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GEOPHYSICAL REPORT ON THE
HOLY CROSS PROPERTY
(PB 4 TO 8 MINERAL CLAIMS)

OMINECA MINING DIVISION
N.T.S. 93 F/15W

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,278

BY: MIKE SAVELL
LYNDON BRADISH

AUGUST, 1989

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(in rear pocket)			
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SUMMARY:

The Holy Cross Property was staked by Noranda Exploration Company, Limited in 1987 to follow up an anomalous gold value in a rhyolite dome indicated by earlier recon work. A series of these domes occur in a southeast-trending direction across the claim group.

The HC and PB claims are situated approximately 33 kilometres south of the town of Fraser Lake in central British Columbia.

The regional geology is comprised of Upper Triassic to Later Tertiary volcanic and sedimentary rocks. Andesite flows, breccias and tuffs with intercalated argillite and greywacke of the Upper Triassic Takla group form the oldest rocks. These rocks are overlain by andesite and local rhyolite, with interbedded chert pebble conglomerate, greywacke and minor argillite of the middle Jurassic Hazelton group. Continental, Upper Cretaceous to Oligocene, Ootsa Lake Group volcanics occur next in the geological succession.

A magnetometer survey on the flat lying, heavy drift covered PB grid has detected a number of intriguing features that may reflect hydrothermal alteration. Deep overburden sampling or excavator trenching may aid in further evaluation of these anomalies.

INTRODUCTION:

The Holy Cross Property was staked by Noranda Exploration Company, Limited in 1987 to follow up an anomalous gold value in a rhyolite dome indicated by earlier recon work. A series of these domes occur in a southeast-trending direction across the claim group.

This report describes a magnetometer survey undertaken between September 1, 1988 and December 1, 1988 on the PB 4 to 8 claims. All work was performed by employees of Noranda Exploration Company, Limited.

LOCATION AND ACCESS:

The HC and PB claims are situated approximately 33 kilometres south of the town of Fraser Lake (Figures 1 & 2). The claims lie within the Nechako Plateau between Bentzi Lake and Holy Cross Mountain. Elevations range from 850 meters to 1400 meters.

Access to the claims is via the Holy Cross Forest Service Road which starts 5 kilometres east of the town of Fraser Lake on Highway 16. Following this road for 38 kilometres will bring one to the claim group. Several secondary logging roads branch off the main road, and provide easy access to the claim group.

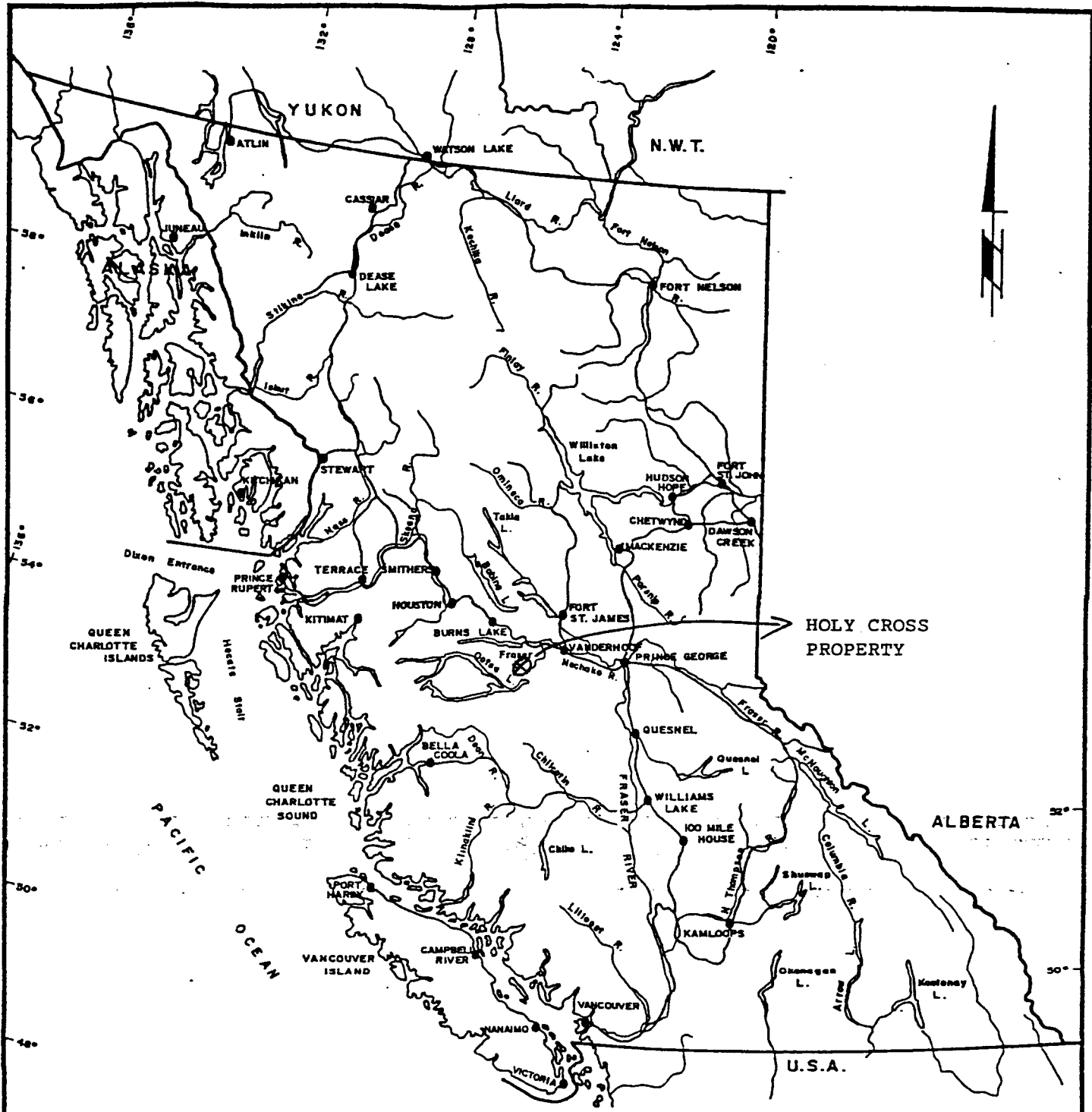
PHYSIOGRAPHY AND VEGETATION:

The local terrane is gentle to moderate sloping. There has been extensive logging in the western half; the eastern half remains forested.

Vegetation consists of mature spruce and pine. Creeks are covered by devils club and skunk cabbage. Berry bushes occur in clearcuts.

CLAIM STATISTICS:

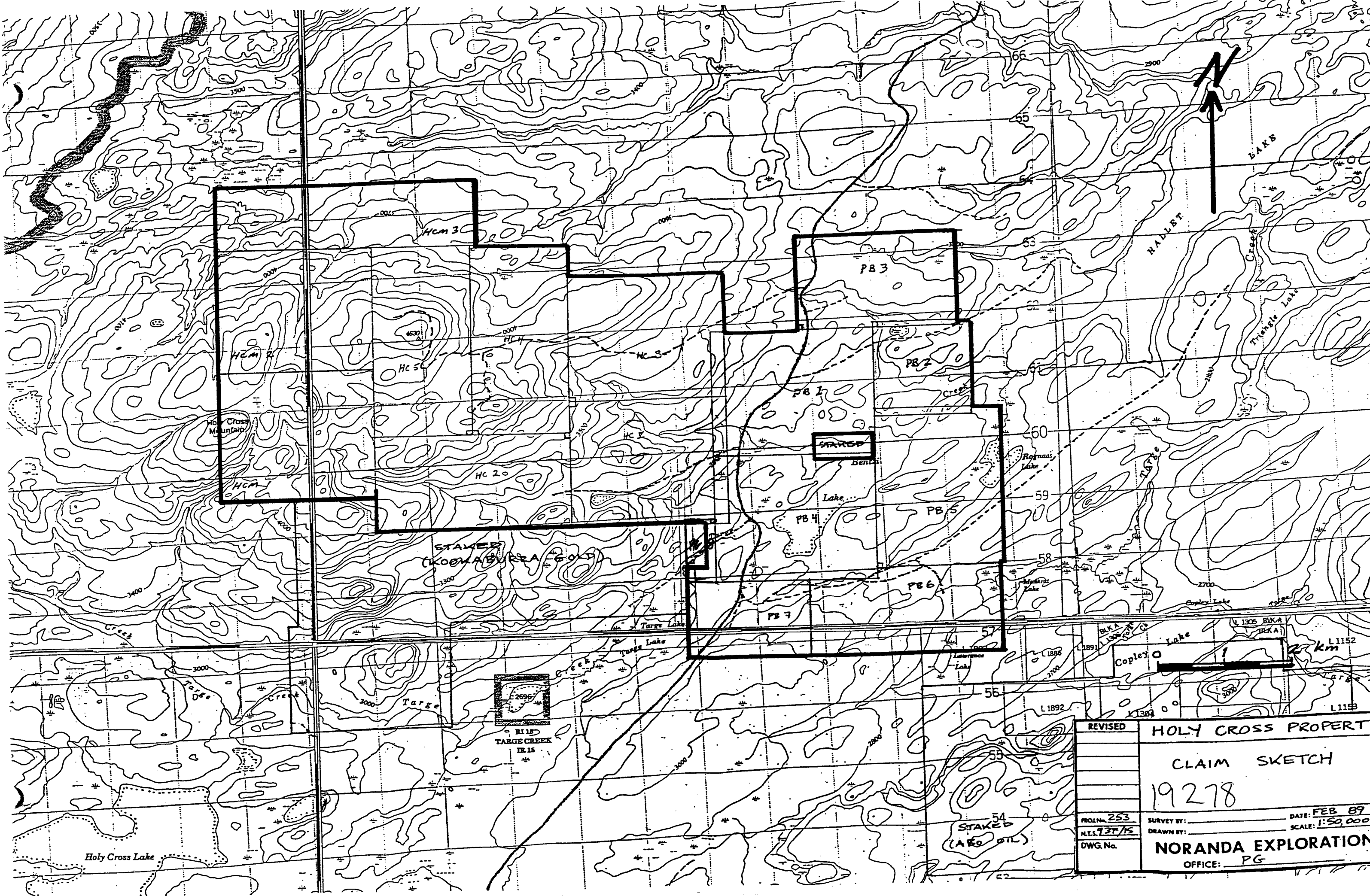
The Holy Cross property consists of three groups of claims, totalling 206 claim units (Figure 2). Upon acceptance of this report, the claims will be in good standing until the indicated expiry date.



0 100 200 KILOMETRES
SCALE 1:8,000,000

REVISED	HOLY CROSS PROPERTY	
	LOCATION MAP	
PROJ. No. 253	SURVEY BY: B Donaldson	DATE: June 88
N.T.S.	DRAWN BY: S.K.B.	SCALE: 1:8,000,000
DWG. No. 1	NORANDA EXPLORATION	
	OFFICE: PRINCE GEORGE, B.C.	

VANCAL 11927



REVISED	HOLY CROSS PROPERTY	
	CLAIM SKETCH	
	19278	
PROJ. No. 253	SURVEY BY:	DATE: FEB 89
N.T.S. 737/15	DRAWN BY:	SCALE: 1:50,000
DWG. No.	NORANDA EXPLORATION	
	OFFICE: PG	

TABLE 1 - CLAIM STATISTICS

<u>NAME</u>	<u>RECORD #</u>	<u>UNITS</u>	<u>RECORD DATE</u>	<u>EXPIRY DATE</u>
HC-1	8469	20	June 22, 1987	June 22, 1991
HC-2	9015	18	Oct. 13, 1987	Oct. 13, 1991
HC-3	8470	20	June 22, 1987	June 22, 1991
HC-4	9016	18	Oct. 13, 1987	Oct. 13, 1991
HC-5	9017	18	Oct. 13, 1987	Oct. 13, 1991
PB-1	9498	20	June 30, 1988	June 30, 1991
PB-2	9499	9	June 30, 1988	June 30, 1990
PB-3	9500	15	June 30, 1988	June 30, 1990
PB-4	9633	20	Aug. 04, 1988	Aug. 04, 1991
PB-5	9643	20	Aug. 04, 1988	Aug. 04, 1991
PB-6	10031	18	Aug. 24, 1988	Aug. 24, 1991
PB-7	9845	12	Sept 25, 1988	Sept 25, 1990
PB-8	9846	2	Sept 25, 1988	Sept 25, 1991

PREVIOUS WORK:

The Geological Survey of Canada carried out a mapping program (1 inch to 4 miles) over the Nechako River Map-Area (Tipper, 1963) during the 1949-1952 field season.

No exploration activity is known in this area prior to Noranda staking the HC claims in 1987.

Results of preliminary work on the HC claims are reported in "Geological and Geochemical Report of the Holy Cross Property", by W. Donaldson for Noranda Exploration, submitted in September 1988 for assessment requirements. More detailed geological and geochemical surveys undertaken in 1988 has been applied and a report is being prepared for submission.

REGIONAL GEOLOGY:

The HC claims, in central British Columbia, are situated within the Nechako River area of the Interior Plateau; an area of low relief and minor bedrock exposure. The regional geology is comprised of Upper Triassic to Later Tertiary volcanic and sedimentary rocks. Andesite flows, breccias and tuffs with intercalated argillite and greywacke of the Upper Triassic Takla group form the oldest rocks. These rocks are overlain by andesite and local rhyolite, with interbedded chert pebble conglomerate, greywacke and minor argillite of the middle

Jurassic Hazelton group. Continental, Upper Cretaceous to Oligocene, Ootsa Lake Group volcanics occur next in the geological succession. This group is divisible into two units; a lower andesite and an upper rhyolite. Unconformably overlying this group is the late Tertiary Endako Group, consisting of an undeformed succession of basaltic and andesitic plateau lavas, breccias and tuffs. The latter two groups outcrop on the property.

The Nechako River area was over ridden by Pleistocene glaciers which moved in a direction varying from northeast to east.

Intrusive events occurred which emplaced granitic, granodiorite and diorite rocks during the early Jurassic and granitic rocks during the late Jurassic in the Hazelton and Takla Groups.

Metamorphism is minimal (low grade) to non-existent. Structural interpretation is difficult due to a scarcity of well-exposed rock. The most strongly deformed rocks belong to the Takla Group with dips to 70 degrees. The Hazelton and Ootsa Lake Group rocks have broad, open folds with dips up to 45 degrees. The Endako Group rocks are undeformed and essentially flat lying.

Faulting is characterized by zones of intense shearing, slickensides, gouge and breccia. Faults associated with the Ootsa Lake Group strike in all directions. The Endako Group is cut by a few near-vertical normal faults with only slight displacement.

MAGNETOMETER SURVEY:

During October/November 1988 magnetometer surveys were completed on the Holy Cross and PB Grids. The surveys employed Total Field magnetometers manufactured by EDA Instruments of Ontario. Readings were recorded at 12.5 meter intervals with all applicable corrections applied to the data to ensure a high level of data accuracy and quality. A total of 33.475 kilometres of grid lines at 200 metre spacings were surveyed (Figure 3) on the PB Grid.

The data set has been contoured at a 50 nT interval and an overall bias of 070 degrees applied to the contours as this best reflects the overall magnetic bias for the property (Figure 4). The magnetic components of this data set are very similar to that of the Holy Cross data set. At the east side of the grid (21700E/20700N) there is a large oval shaped anomaly that has a smooth appearance indicative of a narrow unit of high and uniform magnetic susceptibility. This source lies within a package of low and uniform magnetic susceptibility, possibly sedimentary rocks. West of Lines 21000E the magnetic background signature has a somewhat noisier appearance indicating a clear change in the geology.

The data was examined on the imaging work station and no magnetic structures reflecting faulting were readily observed. Filtering is recommended in order to better define the geological signatures.

CONCLUSIONS:

The PB Grid covers an area of low relief with heavy drift cover, hence outcrop is very sparse. The large oval shaped anomaly on the east side of the grid may reflect a magnetite rich intrusive, and the package of low and uniform susceptibility can be interpreted to reflect an alteration zone peripheral to the intrusive.

RECOMMENDATIONS:

Consideration should be given to deep overburden geochemical sampling or excavator trenching to explain the intriguing magnetic responses discussed above.

APPENDIX I

STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

PROJECT: HOLY CROSS AUGUST, 1989
CLAIMS: PB 4, 5, 6, 7, 8 (PB GROUP)
REPORT TYPE: GEOPHYSICAL

a) WAGES:

No. of days - 10
Rate per day - \$120.53
Dates from Sept 1 - Dec 1, 1988 \$ 1,205.30

b) FOOD & ACCOMMODATION:

No. of days - 10
Rate per day - \$30.33
Dates from Sept 1 - Dec 1, 1988 \$ 303.30

c) TRANSPORTATION:

No. of days - 10
Rate per day - \$16.29
Dates from Sept 1 - Dec 1, 1988 \$ 162.90

d) EQUIPMENT RENTAL:

No. of days - 10
Rate per day - \$100.00
Dates from Sept 1 - Dec 1, 1988 \$ 1,000.00

e) COST OF REPORT PREPARATION:

Author \$600.00
Drafting \$300.00
Typing \$100.00

\$ 1,000.00

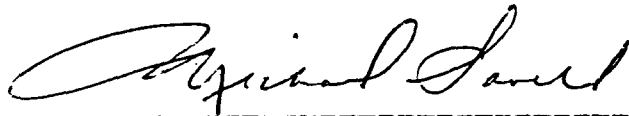
TOTAL COST - \$ 3,671.50

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Michael J. Savell of the City of Prince George, Province of British Columbia, do certify that:

1. I am a geologist residing at 3507 Roasia Road, Prince George, British Columbia.
2. I am a graduate of Dalhousie University with a Bachelor of Science (Honors) in Geology (1980).
3. I am a member in good standing of the Geological Association of Canada, Canadian Institute of Mining, Prospector's and Developer's Association and the B.C.-Yukon Chamber of Mines.
4. I presently hold the position of Project Geologist with Noranda Exploration Company, Limited and have been in their employ since 1980.

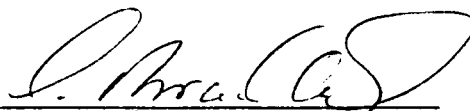


Michael J. Savell
Project Geologist
Noranda Exploration Company, Limited
(no personal liability)

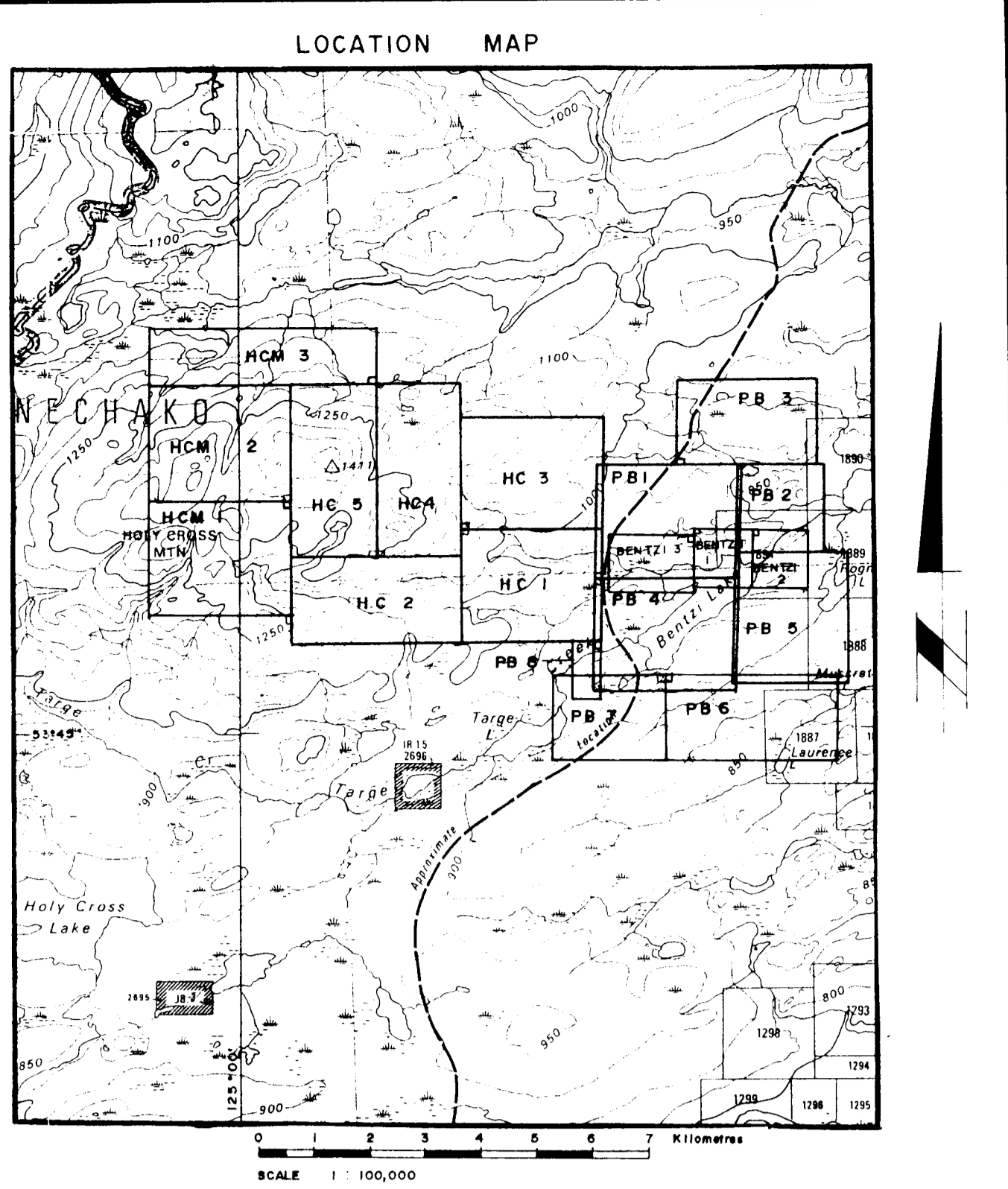
STATEMENT OF QUALIFICATIONS

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 in the Society of Exploration Geophysicists, European Association of Exploration Geophysicists and the Prospector's and Developer's Association.
4. I presently hold the position of Regional Geophysicist with Noranda Exploration Company, Limited and have been in their employ since 1973.


L. Bradish.

The magnetometer surveyed employed a field and base station package manufactured by Scintrex, Ltd. of Concord, Ontario. The IGS/MP-3 system records the Total Magnetic Field with a field accuracy of 1 to 2 nano Teslas. All applicable corrections have been applied to the data to maintain this accuracy. Readings were recorded at 12.5 meter intervals.

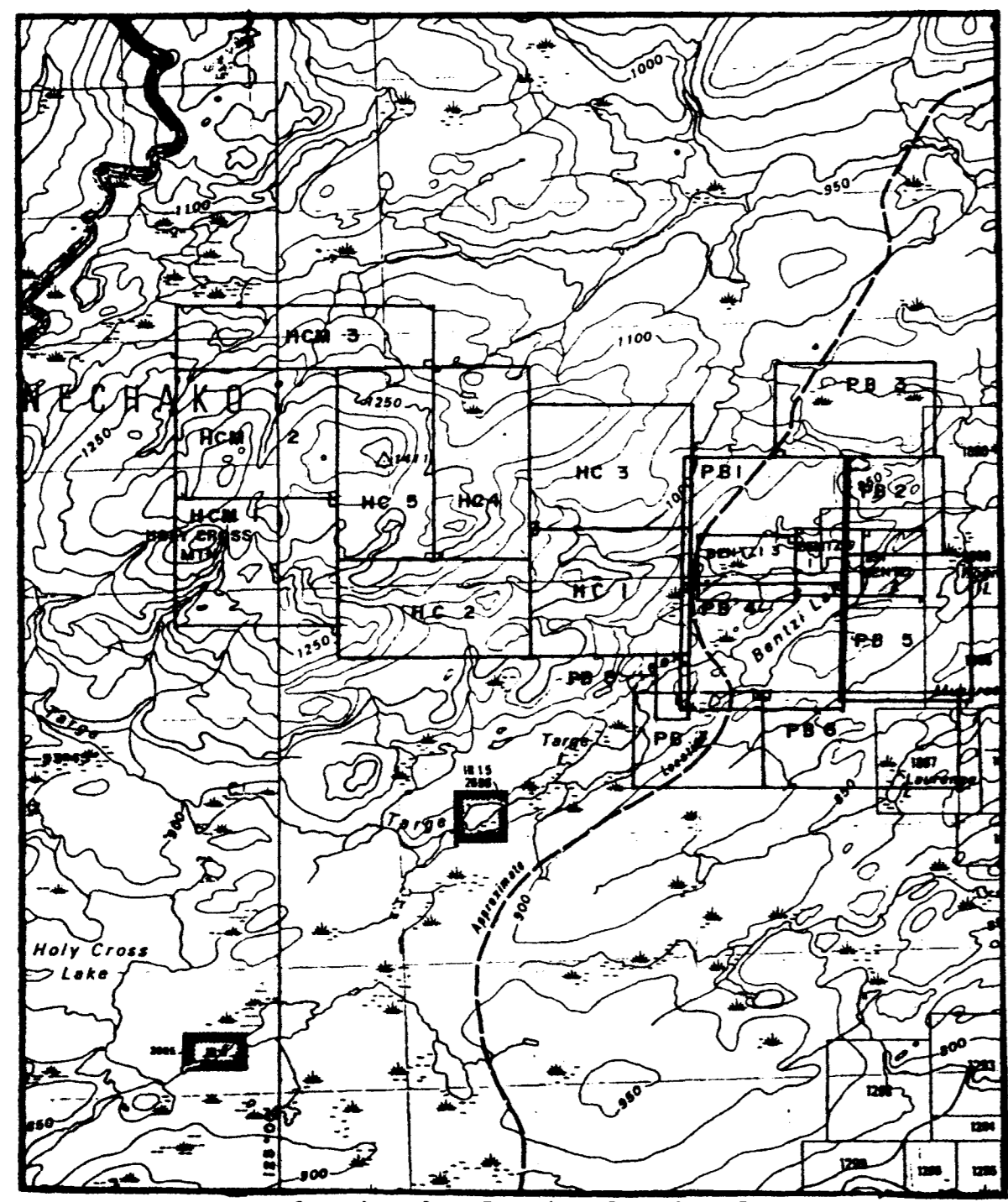
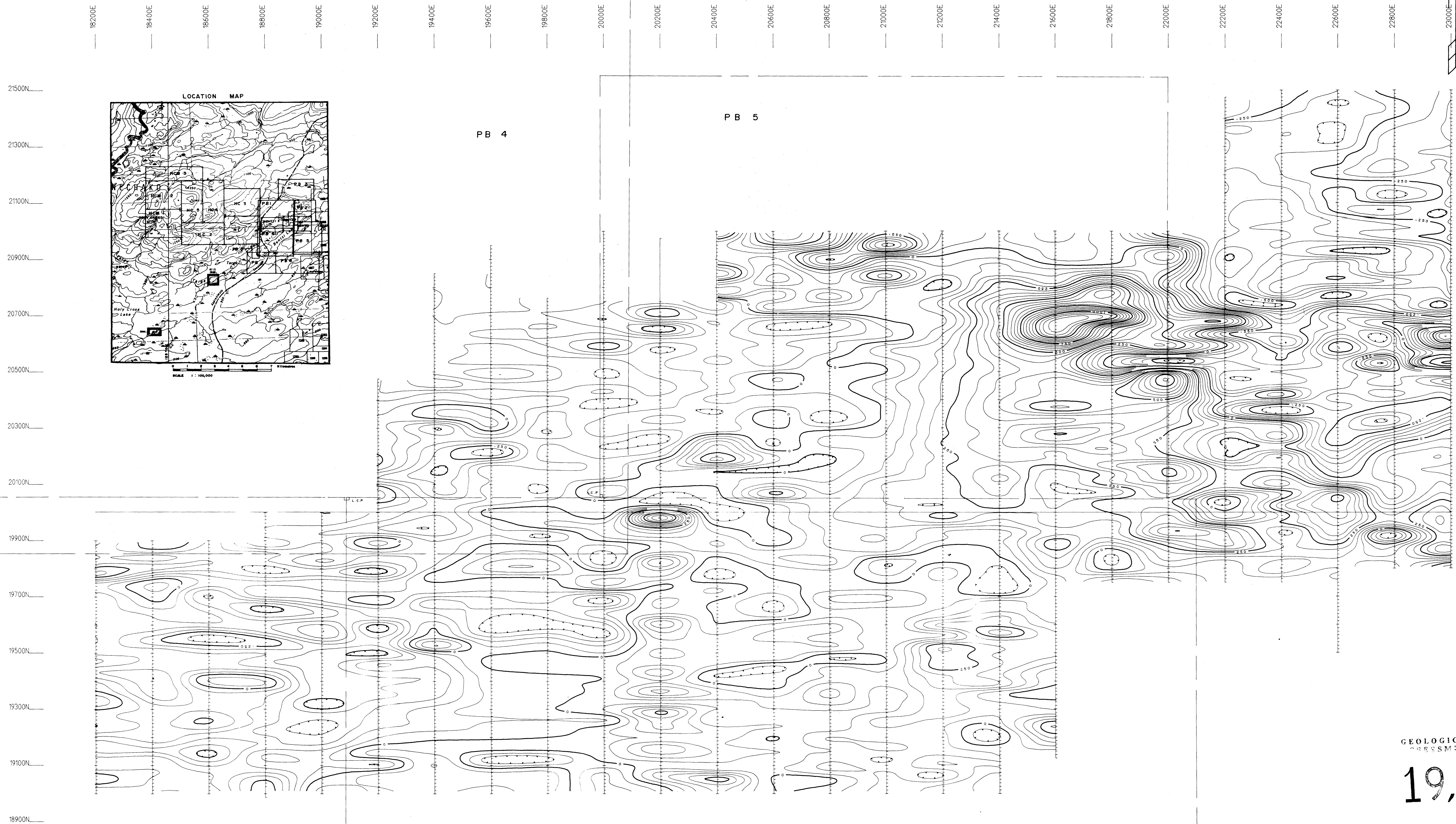


GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,278

0 500 1000 metres
SCALE 1:10,000

REVISED	HOLY CROSS	
	PB CLAIMS	
	GRID MAP	
PROJ. No. 253	SURVEY BY: C.K.B.	DATE: _____
N.T.S. 338/15	DRAWN BY: C.K.B.	SCALE: 1:10,000
DWG. No.	NORANDA EXPLORATION	
FIG. 3	OFFICE: PRINCE GEORGE, B.C.	



GEOLOGICAL BRANCH
PRESSMENT REPORT

19,278

Instrument	: GMR 4
Field	: Lap-pass TOTAL
Datum	: 0.0 nT
Contour Interval	: 50 nT
Conductor Axis	:



P.B. GRID	
MAGNETOMETER SURVEY	
PROJECT: P.B. GRID	PROJECT #: 253
BASELINE AZIMUTH: 90 Deg.	
SCALE = 1 : 5000	DATE : 7/10/89
SURVEY BY : WK	NTS :
FILE: MPBRW89	
FIG. 4 NORANDA EXPLORATION	