

# DOROMIN RESOURCES INC.

Geophysical Report

on the

825952

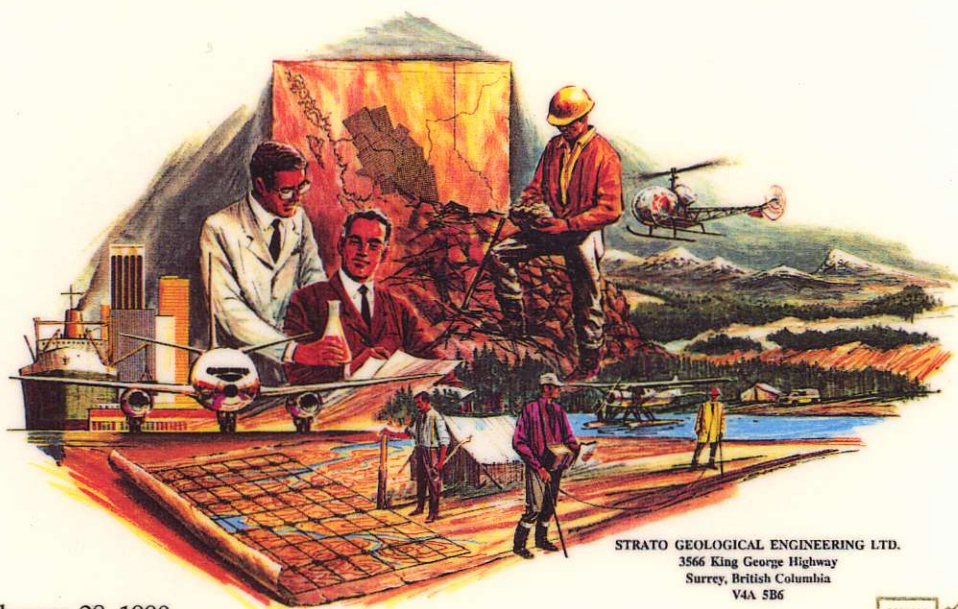
Matajur and El Ninio Properties

Skeena M. D., British Columbia

N. Latitude: 53° 04' 30" W. Longitude: 132° 18' 00"

By

A.E. Hunter, Geophysicist



February 28, 1990

STRATO GEOLOGICAL ENGINEERING LTD.  
3566 King George Highway  
Surrey, British Columbia  
V4A 5B6



## SUMMARY

This report presents the results of geophysical work conducted on the Matajur claims near Mackenzie Bay on the west coast of Moresby Island and the El Ninio claim in central Graham Island, both of the Queen Charlotte Islands.

Access to both of these properties is best by helicopter although secondary logging roads are found some two kilometers west of the El Ninio claim.

The El Ninio claim is underlain by volcanic and sedimentary units of the Yakoun Formation and Haida Formation respectively. The Matajur claims, near MacKenzie Bay, are underlain by the Karmutsen Formation which consists of massive basalt flows, pillow lava, related breccia and tuff, and associated sandstones and shales.

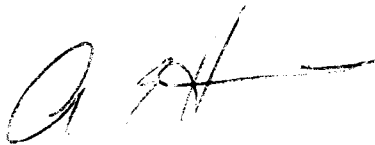
The Matajur claims were geographically tested utilizing very low frequency electromagnetic (VLF-EM) and magnetic surveys on three short lines over the Tom and Bill showings adjacent to MacKenzie Bay. Results were inconclusive over Bill's showing partly because the survey was conducted below the showing just above the water on a very steep side slope. Tom's showing is characterized by large magnetic anomalies and minor VLF-EM signatures. Some of the magnetic anomalies coincide with previously identified mineralization consisting of pyrite and pyrrhotite. The magnetic anomalies may extend the mineralized trend. Follow-up geochemical, geological and geophysical surveys are warranted.

On the El Ninio claim 4.4 kilometers of magnetic and VLF-EM data was collected on eleven east-west lines at ten metre intervals. Several north to northeasterly trending weak VLF-EM anomalies were identified. They are associated with magnetic highs. The magnetic survey showed a total relief of 700 gammas and reveals a north to northeasterly trend. The southeast corner of the grid may reflect a different geologic unit with a higher magnetic background, possibly to andesites of the Yakoun Formation.

The magnetic and VLF-EM surveys should be correlated with existing geological and geochemical data. The geophysical survey work should be

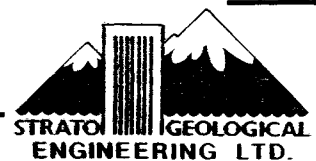
extended over the rest of the property. At a latter stage horizontal loop EM and induced polarization surveys could be used to help delineate mineralized zones.

Respectfully submitted  
Strato Geological Engineering



A.E. Hunter, Geophysicist

February 28, 1990



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## 1.0 INTRODUCTION

### 1.1 Purpose

This report was prepared pursuant to a request from the directors of Doromin Resources Ltd. The purpose of the report is to present the results of geophysical work done on the El Ninio claim and the Matajur claims near MacKenzie Bay. McIntyre and Associates completed geological and geochemical fieldwork on these properties immediately prior to the geophysical work. Logistics were coordinated with the assistance of geologist Mr. R. McIntyre.

This report is based upon field work conducted by Strato Geological Engineering between February 21 and 25, 1990. The crew consisted of G. Smith supervised by A. E. Hunter.

A further program of geophysical exploration, contingent upon geological and geochemical results, is recommended to better define exploration targets.

### 1.2 Claims

The El Ninio claim consists of eight claim units in the Skeena Mining Division. Information on file with the office of the Gold Commissioner at Prince Rupert, British Columbia March 5, 1990 was as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>	<u>Registered Owner</u>
El Ninio	7749	8	August 21/90	E. Specogna

The El Ninio claim is shown on the NTS 103 F/8 topographic map.

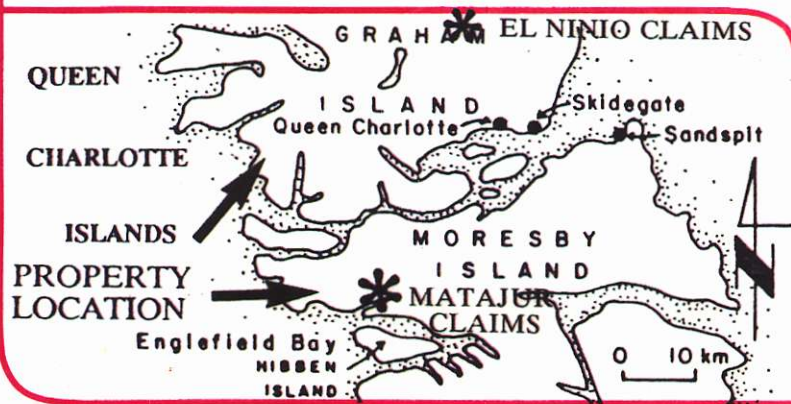


Figure 1  
**DOROMIN RESOURCES LTD.**  
 QUEEN CHARLOTTE ISLANDS  
 Skena M.D. - 103F  
**LOCATION MAP**

To accompany a report by:  
 A.E. Hunter, Geop.

February, 1990



The Matajur claims, near Mackenzie Bay, consists of four claims totaling 76 claim units in the Skeena Mining Division. Information on file with the office of the Gold Commissioner at Prince Rupert, British Columbia, on March 5, 1990, was as follows:

Claim Name	Record No.	Units	Expiry Date	Registered Owner
Matajur #1	7672	20	July 1/90	Marino Specogna
Matajur #2	7673	20	July 1/90	Marino Specogna
Matajur #3	7674	16	July 1/90	Marino Specogna
Matajur #4	7675	20	July 1/90	Marino Specogna

The Matajur claims are located near Mackenzie Bay on the NTS 103 F/1 topographic map.

### **1.3 Location Access and Physiography**

#### **Matajur claims (Figure 2):**

The property is located approximately 43 kilometers WSW of Sandspit adjacent and to the northwest of Security Inlet.

Access to the property is obtained by helicopter from Sandspit. A Bell 206 Jet Ranger of Vancouver Island Helicopters was employed for the twenty minute flight. There are no logging roads in close proximity.

The claim group is covered with virgin stands of spruce and cedar.

The topography is rugged and varies from sea level to 1500 ft. (460 m). The topography displays a northwest trend and an easterly trend in the northern and southern parts of the claim group respectively.

#### **El Ninio Claim (Figure 3):**

The property is located approximately 35 kilometers northwest of Sandspit and four kilometers northwest of Feather Lake. Canyon Creek, a tributary of the Tlel River bisects the claim.



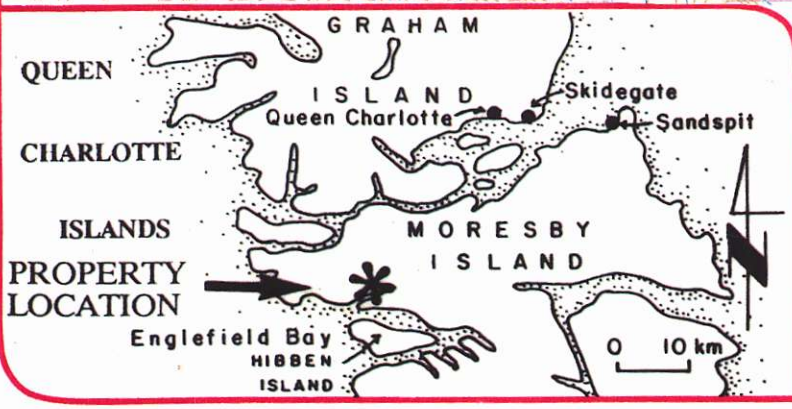
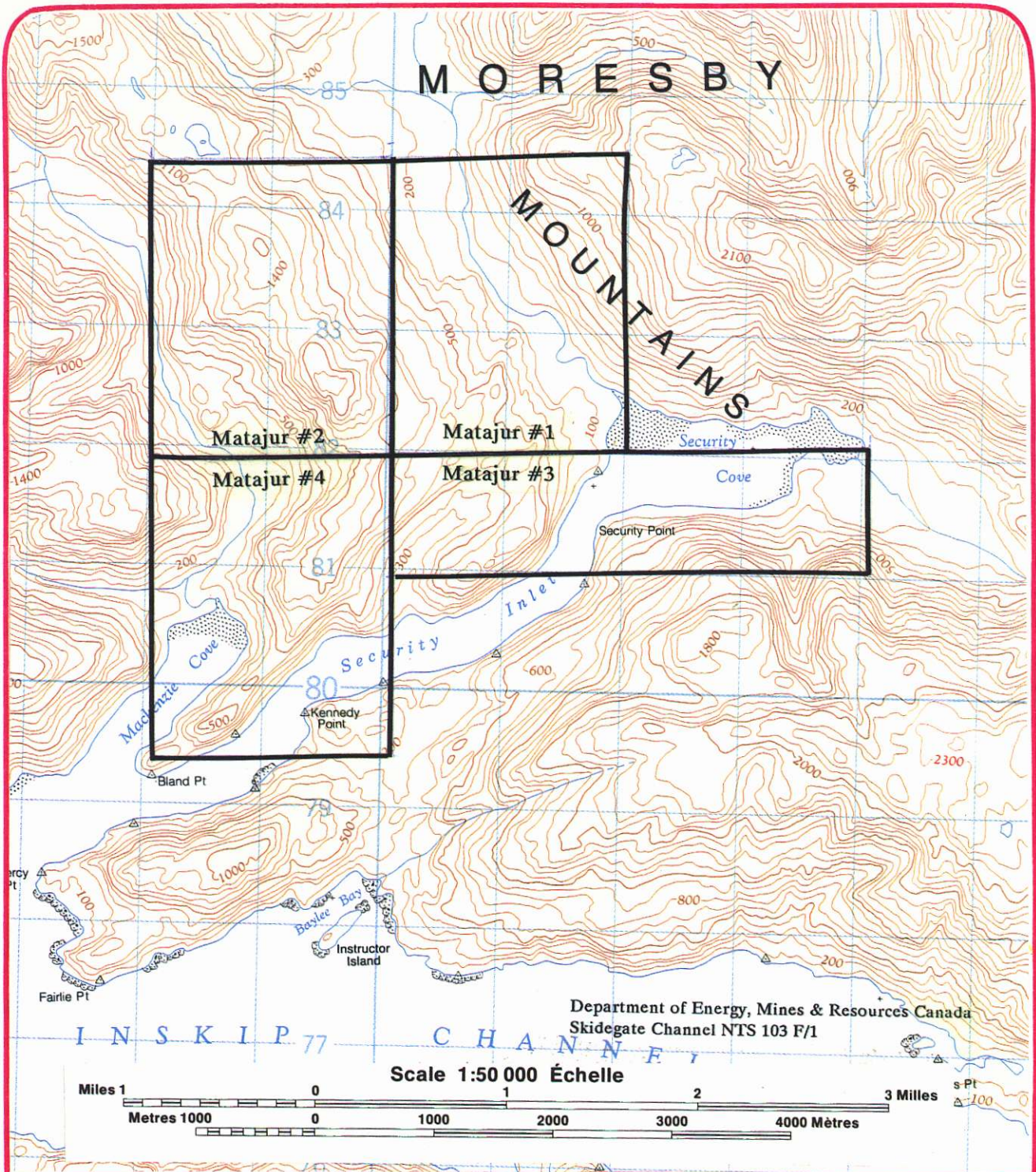


Figure 2  
**DOROMIN RESOURCES LTD.**  
 MATAJUR CLAIMS  
 Skeena M.D. - 103F

**TOPOGRAPHIC MAP**

To accompany a report by:  
 A.E. Hunter, Geop.

February, 1990



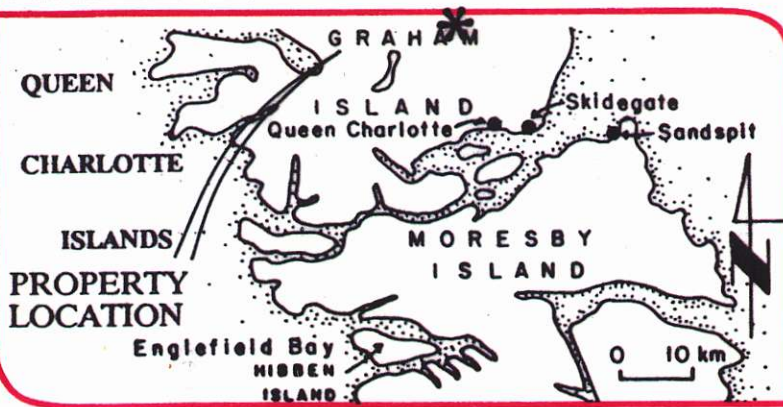
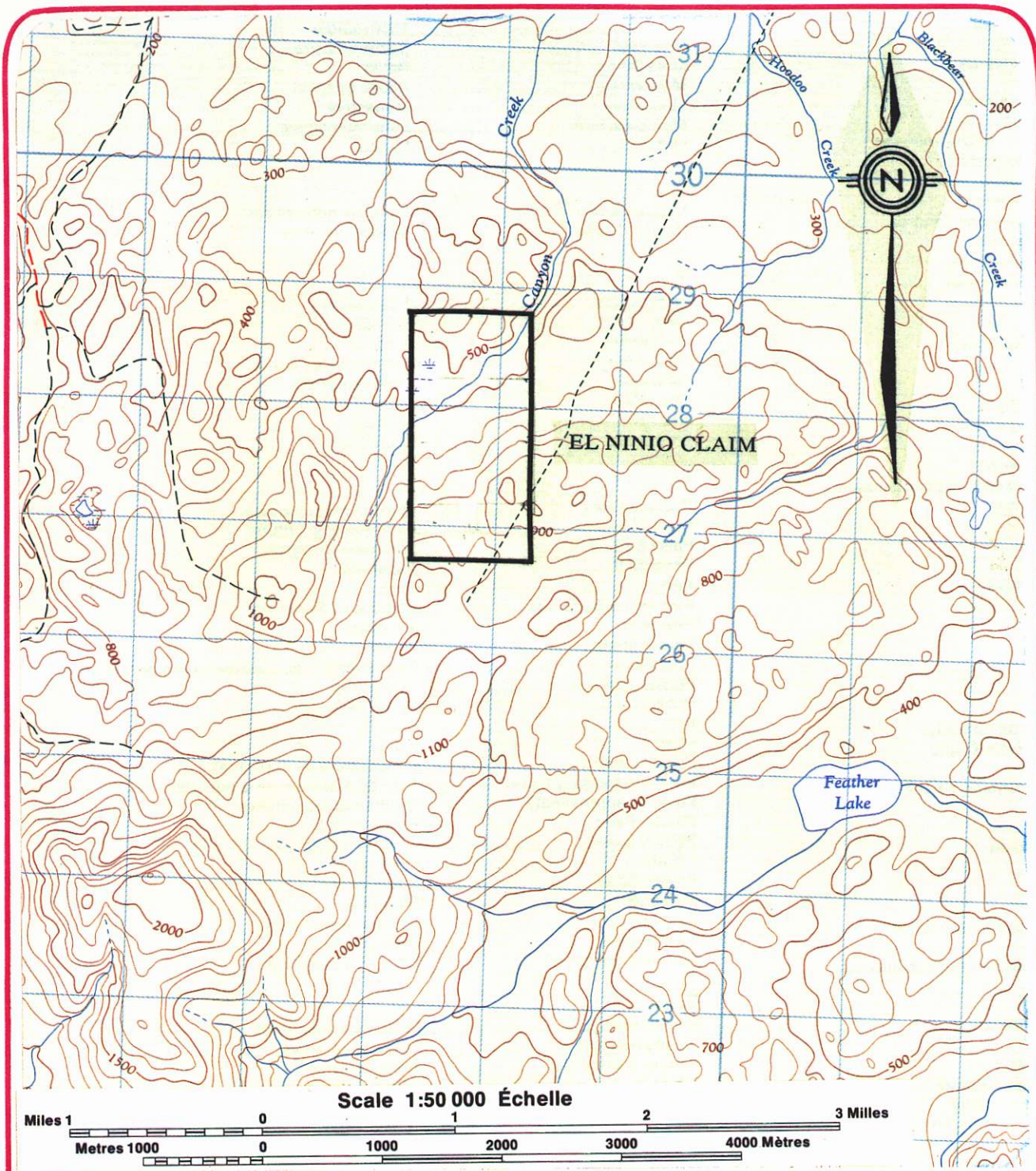


Figure 3  
**DOROMIN RESOURCES LTD.**

EL NINIO CLAIMS  
 Skeena M.D. - 103F

**TOPOGRAPHIC MAP**

To accompany a report by:  
 A.E. Hunter, Geop.

February, 1990



Access to the property is possible in the summer months by overland travel from a secondary logging road some two kilometers to the west of the El Ninio claim. This secondary road meets a main logging road approximately four kilometers to the northwest. During this program access was obtained using a Vancouver Island Helicopter Bell 206 Jet Ranger on a twenty minute flight northwest from the Sandspit airport.

The claim group is covered with virgin stands of cedar and spruce. Swampy ground in the central region of the claim provided a convenient helicopter pad.

The topography is gentle, varying from 500 ft. (152 m) to 900 ft. (275 m) and displaying a northeasterly trend.

## 2.0 HISTORY

The Cinola gold deposit is located about ten kilometers due north of the El Ninio claim. Ephram Specogna and his partner discovered gold in the 1969-1970 period in an area some 25 kilometers south of Port Clements on Graham Island. Subsequently, Consolidated Cinola established a significant gold deposit on the property.

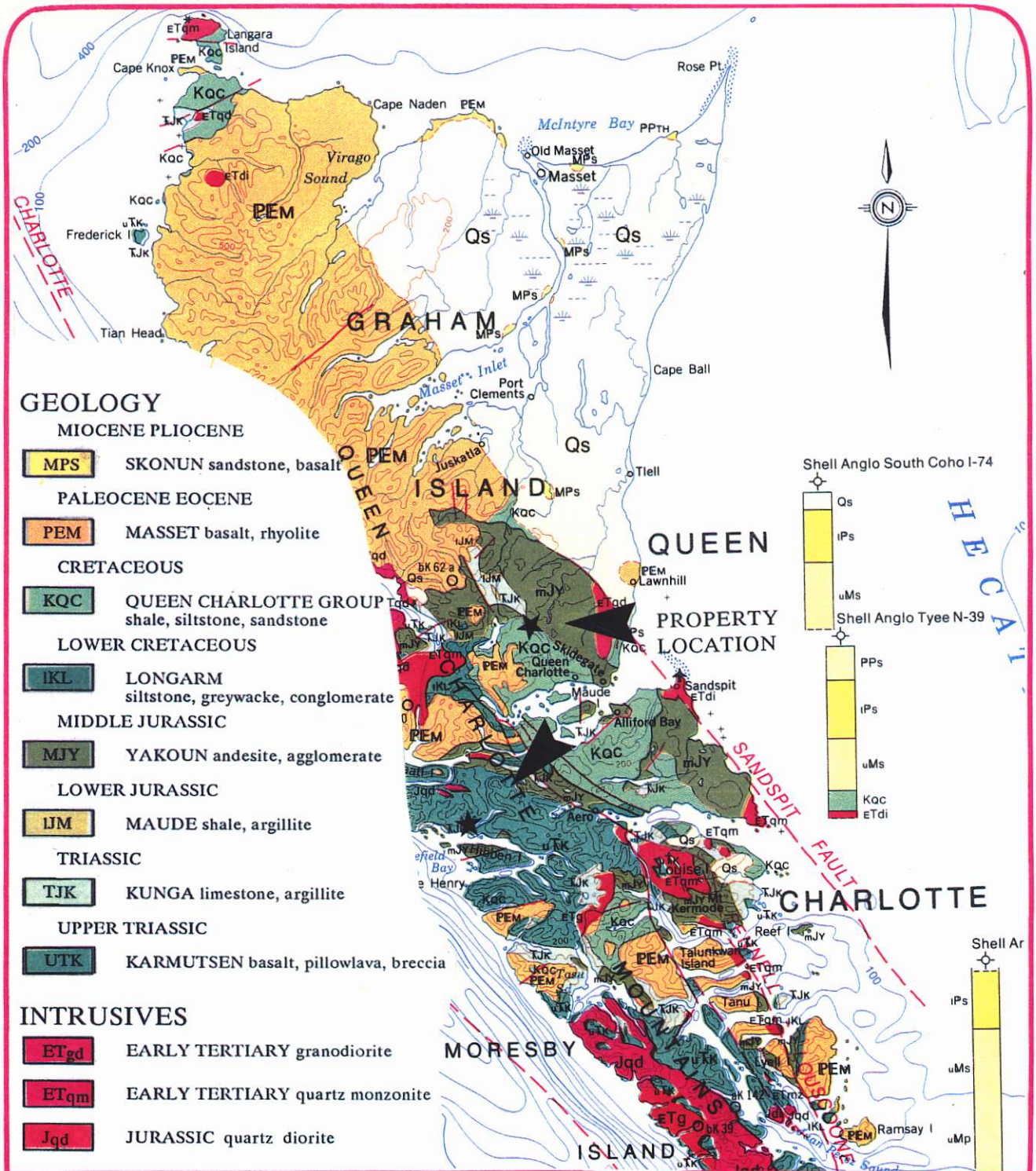
McIntyre and Associates are currently preparing a report of geological and geochemical work completed on the El Ninio Claim Group just prior to the geophysical work related in this report.

The Tasu iron deposit is a pyrometasomatic Iron-Copper deposit and is located about fifty kilometers southeast of Mackenzie Bay and the Matajur claims. The deposit geology consists of the upper Karmutsen Formation, two Kunga limestone members and the San Christoval Batholith of the Jurassic period. The magnetite ore and skarn are located largely in a stratiform zone some 200 feet thick above the Karmutsen Formation replacing massive limestone and diorite porphyry. Karmutsen volcanics are present on the Matajur claims and several minor massive sulphide showings have been located. McIntyre completed a reconnaissance program of geology and geochemistry on the property immediately prior to the geophysical reconnaissance work related in this report. Teck Resources Inc. has conducted a drill program on nearby ground.

### 3.0 REGIONAL GEOLOGY (Figure 4)

The El Ninio claim probably straddles the contact of the Jurassic Yakoun Formation, consisting of andesite and agglomerate, and the Cretaceous Haida Formation (of the Queen Charlotte Group) consisting of glauconitic sandstone, shale and siltstone. Wrangellia Terrain is a feature of the area. This geologic feature is marked by volcanics and sediments of Late Triassic to Jurassic Age. A Mid-Tertiary suture trends northwesterly through Graham Island and is found immediately to the northwest of the property, more or less coincident with the position of the Sandspit Fault. This feature is believed to separate earlier and underlying Alexander Terrain from the Wrangellia.

The Matajur claims in the Mackenzie Bay area is located in the Triassic Karmutsen Formation which consists of massive basalt flows, pillow lava, related breccia and tuff and associated sandstones and shales. Several limestone members of the Jurassic Kunga Formation are located nearby. The geologic mapping to date indicates an easterly strike with moderate to steep northerly dips and some folding on an easterly axis.



**GEOLOGY**

- MIOCENE PLIOCENE**  
**MPS** SKONUN sandstone, basalt
- PALEOCENE EOCENE**  
**PEM** MASSET basalt, rhyolite
- CRETACEOUS**  
**KQC** QUEEN CHARLOTTE GROUP shale, siltstone, sandstone
- LOWER CRETACEOUS**  
**IKL** LONGARM siltstone, greywacke, conglomerate
- MIDDLE JURASSIC**  
**MJY** YAKOUN andesite, agglomerate
- LOWER JURASSIC**  
**IJM** MAUDE shale, argillite
- TRIASSIC**  
**TJK** KUNGA limestone, argillite
- UPPER TRIASSIC**  
**UTK** KARMUTSEN basalt, pillowlava, breccia
- INTRUSIVES**  
**ETgd** EARLY TERTIARY granodiorite  
**ETqm** EARLY TERTIARY quartz monzonite  
**Jqd** JURASSIC quartz diorite

0 25 50 75 Kilometres

- Geological contact (mapped, assumed) .....  
 Fault (mapped, assumed) .....  
 Transcurrent fault (mapped, assumed) .....  
 Thrust fault (teeth on hanging wall; mapped, assumed) .....

After: Geological Survey of Canada Map # 1385A  
 Regional Geology SKEENA RIVER B.C. NTS 103

Figure 4  
**DOROMIN RESOURCES LTD.**

**QUEEN CHARLOTTE ISLANDS**  
 Skeena M.D. - 103F

**REGIONAL GEOLOGY**  
**MAP**

To accompany a report by:  
 A.E. Hunter, Geop.  
 February, 1990



#### 4.0 RESULTS AND RECOMMENDATIONS

##### **Mackenzie Cove Claim Group (Figures 2,5,7)**

Under the direction of Mr. R. McIntyre two showings were investigated in the Mackenzie Cove area. Tom's Showing is located at the northeast corner of the cove and consists of a mineralized zone, bearing 050 degrees, and containing pyrite and pyrrhotite. Two lines, for a total of 430 metres, were run across the zone to determine its magnetic and electromagnetic signature. Readings of both the total magnetic field strength and the VLF-EM response were taken at ten or five metre intervals. Bill's Showing is located on the west side of Mackenzie Cove in a gorge. One 170 metre line was run across a steep side slope just above the water and was surveyed similarly.

The results (Figure 7) reveal a distinctive magnetic and VLF-EM signature over Tom's Showing and no significant signature over Bill's Showing. On Tom's showing an easterly contact is apparent in the data stretching from 0+50N on L1 to 0+10N on L2. South of this contact, VLF-EM and magnetic field strength are higher, probably reflecting a change in stratigraphy. The mineralized zone, trending through lines L1 and L2 at 0+00, is marked by total magnetic field strength highs with magnitudes of 600 to 1000 gammas. A zone of magnetic highs up to 1700 gammas in magnitude exists on L1 between 0+30S and 0+80S. The line was looped to minimize errors caused by diurnal magnetic variations.

VLF-EM and magnetic signatures are apparent on Tom's Showing. An area of magnetic highs located between 0+30S and 0+80S on L1 should be investigated further, since it could be associated with mineralization such as that found at 0+00 on L1 of Tom's Showing.

##### **El Ninio Claim (Figures 3,6,8,9,10)**

VLF-EM and total magnetic field strength readings were collected at a ten metre spacing from eleven 400 metre lines trending 090 degrees. The magnetic data was looped to correct for diurnal drift.

The VLF-EM results reveal about one dozen very weak to weak conductors with a north to northeasterly trend. Conductors A, B and C (Figure 10) are associated with magnetic highs. The magnetic data shows a maximum

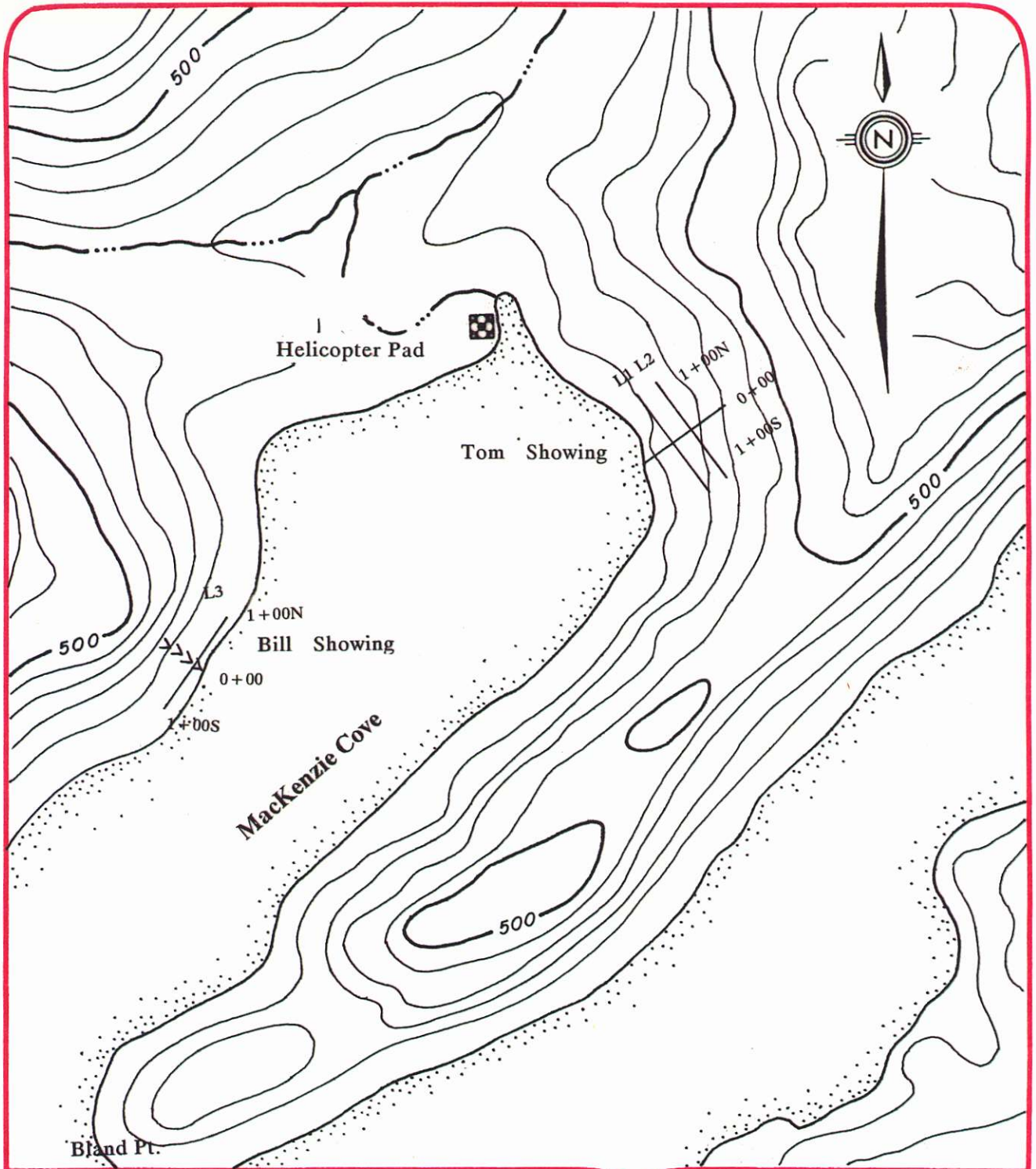


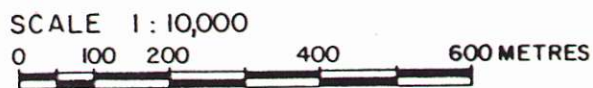
Figure 5  
**DOROMIN RESOURCES LTD.**

MATAJUR CLAIMS  
 Skeena M.D. - 103F

**LOCATION MAP**

To accompany a report by:  
 A.E. Hunter, Geop.

February, 1990





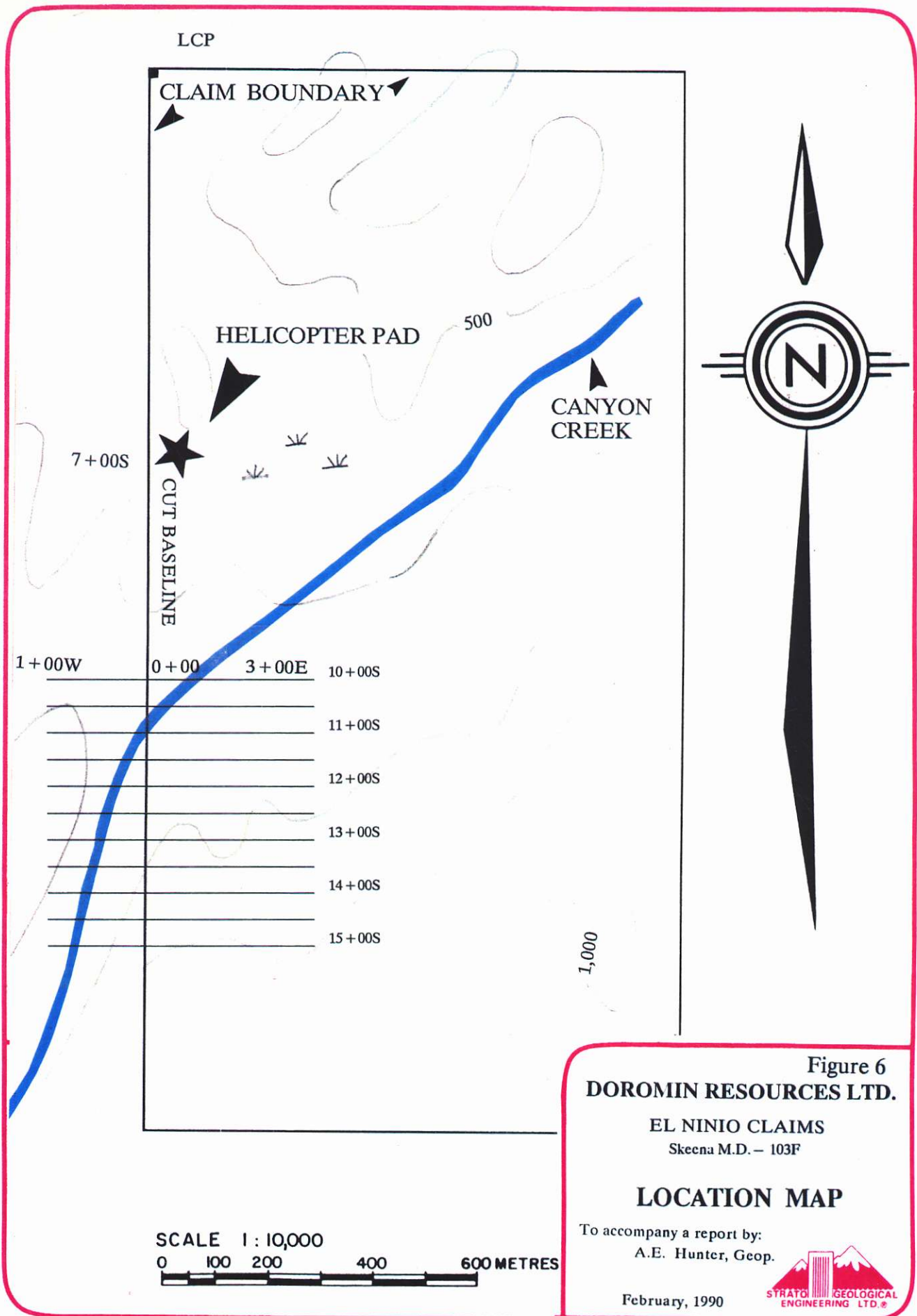


Figure 6  
**DOROMIN RESOURCES LTD.**

EL NINIO CLAIMS  
 Skeena M.D. - 103F

**LOCATION MAP**

To accompany a report by:  
 A.E. Hunter, Geop.

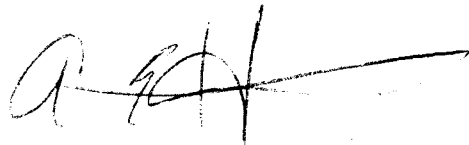
February, 1990



relief of 700 gammas and reveals a north to northeasterly trend. A region of high magnetic relief exists southeast of a line from 3 + 00E 10 + 50S to 1 + 00E 15 + 00S, inferring a geological contact.

A series of separated minor highs also trends northerly through 1 + 00E to 1 + 40E. Other minor magnetic highs are centered at 10 + 75S 0 + 30W, 12 + 40S 0 + 40W and 15 + 00S 0 + 00. A comparison of the geophysical data with the geochemical and geological data should be made in order to help establish the significance of the magnetic and electromagnetic anomalies.

Respectfully submitted,  
Strato Geological Engineering Ltd.



A.E. Hunter  
Geophysicist

February 28, 1990

## 5.0 REFERENCES

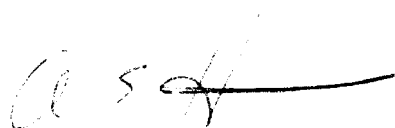
Sutherland Brown, A. (1968) Geology of the Queen Charlotte Islands, B.C., Bulletin No. 54  
British Columbia, Department of Mines Petroleum Resources.

## 6.0 CERTIFICATE

I, ALE. HUNTER of Vancouver, British Columbia, Canada do hereby certify the following:

1. I have completed the courses of the Bachelor of Applied Science program in Geological Engineering (Option 11) from the University of British Columbia, and will receive a degree upon completion of thesis.
2. Since leaving University I have practiced my profession in western and northern Canada for approximately 7 years.
3. This report is based on a personal field examination of the property and on privately and publically held data pertaining to the said property.
4. I have not received, nor do I expect to receive any interest, direct, indirect or contingent, in the securities or properties of Doromin Resources Ltd.

DATED at Surrey, British Columbia this 28th day of February, 1990.

  
A.E. HUNTER  
Geophysicist

**APPENDIX I:**  
**Geophysical Instrumentation**

## SABRE MODEL 27 VLF-EM RECEIVER

### SPECIFICATIONS

Source of Primary Field - VLF radio stations (12 to 24 KHz).

Number of Stations - 4, selected by switch; Cutler, Main on 17.8 KHz and Seattle, Washington on 24.8 KHz are standard, leaving 2 other stations that can be selected by the user. Currently these are Hawaii at 23.4 KHz and Annapolis, MD at 21.4 KHz.

#### Types of Measurements

1. Dip angle in degrees, read on a meter-type inclinometer with range of + or - 60 degrees and an accuracy of + or - 1/2 degrees.
2. Field strength, read on a meter and a precision digital dial with an accuracy exceeding 1%.
3. Out of phase component, read on the field strength meter as a residual reading when measuring the dip angle.

#### Dimensions and Weight

Approx. 9 1/2" x 2 1/2" x 8 1/2" (24.2cm x 6.3cm x 21.6cm).

5 lbs (2.37 kg)

#### Batteries

8 alkaline penlite cells (AA cells). The instrument will run continuously on one set of batteries for over 200 hours; so that in normal on-off use, the batteries will last all season. The battery condition under load is shown by pushing a button and reading voltage on the field strength meter.

Note: The instrument is not waterproof and must be protected by placing in a plastic bag for use under wet survey conditions.

## SCINTREX MODEL MP-2, PRECESSION MAGNETOMETER

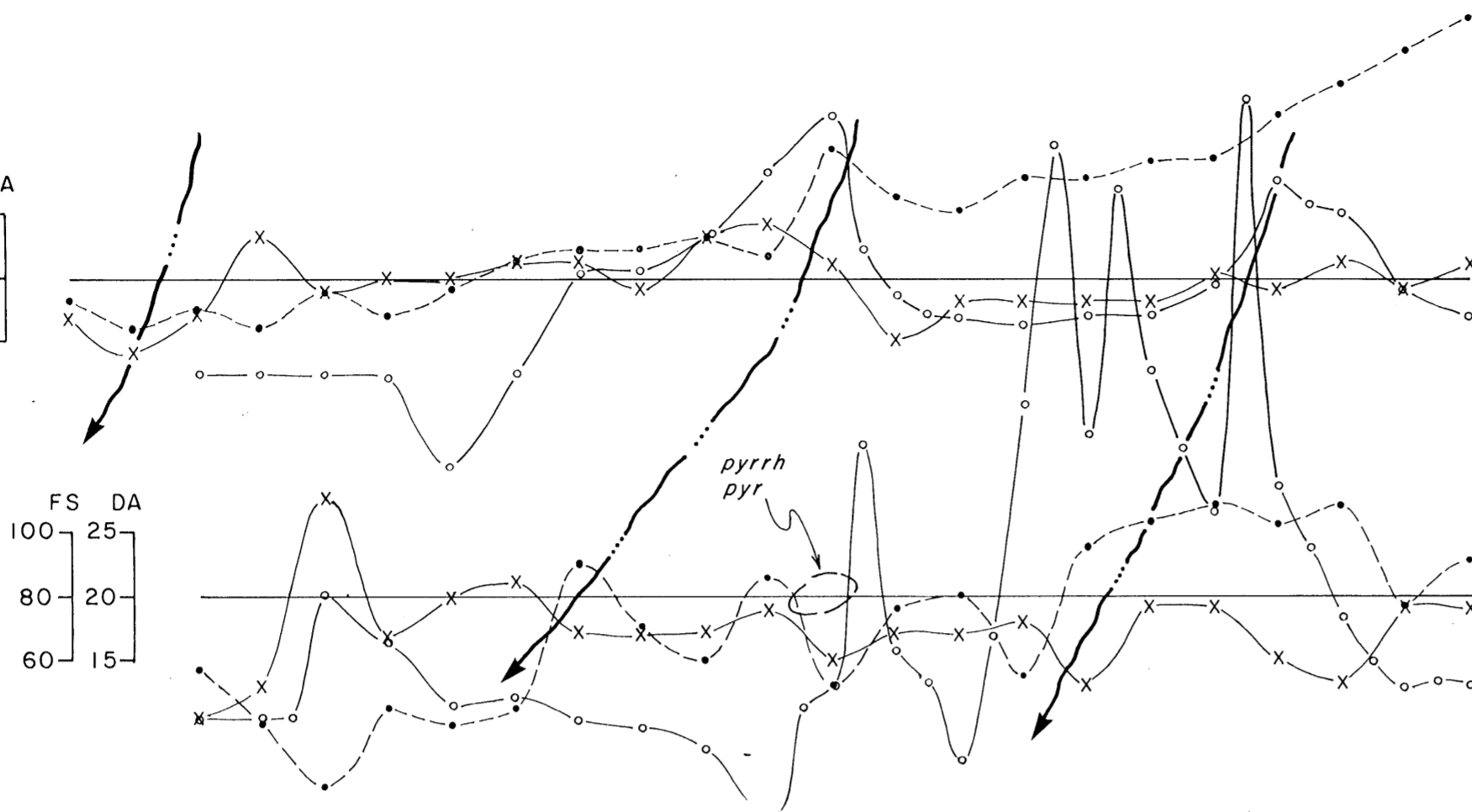
Resolution:	1 gamma.
Total Field Accuracy:	$\pm 1$ gamma over full operating range.
Range:	20,000 to 100,000 gammas in 25 overlapping steps.
Informal Measuring Program:	A reading appears 1.5 seconds after depression of the Operate Switch and remains displayed for a total of 3.7 seconds per single reading. Recycling feature permits automatic repetitive readings at 3.7 second intervals.
External Trigger:	External trigger input permits use of sampling intervals longer than 3.7 seconds.
Display:	5 digit LED (light emitting diode) readout displaying total magnetic field in gammas or normalized battery voltage.
Data Output:	Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.
Gradient Tolerance:	Up to 5000 gammas/meter.
Power Source:	8 alkaline "D" cells provide up to 25,000 readings at 25 degrees under reasonable signal/noise conditions (less at lower temperatures). Premium carbon-zinc cells provide about 40% of this number.

**TOM SHOWING**

1+20 N 1+00 N 0+60 N 0+20 N 0+00 0+40 S 0+80 S 1+00 S

**L 2**  
(0+45 E)

FS DA  
50 25  
40 20  
30 15



MFS  
56600  
56200  
→ 140°

VLF-EM Receiver: Sabre Electronics Model 27  
VLF-EM Transmitter: Lualualei Hawaii;  
Frequency: 23.4 kHz  
Magnetometer: Scintrex MP2 Proton  
Precession Magnetometer

**L 1**  
(0+00, 50m 050°  
from beach, elev. 150')

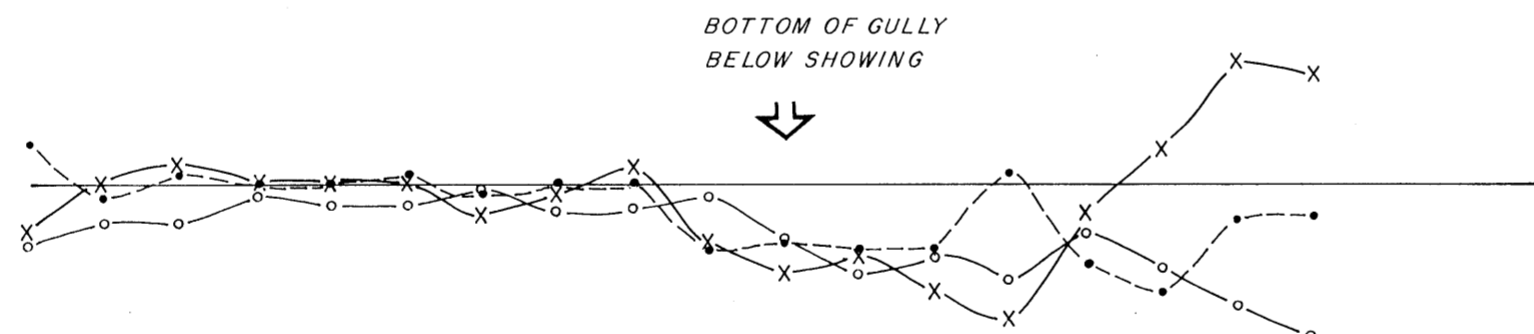
FS DA  
100 25  
80 20  
60 15

MFS  
57000  
56000  
55800  
→ 140°

**BILL SHOWING**

1+00 N 0+80 N 0+40 N 0+00 0+40 S 0+60 S 1+00 S

FS DA  
50 10  
40 5  
30 0

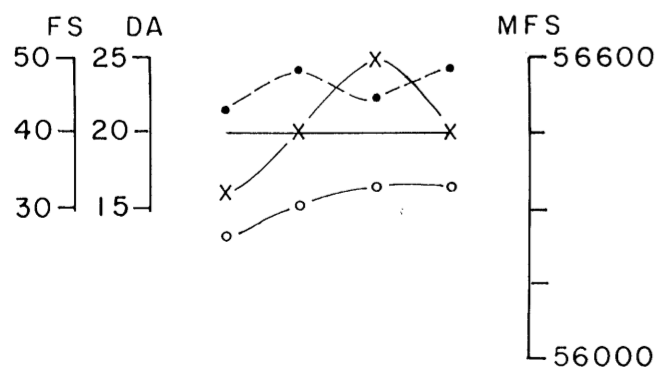


MFS  
56400  
56200  
56000  
→ 200°

VLF-EM Receiver: Sabre Electronics Model 27  
VLF-EM Transmitter: Cutler, Maine;  
Frequency: 17.8 kHz  
Magnetometer: Scintrex MP2 Proton  
Precession Magnetometer

SCALE 1: 1000  
0 25 50 75 METRES

**G E O P H Y S I C S L E G E N D**



- VLF-EM FIELD STRENGTH (FS)
- X—X VLF-EM DIP ANGLE (DA)
- MAGNETIC FIELD STRENGTH (MFS)

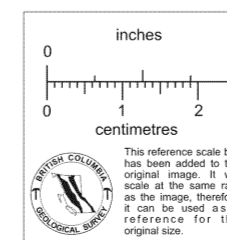
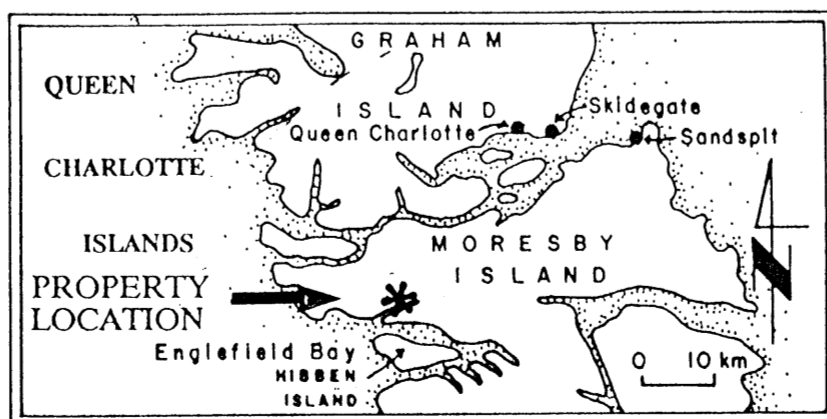



FIGURE 7

<b>DOROMIN RESOURCES LTD.</b>	
MATAJUR CLAIMS Skeena M.D. - NTS 103F/1W	
<b>RECONNAISSANCE GEOPHYSICS MACKENZIE COVE AREA</b>	
To accompany a report by: A.E. Hunter, Geop.	
Drawn By: AEH/DM	Date: February, 1990
	



1+00 W

0+00 E

1+00 E

2+00 E

3+00 E



10+00 S

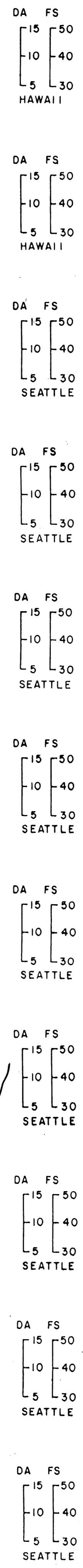
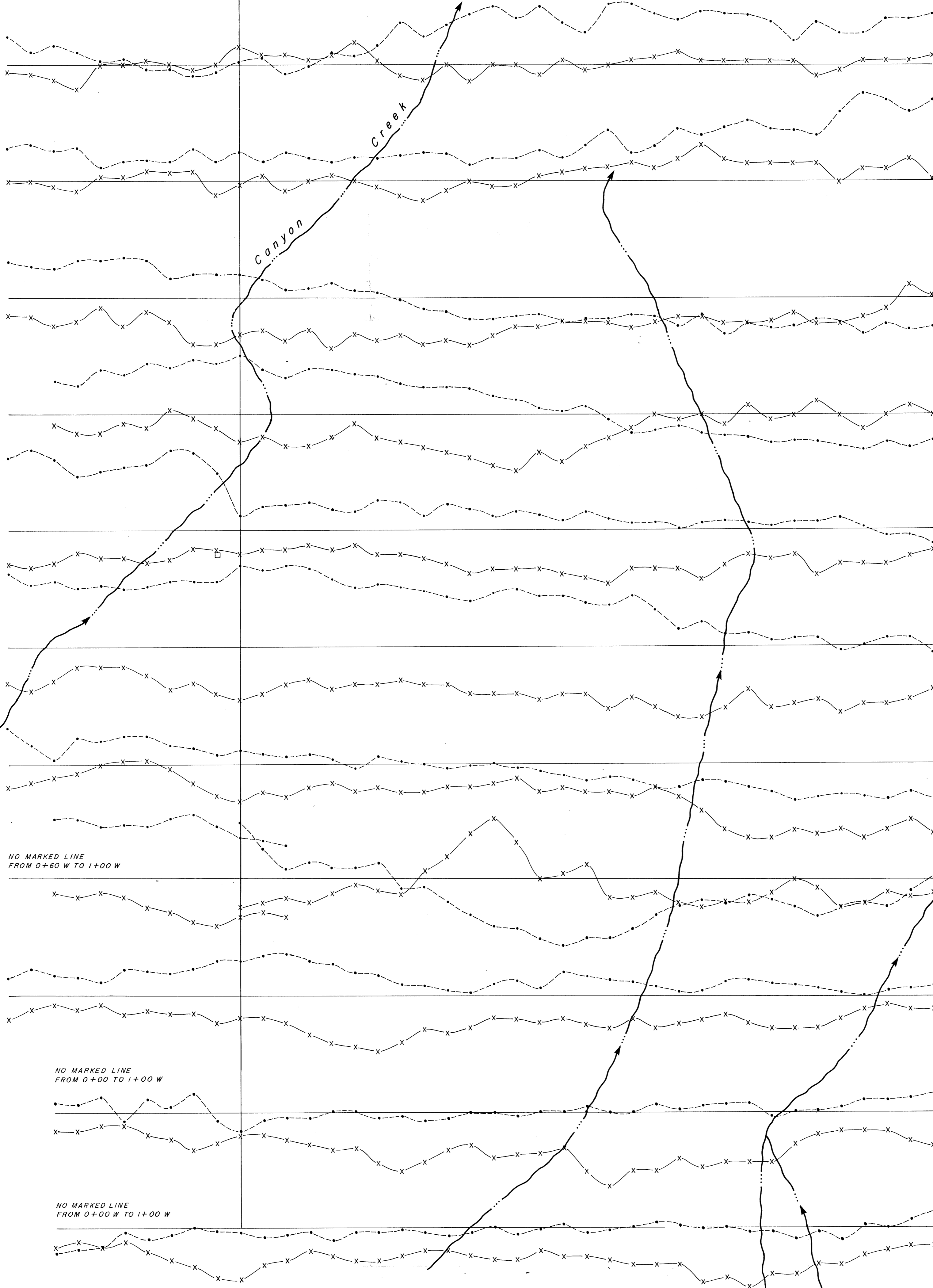
11+00 S

12+00 S

13+00 S

14+00 S

15+00 S



NO MARKED LINE FROM 0+60 W TO 1+00 W

NO MARKED LINE FROM 0+00 W TO 1+00 W

NO MARKED LINE FROM 0+00 W TO 1+00 W

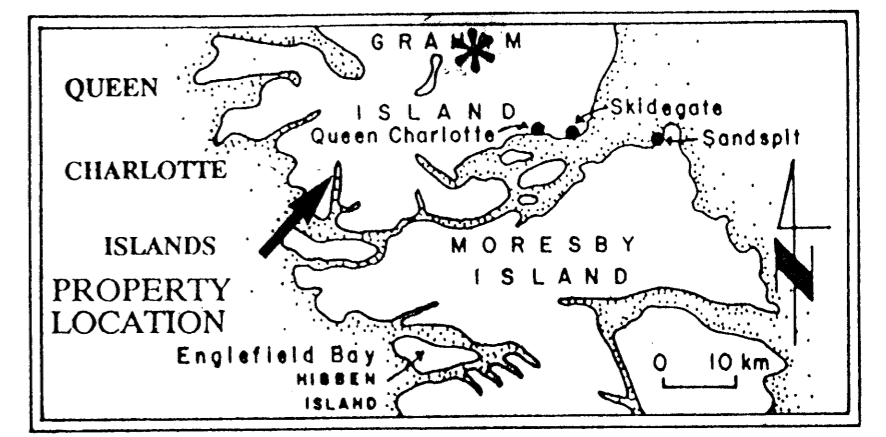
LEGEND

- Stream
- Claim Post

GEOPHYSICS LEGEND

- DA FS
- VLF-EM DIP ANGLE ( DA )
- VLF-EM FIELD STRENGTH ( FS )

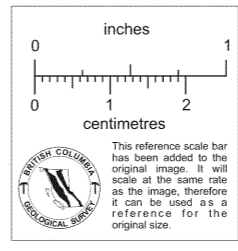
VLF-EM Receiver: Sabre Electronics Model 27  
 VLF-EM Transmitter: Lualualei Hawaii;  
 Frequency: 23.4 kHz  
 Seattle Washington;  
 Frequency: 21.4 kHz



SCALE 1:1000  
0 25 50 75 METRES

FIGURE 8

<b>DOROMIN RESOURCES LTD.</b>	
EL NINIO CLAIMS Skeena M.D. - NTS 103F/8E	
<b>VLF-EM PLOT PLAN EL NINIO GRID</b>	
To accompany a report by: A.E. Hunter, Geop.	
Drawn By: AEH/DM	Date: February, 1990



1+00 W

0+00 E

1+00 E

2+00 E

3+00 E



10+00 S

HAWAII

11+00 S

SEATTLE

12+00 S

SEATTLE

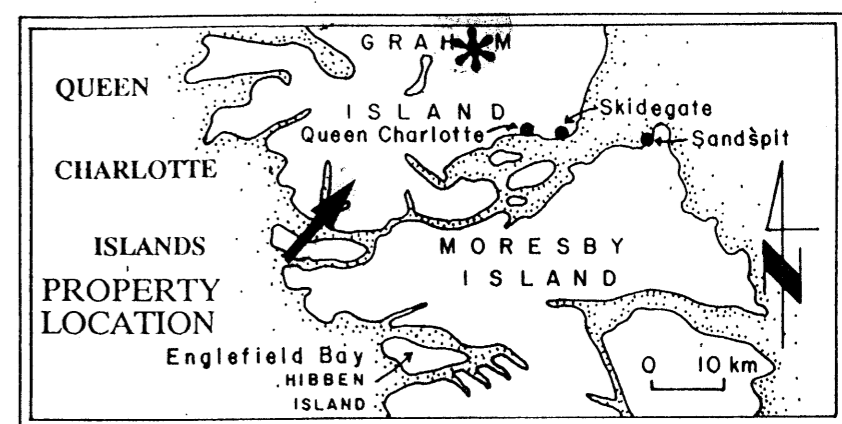
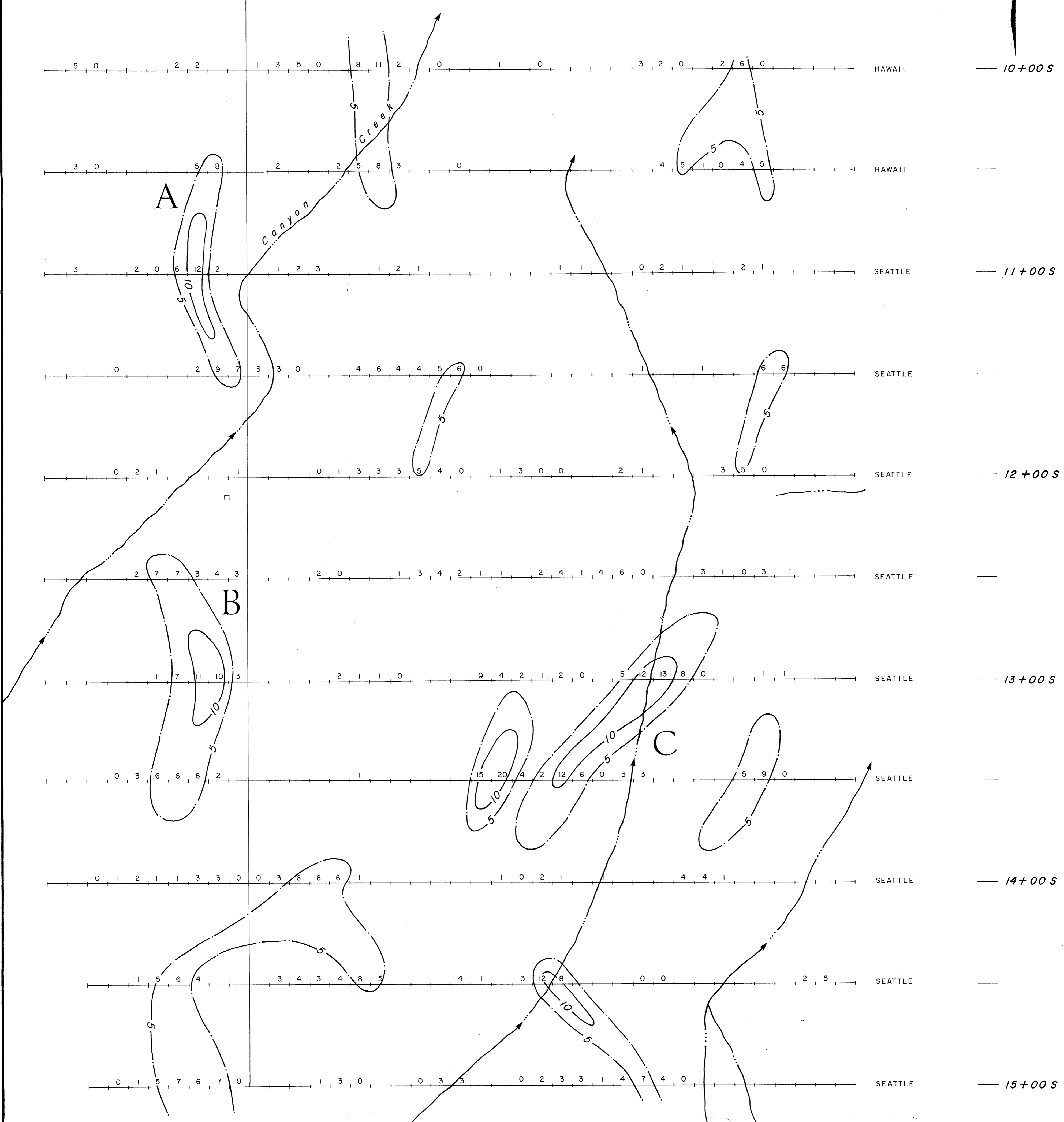
13+00 S

SEATTLE

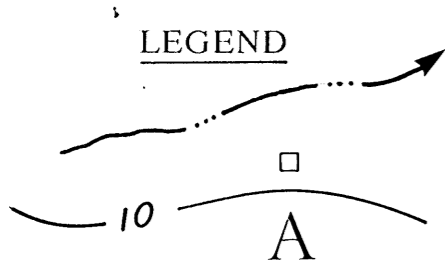
14+00 S

SEATTLE

15+00 S



SCALE 1:1000  
0 25 50 75 METRES



Stream  
Claim Post  
VLF-EM Fraser Filter Countours  
Anomaly A

Notes:

Fraser Filter: (A+B) - (C+D)  
where A to D are dip angles collected from west to east on east-west lines.  
Contour Interval: 5 & 10  
VLF-EM Receiver: Sabre Electronics Model 27  
VLF-EM Transmitter: Lualualei Hawaii; Frequency: 23.4 kHz  
Seattle Washington; Frequency: 21.4 kHz

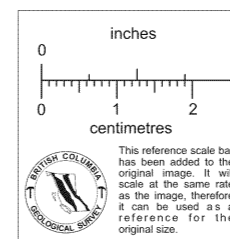


FIGURE 9

DOROMIN RESOURCES LTD.

EL NINIO CLAIMS  
Skeena M.D. - NTS 103F/8E

VLF-EM FRASER FILTER  
EL NINIO GRID

To accompany a report by: A.E. Hunter, Geop.

Drawn By: AEH/DM

Date: February, 1990



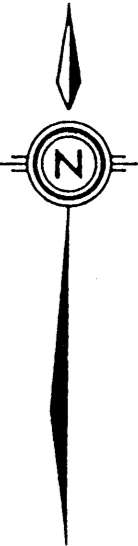
1+00 W

0+00 E

1+00 E

2+00 E

3+00 E



10+00 S

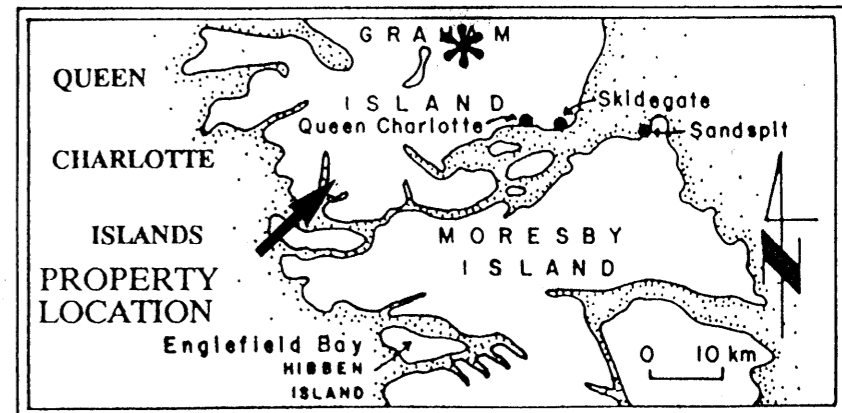
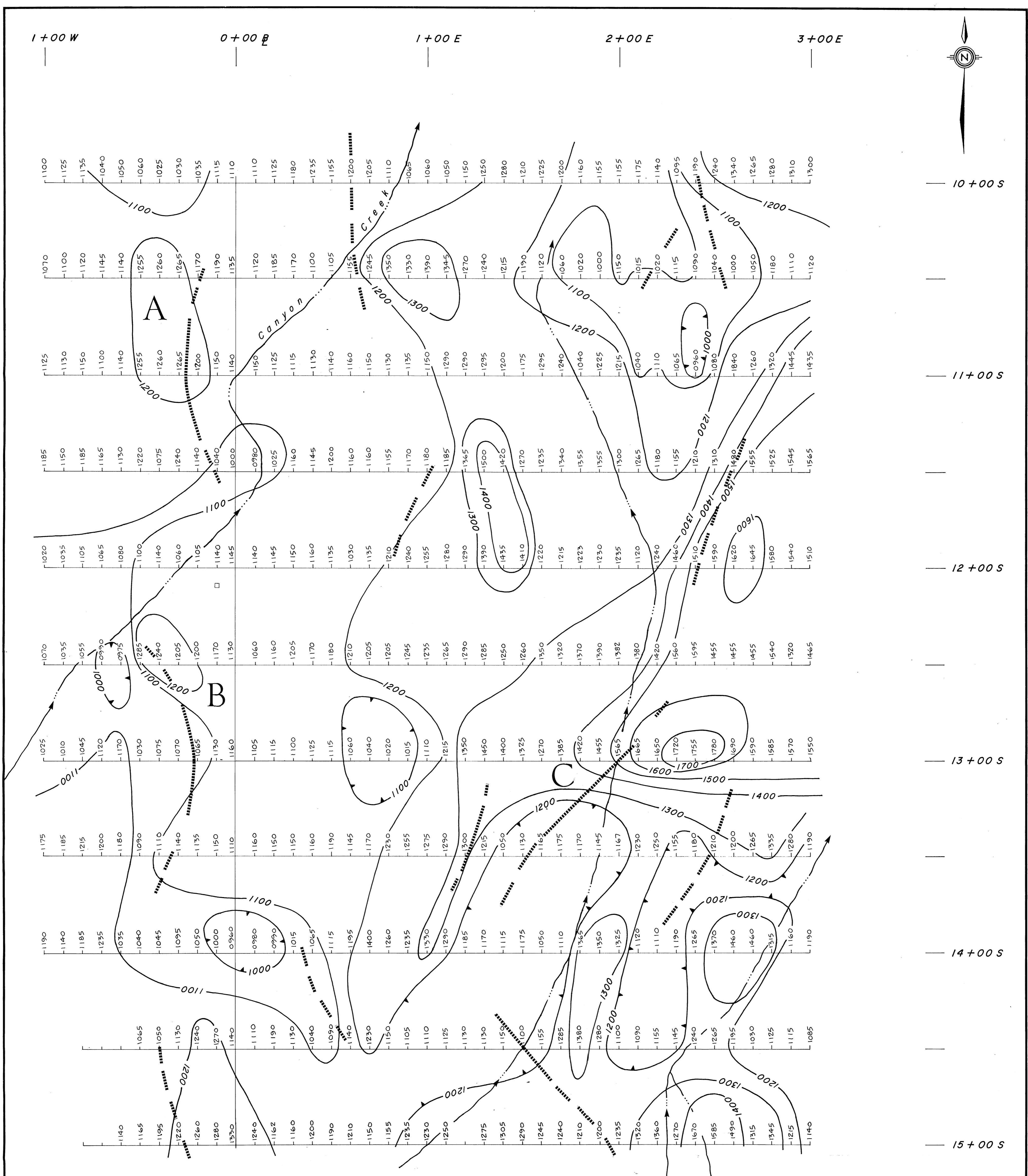
11+00 S

12+00 S

13+00 S

14+00 S

15+00 S



SCALE 1:1000  
0 25 50 75 METRES

FIGURE 10

**DOROMIN RESOURCES LTD.**

EL NINIO CLAIMS  
Skeena M.D. - NTS 103F/8E

**TOTAL MAGNETIC FIELD  
EL NINIO GRID**

To accompany a report by:

A.E. Hunter, Geop.

Drawn By:

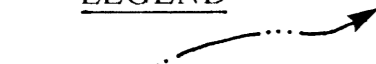



AEH/DM

Date:

February, 1990



**LEGEND**

-  Stream
-  Claim Post
-  Total Magnetic Field Countour
-  VLF-EM Conductors (very weak, weak)

**Notes:**

- Magnetometer: Scintrex MP2 Proton Precession Magnetometer
- Datum Level: 55,000 Gammas
- Contour Intervals: 1,000, 1,100, 1,200, 1,400, 1,500  
1,600, 1,700 Gammas above base level

