

LOG NO: 0811	RD.
ACTION:	
FILE NO:	

Geological and Geophysical  
 Report  
 on the  
**Julia Claim**

FILMED

Nanaimo Mining Division - British Columbia

Latitude: 49° 59' N Longitude: 125° 38' W  
 N.T.S. 92F/13E

Mineral Claim: Julia Record #: 2665

Owner: Mr. M. Sawiuk

Prepared by  
**Douglas J. Brownlee, P. Geol. (Alberta)**

July 5, 1989

Vancouver, British Columbia

SUB RECORDED  
 AUG 09 1989  
 VANCOUVER, B.C.

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**18,947**

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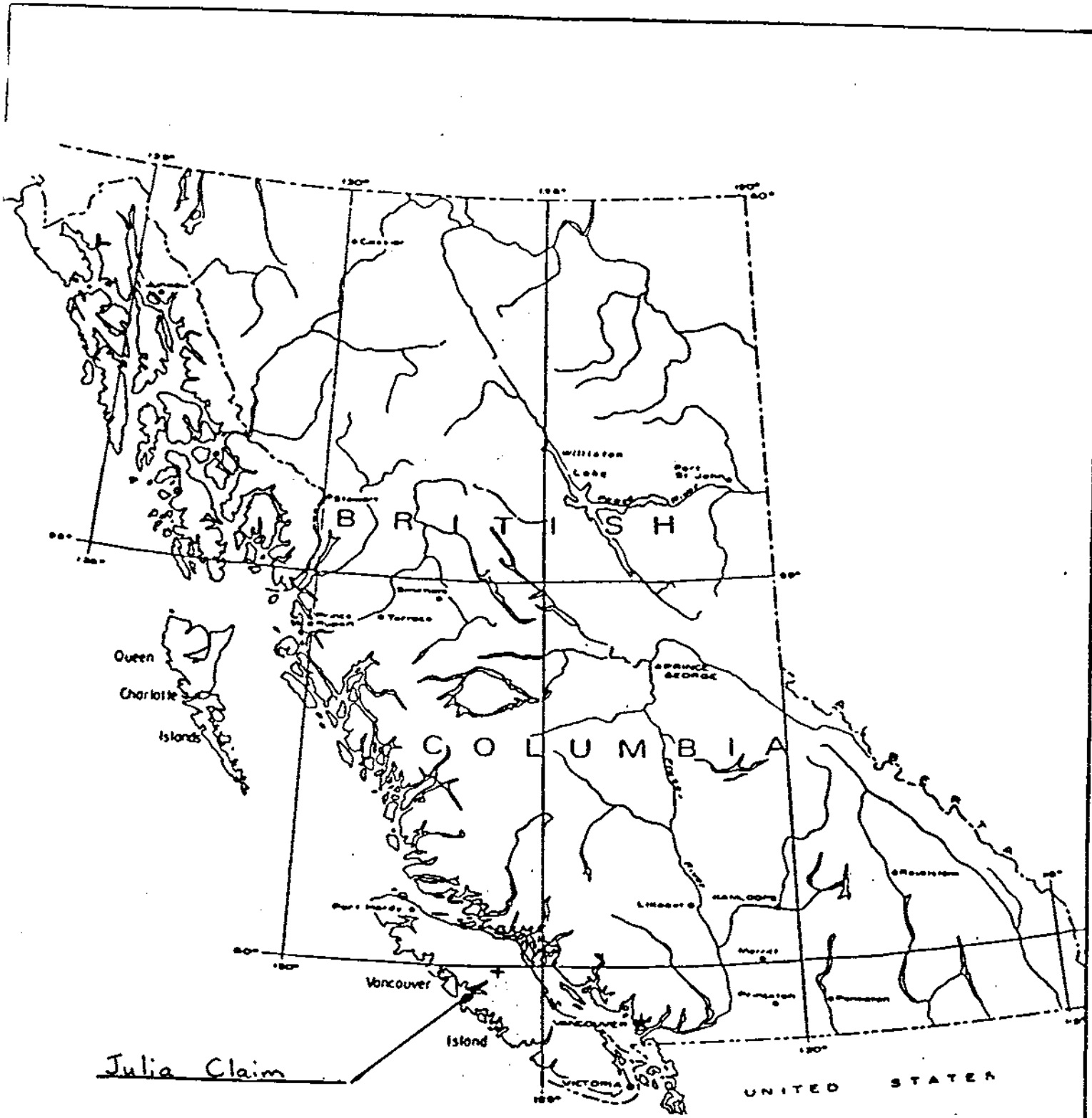
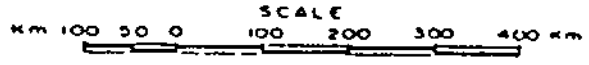
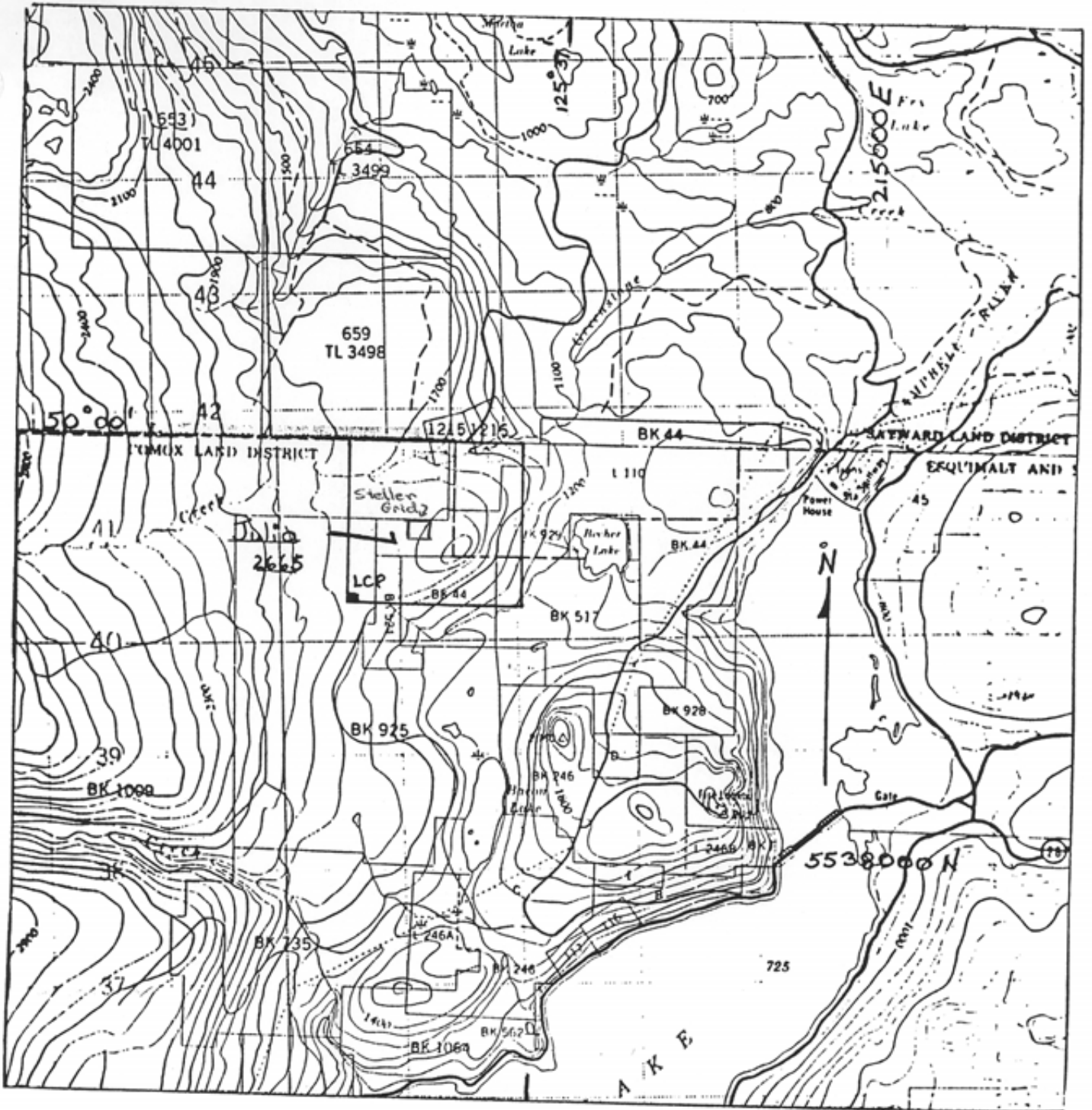


FIGURE 1

LOCATION MAP





GUERRA EXPLORATIONS LTD.		
ACCESS AND CLAIM MAP		
JULIA CLAIM		
Scale 1:50,000 M.S.	AUTHOR M.S. DRAWN BY M.S.	Date July 5/89 FIGURE 2

### **Claim Data**

The property consists of one 4-post mineral claim called the Julia and is 9 units in size. The claim is recorded at the Nanaimo Mining Division Office under record number 2665.

The owner of record is Mr. M. Sawiuk of Vancouver, B.C. (Figure 2).

### **History**

Magnetite bearing skarns located immediately north and south of the Julia claim area were first discovered in the early 1950's. Argonaut Mines Ltd. conducted a magnetometer survey and drill tested the southern skarn on the Bacon property during the mid to late 1950's. Georgia Mines Ltd. conducted airborne geophysical and ground geochemical surveys over the Greenstone Creek showing in 1969.

The area covered by the Julia claim has apparently never been worked and the recent interest in the area is the result of sulphide mineralization being exposed during road construction and discovered on May 2nd, 1989. This showing is now called the Steller showing.

### **Work Program**

A four day exploration program consisting of laying out 1.7 line kilometres of grid by hip chain and compass, followed by geological mapping, V.L.F. E.M. and magnetometer surveys at 25 metre measurement intervals.

This work program was conducted by R. Gosse, Geologist from May 4th to 7th, 1989.

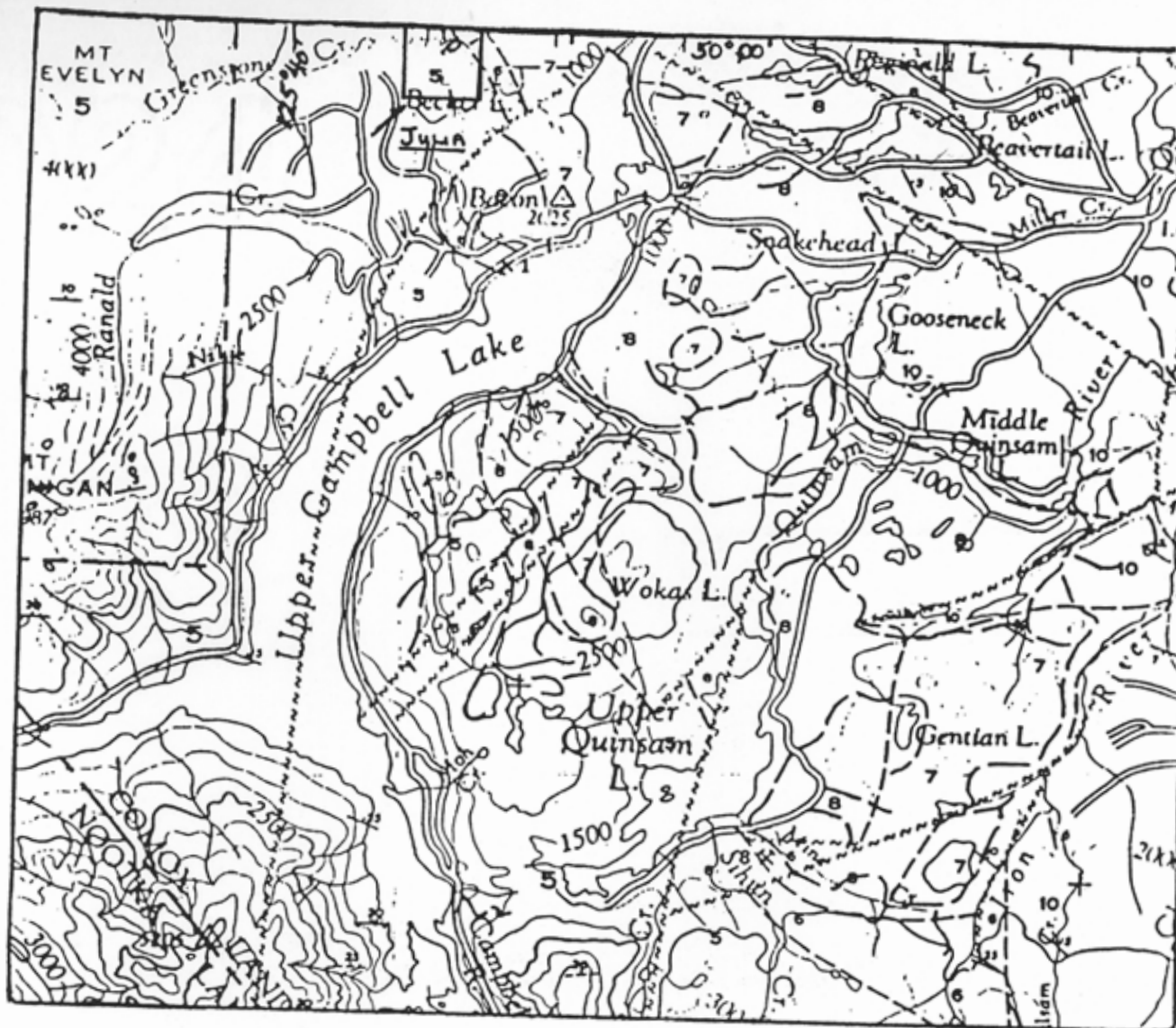
### **Geology**

The property is underlain by Upper Triassic limestone and calcareous shales of the Quatsino Formation. Overlying this unit is Triassic and/or Jurassic tuff, andesitic volcanic breccia and flows with interbeds of argillite, siltstone and limestone. These units are intruded by Jurassic and/or Cretaceous granodiorite, quartz diorite and gabbro of the Coast Intrusions (Figure 3).

### **Steller Showing Geology**

The Steller showing is associated with the intrusion of a medium to coarse grained diorite with associated coarse grained magnetic gabbroic regions. These intrude a fine grained moderately silicified andesitic lava, which is bleached in areas and cut by epidote plus calcite veinlets (Figure 4).

The mineralization occurs in a silicified-carbonate shear structure occurring within a 6 metre wide rusty orange zone. The structure is enveloped in a 10-15 metre wide zone of prominent chlorite/magnetite replacement occurring as kidney shapes and amoeboid blobs in the host rock.



**CRETACEOUS**

**UPPER CRETACEOUS**

**NANAIMO GROUP (9-11)**

**10** COMOX FORMATION: sandstone, pebbly sandstone; minor conglomerate, shale, coal

**JURASSIC AND (?) CRETACEOUS**

**COAST INTRUSIONS**

**8** Granodiorite; minor quartz diorite

**TRIASSIC AND (?) JURASSIC**

**VANCOUVER GROUP (5-7)**

**7** Tuff, andesitic volcanic breccia and lava; argillite, siltstone; includes some rocks of unit 6

**TRIASSIC**

**UPPER TRIASSIC**

**6** Limestone, calcareous shale; skarn near intrusive contacts

**5** Massive, partly amygdaloidal, basalt, pillow basalt, pillow breccia; minor tuff, volcanic breccia

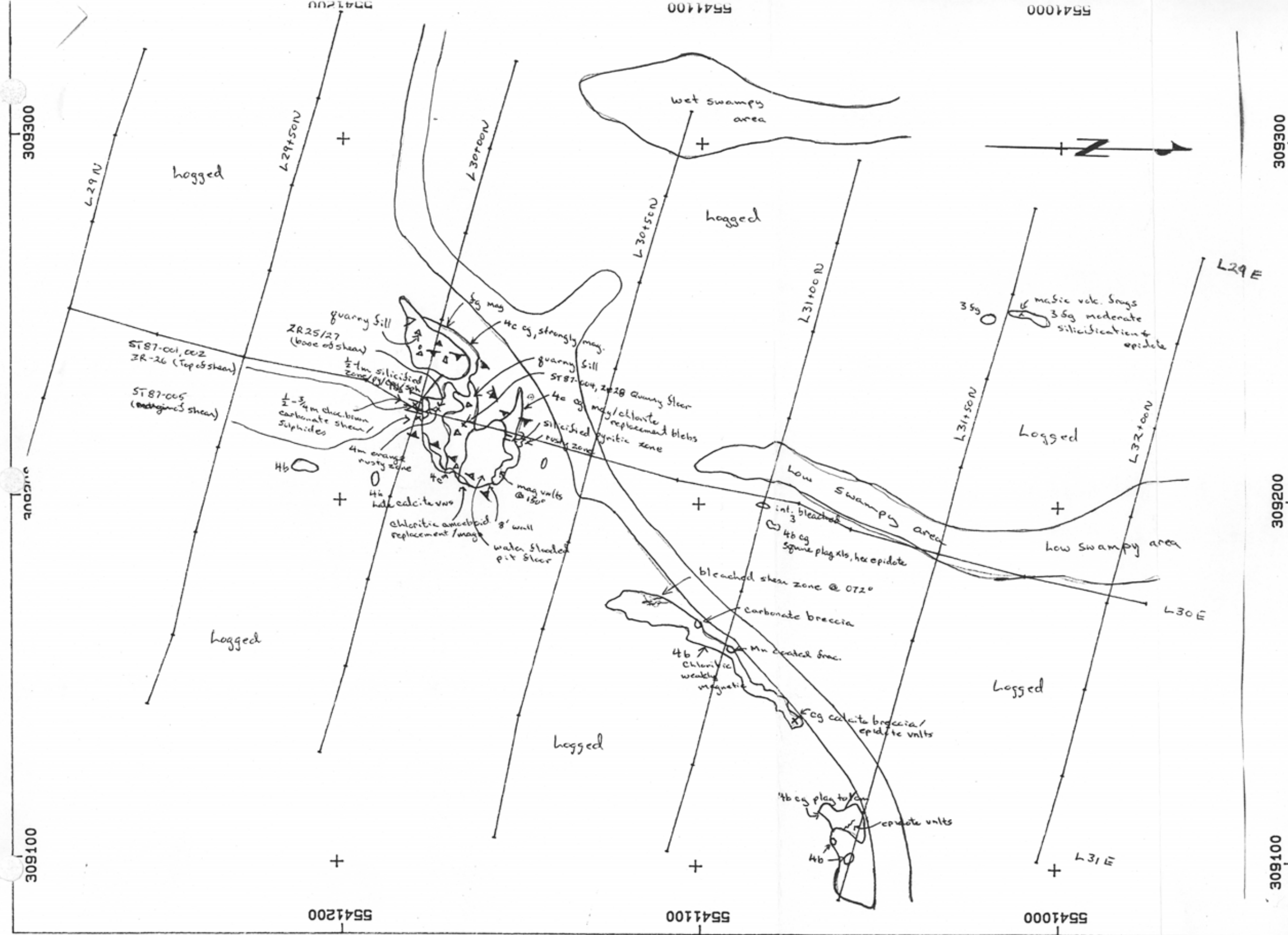
5A: limestone, calcareous siltstone, shale, interbedded in 5

- ..... geological boundary, approximate
- ..... Bedding (horizontal, inclined, overturned) + / \
- ..... Bedding (observed from distance or from air photos)
- ..... Schistosity
- ..... Fault, assumed

GUERRA EXPLORATION LTD.	
GEOLOGY MAP	
JULIA CLAIM	
NANAIMO N.D.	92F 13
July 5/89 DRWN BY MS. FIG 3	

After J.E. Muller 1964 map 2-1965

MESOZOIC



- LEGEND**
- JURASSIC (?)
    - 5 Andesitic dyke
  - JURASSIC & CRETACEOUS (?)
    - 4a Granodiorite
    - b Diorite
    - c gabbro
  - TRIASSIC & JURASSIC (?)
    - Vancouver Group
      - upper triassic
        - Bonanza Formation
          - 3 Andesitic tuff, volc breccia, la
      - Quatsino Formation
        - 2 Limestone, calc. shale
      - Karmutsen Formatic
        - 1 Massiye, partly amygdaloidal and pillow basalt

- SYMBOLS**
- Replacement magnetite +/- chlorite alt.
  - py pyrite
  - mag magnetite
  - cpy chalcopyrite
  - sph sphalerite
  - sg fine grained
  - cg coarse grained
  - ST87-001, 2R-28 sample sites (see 1988 report)

D.J.B. SERVICES Ltd  
 GEOLOGY MAP, STELLER & JULIA CLAIM  
 Vancouver Island B.C. N.T.S. 92  
 Scale 1: 1000.0

Date: 05/07/88 Drawn by: DJB

Muir & Associates Computer Consultants



### **V.L.M. E.M. Survey**

A total of 1.4 line kilometres of grid was run with readings taken every 25 metres, utilizing a Sabre Model 15 V.L.F. E.M. receiver tuned to Seattle, Washington.

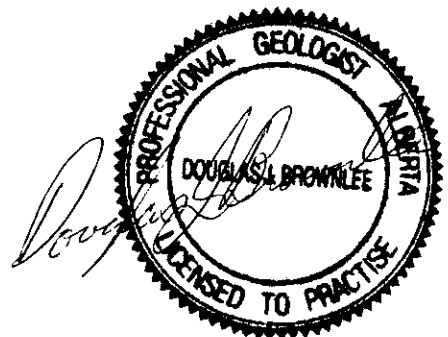
The VLF-EM dip data was filtered by a technique, described by D.C. Fraser in 1969 (Geophysics, V.34; No. 6; pp. 958-967). The dip, field strength and fraser filter data is presented in profile format on Figure 5.

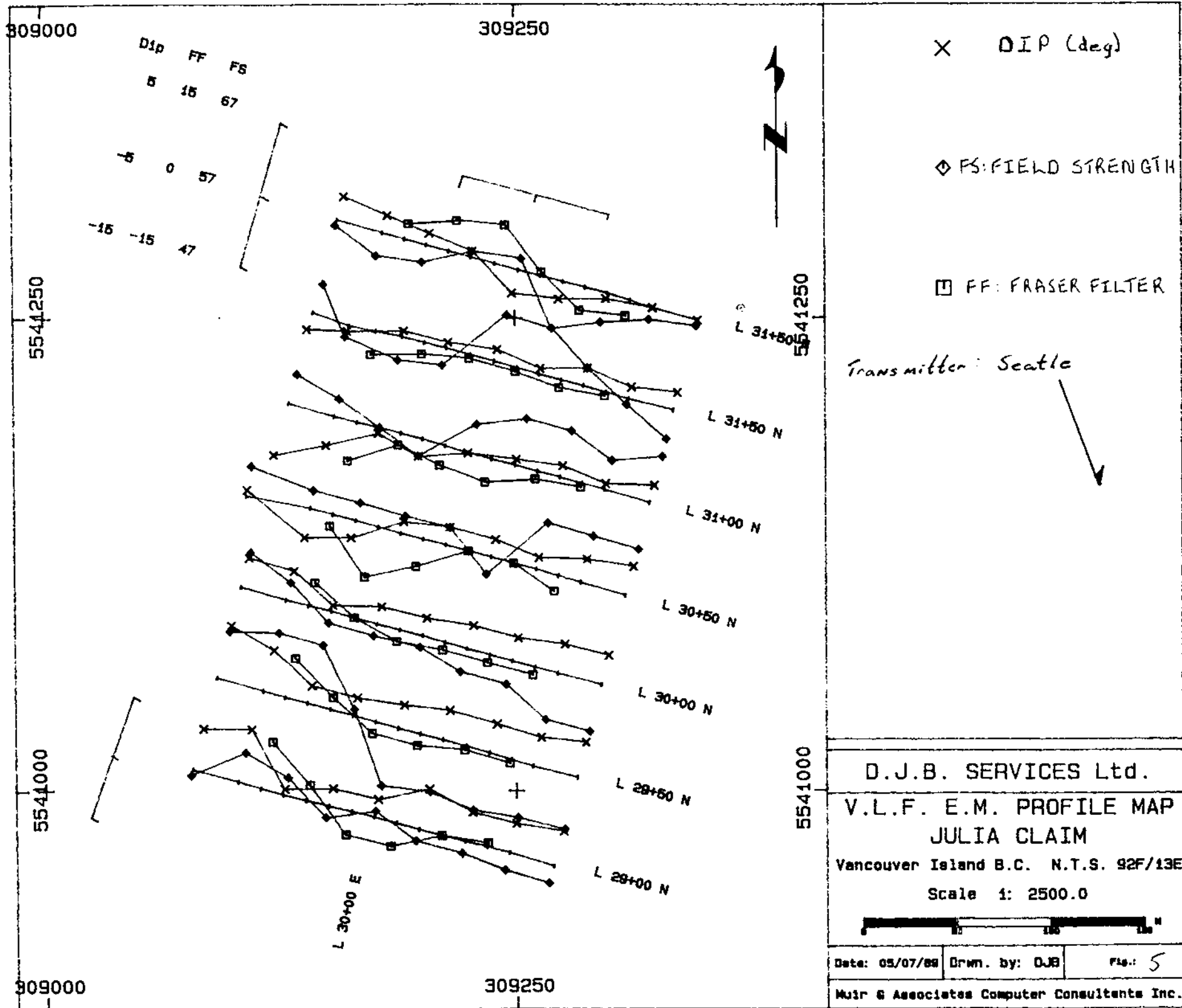
The V.L.F. E.M. data shows a northerly trending conductor offset approximately 75 metres to the west of the Steller shear zone. This may be the signature of a subparallel conductive structure.

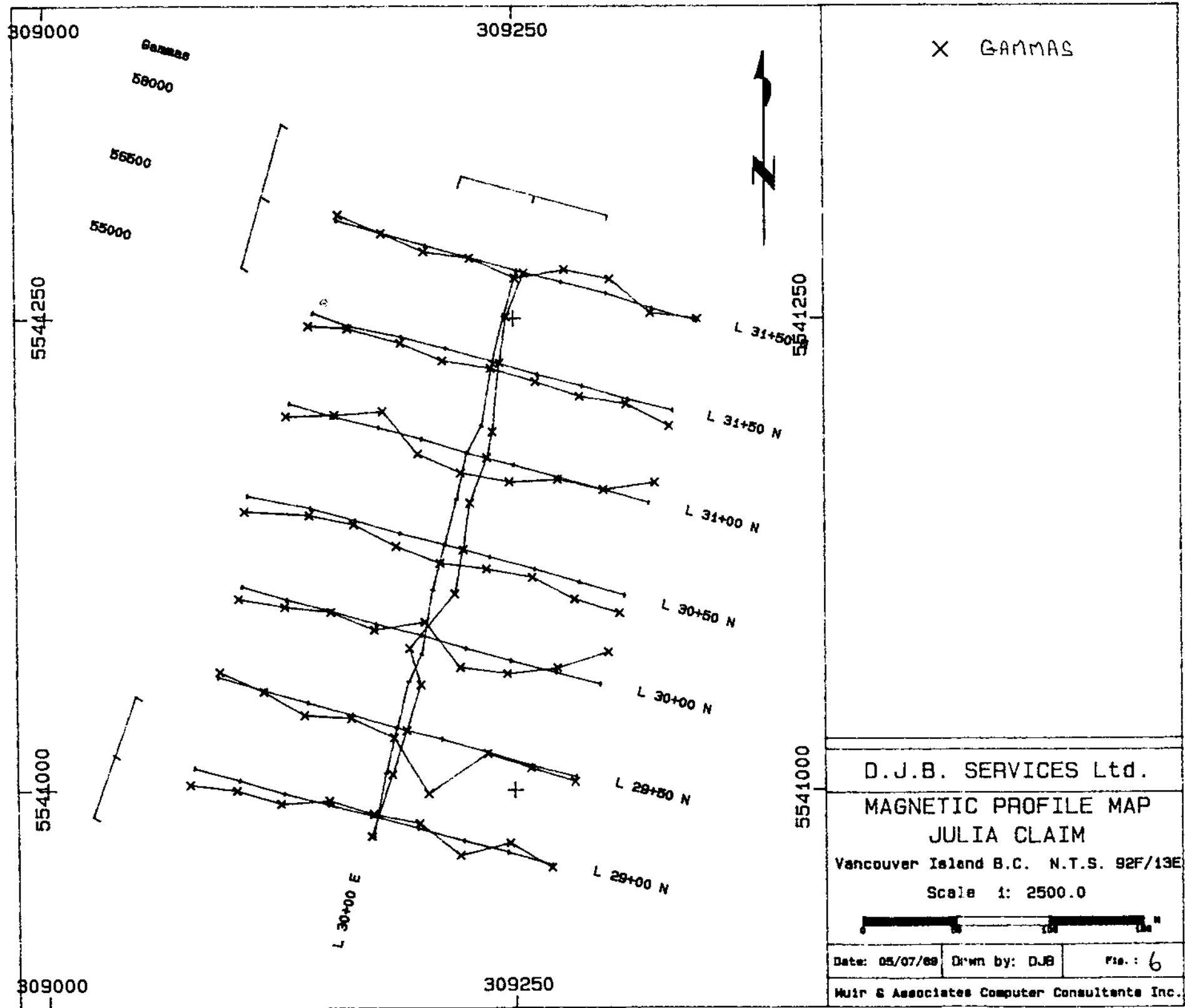
### **Magnetometer Survey**

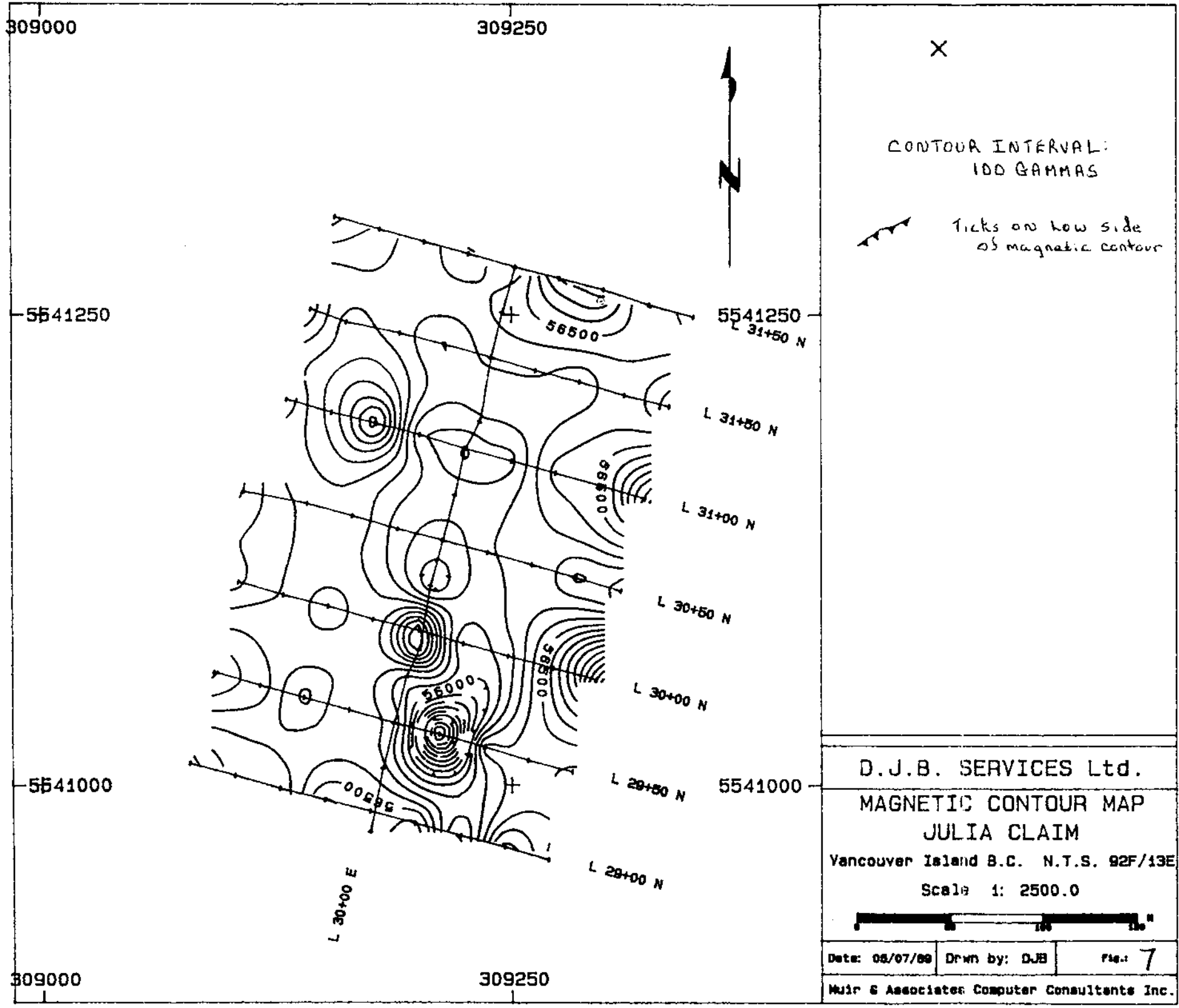
A total of 1.7 line kilometres of magnetic readings were collected using a Scintrex MP 1 proton magnetometer. The magnetic data was corrected for diurnal variation by reading the baseline twice and then correcting for diurnal variation and averaging the results. All other lines were looped off the baseline; corrected back to the baseline level and for diurnal variation. The resulting data is presented in profile and contoured formats on Figures 6 and 7.

The magnetic data shows a 400 gamma high at the Steller showing (based on an average background of 56400 gammas) flanked to the east by a northtrending linear magnetic low. This magnetic linear low is interpreted as being the signature of the shear zone which hosts the Steller showing.

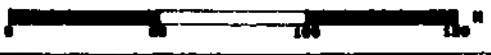








D.J.B. SERVICES Ltd.  
 MAGNETIC CONTOUR MAP  
 JULIA CLAIM  
 Vancouver Island B.C. N.T.S. 92F/13E  
 Scale 1: 2500.0



Date: 08/07/89	Drawn by: DJB	File: 7
Muir & Associates Computer Consultants Inc.		

## REFERENCES

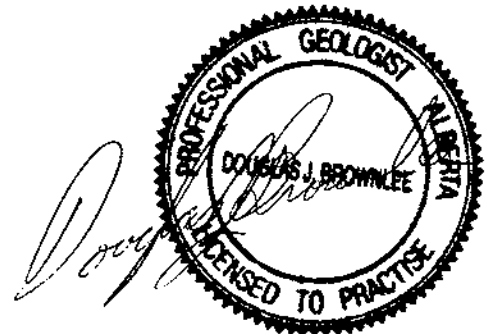
- Brownlee, D.J.** Preliminary Reconnaissance and Lithogeochemical Survey of the Julia Claim; Assessment Report, April 25, 1988
- Muller, J.E.** G.S.C. Map 2-1965, Comox Lake Area Open Files Selected company reports, B.C. Ministry of Energy Mines and Petroleum Resources, Geological Division, Open Files 92F.

**Statement of Qualifications**

**I, Douglas J. Brownlee, do hereby certify that:**

1. I reside at #101 - 2615 Lonsdale Avenue North Vancouver, British Columbia.
2. I hold a B.Sc. (Spec. Geology) 1980, from the University of Alberta.
3. I am a Professional Geologist licensed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (1988).
4. I have practised my profession as a geologist since 1980.
5. That this report is based upon a exploration program conducted by R. Gosse, Geologist, on the Julia claim from May 4th to 7th, 1989. Also, on personal examination of the property.

Douglas J. Brownlee  
P. Geol. (Alberta)



**Appendix I**

**V.L.F. E.M. and Magnetic Data**

V.L.F. E.M. and Magnetic Data

Magnetic Data

UTM		Grid E.	Grid N	Gammas
Easting	Northing			
309174.00	5540975.00	L30+00E	S29+00N	56547
309181.00	5541009.00	L30+00E	S29+25N	56331
309187.00	5541033.00	L30+00E	S29+50N	56244
309193.50	5541057.50	L30+00E	S29+75N	56186
309200.50	5541072.00	L30+00E	S30+00N	56844
309206.50	5541106.00	L30+00E	S30+25N	55933
309213.00	5541130.00	L30+00E	S30+50N	56021
309219.50	5541154.00	L30+00E	S30+75N	56152
309225.00	5541178.50	L30+00E	S31+00N	55977
309233.00	5541193.00	L30+00E	S31+25N	56186
309239.00	5541227.00	L30+00E	S31+50N	56321
309245.00	5541251.00	L30+00E	S31+75N	56435
309252.00	5541275.00	L30+00E	S32+00N	56310

Grid N Grid E

309078.00	5541011.50	L29+00N	S29+00E	56069
309102.00	5541005.00	L29+00N	S29+25E	56233
309126.00	5540998.00	L29+00N	S29+50E	56229
309150.00	5540992.00	L29+00N	S29+75E	56611
309174.00	5540986.00	L30+00E	S29+00N	56547
309198.00	5540979.50	L29+00N	S30+25E	56632
309222.50	5540973.00	L29+00N	S30+50E	56130
309246.00	5540967.00	L29+00N	S30+75E	56735
309270.00	5540960.00	L29+00N	S31+00E	56444
309091.00	5541060.00	L29+50N	S29+00E	56631
309115.50	5541053.00	L29+50N	S29+25E	56464
309139.00	5541046.50	L29+50N	S29+50E	56173
309163.00	5541040.00	L29+50N	S29+75E	56412
309187.00	5541033.00	L30+00E	S29+50N	56244
309211.00	5541027.00	L29+50N	S30+25E	55095
309235.50	5541020.00	L29+50N	S30+50E	56476
309259.00	5541013.00	L29+50N	S30+75E	56442
309283.00	5541007.00	L29+50N	S31+00E	56381
309104.00	5541108.00	L30+00N	S29+00E	56176
309128.00	5541101.00	L30+00N	S29+25E	56307
309152.00	5541095.00	L30+00N	S29+50E	56470
309176.00	5541088.00	L30+00N	S29+75E	56350
309200.50	5541082.00	L30+00E	S30+00N	56844
309224.00	5541075.00	L30+00N	S30+25E	56002
309248.00	5541068.50	L30+00N	S30+50E	56164
309272.50	5541062.00	L30+00N	S30+75E	56633
309296.00	5541056.00	L30+00N	S31+00E	57334
309107.00	5541156.00	L30+50N	S29+00E	56102
309141.00	5541149.50	L30+50N	S29+25E	56322
309165.00	5541143.00	L30+50N	S29+50E	56390
309189.00	5541136.00	L30+50N	S29+75E	56163
309213.00	5541130.00	L30+00E	S30+50N	56021
309237.00	5541123.50	L30+50N	S30+25E	56184
309261.00	5541117.00	L30+50N	S30+50E	56286
309285.00	5541110.00	L30+50N	S30+75E	56055
309309.00	5541103.00	L30+50N	S31+00E	56040



309130.00	5541205.00	L31+00N	S29+00E	56167
309154.00	5541198.00	L31+00N	S29+25E	56549
309178.00	5541192.00	L31+00N	S29+50E	56924
309201.00	5541186.00	L31+00N	S29+75E	56108
309225.00	5541178.50	L30+00E	S31+00N	55977
309250.00	5541172.00	L31+00N	S30+25E	56068
309274.00	5541165.50	L31+00N	S30+50E	56445
309298.00	5541159.00	L31+00N	S30+75E	56496
309322.00	5541152.00	L31+00N	S31+00E	57033
309143.00	5541253.00	L31+50N	S29+00E	56147
309162.00	5541246.00	L31+50N	S29+25E	56432
309190.50	5541240.00	L31+50N	S29+50E	56345
309214.00	5541234.00	L31+50N	S29+75E	56177
309239.00	5541227.00	L30+00E	S31+50N	56321
309263.00	5541220.00	L31+50N	S30+25E	56314
309287.00	5541214.00	L31+50N	S30+50E	56230
309311.00	5541207.00	L31+50N	S30+75E	56374
309335.00	5541201.00	L31+50N	S31+00E	56103
309156.00	5541302.00	L32+00N	S29+00E	56640
309180.00	5541295.00	L32+00N	S29+25E	56490
309203.50	5541288.50	L32+00N	S29+50E	56336
309227.00	5541282.00	L32+00N	S29+75E	56484
309252.00	5541275.00	L30+00E	S32+00N	56310
309276.00	5541269.00	L32+00N	S30+25E	56815
309300.00	5541263.00	L32+00N	S30+50E	56864
309324.00	5541255.00	L32+00N	S30+75E	56383
309348.00	5541248.50	L32+00N	S31+00E	56556

**V.L.F. E.M. Data**

UTM		Grid N	Grid E	Dip	Phase Strength	Field
Easting	Northing					
309078.00	5541011.50	L29+00N	S29+00E	2	5	56
309102.00	5541005.00	L29+00N	S29+25E	4	4	62
309126.00	5540998.00	L29+00N	S29+50E	-4	1	60
309150.00	5540992.00	L29+00N	S29+75E	-2	0	55
309174.00	5540986.00	L29+00N	S30+00E	-2	1	58
309198.00	5540979.50	L29+00N	S30+25E	2	1	55
309222.50	5540973.00	L29+00N	S30+50E	0	1	55
309246.00	5540967.00	L29+00N	S30+75E	0	0	54
309270.00	5540960.00	L29+00N	S31+00E	1	0	54
309091.00	5541060.00	L29+50N	S29+00E	4	3	65
309115.50	5541053.00	L29+50N	S29+25E	2	2	67
309139.00	5541046.50	L29+50N	S29+50E	-2	2	67
309163.00	5541040.00	L29+50N	S29+75E	-2	1	58
309187.00	5541033.00	L29+50N	S30+00E	-1	1	47
309211.00	5541027.00	L29+50N	S30+25E	0	0	48
309235.50	5541020.00	L29+50N	S30+50E	0	0	47
309259.00	5541013.00	L29+50N	S30+75E	0	0	48
309283.00	5541007.00	L29+50N	S31+00E	1	0	48
309104.00	5541108.00	L30+00N	S29+00E	0	0	63
309128.00	5541101.00	L30+00N	S29+25E	0	1	60
309152.00	5541095.00	L30+00N	S29+50E	-4	1	55
309176.00	5541088.00	L30+00N	S29+75E	-2	1	55
309200.50	5541082.00	L30+00N	S30+00E	-2	0	55
309224.00	5541075.00	L30+00N	S30+25E	-1	0	53

309248.00	5541068.50	L30+00N	S30+50E	-1	0	53
309272.50	5541062.00	L30+00N	S30+75E	0	1	49
309296.00	5541056.00	L30+00N	S31+00E	0	0	49
309107.00	5541156.00	L30+50N	S29+00E	-4	0	62
309141.00	5541149.50	L30+50N	S29+25E	-10	0	60
309165.00	5541143.00	L30+50N	S29+50E	-8	0	60
309189.00	5541136.00	L30+50N	S29+75E	-3	0	60
309213.00	5541130.00	L30+50N	S30+00E	-2	0	60
309237.00	5541123.50	L30+50N	S30+25E	-2	0	54
309261.00	5541117.00	L30+50N	S30+50E	-3	0	65
309285.00	5541110.00	L30+50N	S30+75E	-1	0	65
309309.00	5541103.00	L30+50N	S31+00E	0	0	65
309130.00	5541205.00	L31+00N	S29+00E	-14	0	62
309154.00	5541198.00	L31+00N	S29+25E	-10	0	60
309178.00	5541192.00	L31+00N	S29+50E	-6	0	57
309201.00	5541186.00	L31+00N	S29+75E	-8	0	54
309225.00	5541178.50	L31+00N	S30+00E	-5	0	62
309250.00	5541172.00	L31+00N	S30+25E	-4	0	65
309274.00	5541165.50	L31+00N	S30+50E	-3	0	65
309298.00	5541159.00	L31+00N	S30+75E	-4	0	62
309322.00	5541152.00	L31+00N	S31+00E	-2	0	65
309143.00	5541253.00	L31+50N	S29+00E	-8	0	62
309162.00	5541246.00	L31+50N	S29+25E	-6	0	55
309190.50	5541240.00	L31+50N	S29+50E	-4	0	53
309214.00	5541234.00	L31+50N	S29+75E	-4	0	54
309239.00	5541227.00	L31+50N	S30+00E	-3	0	65
309263.00	5541220.00	L31+50N	S30+25E	-4	0	65
309287.00	5541214.00	L31+50N	S30+50E	-2	0	60
309311.00	5541207.00	L31+50N	S30+75E	-3	1	56
309335.00	5541201.00	L31+50N	S31+00E	-2	0	52
309156.00	5541302.00	L32+00N	S29+00E	-1	0	56
309180.00	5541295.00	L32+00N	S29+25E	-2	0	53
309203.50	5541288.50	L32+00N	S29+50E	-3	0	54
309227.00	5541282.00	L32+00N	S29+75E	-4	0	58
309252.00	5541275.00	L32+00N	S30+00E	-9	1	59
309276.00	5541269.00	L32+00N	S30+25E	-8	0	49
309300.00	5541263.00	L32+00N	S30+50E	-6	0	52
309324.00	5541255.00	L32+00N	S30+75E	-5	0	55
309348.00	5541248.50	L32+00N	S31+00E	-5	0	56

Fraser  
Filter

309114.00	5541001.50	L29+00N	S29+25E	4		
309138.00	5540995.00	L29+00N	S29+50E	-6		
309162.00	5540989.00	L29+00N	S29+75E	-6		
309186.00	5540982.75	L29+00N	S30+00E	0		
309210.25	5540976.25	L29+00N	S30+25E	1		
309234.25	5540970.00	L29+00N	S30+50E	10		
309127.25	5541049.75	L29+50N	S29+25E	3		
309151.00	5541043.25	L29+50N	S29+50E	-3		
309175.00	5541036.50	L29+50N	S29+75E	-3		
309199.00	5541030.00	L29+50N	S30+00E	-1		
309223.25	5541023.50	L29+50N	S30+35E	-1		
309247.25	5541016.50	L29+50N	S30+50E	6		
309140.00	5541098.00	L30+00N	S29+25E	0		
309164.00	5541091.50	L30+00N	S29+50E	-3		
309188.25	5541085.00	L30+00N	S29+75E	-2		

309212.25	5541078.50	L30+00N	S30+00E	-2
309236.00	5541071.75	L30+00N	S30+25E	-2
309260.25	5541065.25	L30+00N	S30+50E	-3
309153.00	5541146.25	L30+50N	S29+25E	-13
309177.00	5541139.50	L30+50N	S29+50E	-7
309201.00	5541133.00	L30+50N	S29+75E	0
309225.00	5541126.75	L30+50N	S30+00E	0
309249.00	5541120.25	L30+50N	S30+25E	-4
309273.00	5541113.50	L30+50N	S30+50E	-10
309166.00	5541195.00	L31+00N	S29+25E	-3
309189.50	5541189.00	L31+00N	S29+50E	-5
309213.00	5541182.25	L31+00N	S29+75E	-6
309237.50	5541175.25	L31+00N	S30+00E	-2
309262.00	5541168.75	L31+00N	S30+25E	-1
309286.00	5541162.25	L31+00N	S30+50E	-6
309176.25	5541243.00	L31+50N	S29+25E	-3
309202.25	5541237.00	L31+50N	S29+50E	-1
309226.50	5541230.50	L31+50N	S29+75E	-1
309251.00	5541223.50	L31+50N	S30+00E	-2
309275.00	5541217.00	L31+50N	S30+25E	-1
309299.00	5541210.50	L31+50N	S30+50E	4
309191.75	5541291.75	L32+00N	S29+25E	8
309215.25	5541285.25	L32+00N	S29+50E	10
309239.50	5541278.50	L32+00N	S29+75E	1
309264.00	5541272.00	L32+00N	S30+00E	-6
309288.00	5541266.00	L32+00N	S30+25E	-4
309312.00	5541259.00	L32+00N	S30+50E	

**Appendix II**  
**Statement of Costs**

## Statement of Costs

### Personnel, Mobilization and Fieldwork

R. Gosse, Geologist	4 days @ \$200/day	\$ 800.00
May 4th to 7th, 1989		

### Field Expenses

Ferry, 1 vehicle 1 person, 2 trips @ 21.50	43.00
Accommodation 3 nights @ \$40.00/night May 4th to 7th, 1989	120.00
Meals 4 mandays @ \$40.00/day	160.00
Vehicle Rental 2 days @ \$75.00/day	150.00
Fuel	50.00
Magnetometer rental 2 days @ \$40.00/day	80.00
VLF-EM Rental 4 days @30.00/day plus \$75.00 prep fee	120.00 75.00

### Report

Preparation, drafting, computer & compilation	450.00
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TOTAL	<u>\$ 2,048.00</u>
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