85-1206-14849

Geological, Geophysical & Geochemical Report

on the

DAG GROUP OF CLAIMS

DAG 1, DL 1, PEN, PAD, STEVE, BEV 10

Located at Coordinates: 55 deg. 42 min. N, 125 deg. 53 min. W

Omineca Mining Division, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

FILMED

by: Gordon Maxwell & Lynda Bradish

14,849

Owner/Operator: NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

N.T.S. 93 N/12W

April, 1986

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SUMMARY:

The Dag group of claims are located approximately 25 kilometers north of the village of Takla Landing in north central B.C. The group consists of six claims totalling 89 units all grouped to cover favourable felsic volcanic stratigraphy of the Sitlika group which may host volcanogenic massive sulphide deposits. In September and October of 1985 Noranda Exploration personnel established 32.6 kms. of grid line on five grids and collected 864 "B horizon" soil samples which were analyzed for Cu, Zn and Ag. Geophysical crews performed 15.95 kms. of SE-88 survey and 18.325 kms. of magnetometer survey over the Bev, Steve, Dave and Pen grids. Geophysical surveys were already reported for the Dag grid in a previous assessment report.

INTRODUCTION:

The Dag Group consists of six contiguous claims, totalling 89 units, grouped together for the purpose of assessment. All claims, with the exception of DAG 1 which was optioned from Art Halleran in March of 1985, were staked by Noranda Exploration personnel. The ground was acquired to cover airborne EM anomalies detected in an Aerodat survey contracted by Noranda Exploration in June of 1985. This report describes work carried out by Norex on this group over a period between early September and late October in 1985.

LOCATION AND ACCESS:

The group covers an area which stretches from Diver Lake northwest to Beaverpond Lake. Diver Lake is located approximately 25 kilometers north of the village of Takla Landing in central B.C. (Figure 1). Access to the area is via a series of logging roads off the Takla Landing access road or by helicopter to more remote areas. The Beaverpond Lake area is also accessible by float plane from Fort. St. James.

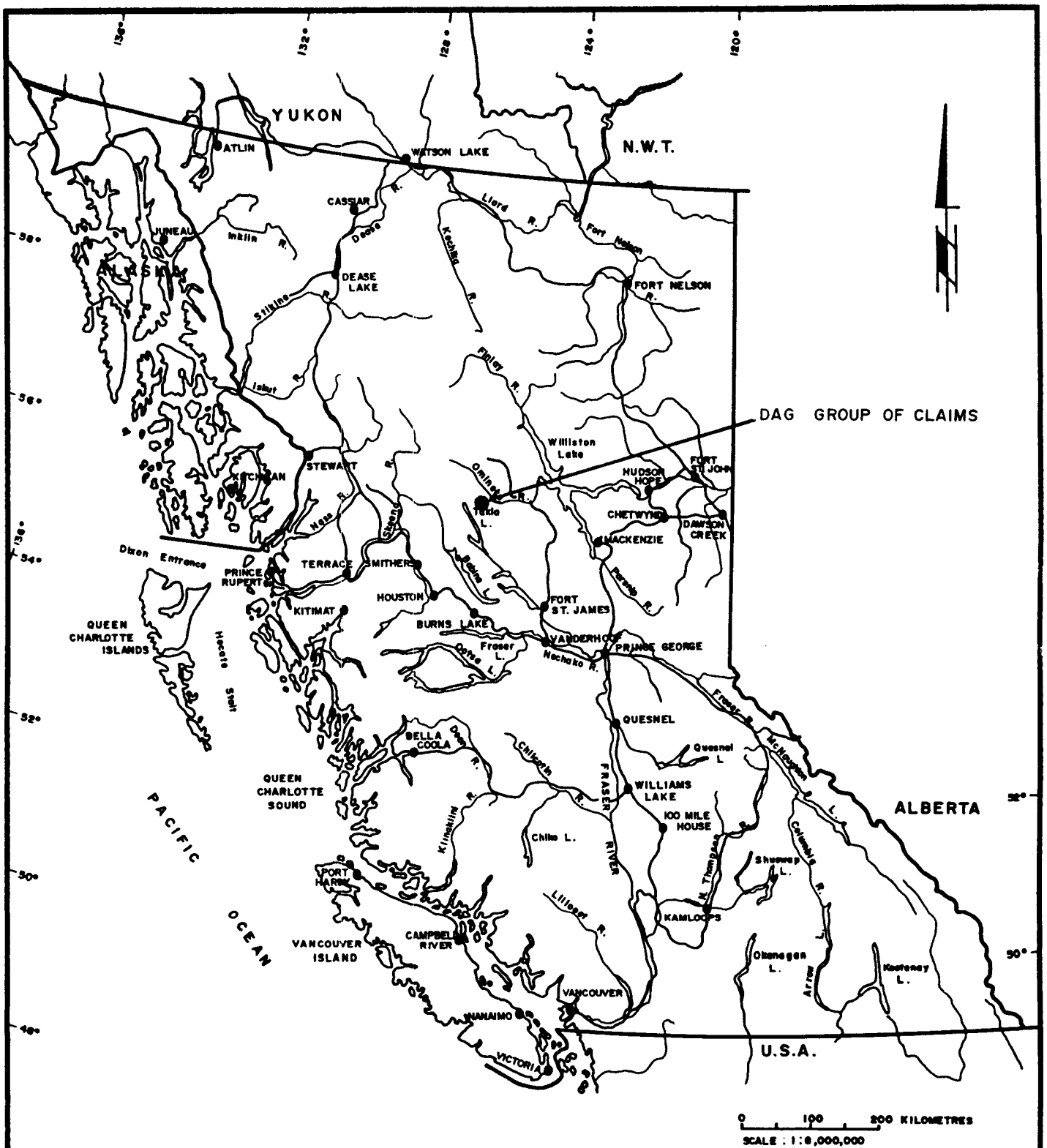
CLAIM STATISTICS:

All claims were staked using the modified grid system and are found on claim map 93N/12W of the Omineca Mining Division. All claims have been grouped for the purpose of assessment.

Claim Name	# Units	Record #	Record Date
Dag 1	16	6253	May 31/84
DL 1	20	6813	Nov. 14/84
Pen	9	7287	Oct. 24/85
Pad	20	7368	Oct. 24/85
Steve	9	7358	Oct. 9/85
Bev 10	15	7310	Sept. 23/85

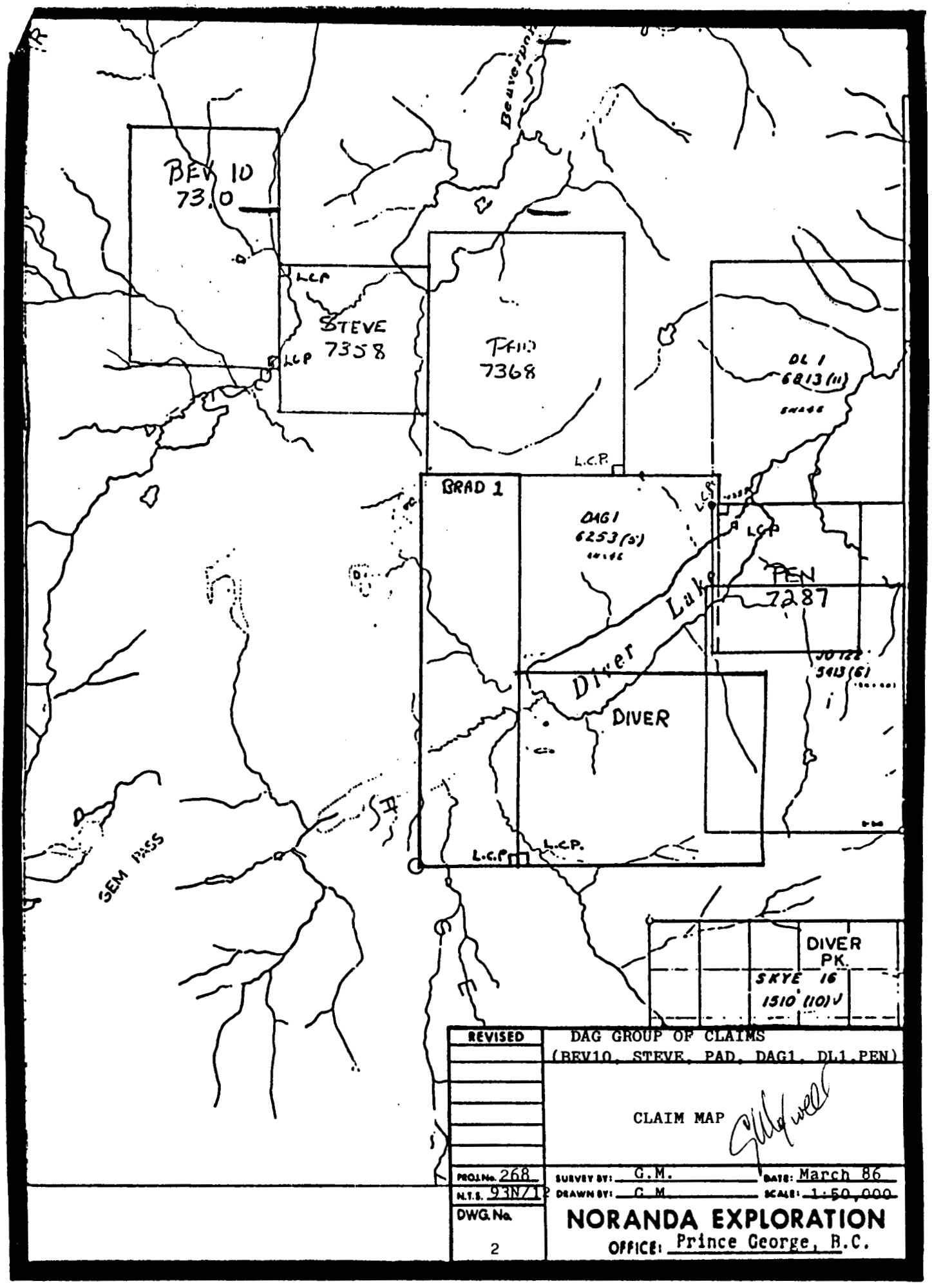
REGIONAL GEOLOGY:

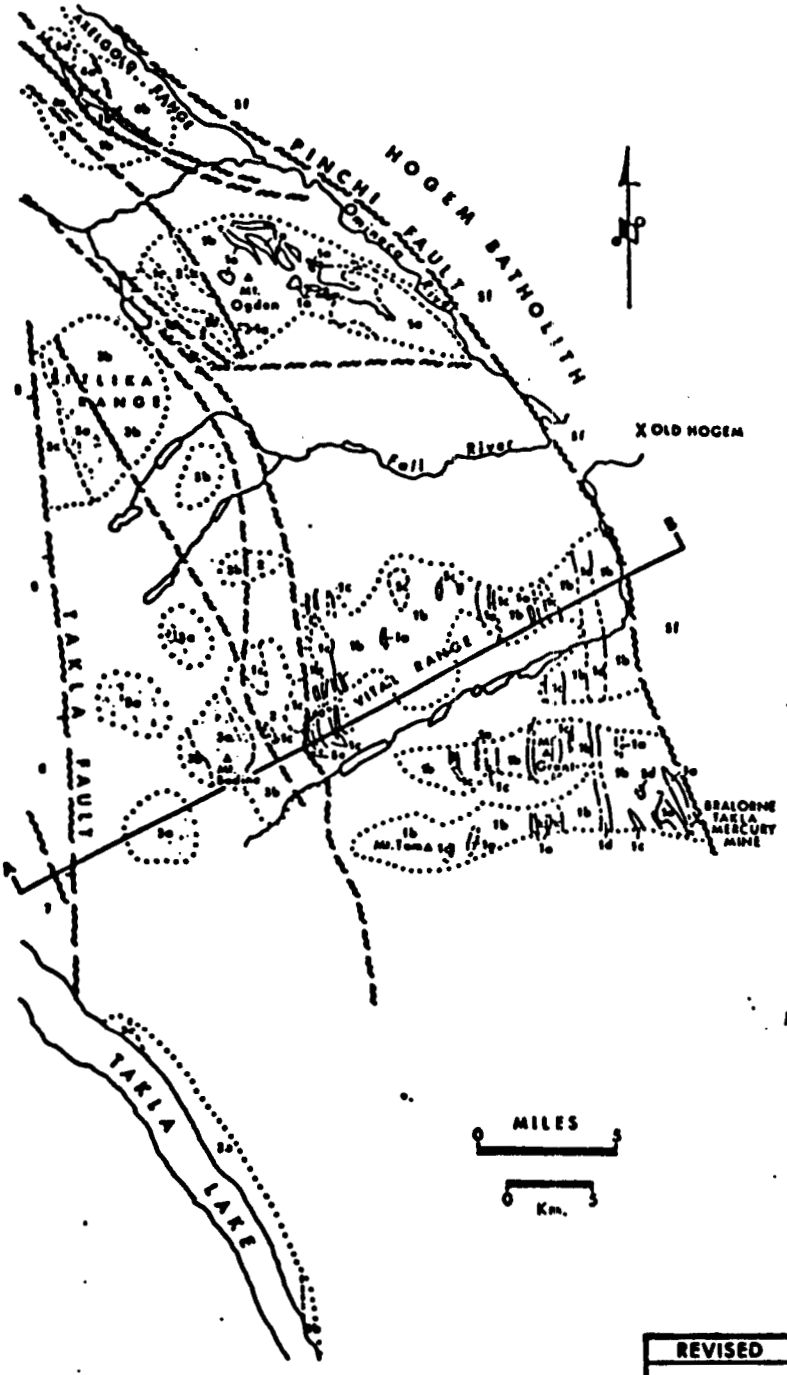
The area is underlain by Upper Triassic to Lower Jurassic volcanic and sedimentary rocks of the Sitlika Assemblage which have been regionally metamorphosed to greenschist facies (Paterson, 1974). This assemblage is composed mainly of well foliated andesitic to rhyolitic pyroclastics and flows with lesser amounts of greywacke, siltstone and phyllite. The Sitlika volcanics are characterized by local development of sericite, quartz-sericite and chlorite schists. The Takla Fault separates the Sitlika rocks from the Tertiary Sustat Group to the west. The Permian Cache Creek rocks to the east are separated from the Sitlika by the Vital Fault and a serpentinite melange. The Cache Creek Group is bounded to the east by the Pinchi Fault and the Jurassic Hogem Batholith (Figure 3).



REVISED	DAG GROUP
	LOCATION MAP
PROJ. No. 268	SURVEY BY: G. Maxwell DATE: Apr/86
N.T.S. 93N/12	DRAWN BY: S.K.B. SCALE: 1:8,000,000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11927


BEV 10
73.0
LCP
STEVE
7358
LCP
PAD 1
7368
L.C.P.
DL 1
6813 (11)
BRAD 1
DAG 1
6253 (3)
LCP
LCP
PEN
7287
Diver Lake
DIVER
L.C.P.
L.C.P.
SEM PASS
DIVER
PK.
SKYE 16
1510 (10) V
REVISED
DAG GROUP OF CLAIMS
(BEV10, STEVE, PAD, DAG1, DL1, PEN)
CLAIM MAP
PROJ. No. 268
N.T.S. 93N/12
DWG. No.
2
SURVEY BY: G.M.
DRAWN BY: G.M.
DATE: March 86
SCALE: 1:50,000
NORANDA EXPLORATION
OFFICE: Prince George, B.C.



LEGEND

UPPER CRETACEOUS and PALEOCENE

SUSTUT GROUP

7 — conglomerate, shale, greywacke

JURASSIC

HAZELTON GROUP

6 — tuff, volcanic breccia

UPPER TRIASSIC and JURASSIC

TAKLA GROUP (?)

4 — (4a) chert pebble conglomerate; (4b) greywacke, argillite

UPPER TRIASSIC (?), JURASSIC (?)

SITLIKA ASSEMBLAGE

3 — (3a) tuff, volcanic breccia, rhyolite, feldspar porphyry; (3b) greywacke, siltstone; (3c) black phyllite or argillite

UPPER PALEOZOIC

CACHE CREEK GROUP

1 — (1a) limestone; (1b) chert & phyllite; (1c) greenstone; (1d) greywacke, laminated siltstone

INTRUSIVES

MESOZOIC or TERTIARY

5 — (5a) syenite; (5b) granite; (5c) biotite, hornblende feldspar porphyry; (5d) biotite, granodiorite; (5e) felsite

JURASSIC (Mainly ?)

51 — granodiorite (Hogem Batholith)

PERMO-TRIASSIC

2 — serpentinite, harzburgite

FAULT (defined, approximate, inferred).....

THRUST or high angle REVERSE FAULT.....

CONTACT (defined, approximate).....

LIMIT of MAPPING.....

REVISED	DAG GROUP
	Regional Geology
PROJ. No. 245	SURVEY BY: R.B. DATE: Apr/86
N.T.S. 93N/12	DRAWN BY: R.B. SCALE: 1:500,000
DWG. No. 3	NORANDA EXPLORATION OFFICE: Prince George, B.C.

LOCAL GEOLOGY:

BEV GRID

The Bev claim lies in heavily wooded lower elevations in close proximity to several swampy beaver ponds. The grid is void of outcrop with the exception of an area along the baseline between lines 4100N and 4550N. This series of outcrops indicates the grid to be underlain by a north/south trending sequence of intercalated felsic and intermediate volcanics dipping steeply to the west. The intermediate volcanics are composed of weakly foliated andesitic flows and tuffs with minor chloritic schist. The felsic volcanics include massive and porphyritic dacitic flows, with a lapilli tuff horizon containing rhyolite fragments.

STEVE GRID

The Steve grid is situated adjacent the Bev claim with much the same topography. The only outcrops in the area occur northeast of the grid. The area appears to be underlain by a sequence of mafic, intermediate and felsic flows which trend north/northwest and dip steeply to the east. The felsic volcanics are composed of massive and porphyritic dacitic flows with local disseminated pyrite-pyrrhotite (2-5%) mineralization.

PAD GRID

The Pad grid lies along a slope where the topography varies from subalpine to heavily wooded lower elevations. The majority of the outcrop on the grid is found in the subalpine area, whereas the rest of the grid has poorer exposure. The property is underlain by a northwest trending sequence of andesitic to dacitic flows and pyroclastics which dip steeply to the east. The pyroclastics consist mainly of lapilli tuff with both felsic and mafic volcanic fragments. The flows are weakly to moderately foliated and contain minor chert horizons.

DAG GRID

The Dag grid is situated in a subalpine area, with excellent outcrop exposure. The area is underlain by a sequence of felsic and intermediate volcanics which trend north/south and dip steeply toward the east. The intermediate volcanics are composed mainly of massive to amygdaloidal andesitic flows and chloritic schist. The felsic volcanics include massive and porphyritic dacitic to rhyolitic flows, tuff, lapilli tuff and agglomerate. The agglomerate and lapilli tuff consist mainly of coarse dacite and rhyolite fragments in a dacitic ash tuff.

DAVE GRID

The Dave grid lies in a heavily wooded area adjacent to Diver Lake. No outcrop exposure was observed on the grid, but several were exposed along the Diver Lake logging road. The grid appears to lie at or near the interface between Sitlika volcanics and a lower Jurassic felsic intrusive. The composition of the intrusive

ranges from granite to granodiorite with coarser quartz and feldspar porphyritic phases.

PEN GRID

The Pen grid is situated in similar topography as the Dave grid, with only one outcrop exposure noted on the entire grid. The outcrop indicates the grid is at least in part underlain by north/south trending quartz-sericite schist.

GEOPHYSICS:

INSTRUMENTATION

SE-88 EM 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 ratio.

The survey parameters employed on the follow-up 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 (%).

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 usable accuracy of 1 gamma.

DISCUSSION OF RESULTS:

BEV GRID

The ground SE-88 E.M. survey defined numerous zones of conductivity, however, the portions of the anomalies directly associated with a strong magnetic response are first priority targets.

The dip of the conductor source cannot be determined due to the influence of nearby parallel conductors.

Zone A: Located west of the baseline, the portion of interest is between L.4700N/9735E and L.3900N/9640E and exhibits a high susceptibility as seen by the narrow magnetic response (2000-3000 nT in amplitude), and a high conductivity with a maximum of 40 Siemens at L.4300N/9637E. The depth to the current axis is less than 10 metres in the area of interest and the source is vertical to steeply dipping.

Zone B: This zone shows localized improvement in the source conductivity (15 to 25 Siemens) between L.5000N/9975E and L.4700N/10045E, and a corresponding dramatic increase in the source susceptibility as seen by the recorded 1000 to 1500 nT magnetic anomaly. The depth to the current axis in the area of interest is 10 metres.

STEVE GRID

Six lines of SE-88 E.M. and Mag were completed for this grid. East of the baseline the E.M. has recorded significant geologic noise. Conductor "axes" are indicated on the map, however, those on the southern three lines represent discontinuities in the conductivity/resistivity of the source causing the geologic noise. The broad zone west of the baseline is coincident with a steep magnetic gradient and probably is representative of a conductive contact (fault zone). The primary zone of interest would be the high conductivity (22-30 Siemens) target east of baseline on Lines 6900N and 7000N. A subtle increase of the magnetic field is recorded over the conductor. The depth to the current axis varies between 24 to 10 metres suggesting a plunge to the north. The dip is assumed to be near vertical.

DAVE GRID

The SE-88 survey defined a conductive zone over a four hundred meter strike length with the target definition open to the north. The conductivity is low at approximately 8 Siemens. The magnetic survey has mapped a narrow high amplitude anomaly coincident with the conductivity source.

SOIL GEOCHEMISTRY:

Soil samples were taken from the "B" horizon using a grub hoe from depths ranging from 25 to 38 cm. The samples were placed in Kraft wet strength paper bags, dried, then shipped to Noranda Labs in Vancouver, B.C. for analysis (for analytical procedure see Appendix III).

A total of 864 samples were taken from six grids, all within the Dag group of claims.

OBSERVATIONS:

BEV GRID

A total of 275 "B" horizon soil samples were taken over the

gridded portion of the Bev 10 property. Several locations were not sampled due to swampy conditions or poor soil development.

The copper values range from 4 ppm to 190 ppm. A trend of anomalous copper geochem was found to coincide with the zone A conductive horizon between lines 4400N and 5000N. No indication of anomalous copper geochem was found to be associated with the zone B conductive horizon. Several "bulls eye" type anomalies were outlined at L5000N/9475E, L4550N/9500E and L4550N/9425E.

The grid also covers a large area of anomalous zinc geochem with values ranging from 16 ppm to 600 ppm. Again the zone A conductive horizon appears to coincide with an extensive trend of anomalous zinc geochem between lines 3950N and 5000N. The strongest zinc found is found 100 meters west of zone A between lines 3950W and 4850N. This trend is quite broad with localized highs of greater than 500 ppm zinc centered at L4250N/9500E and L4550N/9675E. A strong "bulls eye" anomaly is outlined at L4250N/9825E.

Silver values range from the detection limit of 0.2 ppm to a high of 3.2 ppm. A weakly anomalous trend appears to be associated with the zone A conductive horizon between lines 3950N and 5000N. This trend is discontinuous and is not directly associated with the conductor on all lines. Another anomalous silver trend is outlined 200 meters west of zone A between lines 3950N and 4700N, with localized highs of greater than 2.0 ppm silver centered at L4250N/9475E and L4550N/9400E.

STEVE GRID

Most of the stations were not sampled because of the very swampy soil conditions which occur on the Steve grid. A total of 61 samples were taken in areas of the best soil profile development.

Copper values range from 6 ppm to 64 ppm, with no values being considered anomalous. Two stations had values which might be considered above threshold. Both samples, located at L7000N/7225E and L6900N/7300E, were not found to be associated with conductive horizons outlined on the grid.

Zinc values range from 20 ppm to a high of 180 ppm and again no samples were considered anomalous. Several areas were considered above threshold but are small and localized, L7000N/7250E, L6900N/6925E, and L6900N/6800E. None were found to be associated with the main conductive horizon.

Almost all silver values fall in the range from 0.2 ppm to 0.6 ppm with the exception of L7000N/7325E which returned a high value of 3.2 ppm.

PAD GRID

A total of 200 "B" horizon soil samples were taken from the Pad grid. In general, most of the area covered was underlain by

very well developed soil profiles and subsequently, a large percentage of the stations could be sampled.

Copper values range from 10 ppm to a high of 130 ppm. No anomalous trends were outlined, but several weak "bulls eye" type anomalies were located at L3900E/5125N, L4050E/4950N, L4500N/4950N, L4650E/4975N, L4650E/5125N and L4650E/5175N.

The survey outlined several areas of weakly anomalous zinc geochem including a trend coincident with the main conductive horizon, between lines 4200E and 4800E. The remaining anomalous areas are chaotically distributed throughout the grid. The zinc values range from 26 ppm to 210 ppm.

Silver values range from the detection limit of 0.2 ppm to 1.2 ppm. The only area of greater than 1.0 ppm occurs between lines 4050E and 3900E.

DAG GRID

The steep terrain and continuous outcrop on portions of the Dag grid hampered sample collection at several sites. A total of 92 "B" horizon soil samples were taken on lines 4700N, 4800N, 4900N and 5000N. The eastern extension of L5000N was not sampled.

The background for copper appears to be somewhat high on the Dag grid than on other grids in the area with values ranging from 10 ppm to 480 ppm. A large area of anomalous copper geochem is found centered at L4700N/4200E with a maximum value of 480 ppm. Two other one sample anomalies occur at L4800N/4675E and L4700N/4600E.

The zinc values range from 26 ppm to 180 ppm. No samples were considered highly anomalous but several stations returned values above background. These values were scattered throughout the grid and do not conform to a particular trend.

Silver values range from the detection limit of 0.2 ppm to a high of 0.8 ppm. None of the silver values on this grid are considered anomalous or above background.

DAVE GRID

A total of 117 "B" horizon soil samples were taken from six grid lines on the Dave grid. Several samples were not obtained in areas where the grid crossed the road or in areas where ground conditions proved to be too swampy.

Copper values range from 6 ppm to 100 ppm. None of the values found on the grid are considered anomalous.

Zinc values range from 40 ppm to 180 ppm. No samples were considered highly anomalous, but several stations returned values above background. A weak trend of above background values appears to coincide with the HLEM conductor axis on lines 2100N to 2300N.

Silver values range from the detection limit of 0.2 ppm to a high of 1.2 ppm. A weakly anomalous trend occurs between lines 1900N and 2000N at 1750E.

PEN_GRID

Several stations could not be samples due to high lake levels or very swampy soil conditions. A total of 119 soil samples were taken from the "B" horizon on the gridded portion of the property.

Copper values range from 8 ppm to 160 ppm, but most values are less than 50 ppm. The only sample considered anomalous is L2900N/2900E which recorded the maximum value of 160 ppm.

Zinc values range from 18 ppm to 180 ppm. None of these values are considered anomalous but several samples are above the threshold mark. Most of these values are isolated and do not conform to a particular trend. One weak trend is outlined 50 m east of the baseline between lines 3100N and 3500N.

Silver values range from the detection limit of 0.2 ppm to 1.4 ppm. Only two stations have values greater than 1.0 ppm, L3100N/3200E and L3500N/3200E.

CONCLUSIONS:

BEV_GRID

The Bev grid is underlain by felsic pyroclastics and intermediate volcanics which are favourable to volcanogenic massive sulphide deposits. The SE-88 and Mag surveys outlined two highly conductive horizons with strong direct magnetic responses. The Cu, Zn and Ag soil geochem surveys all outlined the zone A conductive horizon but failed to locate the zone B conductive horizon, possible due to greater overburden depths.

STEVE_GRID

The grid is underlain by the same favourable volcanics as the Bev grid. The geophysical survey outlined a strong HLEM anomaly with no direct magnetic response. The swampy conditions made it impossible to sample most of the grid and subsequently the portion that could be sampled returned poor values.

PAD_GRID

The Pad grid is underlain by intermediate to felsic volcanics of the Sitlika Group which may host volcanogenic massive sulphides. The results of the soil geochem program proved to be very spotty and may be due to deep overburden.

DAG_GRID

This grid is underlain by the most favourable geologic environment found within the survey area. The rocks consist of

very coarse felsic pyroclastics, agglomerate and massive rhyolite flows. As previously reported, five lines of SE-88 survey failed to locate a geophysical target. The geochem survey outlined a Cu anomaly of 480 ppm.

DAVE GRID

No outcrop was found on the Dave grid, but the property is believed to be underlain by similar geology to that of the Dag grid. The SE-88 survey outlined a weak conductive horizon with a strong direct Mag response. Only a weak Zn geochem trend was found associated with this conductive horizon.

Pen Grid

The outcrop on the Pen grid is very sparse but immediately south along strike, Diver Peak is underlain by pyritic sericite schists and dacitic tuffs which may host volcanogenic massive sulphides. The soil geochem survey failed to outline any anomalous trends, which was probably due to deep overburden and swampy terrain.

RECOMMENDATIONS:

1. Extend lines on Bev grid to the west to further outline Zn and Ag geochem trends.

2. Analyze all samples on Bev grid for Pb.

3. Drill test conductive zones A and B on Bev grid.

4. Field check the 3.2 ppm Ag anomaly on the Steve grid.

5. Drill main conductive horizon on Steve grid.

6. Drill two conductors on the Pad grid.

7. Extend grid lines on Dag grid further to the east and conduct more SE-88 and Mag surveys and possibly 2 lines of Pulse EM.

8. Perform further soil geochem and geologic mapping in the area of the Dag grid.

9. Drill test conductor on Dave grid.

10. Drill test conductor on Pen grid.

REFERENCES:

BAERG, R.J. Geochemical Report on the Diver Lake Option (Dag Claim). Assessment Report for Noranda Exploration Company, Limited, 1985.

BRADISH, L. & MAXWELL, G. Geophysical Report on the Dag Group Claims. Assessment Report for Noranda Exploration Company, Limited, 1985.

CROSLY, R.O. Airborne Geophysical Surveys, Ruth Mineral Claims, TAKLA LAKE AREA, B.C., Assessment Report for McIntyre Mines Limited, 1977.

FRANCOER, D. Geological, Geophysical and Geochemical Report on TAKLA Project for McIntyre Mines Limited, 1977.

MONGER, J.W.H. Lower Mesozoic Rocks in McConnell Creek Map Area, (94E), British Columbia. Geological Survey of Canada, Paper 76-1A.

PATERSON, I.A. Geology of Cache Creek Group and Mesozoic Rocks at the Northern end of the Stuart Lake Belt, Central B.C., Geol. Survey of Canada, Paper 74-1, Part B, 1974.

APPENDIX I

STATEMENT OF COSTS

PROJECT: **DIVER GROUP (Pen, Bev 10, Steve, Pad, Dag 1, DL 1)**

REPORT TYPE: Geological, Geochemical and Geophysical

a) **WAGES:**

Geology - 6 mandays @ $130.00/day	$ 780.00
Geophysics - 20 mandays @ $125.00/day	$ 2500.00
Soil Geochem - 12 mandays @ $110.00/day	$ 1320.00
Linecutting - 10 mandays @ $110.00/day	$ 1100.00

b) **FOOD & ACCOMMODATION:**

48 mandays @ $ 50.00/day	$ 2400.00

c) **TRANSPORTATION:** (BELL 206 Helicopter) $ 2785.00

d) **ANALYSIS:**

864 samples @ $4.00/sample	$ 3456.00

e) **COST OF PREPARATION OF REPORT:**

Authors	$ 260.00
Drafting	$ 805.00
Typing	$ 110.00

TOTAL:	**$15,516.00**

COST BREAKDOWN:

Geology	$ 1815.00
Geophysics:	
HLEM, 15.95 kms	$ 3385.00
Mag, 18.325 kms	$ 1785.00
Linecutting, 32.6 kms	$ 2100.00
Geochemistry, 864 samples	$ 6431.00

	$15,516.00

APPENDIX II

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 British Columbia.

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.

STATEMENT OF QUALIFICATIONS

I, Gordon Maxwell of Prince George, Province of British Columbia, do hereby certify that:

1. I am a Geologist residing at 6162 Caledonia Crescent, Prince George, British Columbia.

2. I am a graduate of the University of Manitoba with an Hons. B. Sc. (geology).

3. I am a member in good standing of the Canadian Institute of Mining and the Prospector's and Developer's Association.

4. I presently hold the position of Project Geologist with Noranda Exploration Company, Limited and have been in their employ since 1980.

G. Maxwell

APPENDIX III

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

PAD

DAG I

DAG GRID

DAVE GRID

DL I

PEN

PEN GRID

NO O/C

DIVER LAKE SHOWING

DIVER LAKE

L.C.P.

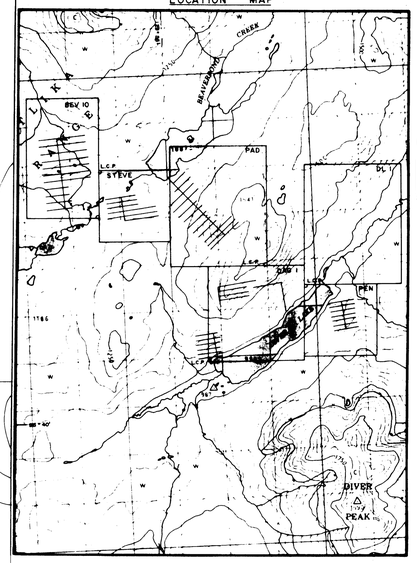
B/L 4400E AZ 170°

B/L 2200E AZ 170°

B/L 3100E AZ 170°

987m

LOCATION MAP



0 1 2 3 4 kilometres

SCALE 1 : 50,000

LEGEND

UPPER CRETACEOUS AND LOWER TERTIARY

SUSTUT GROUP

13 Sediments
- (a) conglomerate
- (b) sandstone
- (c) shale

12 Volcanics
- (a) rhyolite
- (b) andesitic
- (c) basalt

EARLY JURASSIC

11 Felsic Intrusives
- (a) granite
- (b) granodiorite
- (c) diorite

UPPER TRIASSIC - LOWER JURASSIC

SITLIKA GROUP

10 Dacite or Rhyolite
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillow
- (e) tuff
- (f) lapilli tuff
- (g) tuff breccia
- (h) agglomerate
- (i) sericite schist

9 Andesite
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillow
- (e) tuff
- (f) lapilli tuff
- (g) tuff breccia
- (h) agglomerate
- (i) chlorite schist

8 Basalt
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillowed

7 Clastic Sediments
- (a) conglomerate
- (b) sandstone
- (c) argillite
- (d) slaty phyllite
- (e) phyllite
- (f) graphitic phyllite

6 Chemical Sediments
- (a) iron formation
- (b) ironstone
- (c) chert
- (d) chert breccia

PERMIAN TO TRIASSIC

5 Ultramafic Intrusives
- (a) serpentine
- (b) gabbro

PERMIAN

CACHE CREEK

4 Basalt
- (a) massive flows
- (b) pillowed flows
- (c) chloritic schists

3 Chert
- (a) massive chert
- (b) laminated chert
- (c) chert breccia

2 Clastic Sediments
- (a) grey to black phyllite
- (b) graphitic phyllite
- (c) maroon siltstone
- (d) greywacke/siltstone
- (e) sandstone/arkose
- (f) conglomerate

1 Limestone (marble)

Chalcopyrite	Cp	Gossan	
Pyrrhotite	Po	Epidote	
Pyrite	Py	Calcite	
Malachite	Mal		
Magnetite	Mt		
Sphalerite	Sph		
Graphite	Gr		

SYMBOLS:

- LAKE
- SWAMP
- RIVER, STREAM
- RAILWAY
- ROAD(SECONDARY)
- CLAIM BOUNDARY
- HELICOPTER LANDING
- 1985 NORANDA GRIDS
- CLEAR CUT

GEOLOGICAL SYMBOLS:

- AREA OF ROCK OUTCROP
- ROCK OUTCHOP
- FLOAT
- GEOLOGICAL BOUNDARY:
  - Defined
  - Assumed
- SCHISTOSITY CLEAVAGE, FOLIATION (Vertical, inclined, dip unknown)
- FAULT (Defined, approximate, assumed)

0 100 200 300 400 500 m

SCALE 1 : 5,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT
14,849

REVISED	TAKLA NAK
	DAG I & PEN CLAIM
	GEOLOGY MAP
PROJ. No. 548	SURVEY BY: G.M., L.W. DATE: JULY, 1985
N.T.S. 93N/12	DRAWN BY: S.K.B SCALE: 1:5000
DWG. No. MAP 2.	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

BEV 10

STEVE

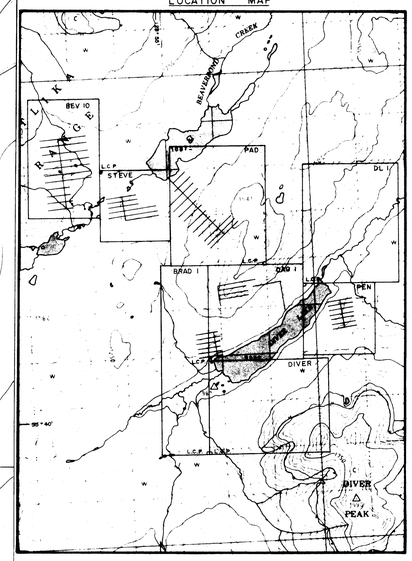
PAD

BEAVERPOND LAKE

BRAD 1

DAG 1

LOCATION MAP



0 1 2 3 4 kilometres

SCALE 1 50,000

LEGEND

UPPER CRETACEOUS AND LOWER TERTIARY

SUSTUT GROUP

13 Sediments
- (a) conglomerate
- (b) sandstone
- (c) shale

12 Volcanics
- (a) rhyolite
- (b) andesitic
- (c) basalt

EARLY JURASSIC

11 Felsic Intrusives
- (a) granite
- (b) granodiorite
- (c) diorite

UPPER TRIASSIC - LOWER JURASSIC

SITLIKA GROUP

10 Dacite or Rhyolite
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillow
- (e) tuff
- (f) lapilli tuff
- (g) tuff breccia
- (h) agglomerate
- (i) sericite schist

9 Andesite
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillow
- (e) tuff
- (f) lapilli tuff
- (g) tuff breccia
- (h) agglomerate
- (i) chlorite schist

8 Basalt
- (a) massive
- (b) porphyritic
- (c) amygduloidal or vesicular
- (d) pillowed

7 Clastic Sediments
- (a) conglomerate
- (b) sandstone
- (c) argillite
- (d) slaty phyllite
- (e) phyllite
- (f) graphitic phyllite

6 Chemical Sediments
- (a) iron formation
- (b) ironstone
- (c) chert
- (d) chert breccia

PERMIAN TO TRIASSIC

5 Ultramafic Intrusives
- (a) serpentine
- (b) gabbro

PERMIAN

CACHE CREEK

4 Basalt
- (a) massive flows
- (b) pillowed flows
- (c) chloritic schists

3 Chert
- (a) massive chert
- (b) laminated chert
- (c) chert breccia

2 Clastic Sediments
- (a) grey to black phyllite
- (b) graphitic phyllite
- (c) maroon siltstone
- (d) greywacke/siltstone
- (e) sandstone/arkose
- (f) conglomerate

1 Limestone (marble)

Chalcopyrite	Cp	Bornite	Bn
Pyrrhotite	Po	Chalcocite	Cc
Pyrite	Py	Covellite	Cv
Malachite	Mal	Native Copper	Cp
Magnetite	Mt	Native Gold	Au
Sphalerite	Sph	Native Silver	Ag
Graphite	Gr		
Cossan			
Epidote	epi		
Calcite	cal		

GEOLOGICAL SYMBOLS

SYMBOLS:

- LAKE
- SWAMP
- RIVER, STREAM
- RAILWAY
- ROAD(SECONDARY)
- CLAIM BOUNDARY
- HELICOPTER LANDING
- 1985 NORANDA GRIDS
- CLEAR CUT
- AREA OF ROCK OUTCROP
- ROCK OUTCHOP
- FLOAT
- GEOLOGICAL BOUNDARY:
  - Defined
  - Assumed
- SCHISTOSITY CLEAVAGE, FOLIATION (Vertical, inclined, dip unknown)
- FAULT (Defined, approximate, assumed)

0 100 200 300 400 500 m

SCALE 1 5,000

REVISED
G.M. MAR., 1986

TAKLA NAK

BEV, STEVE & PAD CLAIM GEOLOGY MAP

PROJ. No. 5-48
N.T.S. 93 N/ 12
DWG. No. MAP 1

SURVEY BY: G.M., L.W. DATE: JULY, 1985
DRAWN BY: S.K.B. SCALE: 1:5000

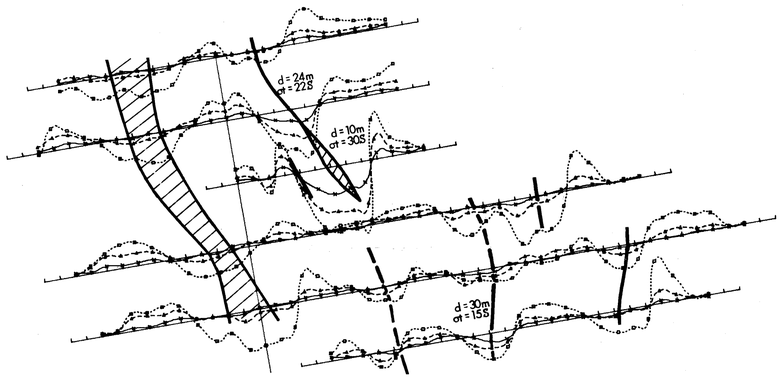
NORANDA EXPLORATION

OFFICE: PRINCE GEORGE, B.C.

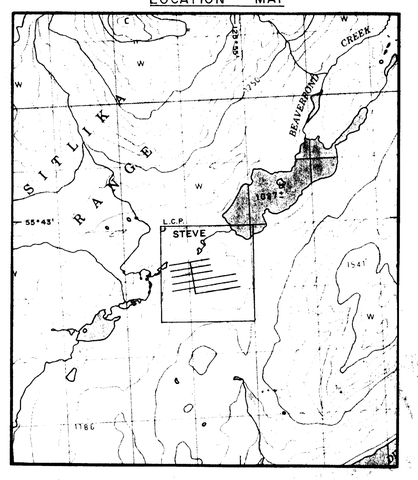
5800.ØE
6000.ØE
6200.ØE
6400.ØE
6600.ØE
6800.ØE
7000.ØE
7200.ØE
7400.ØE
7600.ØE
7800.ØE
8000.ØE
8200.ØE
8400.ØE
8600.ØE
8800.ØE

7400.ØN
7200.ØN
7000.ØN
6800.ØN
6600.ØN
6400.ØN
6200.ØN
6000.ØN
5800.ØN

BASELINE



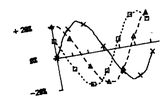
LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1: 50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849



Instrument : SE88
Coil Spacing : 100m
Ref. Frequency : 112 Hz
Vertical Scale : 1 cm = 20%
Conductor Axis :
337 Hz
1012 Hz
3037 Hz

100m 50m 0m 100m 200m

STEVE

SE-88 SURVEY

PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

SCALE = 1: 5000 DATE : 9/10/85
SURVEY BY: KL NTS :
MAP 4 FILE: SM248STE.Zat
NORANDA EXPLORATION

10800.0E

10600.0E

10400.0E

10200.0E

10000.0E

9800.0E

9600.0E

9400.0E

9200.0E

0N

2.0N

100.0N

4920.0N

4700.0N

4500.0N

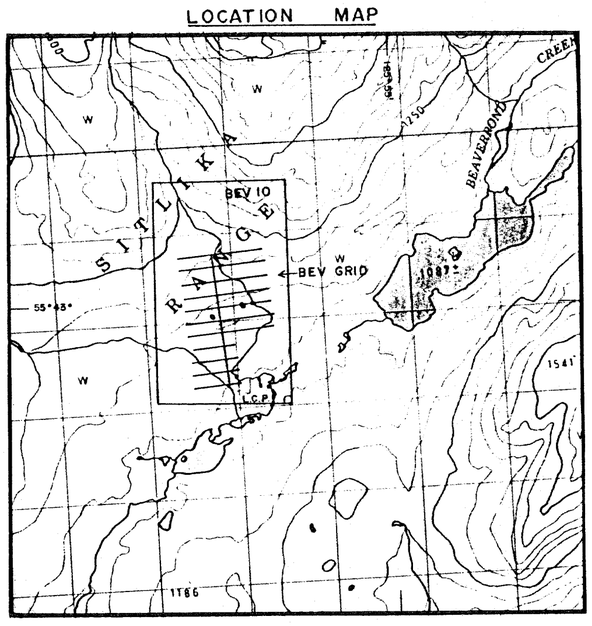
4300.0N

4100.0N

3900.0N

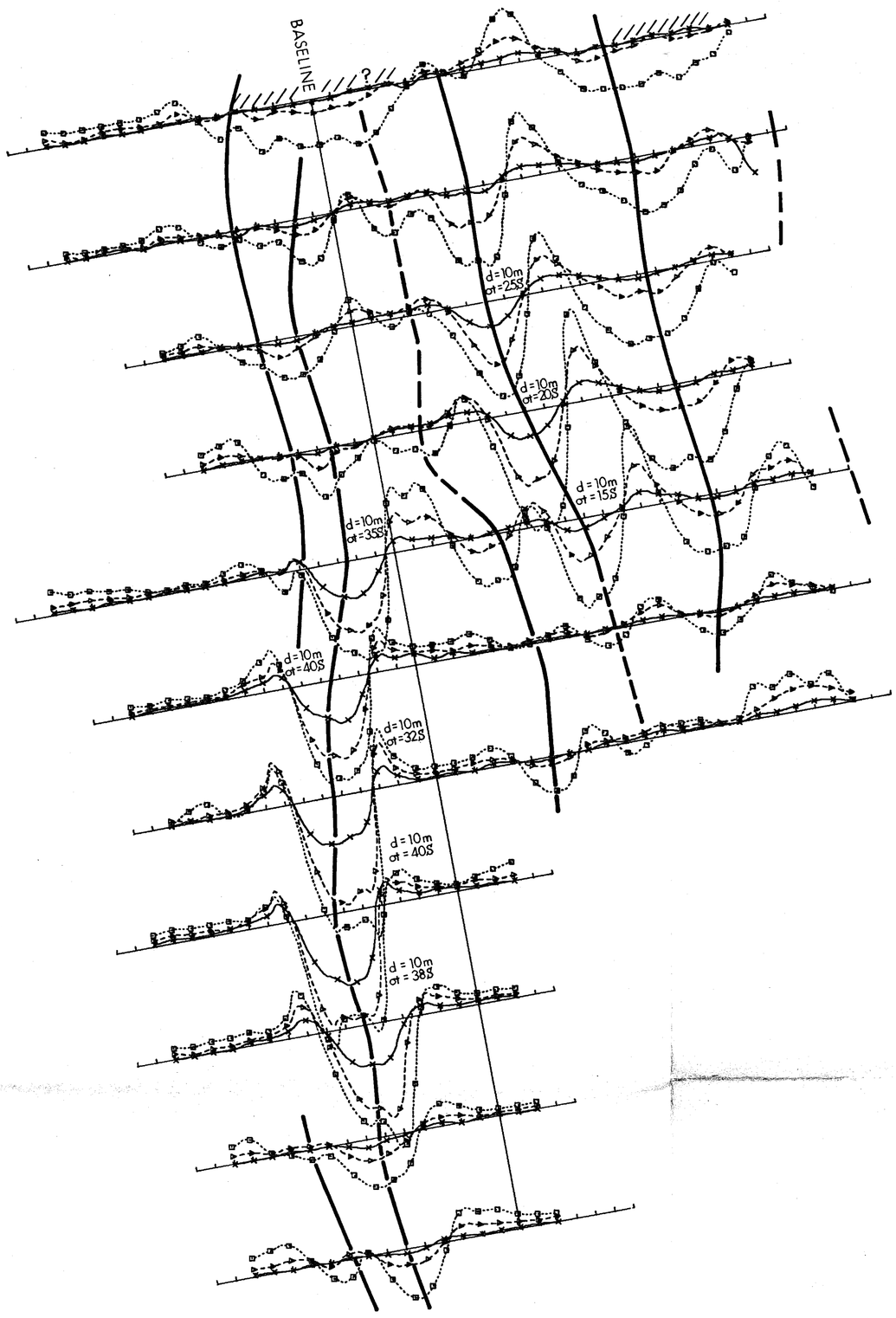
3700.0N

LOCATION MAP



0 1 2 3 4 kilometres

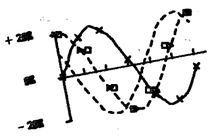
SCALE 1:50,000



N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849



Instrument : SE-88 GENI
Coil Spacing : 100m
Ref. Frequency : 112Hz
Vertical Scale : 1 cm = 20%
Conductor Axis :
337 Hz
1012 Hz
3037 Hz

100m 50m 0m 100m 200m

BEV

SE-88 SURVEY

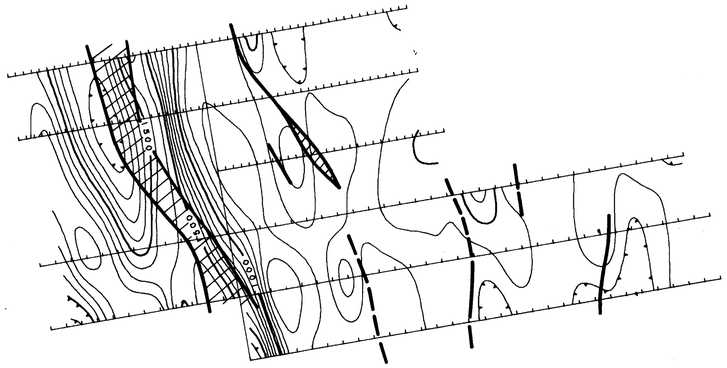
PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

SCALE = 1: 5000 DATE : 8/28/85
SURVEY BY: RS/BG NTS : 93/N/12
FILE: SM248BEV.Zat
MAP 3 NORANDA EXPLORATION

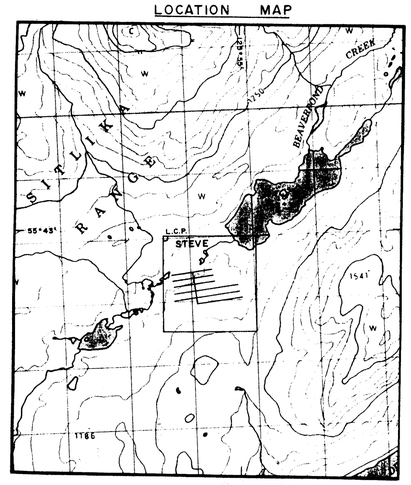
5800.0E
6000.0E
6200.0E
6400.0E
6600.0E
6800.0E
7000.0E
7200.0E
7400.0E
7600.0E
7800.0E
8000.0E
8200.0E
8400.0E
8600.0E
8800.

7400.0N
7200.0N
7000.0N
6800.0N
6600.0N
6400.0N
6200.0N
6000.0N
5800.0N

BASELINE



LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1:50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849

Instrument : MP-3
Datum : 57000.0 nT
Contour Interval : 100 nT
(2 passes through a 9 pt. Hanning Filter.)
Conductor Axis :
100m 50m 0m 100m 200m

STEVE

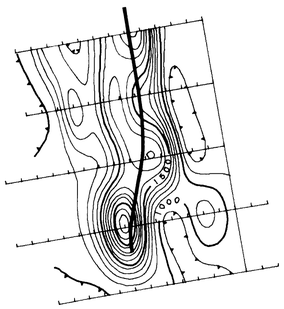
MAGNETOMETER SURVEY
(FILTERED CONTOUR PRESENTATION)
PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

SCALE = 1: 5000 DATE : 8/31/85
SURVEY BY: SH NTS : 93/N/12
FILE: MG248STE.ZAT
MAP 7
NORANDA EXPLORATION

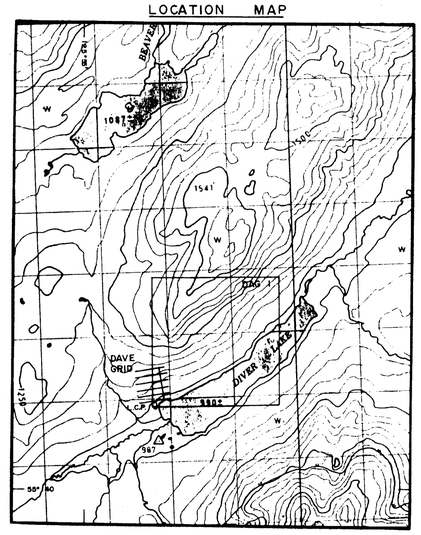
500.ØE
700.ØE
900.ØE
1100.ØE
1300.ØE
1500.ØE
1700.ØE
1900.ØE
2100.ØE
2300.ØE
2500.ØE
2700.ØE
2900.ØE
3100.ØE
3300.ØE
3500

2700.ØN
2500.ØN
2300.ØN
2100.ØN
1900.ØN
1700.ØN
1500.ØN
1300.ØN
1100.ØN

BASELINE



LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1 :50,000

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT
14,849

Instrument : UNIMAG
Datum : 57000.0 nT
Contour Interval : 100 nT
(2 passes through a 9 pt. Hanning Filter.)
Conductor Axis :
100m 50m 0m 100m 200m

DAVE

MAGNETOMETER SURVEY

(FILTERED CONTOUR PRESENTATION)

PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

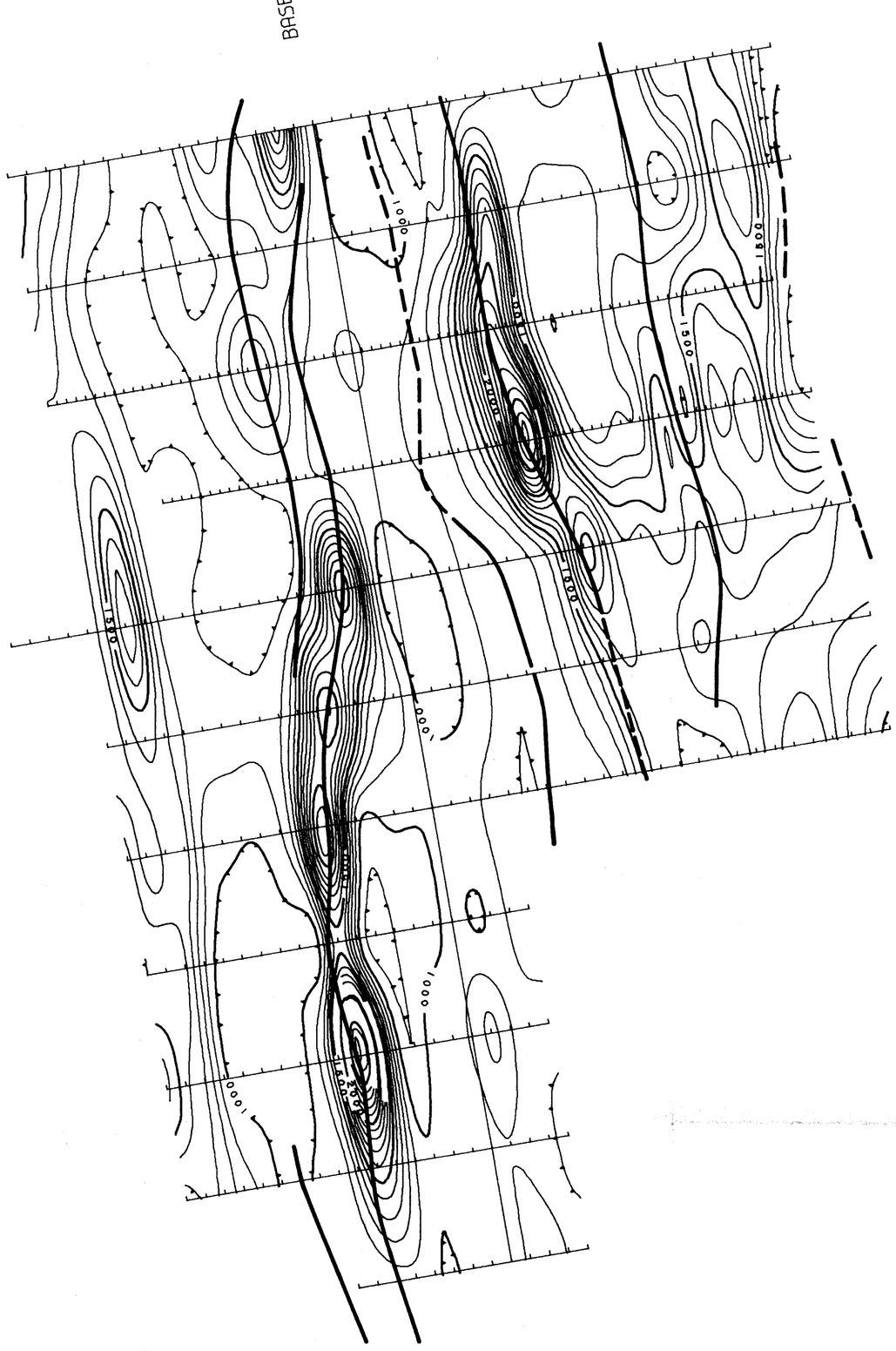
SCALE = 1: 5000 DATE : 9/13/85
SURVEY BY: RS/BG NTS : 93N/12
MAP 8 FILE: MG248DAV.ZAT
NORANDA EXPLORATION

Vers. 2.88

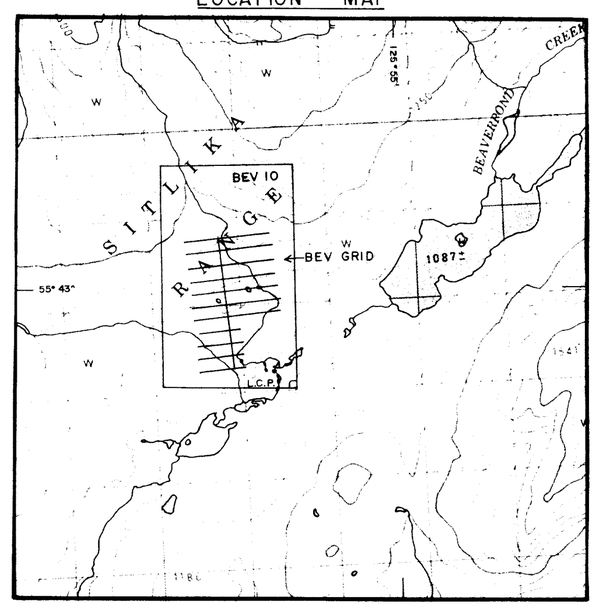
9200.ØE
9400.ØE
9600.ØE
9800.ØE
10000.
102
11

ØN
Ø.ØN
100.ØN
4900.ØN
4700.ØN
4500.ØN
4300.ØN
4100.ØN
3900.ØN
3700.ØN
3500.ØN
3300.ØN
3100.ØN
2900.ØN

BASELINE



LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1:50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849

Instrument : MP-3
Datum : 57000.Ø nT
Contour Interval : 100 nT
(2 passes through a 9 pt. Hanning Filter.)
Conductor Axis :

100m 50m Ø 100m 200m

BEV

MAGNETOMETER SURVEY

(FILTERED CONTOUR PRESENTATION)

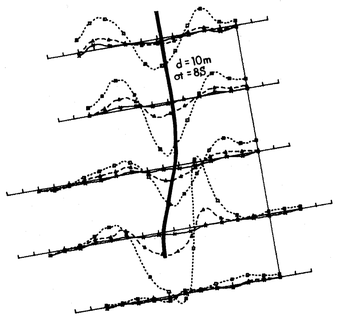
PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

SCALE = 1: 5000 DATE : 9/11/85
SURVEY BY: KL NTS : 93N/12
FILE: MG248BEV.ZAT
MAP 6 NORANDA EXPLORATION

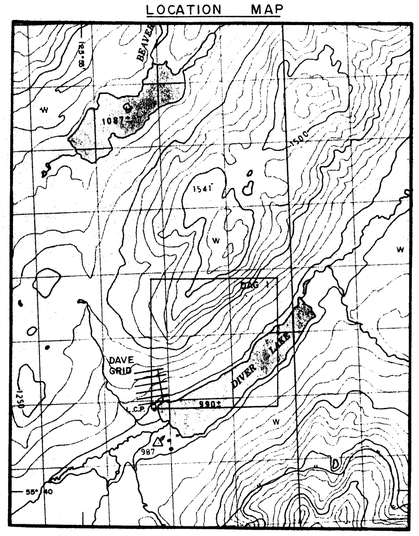
500.ØE
700.ØE
900.ØE
1100.ØE
1300.ØE
1500.ØE
1700.ØE
1900.ØE
2100.ØE
2300.ØE
2500.ØE
2700.ØE
2900.ØE
3100.ØE
3300.ØE
3500

2700.ØN
2500.ØN
2300.ØN
2100.ØN
1900.ØN
1700.ØN
1500.ØN
1300.ØN
1100.ØN

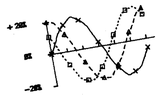
BASELINE



LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1 :50,000



Instrument : SE88
Coil Spacing : 100m
Ref. Frequency : 112 Hz
Vertical Scale : 1 cm = 20%
Conductor Axis :
337 Hz
1012 Hz
3037 Hz

100m 50m 0m 100m 200m

GEOLOGICAL BRANCH
ASSESSMENT REPORT

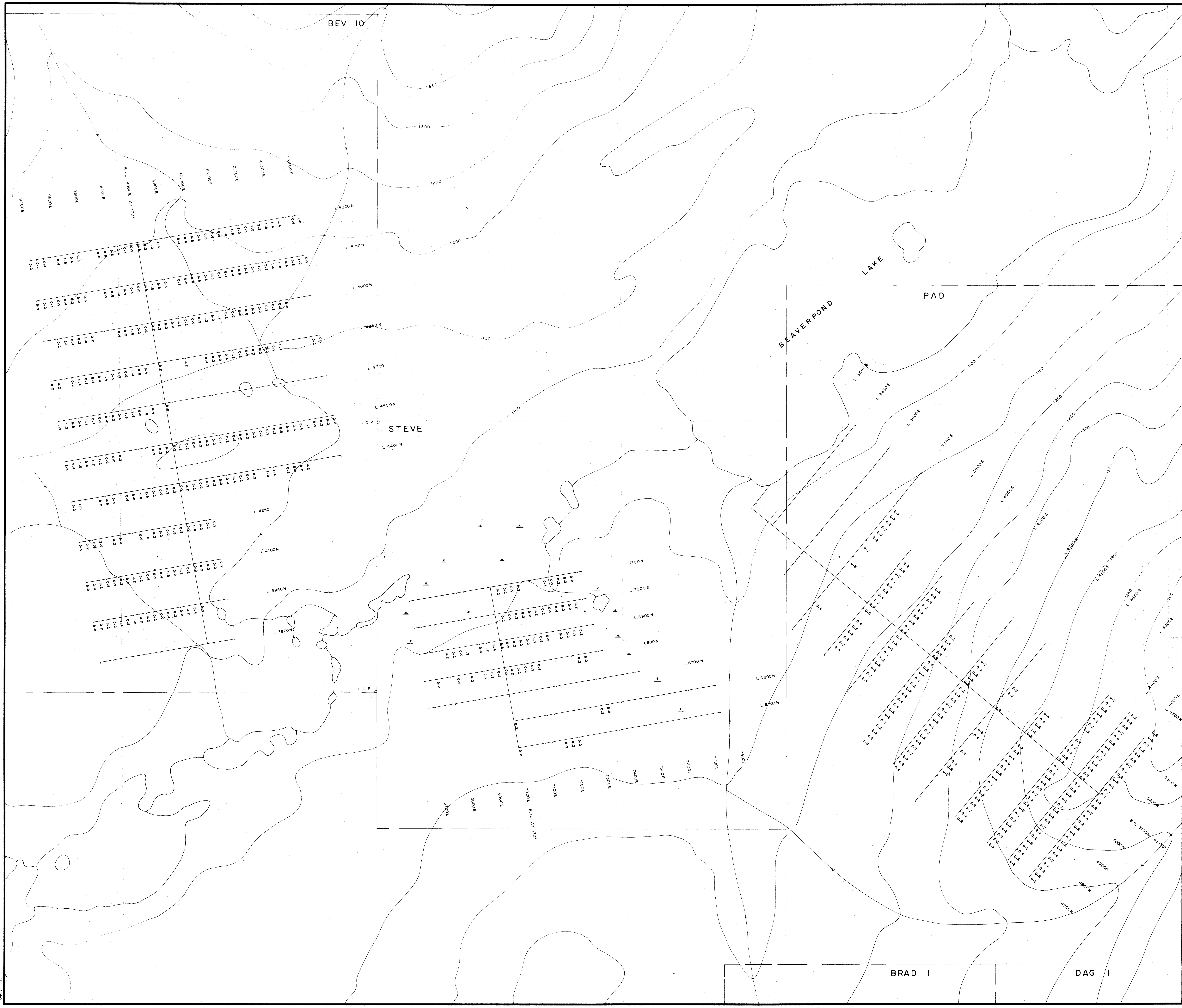
14,849

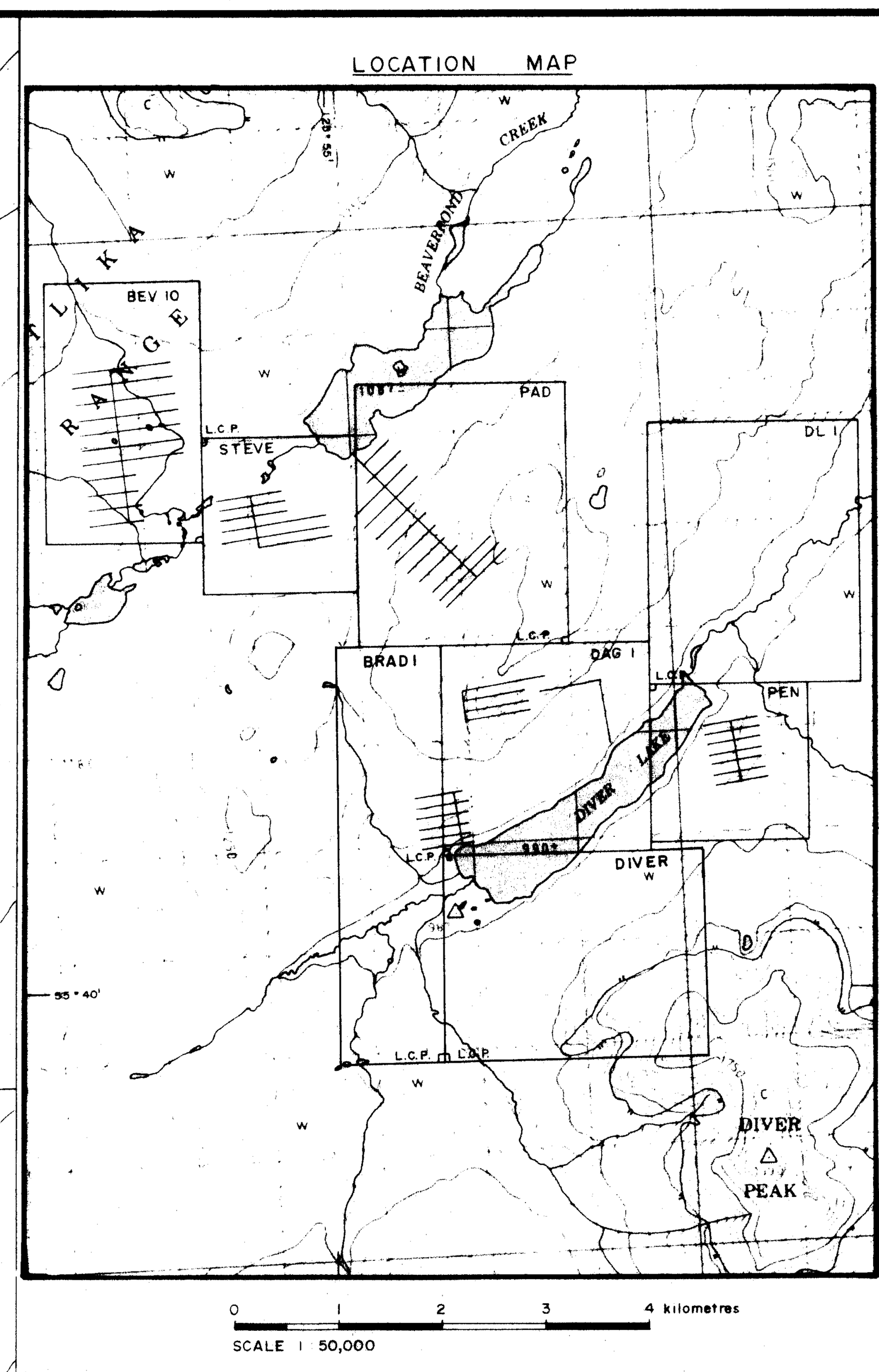
DAVE

SE-88 SURVEY

PROJECT: TAKLA-NAK PROJECT # : 248
BASELINE AZIMUTH : 170 Deg.

SCALE = 1: 5000 DATE : 9/13/85
SURVEY BY: RS/BG NTS : 93N/12
MAP 5 FILE: SM248DAV.Zat
NORANDA EXPLORATION





GEOLOGICAL BRANCH ASSESSMENT REPORT

14,849

0 100 200 300 400 500 m
SCALE 1 : 5,000

REVISED	TAKLA NAK
	BEV, STEVE & PAD CLAIM AG IN PPM.
PROJ. No. 5-48 N.T.S. 93 N/12	SURVEY BY: DATE: DRAWN BY: S.K.B SCALE: 1 : 5000
DWG. No. MAP 10	**NORANDA EXPLORATION** OFFICE: PRINCE GEORGE, B.C.

BEV 10

STEVE

PAD

BEAVERPOND LAKE

BRAD 1

DAG 1

LCP

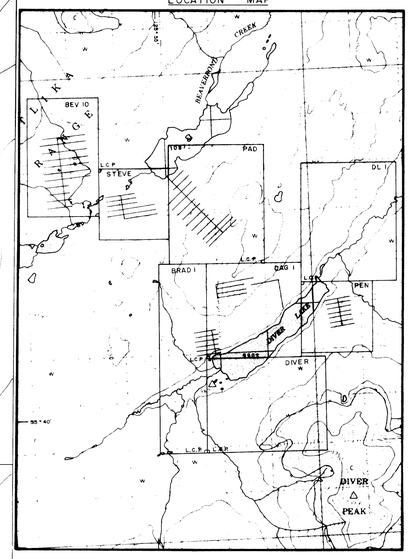
L 5300 N
L 5150N
L 5000N
L 4850N
L 4700
L 4550N
L 4400N
L 4250
L 4100N
L 3950N
L 3800N
L 7100N
L 7000 N
L 6900 N
L 6800 N
L 6700 N
L 6600N
L 6500 N

3300E
3400E
3500E
3600E
3700E
3800E
3900E
4000E
4100E
4200E
4300E
4400E
4500E
4600E
4700E
4800E
4900E
5000E
5100E
5200E
5300E
5400E
5500E
5600E
6900E
7000E
7100E
7200E
7300E
7400E
7500E
7600E
7700E
7800E

B/L 5100N AT 170°
B/L 5100N AT 170°

1350
1300
1250
1200
1150
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550

LOCATION MAP



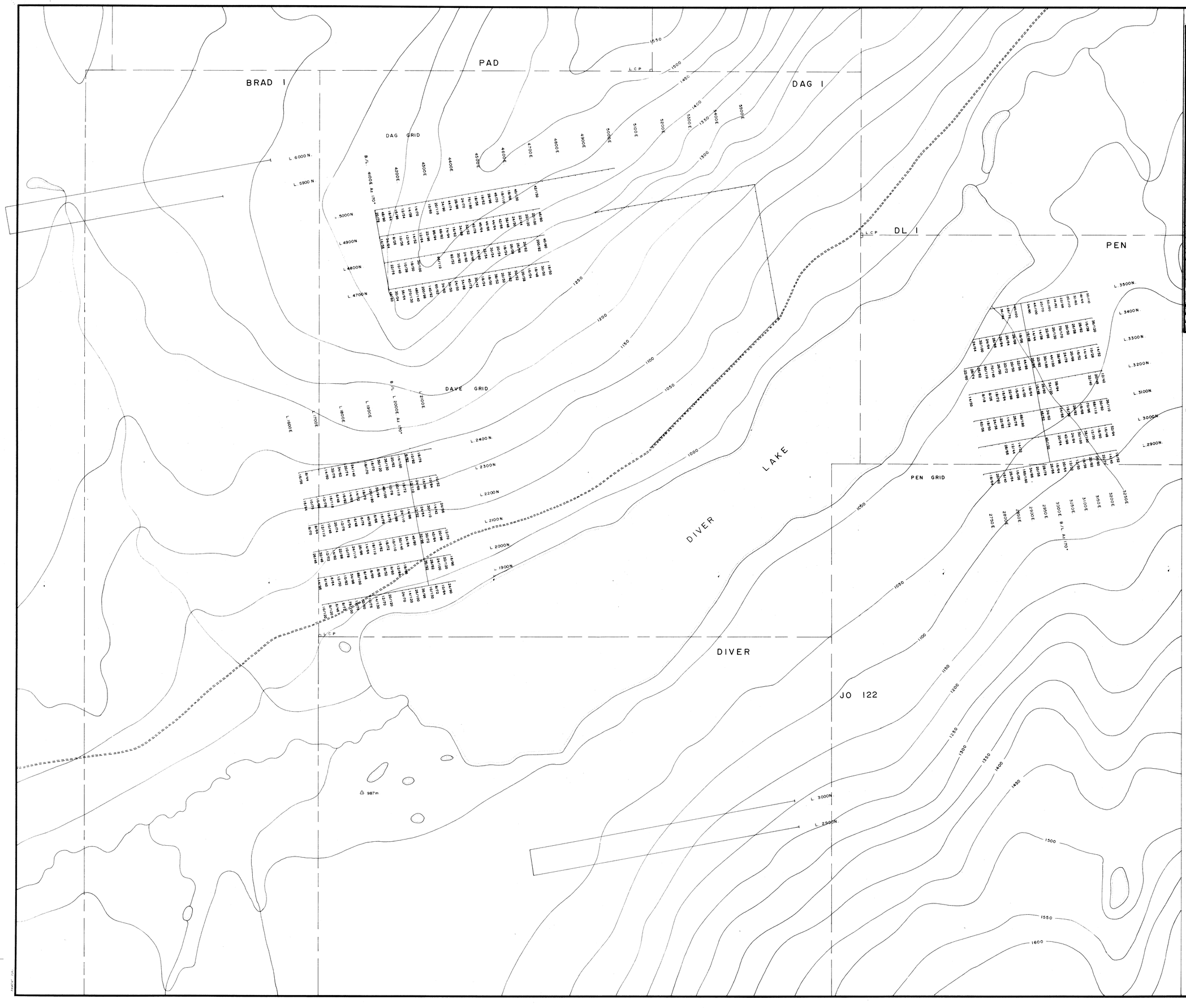
0 1 2 3 4 kilometres
SCALE 1 50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

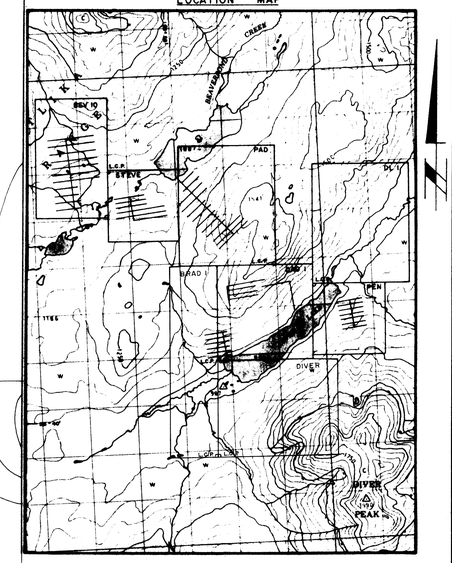
14,849

0 100 200 300 400 500 m
SCALE 1 5,000

REVISED	TAKLA NAK
	BEV, STEVE & PAD CLAIM
	CU, ZN IN PPM.
PROJ. No. 5-48	SURVEY BY: DATE:
N.T.S. 93N/12	DRAWN BY: S.K.B. SCALE: 1:5000
DWG. No. MAP 9	NORANDA EXPLORATION
	OFFICE PRINCE GEORGE, B.C.



LOCATION MAP



0 1 2 3 4 kilometres
SCALE 1 : 50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849

0 100 200 300 400 500 m
SCALE 1 5,000

JO 122

REVISED
G.M. MAR. 1986

TAKLA NAK

DAG I, PEN, BRAD & DIVER CLAIMS

CU, ZN IN PPM.

PROJ. No. 5-48
N.T.S. 93N/12
DWG. No. MAP 11

SURVEY BY:
DRAWN BY: S.K.B.
DATE:
SCALE: 1 5000

NORANDA EXPLORATION

OFFICE: PRINCE GEORGE, B.C.

PAD

BRAD I

DAG I

DAG GRID

B/L 4900E Az 170°

L 6000N

L 5900N

L 5000N

L 4900N

L 4800N

L 4700N

4200E 4300E 4400E 4500E 4600E 4700E 4800E 4900E 5000E 5100E 5200E 5300E 5400E 5500E

1550 1500 1450 1400 1350 1300 1250 1200 1150 1100 1050 1000 950 900

L.C.P.

DAVE GRID

B/L 2000E Az 170°

L 2400N

L 2300N

L 2200N

L 2100N

L 2000N

L 1900N

1900E 1850E 1800E 1750E 1700E 1650E

DIVER LAKE

DIVER

L.C.P.

DL I

PEN

PEN GRID

B/L 3300E Az 170°

L 3500N

L 3400N

L 3300N

L 3200N

L 3100N

L 3000N

L 2900N

3250E 3200E 3150E 3100E 3050E 3000E 2950E 2900E 2850E 2800E 2750E

1050 1100 1150 1200 1250 1300 1350 1400 1450 1500 1550 1600

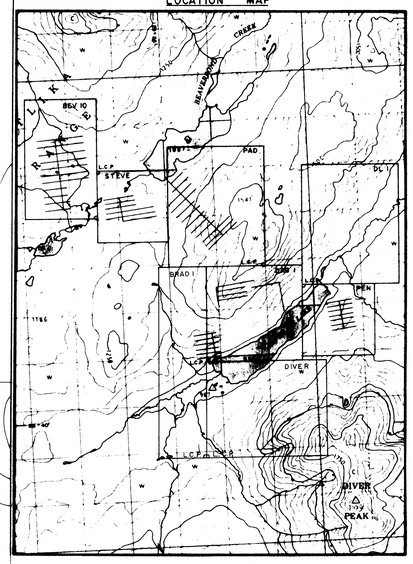
L 3000N

L 2900N

987m

JO 122

LOCATION MAP



GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,849

0 100 200 300 400 500 m
SCALE 1 5,000

REVISED	TAKLA NAK
G.M. MAR., 1986	DAG I, PEN, BRAD & DIVER CLAIMS
	AG IN PPM.
PROJ. No. 5-48	SURVEY BY: DATE:
N.T.S. 93 N/12	DRAWN BY: S.K.B. SCALE: 1:5000
DWG. No. MAP 12	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.