UMEX Inc.

*FORMERLY:*
UNION MINIÈRE EXPLORATIONS
AND MINING CORPORATION LIMITED

Suite 200 - 4299 Canada Way. Burnaby. B.C. V5G 1H4
Telephone (604) 437-9491 Telex 04-356532

# ASSESSMENT REPORT ON THE EM16 GEOPHYSICAL SURVEY DONE ON THE Y SEVEN CLAIM GROUP

INCLUDES: Seven, Seven South, Seven West, Seven East, Five West, Five South, Dub and Five Claims

RECORD Nos. 409, 410, 462, 411, 513, 634, 461, 412

SKEENA MINING DIVISION

N.T.S.: 103F/8E

LATITUDE 53°28'N
LONGITUDE 132°11'W

by
Ian Nadeau, B.Sc.

OWNER AND OPERATOR: UMEX Inc.
DATES WORKED: September 17-19
DATE: October 18, 1982

# TABLE OF CONTENTS



## APPENDICES



## FIGURES

## INTRODUCTION

The Seven, Seven South, Seven West, Seven East, Five West, Five South, Dub and Five claims totalling 51 units are located 22 air kilometers south of Port Clements, Queen Charlotte Islands, B.C. in the Skeena Mining Division. The claims are in N.T.S. 103F/8E with approximate latitude and longitude coordinates for the centre of the property being 53°28'N and 132°11'W, respectively (Figure 1).

The elevation of the claims varies from 60 to 335 meters and the topography is plateau-like and gently undulating although locally the creeks have produced precipitous canyons. The property is located within the Skidegate Plateau of the Insular Mountains Physiographic Subdivision.

The climate is mild and rainy and the hill slopes are heavily timbered with Sitka Spruce, hemlock and cedar.

The southwestern and northern parts of the property can be reached by logging roads from either Port Clements or Queen Charlotte City. MacMillan Bloedel Branch 44C logging road gives access to the Seven West, Seven and Seven South claims whereas Branch 43 logging road terminates some 1.5 kilometers north of the Five West claim.

Extensive work has been carried out on these claims including soil geochemistry, geophysics and diamond drilling. Drilling results over several EM16 conductors located in 1981 showed significant base metal assay results.

The 1982 EM16 survey extends the previous EM16 survey to the west in order to determine whether the mineralized conductors extend in that direction.

## CLAIMS

The property consists of the mineral claims listed below and shown on the accompanying map (Figure 2):

| Claim Name | Record No. | Units | Month of Record |
|---|---|---|---|
| Five | 412 | 12 | August |
| Dub | 461 | 2 | November |
| Five South | 634 | 6 | June |
| Five West | 413 | 4 | August |
| Seven | 409 | 15 | August |
| Seven East | 411 | 2 | August |
| Seven South | 410 | 2 | August |
| Seven West | 462 | 8 | November |

## GEOLOGY

The general geology of the Y-5, Y-7 area as described by Sutherland Brown[1] is essentially Jurassic Yakoun Formation volcanics, composed mainly of agglomerates and tuffs, unconformably overlain by Cretaceous Haida Formation shales and sandstones. To the northwest the Haida Formation is intruded and overlain by the Tertiary Masset Formation volcanics, consisting mainly of basalts and rhyolites.

---

[1] Sutherland Brown, 1968: "Geology of the Queen Charlotte Islands, B.C.D.M. Bul. #54

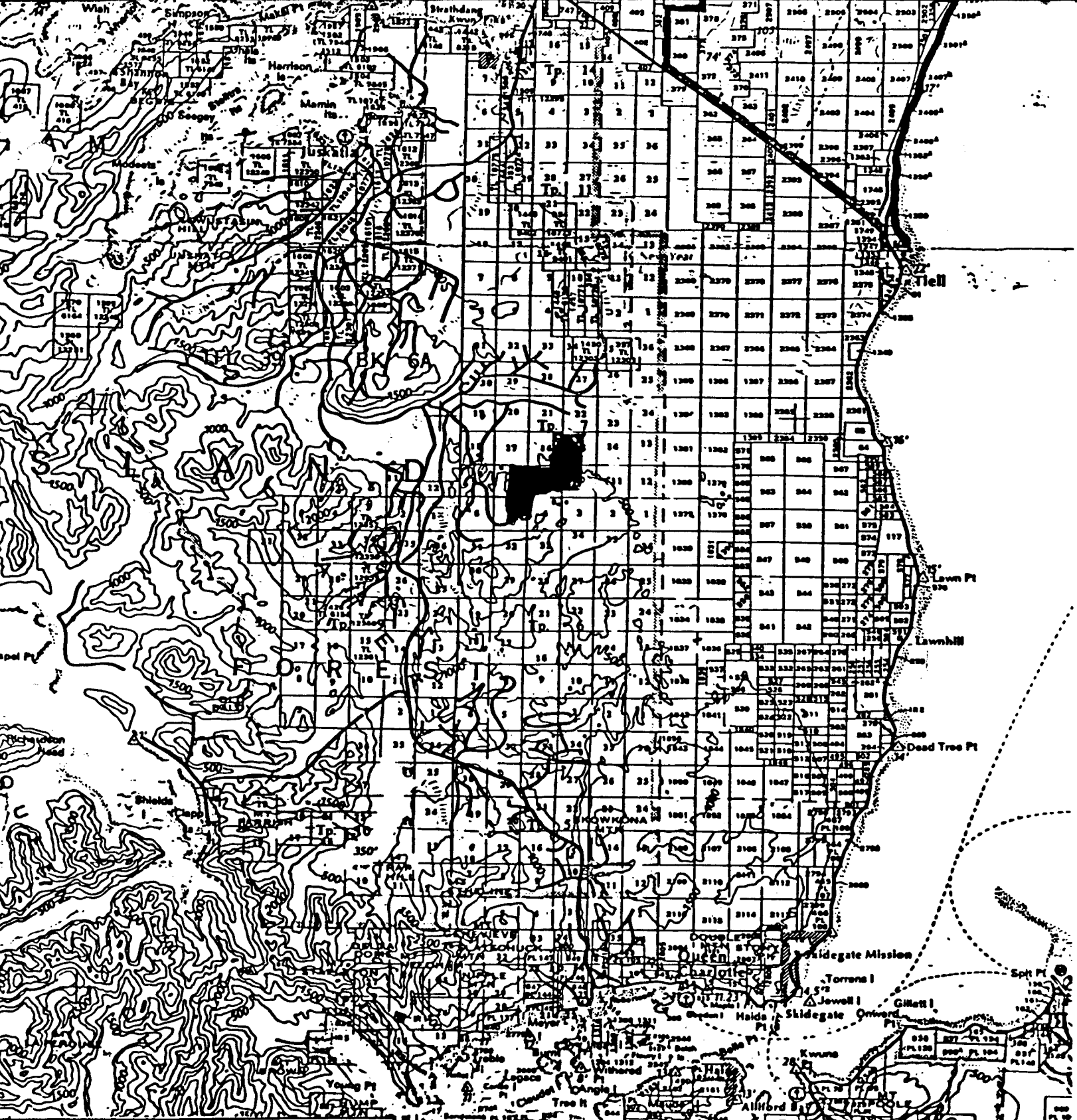



FIGURE #1

LOCATION MAP

Y7 CLAIM GROUP

Scale: 1:250,000

UMEX CORPORATION LTD.

Drawn by:

Date:

Surveyed by:

DWG. No.

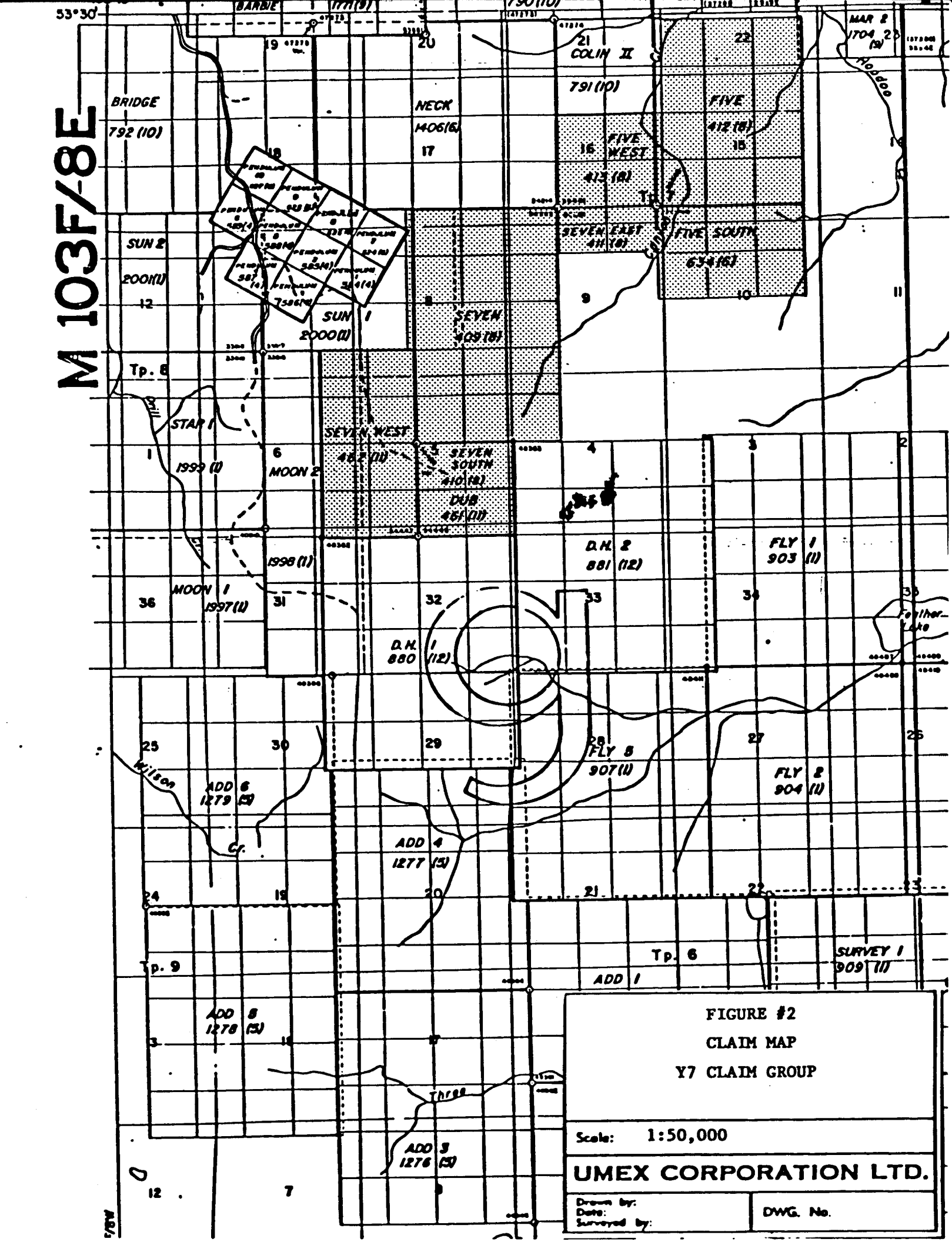



FIGURE #2

CLAIM MAP

Y7 CLAIM GROUP

Scale: 1:50,000

**UMEX CORPORATION LTD.**

| Drawn by: Date: Surveyed by: | DWG. No. |
|---|---|

The Haida Formation is also overlain by the semi-consolidates Tertiary Skonum Formation sediments which are now believed to be contemporary to parts of the Masset Formation.

The main structural feature of the Y-5 and Y-7 area is the northwest trending Sandspit Fault. The surface expression of the fault is traceable to within 4 km of the claims but in the vicinity of the claims and to the northwest the fault appears to consist of several parallel trending splays. The Sandspit Fault has been active at least since Cretaceous time and has produced a considerable downthrow of the northeastern block with an unknown horizontal displacement. Generally Yakoun, Haida and Masset Formation occur west of the fault and Skonum sediments east of the fault.

VLF EM16 SURVEY

The survey was completed with a Geonics Ronka EM16 VLF instrument. See specifications in Appendix I.

This instrument is a sensitive audio receiver that uses electromagnetic signals transmitted for military purposes in the 15 to 25 KHz frequency range. For this survey the "NPG" station located in Seattle, Washington, U.S.A. was used.

The VLF transmitting station creates a concentric horizontal magnetic field. This magnetic field induces secondary fields over conductive bodies. The EM16 has two inputs with two receiving coils, a horizontal coil and a vertical coil.

The signal from the vertical coil is first minimized by tilting the instrument. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil after being shifted by $90^{o}$. Thus is the secondary signals are small compared to the primary field horizontal field, the mechanical tilt angle is an accurate measure of the vertical real component and the compensation /2 signal from the horizontal coil is a measure of the out-of-phase vertical signal. Readings are recorded in percent up to an accuracy of 1%.

The 1982 EM16 survey was completed over the following grid lines:

.50W from 3.0N to 3.25S
1.00W from 3.25N to 2.75S
1.50W from 4.25N to 2.25S
2.00W from 4.50N to 1.75S
2.50W from 4.50N to 1.25S
3.00W from 4.75N to .75S
3.50W from 5.25N to 1.0N

Location of these lines in relation to previous surveys as well as claim boundaries is indicated in Figure 3.

Results of the 1982 EM16 geophysical survey are shown in Figure 4.

Respectfully submitted,

Ian Nadeau

Ian Nadeau, B.Sc.

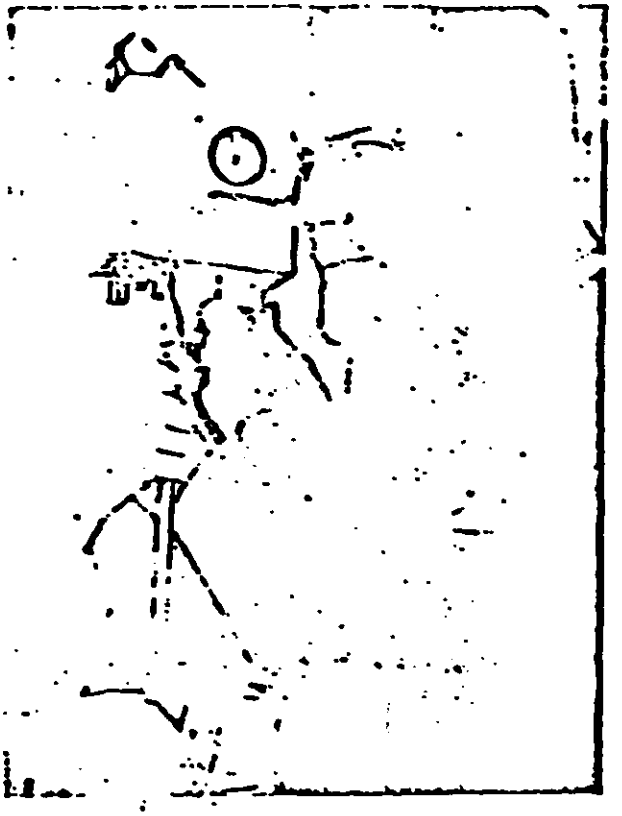
# APPENDIX I

# GEONICS LIMITED

2 Thorncliffe Park Drive, Toronto 17, Ontario, Canada. Tel. (416) 425-1821, Cables: Geonics


# EM 16

## VLF ELECTROMAGNETIC UNIT



Pioneered exclusively by Geonics Limited the VLF-method of electromagnetic surveying by utilization of the uniform horizontal fields generated by an existing network of reliable, fully operational Very Low Frequency transmitting stations has proved to be a major advance in geophysical exploration.

Very extensive world-wide experience since the beginning of 1965 by a large and rapidly increasing number of users, including a high proportion of major mining and exploration companies, has provided conclusive evidence of the effectiveness of the technique and the EM 16 has gained general acceptance as a basic electromagnetic tool. This evidence has also indicated the response of disseminated bodies to the VLF-method.

The unique self-contained EM 16 offers the unrivalled combination of LIGHT *WEIGHT, ONE-MAN OPERATION* and *DEEP PENETRATION* allowing rapid, economical surveys. Assessing the data is simplified due to the use of the uniform horizontal primary field. The patented design feature of the measurement of
br the in-phase and out-of-phase (quadrature) component of the vertical field
p des the information necessary for comprehensive interpretation of the
f results.

### SPECIFICATIONS

| | |
|---|---|
| Source of primary field: | VLF transmitting stations. |
| Transmitting stations used: | Any desired station frequency supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station. |
| Operating frequency range: | About 15 — 25 kHz |
| Parameters measured: | (1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component the short axis of the polarization ellipsoid compared to the long axis). |
| Method of reading: | In-phase from a mechanical inclinometer; out-of-phase from a calibrated dial. Nulling by audio tone. |
| Scale range: | In-phase ± 150%; Out-of-phase ± 40%. |
| Readability: | ± 1% |
| Reading time: | 10 — 40 seconds depending on signal strength. |
| Operating temperature range: | —40 to 50°C |
| Power Supply: | 6 size AA (penlight) alkaline cells. Life about 200 hours. |
| Dimensions: | 16 x 5.5 x 3.5 in (42 x 14 x 9 cm) |
| Weight: | 2.5 lbs (1.1 kg) |
| Instrument supplied with: | Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries. |
| Shipping weight: | 10 lbs (4.5 kg) |

Subsidiary of Dieving Milliken Inc.

# APPENDIX II

## STATEMENT OF EXPENDITURES

EM16 Survey

| | | | |
|---|---|---|---|
| H. Holm | September 17-19 | 3 days @ $138.00/day | $ 414.00 |
| I. Nadeau | September 17-19 | 3 days @ $135.04/day | 405.12 |
| Truck Rental | 3 days @ $55.00/day | | 165.00 |
| Accommodations | 3 days @ $55.00/day | | 165.00 |
| Food | 6 man days @ $20.00/man/day | | 120.00 |
| EM16 instrument rental equivalent | | 3 days @ $30.00/day | 90.00 |

Report Writing, Drafting, Typing

| | | |
|---|---|---|
| H. Holm | 1 day drafting @ $138.00/day | 138.00 |
| I. Nadeau | 1 day report writing | 135.04 |
| Typing and misc. office supplies | | 100.00 |
| | TOTAL ..... | $1,732.16 |

# APPENDIX III

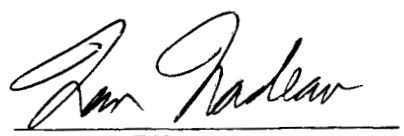
# A P P E N D I X II

## Author's Qualifications

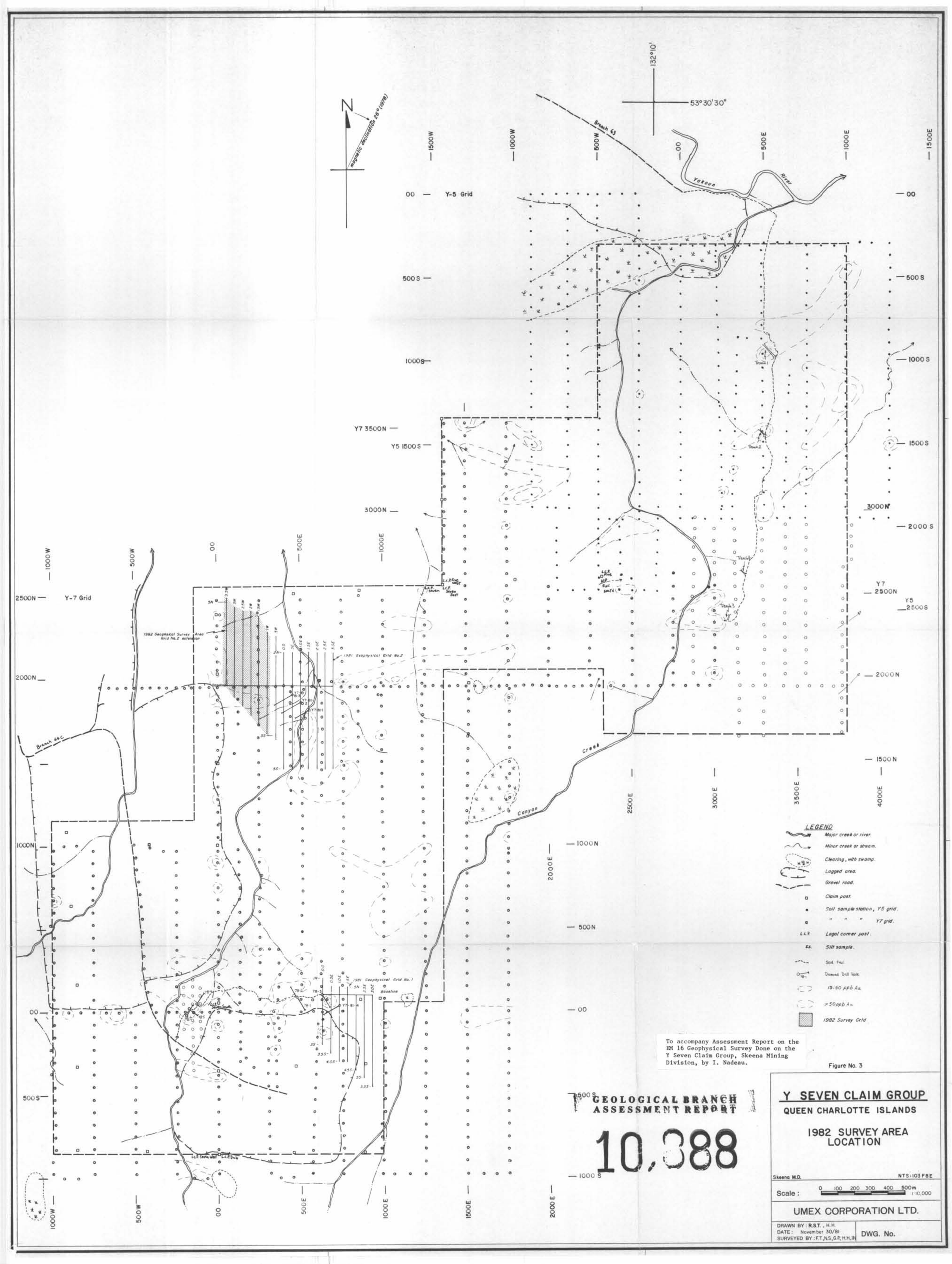
I, Ian Nadeau of 1916 East 3rd Avenue, Vancouver, B.C., hereby certify that:

1) I am a graduate of McGill University, Montreal, Canada, B.Sc. in Geology in 1976, and

2) I have practiced my profession as a geologist in 1976 for Seru Nucleaire, Montreal; in 1979 for Falconbridge Nickel, Quebec City, and for UMEX Inc. since March 1980.



IAN NADEAU




To accompany Assessment Report on the EM 16 Geophysical Survey Done on the Y Seven Claim Group, Skeena Mining Division, by I. Nadeau.

Figure No. 3

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,388

# Y SEVEN CLAIM GROUP

QUEEN CHARLOTTE ISLANDS

1982 SURVEY AREA LOCATION

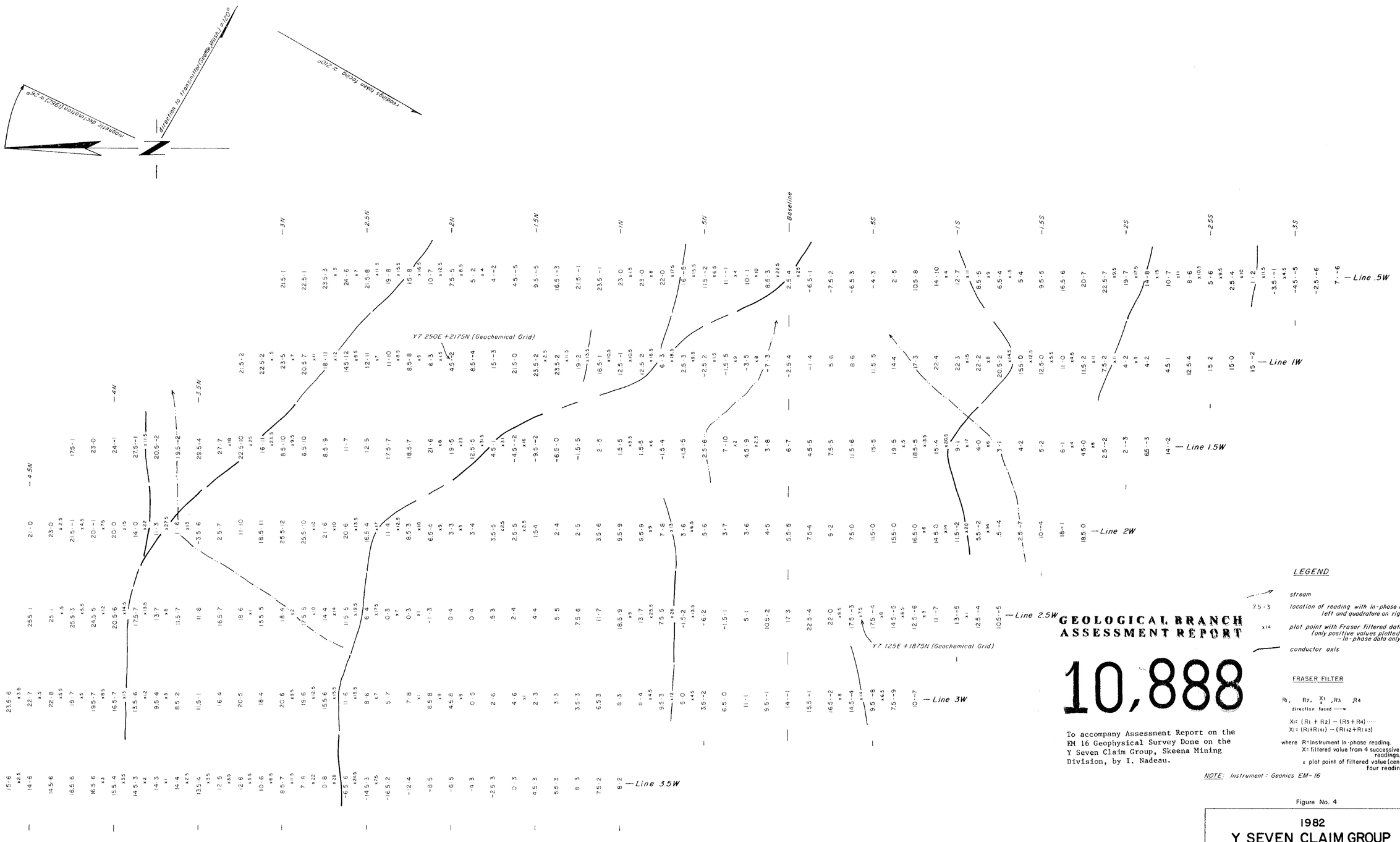
Skeena M.D. NTS: 103 F 8 E

Scale: 0 100 200 300 400 500m 1:10,000

UMEX CORPORATION LTD.

DRAWN BY: R.S.T., H.H.
DATE: November 30/81
SURVEYED BY: F.T., N.S., G.P., H.H., IN

DWG. No.




## LEGEND

- stream
- 7.5 · 3 — location of reading with In-phase on left and quadrature on right.
- x14 — plot point with Fraser filtered data (only positive values plotted) — In-phase data only
- conductor axis

## FRASER FILTER

$R_1$, $R_2$, $X_x^1$, $R_3$ $R_4$ (direction faced →)

$X_1 = (R_1 + R_2) - (R_3 + R_4) \cdots$

$X_i = (R_i + R_{i+1}) - (R_{i+2} + R_{i+3})$

where R = instrument In-phase reading.
X = filtered value from 4 successive readings.
x plot point of filtered value (center four readings)

NOTE: Instrument = Geonics EM-16

# GEOLOGICAL BRANCH ASSESSMENT REPORT

# 10,888

To accompany Assessment Report on the EM 16 Geophysical Survey Done on the Y Seven Claim Group, Skeena Mining Division, by I. Nadeau.

Figure No. 4

**1982**

## Y SEVEN CLAIM GROUP

QUEEN CHARLOTTE ISLANDS

GROUND ELECTROMAGNETIC SURVEY

Skeena M.D. N.T.S. 103F/8E

Scale: 0 12.5 25 37.5 50 62.5 metres. 1:1,250

UMEX CORPORATION LTD.

DRAWN BY: H. Holm
DATE: December, 1982
SURVEYED BY: I. Nadeau, H. Holm

DWG. No.