

85-430-13732

4186

POTENTIAL RESOURCES LTD.

Assessment Report

Geochemical, Geophysical Report

Phelps 300 Mineral Claim

NTS 921/7E

Lat: 50° 21'N  
Long: 120° 44'W

Owner: Potential Resources Ltd.  
Operator: Potential Resources Ltd.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

R. Wares, P. Eng.  
Vancouver, March 15, 1985

**13,732**

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## 1. GENERAL INFORMATION

### 1.1 Location

The Phelps 300 claim group is located 28 kms north of Merritt, B.C. (fig. 1). It is in the Nicola Mining Division (NTS 921/7E). The property is located south east of Mamit Lake on the western slopes of Mt. Guichon.

### 1.2 Access

Access to the property is relatively easy. The property is reached from Merritt, via the Mamit Lake road. Direct access to the property is from the Rey Creek road. A number of old logging access roads provide easy access within the claim group.

### 1.3 Topography

The property lies at elevations from 1300 to 1400 m above sea level.

It is covered by second growth mixed alder/pine growth, with the area near Rey Creek having been cleared for grazing.

The topography is subdued, with southeast trending drumlinoid features prominent. Outcrop is sparse and glacial float on surface relatively uncommon.

### 1.4 Claim Status

The Phelps 300 claim group comprises 20 units.

Phelps 300    20    Record #831(4)    Expiry Date; 8 April, 1985

The claims are owned by Potential Resources Ltd., 100-450 West Georgia Street, Vancouver, B.C.

### 1.5 Previous Work

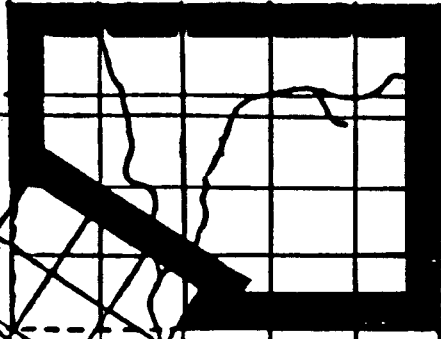
In late 1983, a ground VLF and selected geochemical survey was carried out on behalf of Potential Resources Ltd., by Strato Geological Engineering Ltd.

This work was filed as assessment work by Potential Resources Ltd.





CLAIM GROUP



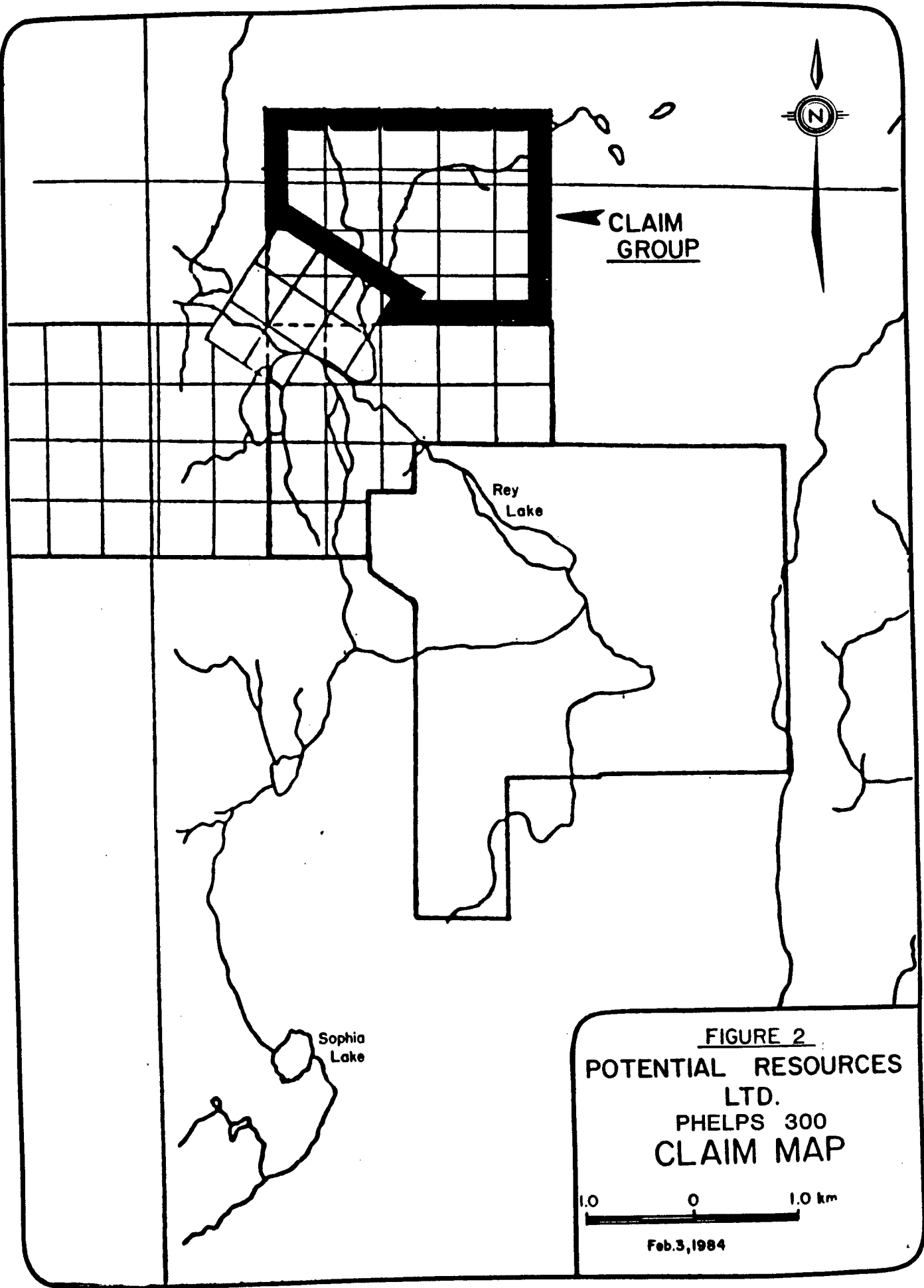
Rey Lake

Sophia Lake

FIGURE 2  
POTENTIAL RESOURCES LTD.  
PHELPS 300 CLAIM MAP



Feb.3,1984



1. GENERAL INFORMATION (Cont...)

1.5 Present Work

The objectives of the present survey were to:

- a) extend the grid from the previous work
- b) profile soil samples and check geochemical response over previous and present VLF anomalies.

2. GENERAL GEOLOGY

Regional mapping (1947)<sup>1</sup> indicates the area is underlain by units of the Nicola Group, a predominantly volcanic and volcanoclastic group with subordinate sedimentary components.

The belt of Nicola Group is flanked to the east and west by the Guichon batholith and the Nicola stock. Within this wedge, there are reported occurrences of fracture hosted precious metal occurrences. Some of these have been the object of mineral exploration in recent years but none have reached an advanced stage.

Within the property, there are scattered small outcrops of Nicola aspect andesite/basalt, exhibiting epidote/calcite alteration. The outcrops are generally restricted to small "crag and tail" features. Scattered pyrite is present. No mineralized float was observed on surface or in trial pits.

1. Cockfield, W.E. (1947) Map 886-A, Nicola, Kamloops and Yale District, B.C. Geological Survey of Canada.

### 3. VLf SURVEY

#### 3.1 General

The VLF survey was carried out with a Sabre Electronics Model 27 receiver. The transmitter station was NPG, Jim Creek, Washington. Field data was contoured with the Fraser filter.

#### 3.2 Previous Work

A compilation map (Fig. 3) was prepared, showing the previous and current work. A group of narrow linear conductors was delineated by the previous survey.<sup>1</sup> These conductors had a narrow wavelength and appear to reflect narrow bedrock structures.

#### 3.3 Current Work

The current program was designed to extend the grid and also to validate the character of previous anomalies.

The data (Fig 4-7) show a broad, moderate conductor from 6&50N, 7&50E, to 3&00N, 7&70E.

A strong, anomaly was noted at 4&50N, 9&50E, to 4&00N, 8&75E. This strong zone appears to be associated with a fault in the nearby creek.

The zones (Fig. 4,5) appear to reflect a contrast in bedrock lithology. The conductors appear to be shallow conductors.

The fill in data (Fig. 5,7) shows an attenuation of the sharp conductor, previously outlined on line 10&00N, 10&20E.

The data permits a categorisation into a number of domains. Domains are based on strengths of anomalies, depths to current flow and general configuration of dip and field strength data.

They appear to suggest (Fig. 3) that the variations in conductor strength reflect attenuation of bedrock response to varying till cover.

1. Hulme, N.J. (1984). Geophysical Report for Potential Resources Ltd. February 1984.



#### 4. GEOCHEMICAL SAMPLING

##### 4.1 General

The Phelps 300 claim exhibits good glacial features. South east trending drumlinoid features are present with run off channels incised through the glacial topography. Because of the prevalence of glacial veneer a comprehensive sampling program was not attempted. Instead, profile samples and small grids were sampled in order to establish a response, if any, from the identified VLF conductors.

##### 4.2 Previous Work

Previous work on the claim group (Hulme, 1984) had significantly failed to define any significant geochemical response. The data did not appear to significantly add to any knowledge of buried mineralization.

##### 4.3 Present Work

Profile and grid samples were collected at specified locations. Samples were analysed for 24 element ICP and additionally, for gold. Analyses were performed by Min En Labs.

Sample site #1, (6&00N, 9&20E) was collected over a broad but weak VLF conductor. The profile, to a depth of 26", comprised Ao to 8" and Bf & B horizons to 26", in a cocoa brown till. Profile samples showed higher Mn in the Ao horizon and low order elements in other samples. An arsenic value of 8ppm in the Ao horizon (0-8") was not accompanied by significant Ag or Au values.

A small grid at this location failed to show any anomalous associations. In the podzols, Cu and Zn would be mobile; both are low order, background values.

At site #2 (5 &00N, 9&70E), the profile pit showed a grey/brown till with poor Ah horizon development. No float was recognised. Grid samples collected all showed low order values.

Site #3 (5N, 745E) was collected over a weak broad VLF anomaly. The profile showed an Ah horizon to 4"; with a leached zone from 4"-12", and 12"-18" comprising sandy brown till. Both the grid and profile samples were low order background data.

4. GEOCHEMICAL SAMPLING (Cont...)

4.3 Previous Work (Cont...)

Site #4 (4&00N, 8&15E) was collected near a small crag and tail exposure of Nicola volcanics. The profile showed poor organic or leached horizon development. No anomalous associations were present.

Site #5 was on the down stream ice side of this outcrop, which carries traces of pyrite. A weak, but low, gold value of 15 ppb was present in the section from 6"-12". Depth to bedrock is 18". The sample appears to indicate that the (weak) higher gold values only represents proximity to bedrock, not underlying zones of mineralization.

Site #6 (9&90N, 10&10E) was collected on a high order but narrow VLF conductor. Both grid and profile samples showed low order values.

4.4 Summary

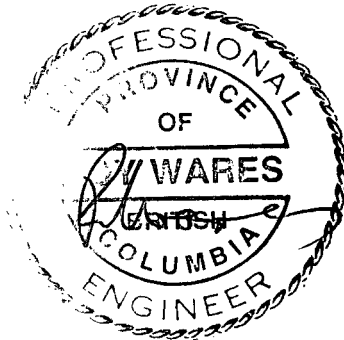
Sample sites 4 and 5 were collected down ice from a small outcrop of Nicola volcanics with traces of pyrite. Both sites failed to reveal any float or anomalous metal response.

Other sample sites were collected over and adjacent to VLF conductors but did not have any anomalous response.

Soil sampling does not appear to have indicated, with any certainty, the character of the VLF anomalies.

5. SUMMARY & CONCLUSIONS

1. The extension of the previous grids in the Phelps 3 00 property has outlined a number of narrow VLF conductors.
2. Profile and small grid soil samples failed to indicate any anomalous precious metal association with these VLF conductors. A persistent veneer of glacial drift may inhibit the response (if any) of the conductor zones.
3. No mineralised float was recognised on the property.
4. Further work should be done with air photos to relate the present property to other, known, zones of precious metal mineralisation in the area.



R. Wares, P. Eng.  
March 15, 1985

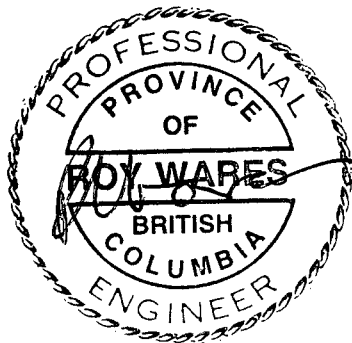
APPENDIX

A:1 STATEMENT OF COSTS

1.	J. Gibson, J. Smith, line cutting VLF survey and soil sampling. October 26, 27, 28, 29, 30th. 5 days at \$150.00 per man per day.	\$1500.00
	Travel costs, ½ day, Oct. 25th, J. Gibson, J. Smith.	\$ 150.00
2.	Room and board costs. October 25 - October 31st.	\$ 720.00
3.	Equipment Rental, Field Supplies.	\$ 186.87
4.	Transportation, 4WD, October 25 - October 31st.	\$ 540.00
5.	Supervision, R. Wares, P. Eng. October 30th.	\$ 250.00
6.	Room and board, R. Wares, October 29th.	\$ 45.00
7.	Transportation, R. Wares, October 29th & 30th.	\$ 145.00
8.	Report preparation, R. Wares, March 14th.	\$ 250.00
9.	Drafting equipment, map preparation, copying.	\$ 325.00
10.	Report typing, preparation, March 15, 1985.	\$ 85.00
11.	Assay costs, 32 samples, \$12.50 per sample.	\$ 400.00
	<u>TOTAL</u>	<u>\$4511.87</u>

A total of \$4000.00 to be applied to the claims.

R. Wares, P. Eng.



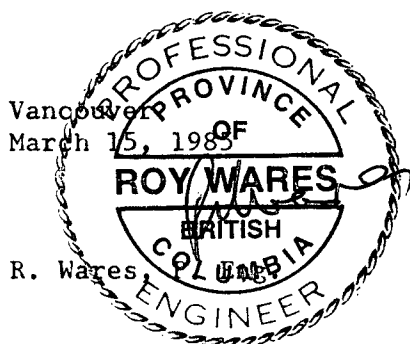
APPENDIX

(Cont...)

A:2 STATEMENT OF QUALIFICATIONS

I, Roy Wares, P. Eng., with a business address in the city of Vancouver, B.C., do hereby certify that:

- a) I supervised the program on which this report is based.
- b) Field work was carried out by a field crew from Strato Geological Engineering Ltd., under my supervision. I am familiar with the work of J. Gibson and J. Smith, who have over 10 years experience in mineral exploration.
- c) I visited the Phelps 300 claim on October 30th, 1984 to check the field work, and examine survey locations in the field.
- d) I am a registered professional engineer (Geological) with the Association of Professional Engineers of B.C.
- e) I have been involved in various aspects of my profession for over 20 years in B.C., the Yukon, eastern Canada, the U.S.A. and Europe.
- f) I am a graduate of Aberdeen University with a B.Sc. (Hons) Geology and a M.Sc. (Geology) from Queen's University, Kingston, Ontario.



## *MIN-EN Laboratories Ltd.*

*Specialists in Mineral Environments*

Corner 15th Street and Bewicke  
705 WEST 15th STREET  
NORTH VANCOUVER, B.C.  
CANADA

### GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 0.01 ppm (10 ppb).

REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
1010N-1010E	1.3	26500	3	28	15	7670	1.0	18	19	39600	1370	6840
1010N-1030E	1.6	24800	6	39	15	7730	.9	18	19	39500	1810	6710
10N-1020E 0-6	1.7	26700	3	31	19	9040	.8	20	20	45400	1600	7390
370N-810E 6-12	1.3	30100	7	42	14	9570	1.4	20	36	40800	1970	6640
990N-1010E	2.0	28700	2	43	19	9060	1.2	20	21	44500	1810	7210
490N-740E	1.6	41000	0	54	17	14600	1.7	22	67	47300	1920	8840
510N-750E	2.1	36700	2	52	17	17500	1.4	18	73	42000	1550	8090
490N-960E	.1	28000	0	12	9	7190	1.0	14	25	28600	1560	4870
510N-970E	.8	26900	11	18	11	6440	1.5	15	21	30000	1560	4730
4N-8+15E 6-14	1.1	26600	1	8	14	7620	1.3	21	22	43600	1750	8880
610N-910E	1.3	33000	3	23	12	13800	1.5	16	50	35400	1740	5900
610N-930E	.7	29700	3	15	11	10100	1.0	16	25	32200	1540	5580
3+70N-8+10E 0-6	.8	27300	0	16	12	9390	1.9	20	36	39000	2220	7230
490N-750E	.8	32200	0	17	13	13600	1.1	16	54	36600	1330	7000
745E-5N 4-12	1.1	35100	0	19	14	13400	1.5	18	61	40000	1400	7850
745E-5N 0-4	.9	29400	0	18	12	18500	1.4	16	64	34400	1430	7380
745E-5N 12-18	1.6	36600	0	22	17	14000	1.9	24	53	58400	1660	12200
6N-920E 0-8	.6	25800	8	11	9	10600	1.0	14	27	28900	1590	4780
6N-920E 8-20	1.4	33300	1	15	15	9080	1.6	22	29	50800	1770	8490
510N-960E	.8	34500	0	15	11	5700	1.4	17	21	36900	1610	6280
5N-970E 0-3	.8	29200	3	13	12	7110	1.4	19	30	41900	2200	7560
5N-970E 18-24	.9	30700	0	15	13	8980	1.4	17	29	37200	2010	6970
990N-1030E	1.4	28400	2	11	15	7240	1.2	18	18	41300	1750	6640
10N-1020E 6-16	2.4	33700	0	18	22	12100	1.2	26	42	56900	1550	11100
10N-1020E 16-20	2.3	42600	0	29	23	14000	2.4	30	65	62800	1900	15000
510N-740E	1.5	35100	0	21	14	17100	1.2	18	67	41400	1570	9190
5N-970E 3-18	1.2	37900	0	18	15	9120	1.0	18	30	39900	1660	6650
590N-910E	1.2	35700	0	12	14	12400	1.5	18	55	38500	1700	6790
4+00N-8+15E 0-6	1.3	28600	2	12	15	7680	1.1	21	21	40700	1980	7670
590N-930E	.8	30900	2	0	8	11500	1.0	13	48	30500	1240	5390
6N-920E20-26	1.3	31600	1	2	13	9050	1.4	21	36	52600	1470	9220
490N-970E	1.7	37700	0	5	16	9580	2.0	21	52	53400	1220	9110

REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
1010N-1010E	591	3	237	17	745	25	7	48	1	3	99.9	55
1010N-1030E	509	3	304	20	685	27	8	52	1	5	102.5	46
10N-1020E 0-6	923	2	303	21	616	20	7	58	0	5	117.5	61
370N-810E 6-12	1140	3	291	21	1440	23	9	70	1	5	88.7	72
990N-1010E	635	3	330	20	661	27	9	63	2	5	115.9	54
490N-740E	938	3	453	25	524	30	12	102	2	6	103.6	50
510N-750E	554	3	434	28	588	30	12	107	2	7	93.9	60
490N-960E	956	3	297	19	1060	18	5	46	1	1	56.6	81
510N-970E	1080	3	273	17	1050	25	8	46	1	4	61.4	86
4N-8+15E 6-14	653	3	314	19	397	23	4	63	0	2	112.1	41
610N-910E	812	3	367	23	679	23	10	67	1	5	71.2	81
610N-930E	833	3	293	20	672	16	7	56	1	3	69.2	66
3+70N-8+10E 0-6	1030	3	292	20	1100	24	6	67	0	2	90.2	62
490N-750E	672	3	386	22	582	22	6	85	1	2	78.1	48
745E-5N 4-12	678	3	415	24	499	28	8	88	2	4	87.5	58
745E-5N 0-4	836	2	403	22	579	22	5	99	1	3	71.4	76
745E-5N 12-18	864	3	441	33	674	31	10	94	1	5	141.6	56
6N-920E 0-8	1050	3	286	17	749	21	5	51	1	3	59.6	86
6N-920E 8-20	545	3	311	32	559	26	9	64	2	4	123.3	66
510N-960E	560	3	316	21	805	19	8	51	1	2	75.7	68
5N-970E 0-3	770	3	261	23	747	21	6	49	2	2	95.1	66
5N-970E 18-24	740	3	331	20	748	21	8	61	1	3	82.5	72
990N-1030E	489	3	295	18	587	23	7	53	1	3	102.2	47
10N-1020E 6-16	722	3	342	30	591	31	10	78	2	5	158.0	43
10N-1020E 16-20	951	3	343	36	862	39	13	92	1	6	168.7	41
510N-740E	587	3	423	23	739	24	10	101	1	5	96.8	53
5N-970E 3-18	633	3	423	24	950	26	10	69	2	5	87.2	77
590N-910E	1010	3	415	24	519	26	9	68	1	5	80.8	68
4+00N-8+15E 0-6	965	3	315	21	472	21	7	61	1	3	102.1	49
590N-930E	533	3	313	19	651	22	5	52	1	2	66.2	61
6N-920E20-26	676	3	252	30	577	25	8	57	2	4	127.9	57
490N-970E	436	3	336	31	440	26	8	69	3	4	127.2	40



COMPANY: ALLXPLOR MANAGEMENT LTD.

MIN-EN LABS ICP REPORT

(ACT:6E03B) PAGE 3 OF 3

PROJECT No: SPACE/P.O. 69062

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE No: 4-1588S

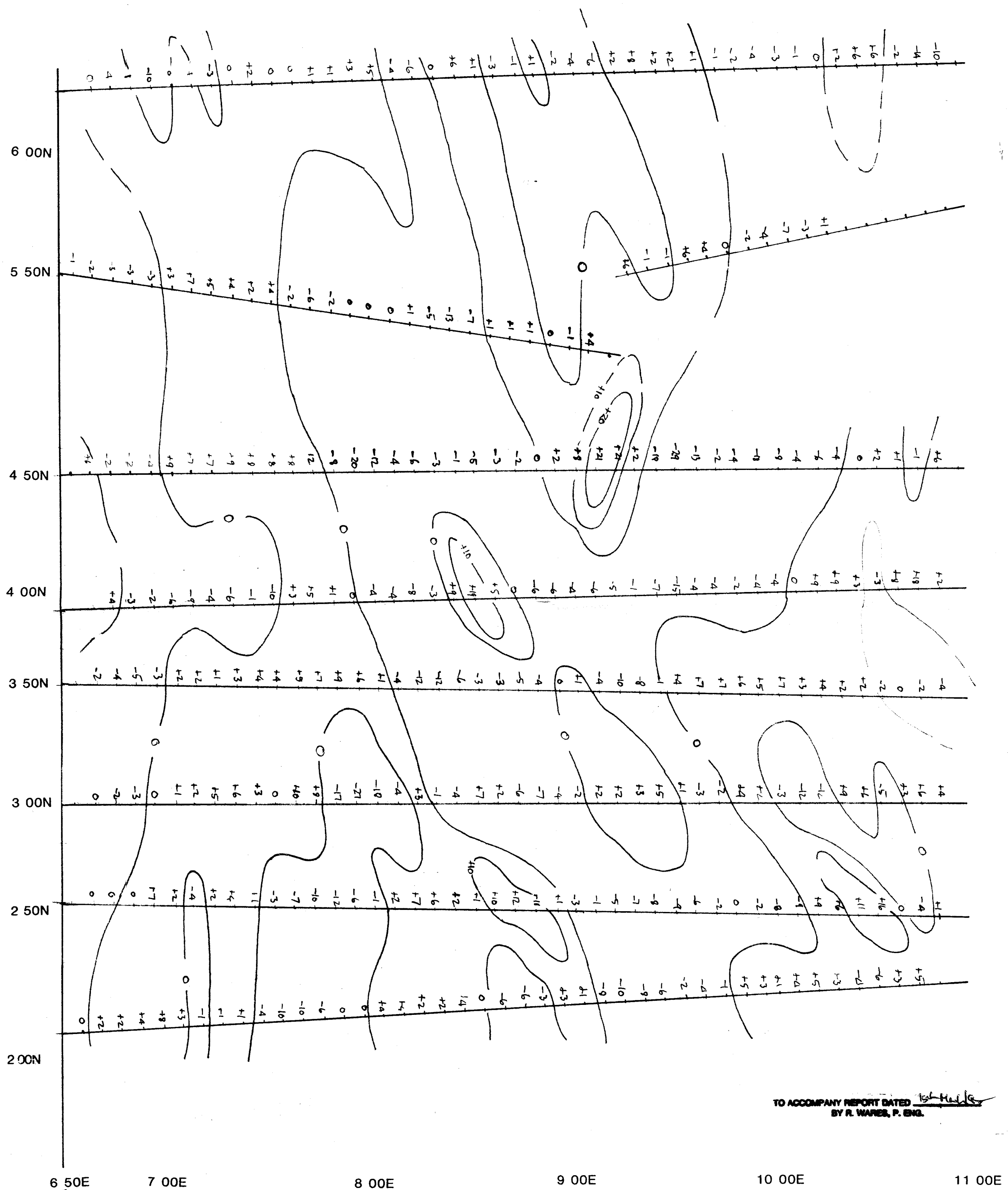
ATTENTION: ROY WARES

(604)980-5814 OR (604)988-4524

\*TYPE SOIL GEOCHEM\*

DATE: DECEMBER 18, 1984

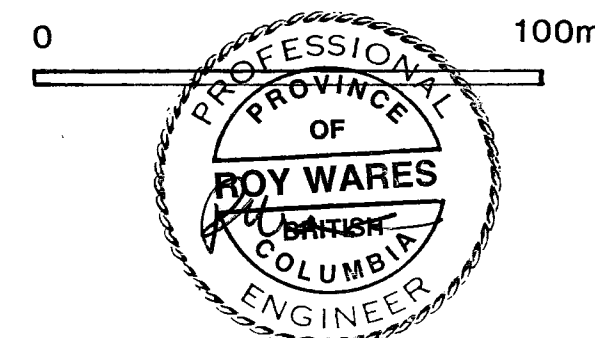
REPORT VALUES IN PPM)	BA	SE	AU-PPB
1010N-1010E	103	0	10
1010N-1030E	101	1	5
10N-1020E 0-6	97	0	5
370N-810E 6-12	157	1	15
990N-1010E	124	1	5
490N-740E	196	1	10
510N-750E	180	1	10
490N-960E	172	1	5
510N-970E	173	1	5
4N-8+15E 6-14	108	0	5
610N-910E	159	1	5
610N-930E	154	1	10
3+70N-8+10E 0-6	142	1	5
490N-750E	157	1	10
745E-5N 4-12	168	1	5
745E-5N 0-4	179	1	5
745E-5N 12-18	175	1	10
6N-920E 0-8	146	1	5
6N-920E 8-20	160	1	5
510N-960E	169	1	10
5N-970E 0-3	155	1	15
5N-970E 18-24	168	1	5
990N-1030E	121	0	20
10N-1020E 6-16	118	1	5
10N-1020E 16-20	153	1	5
510N-740E	164	1	5
5N-970E 3-18	204	1	5
590N-910E	170	1	10
4+00N-8+15E 0-6	126	1	5
590N-930E	134	1	5
6N-920E20-26	163	1	5
490N-970E	168	1	5



**GEOLOGICAL BRANCH  
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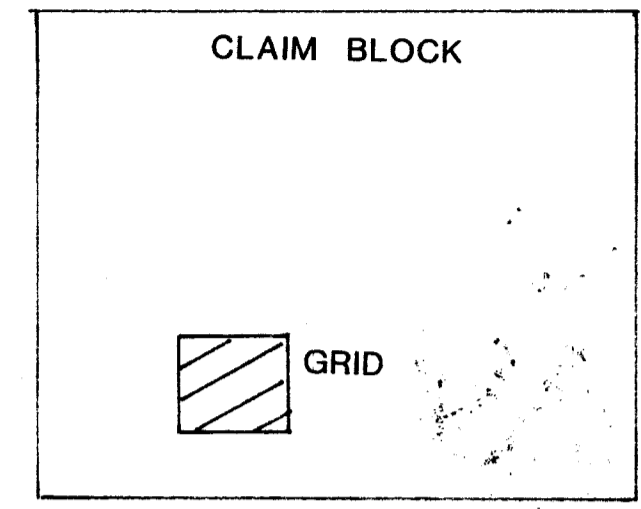
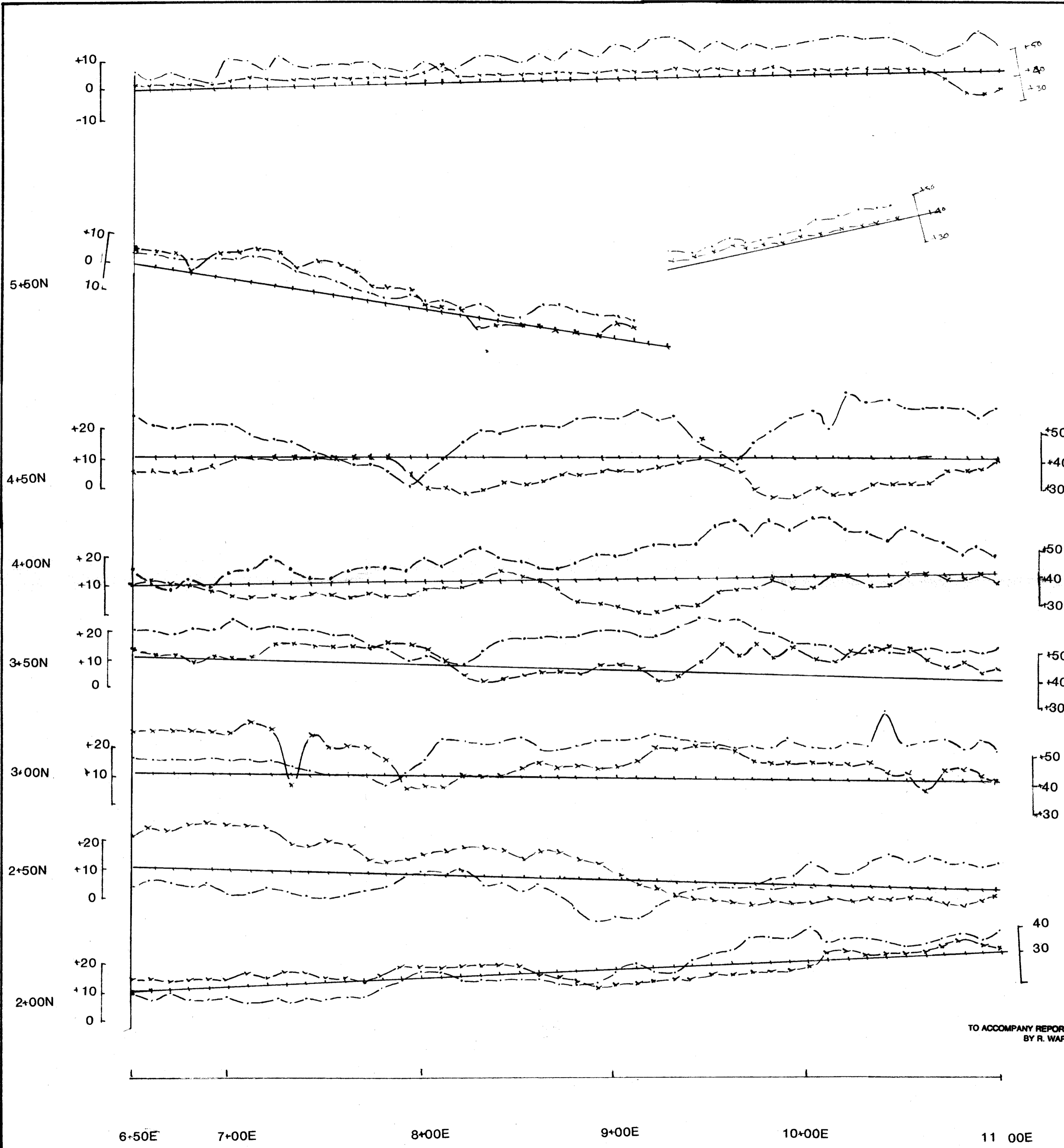
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FRASER FILTER



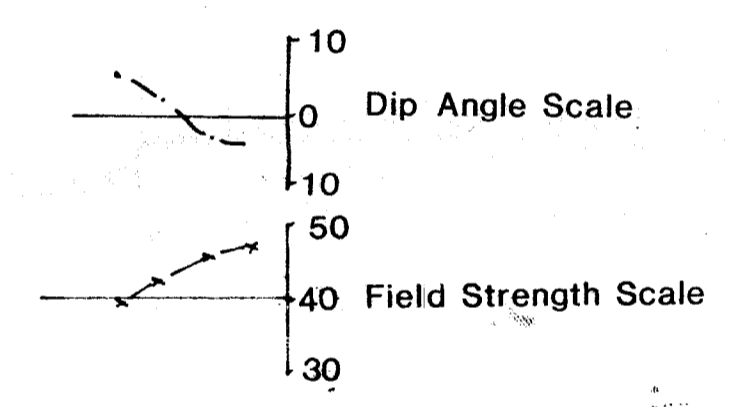
TO ACCOMPANY REPORT DATED 12-1-85  
BY R. WARES, P. ENG.

POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
FILTERED VLF SOUTH ZONE	
Date: March 1985	Drawn: RW
NTS:921/7E	Fig. 6

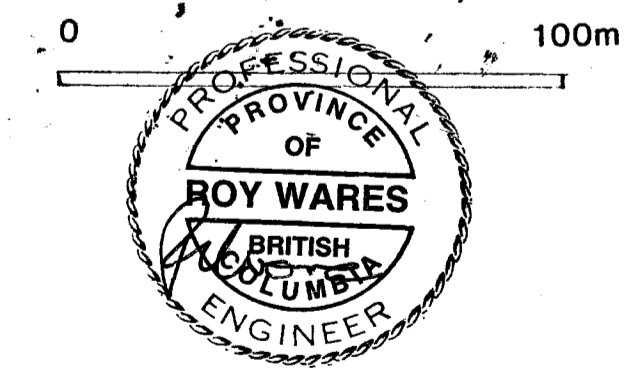


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**13,732**

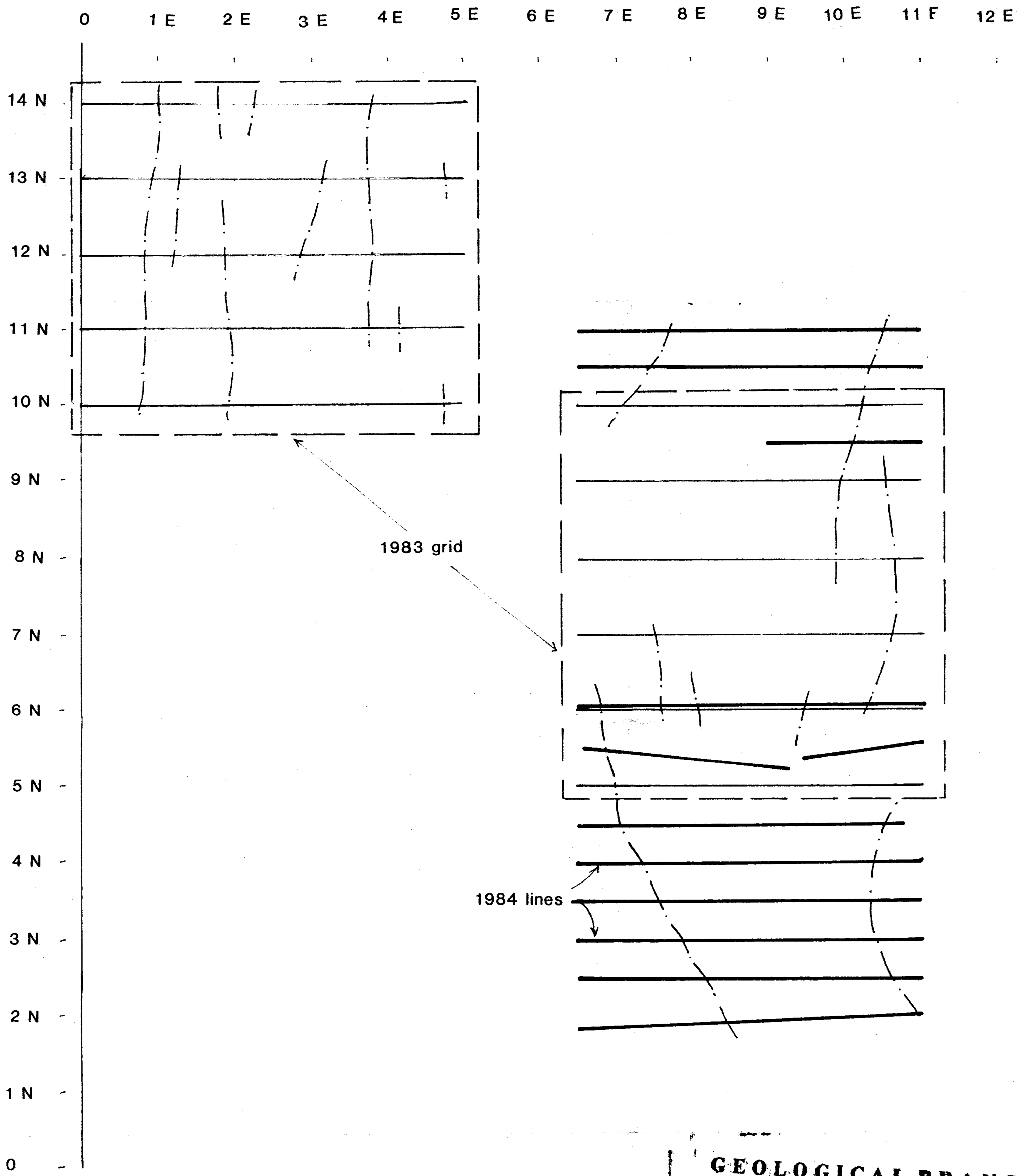


Instrument Sabre Electronics Model 27 receiver  
Transmitter NPG; Jim Creek 24.8 KHz



TO ACCOMPANY REPORT DATED 15<sup>th</sup> Nov 85  
BY R. WARES, P. ENG.

POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
VLF DATA SOUTH ZONE	
Date: March 1985	Drawn: RW
NTS:921/7E	Fig. 4

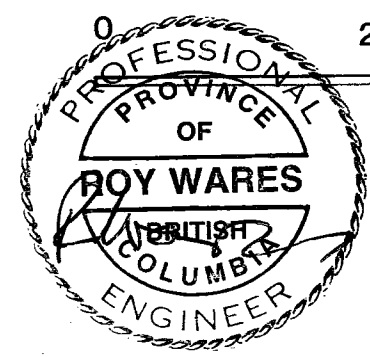


VLF CONDUCTOR

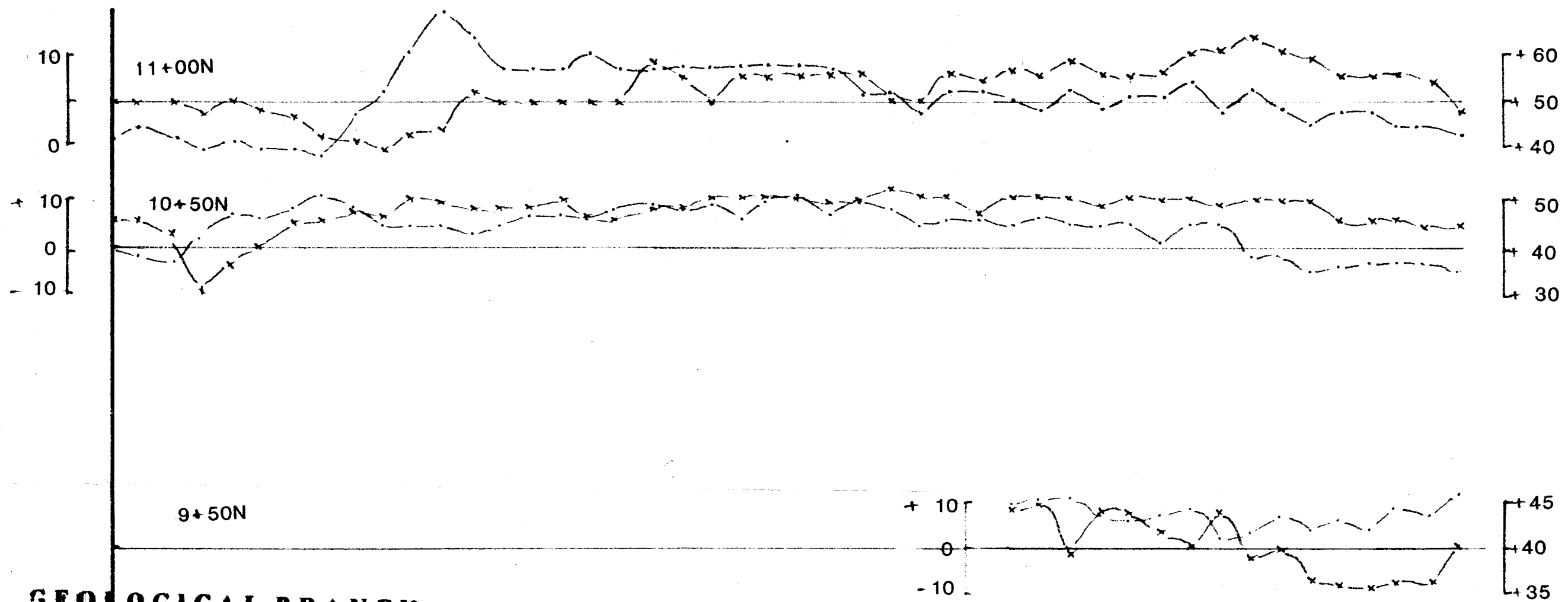
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**13,732**

TO ACCOMPANY REPORT DATED *5-11-85*  
BY R. WARES, P. ENG.



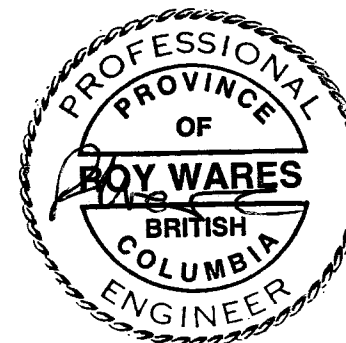
POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
DATA COMPILATION	
Date: March 1985	Drawn: RW
NTS:921/7E	Fig. 3



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

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TO ACCOMPANY REPORT DATED *5<sup>th</sup> Nov 85*  
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Legend, as Fig 4

6+50E

7+00E

8+00E

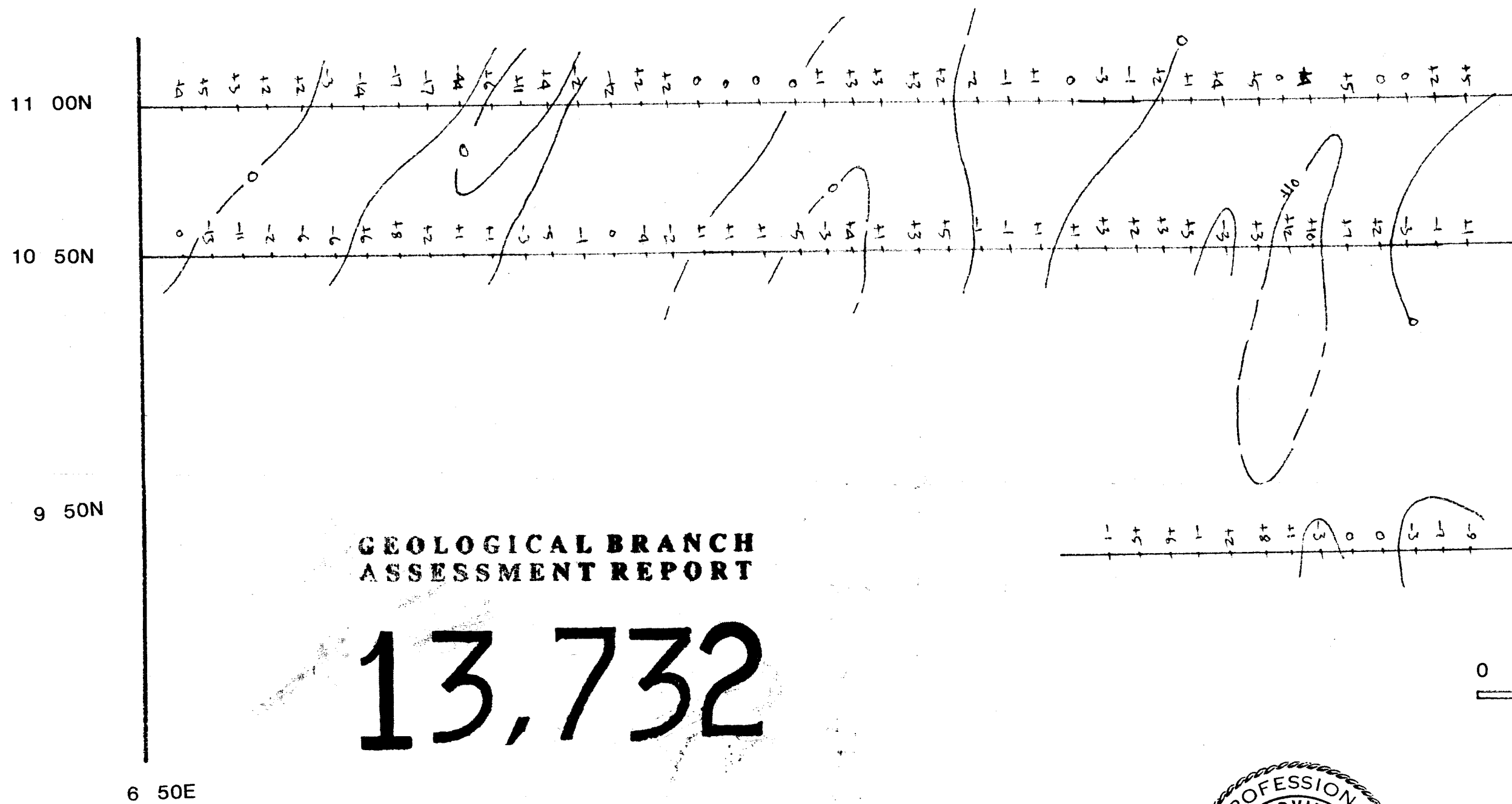
9+00E

10+00E

11+00E

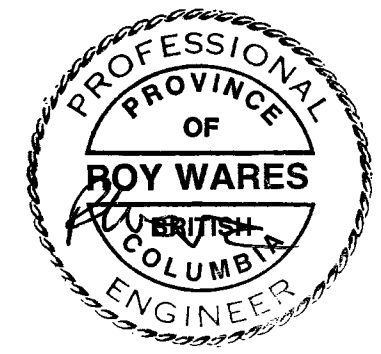


POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
VLF DATA NORTH ZONE	
Date: March 1985	Drawn: RW
NTS: 921/7E	Fig. 5



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

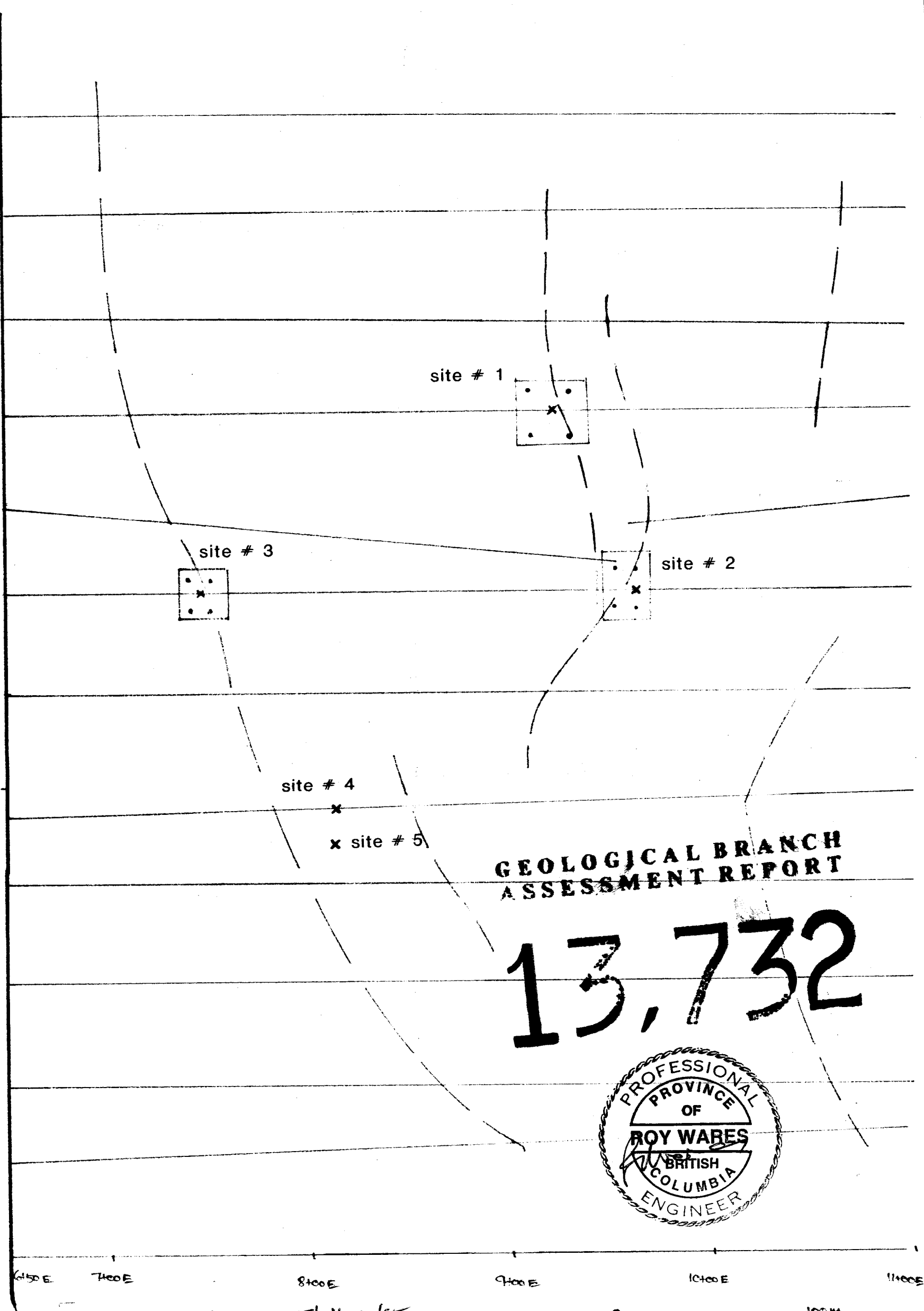
**13,732**



TO ACCOMPANY REPORT DATED 15<sup>th</sup> March 1985

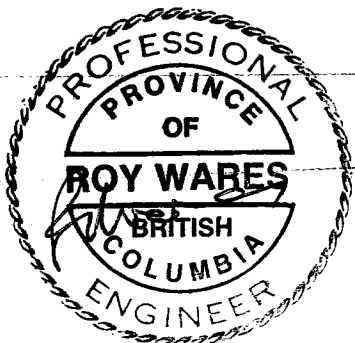
POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
FILTERED VLF NORTH	
Date: March 1985	Drawn: RW
NTS:921/7E	Fig. 7

7400N  
6450N  
6400N  
5450N  
5400N  
4450N  
4400N  
3450N  
3400N  
2450N



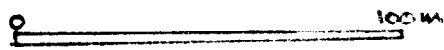
**GEOLOGICAL BRANCH  
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6450E 7400E 8400E 9400E 10400E 11400E

TO ACCOMPANY REPORT DATED 15th March 1985  
BY R. WARES, P. ENG.



- x profile samples
- grid samples
- VLF conductor



POTENTIAL RESOURCES LTD.	
PHELPS 300 CLAIM	
SOIL SAMPLE LOCATIONS	
Date: March 1985	Drawn: RW
NTS: 921/7E	Fig. 8