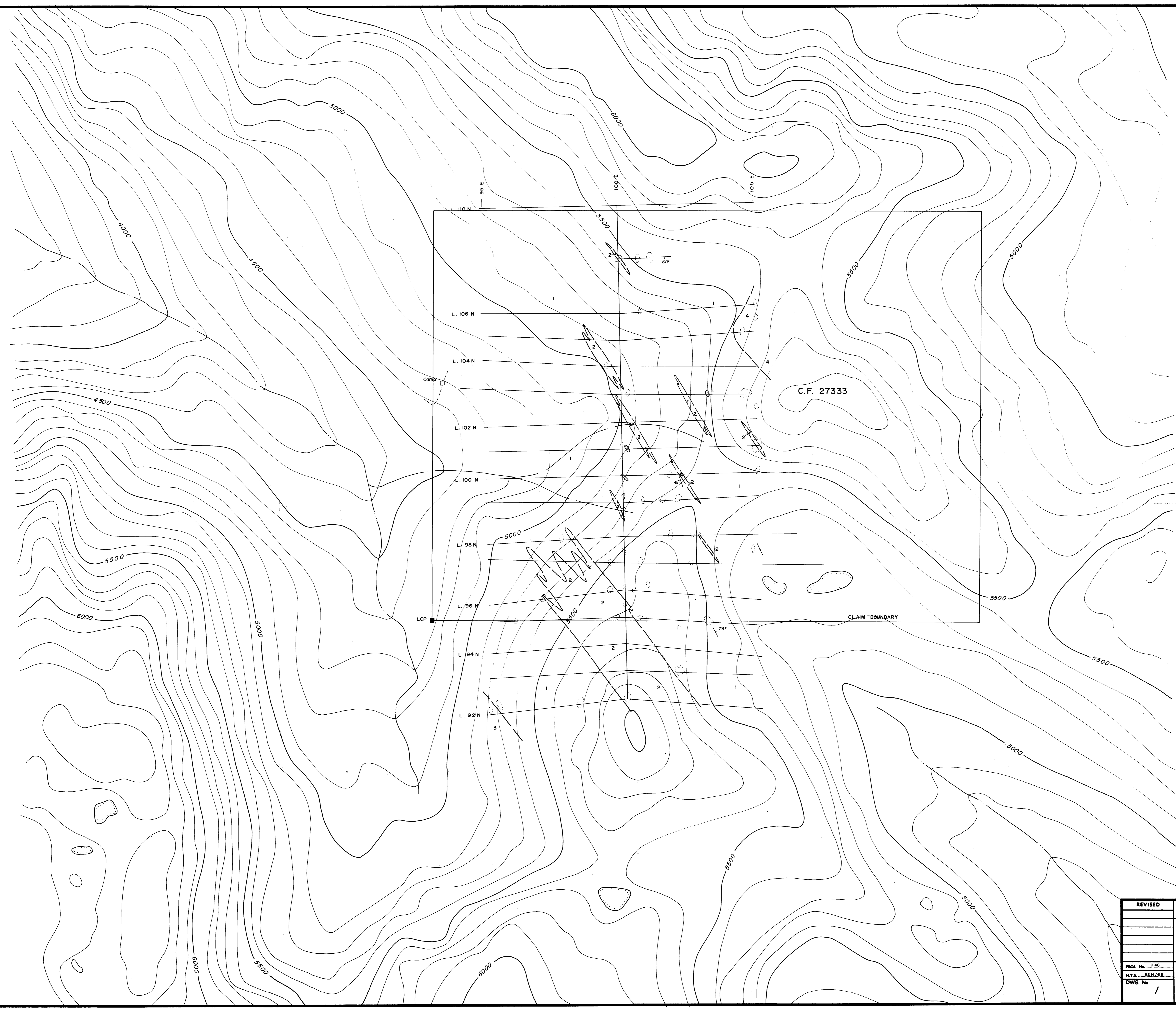
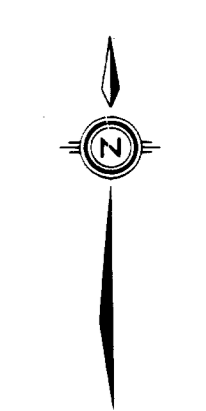
NORANDA EXPLORATION COMPANY, LIMITED
(WESTERN DIVISION)

DETAILS OF ANALYSES COSTS

PROJECT: LARSEN OPTION - CEDAR FLAT PROPERTY

<u>ELEMENT</u>	<u>NO. OF DETERMINATIONS</u>	<u>COST PER DETERMINATION</u>	<u>TOTAL</u>
Cu	250	1.00	250.00
Zn	250	.60	150.00
Pb	250	.60	150.00
Mo	250	.60	150.00

700.00



- ROCK TYPES**
- 4 DIORITE
 - 3 GREEN ANDESITIC VOLCANICS
 - 2 SANDSTONE WITH INTERBEDDED CONGLOMERATE
 - 1 MIXED PEBBLE / COBBLE CONGLOMERATE

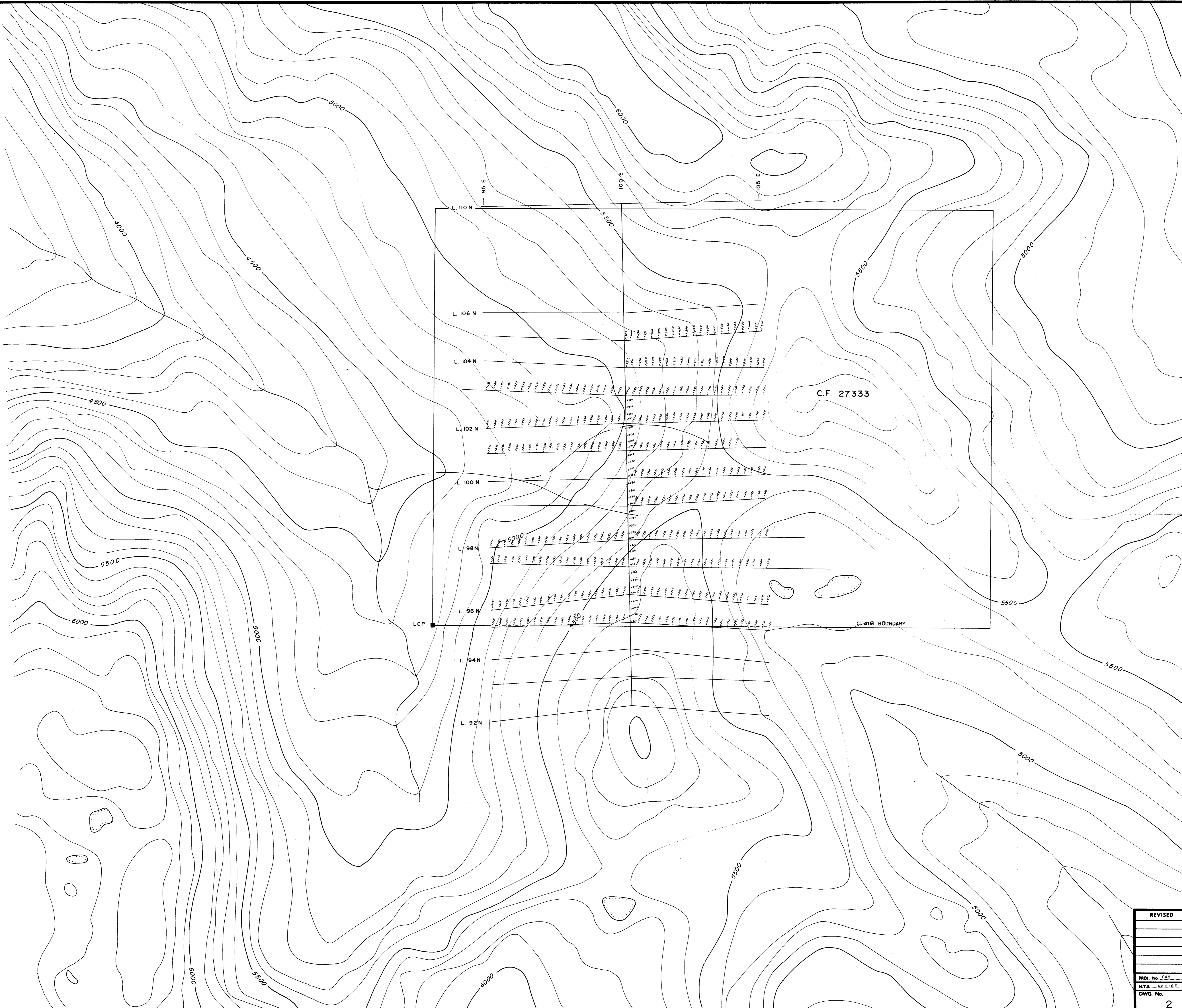
- SYMBOLS**
- 60° BEDDING
 - GEOLOGICAL CONTACT
 - OUTCROP
 - CREEKS
 - ADIT, MINERALIZATION - Sph, Py, Pb, Cu
 - TRENCH

TO ACCOMPANY GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT ON THE C.F. 27333 M.C., NEW WESTMINSTER M.B., B.C. BY T. LEWIS, G. MATHIESON, JULY, 1980

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. **8253**

100 0 100 200 300 400 METERS

REVISED	CEDAR FLAT PROPERTY	
	GEOLOGICAL PLAN	
PROJ. No. 048	SURVEY BY: T. LEWIS, G. MATHIESON	DATE: JULY, 1980
N.T.S. 92 H/5 E	DRAWN BY: J.K.V.	SCALE: 1:5000
DWG. No. 1	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	

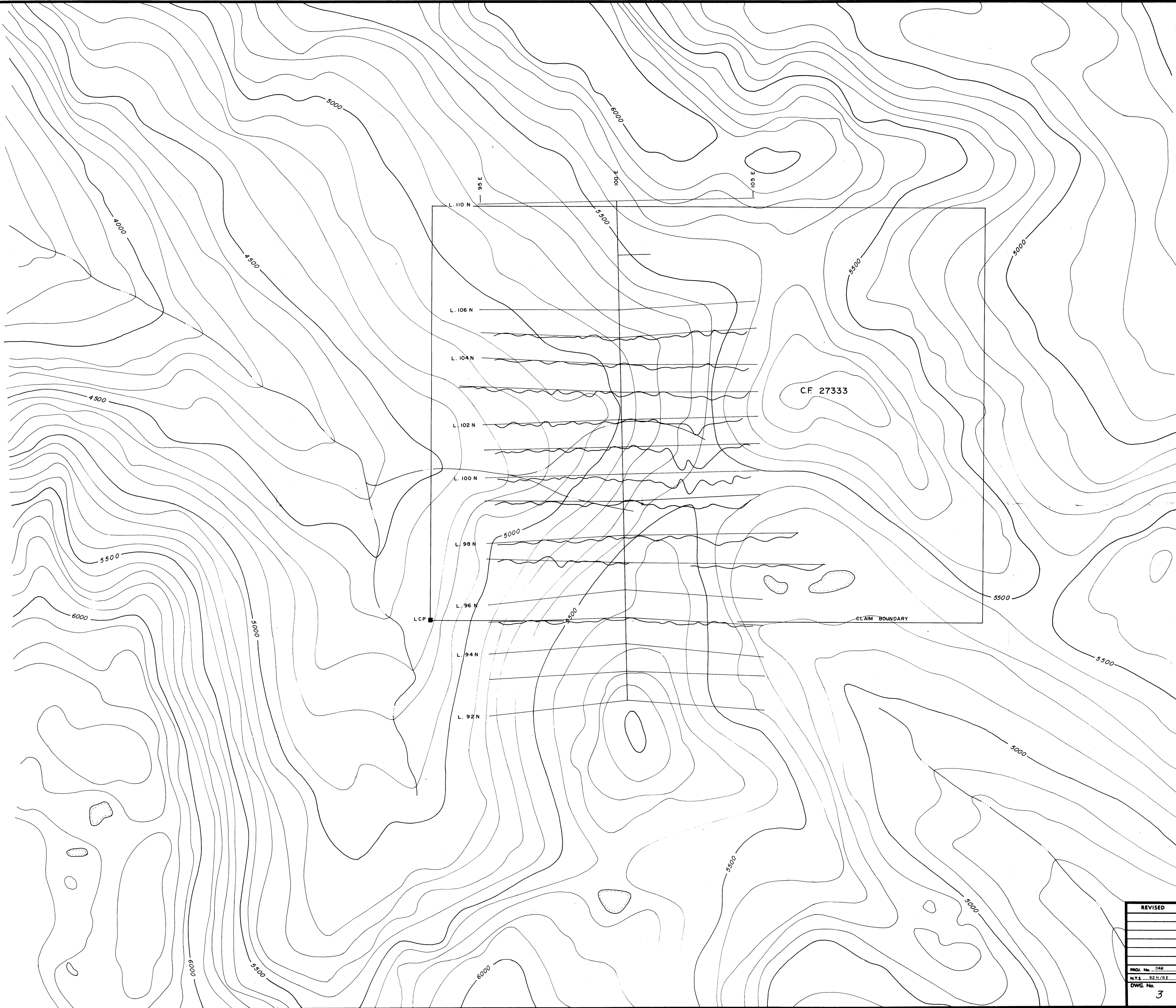
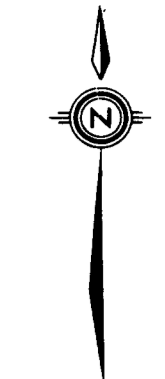


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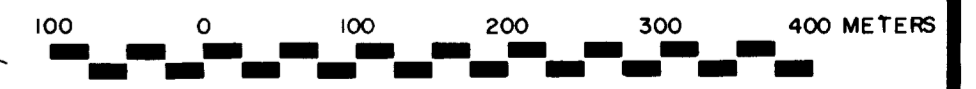
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PROJ. No. 048	SURVEY BY: T. LEWIS, G. MATHIESON	DATE: JULY, 1980
N.T.S. 22 N/E	DRAWN BY: J.K.V.	SCALE: 1:3,000
DWG. No. 2	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	



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ON THE C.F. 27333 M.C., NEW WESTMINSTER M.D., B.C.
BY T. LEWIS, G. MATHIESON, JULY 1980

MINERAL RESOURCES BRANCH
EXPLORATION REPORTS

8253



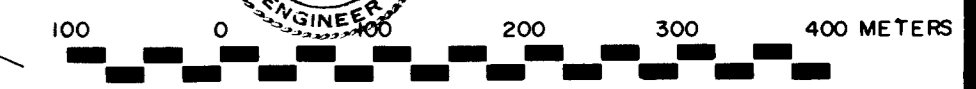
REVISED	CEDAR FLAT PROPERTY
	C. E. M. (MEDIUM FREQUENCY)
PROJ. No. 048	SURVEY BY: WARNER, SAUNDERS, SUTHERLAND DATE: JULY, 1980
N.T.S. 92 H / E	DRAWN BY: J.V.V. SCALE: 1:5000 (1 CM = 20 M)
DWG. No. 3	NORANDA EXPLORATION OFFICE: VANCOUVER



TO ACCOMPANY GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT ON THE C.F. 27333 M.C., NEW WESTMINSTER M.O.B.C. BY T. LEWIS, G. MATHESON, JULY, 1980

MINERAL RESOURCES DIVISION
ASSESSMENT REPORT
8253

ASSAY ORDER
36 - Cu
89 - Zn
78 - Pb
4 - Mo



REVISED	CEDAR FLAT PROPERTY	
	GEOCHEMICAL SOIL SURVEY Cu, Zn, Pb, Mo in PPM.	
PROJ. No. 048	SURVEY BY: T. LEWIS, N. MATHESON	DATE: JULY, 1980
N.T.S. 92 H/8 E	DRAWN BY: J.K.V.	SCALE: 1:5000
DWG. No. 4	NORANDA EXPLORATION OFFICE: VANCOUVER	