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REPORT ON  
GEOCHEMICAL AND GEOPHYSICAL SURVEYS  
AND TRENCHING  
ON THE  
APATI CLAIM GROUP  
KAMLOOPS MINING DIVISION, B.C.

SUB-RECORDER  
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VANCOUVER, B.C.

BY

GUDMUND LOVANG, AND  
A. I. BETMANIS, P.ENG.  
TECK EXPLORATIONS LIMITED

NTS: 82 M/7  
LONGITUDE: 118°45'W  
LATITUDE: 51°20'N

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,182

March 15, 1988  
Vancouver, B.C.

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## INTRODUCTION

The Apati Group of mineral claims consists of a total of 87 units in 7 claims, and are held by Teck Corporation under an option agreement with Chris Graf. The claims are located 55 km northwest of Revelstoke in the Kamloops Mining Division, B.C. The property is underlain by carbonatitic intrusives anomalous in niobium and rare earths emplaced in Proterozoic calcareous sediments of the Shuswap Metamorphic Complex.

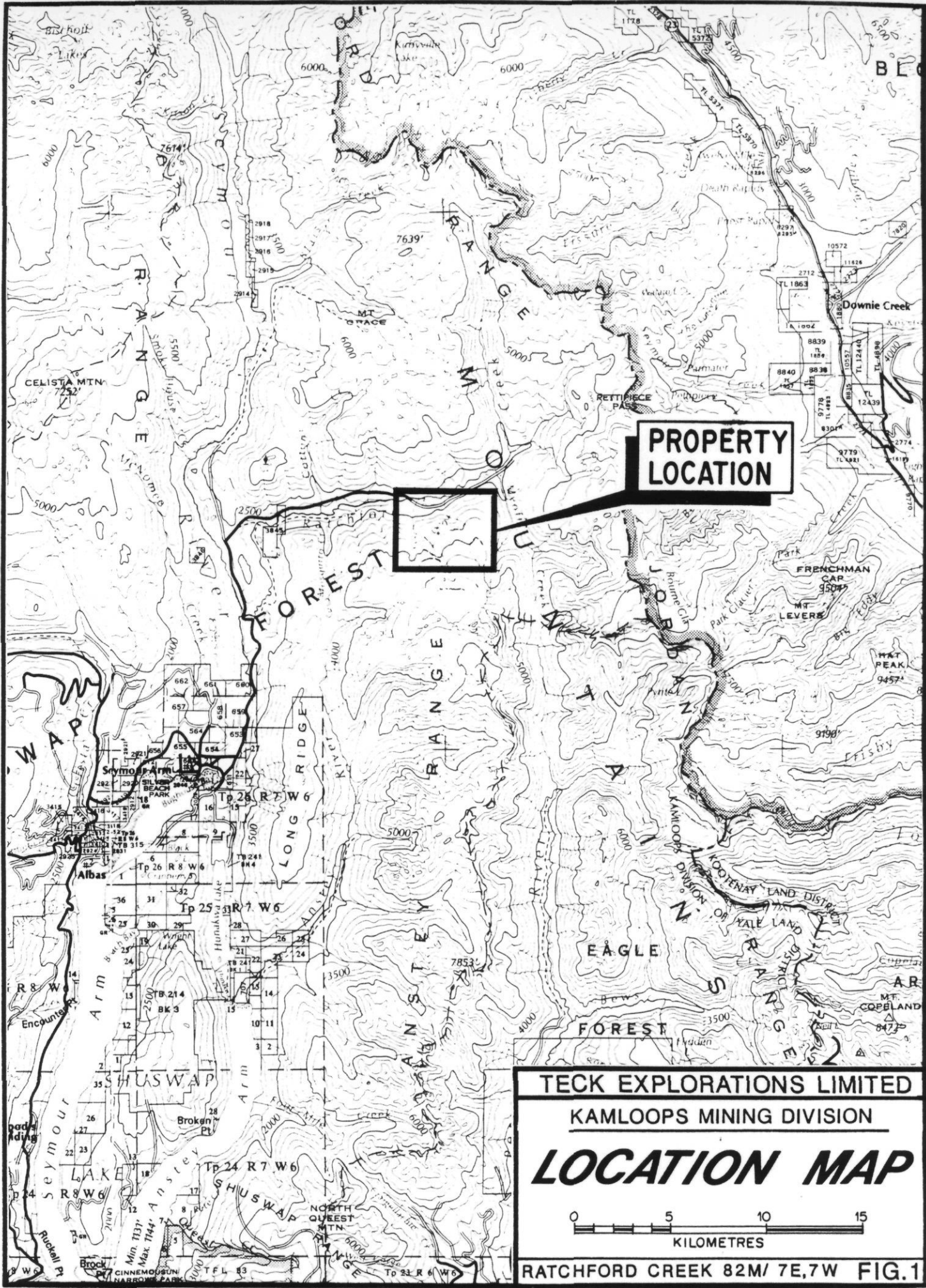
Early exploration work within the claim area was carried out by Duval International Corporation in 1983, and included geological mapping and geochemical surveying. The current program completed in October, 1987 consisted of stream silt sampling, magnetometer and spectrometer/scintillometer geophysical surveying, back-hoe trenching, and chip sampling of trenches. Highly anomalous but sub-economic values in niobium and light rare earths were located.

## PROPERTY

The Apati Group consists of three Apati claims totalling 7 units and four Mona claims totalling 80 units. All claims are contiguous (Figure 2). The Apati claims were staked by Chris Graf and optioned by Teck Corporation in December, 1986. The Mona claims were staked by Teck Corporation and form part of the property. Particulars of the claims are listed below:

<u>Claims</u>	<u>(units)</u>	<u>Record No.</u>	<u>Expiry Date *</u>
Apati 1	(2)	6146	April 3, 1993
Apati 2	(1)	6147	April 3, 1993
Apati 3	(4)	6148	April 3, 1993
Mona 1	(20)	6891	December 23, 1992
Mona 2	(20)	6892	December 23, 1992
Mona 3	(20)	6893	December 23, 1992
Mona 4	(20)	6894	December 23, 1992

Teck Corporation is the recorded owner.



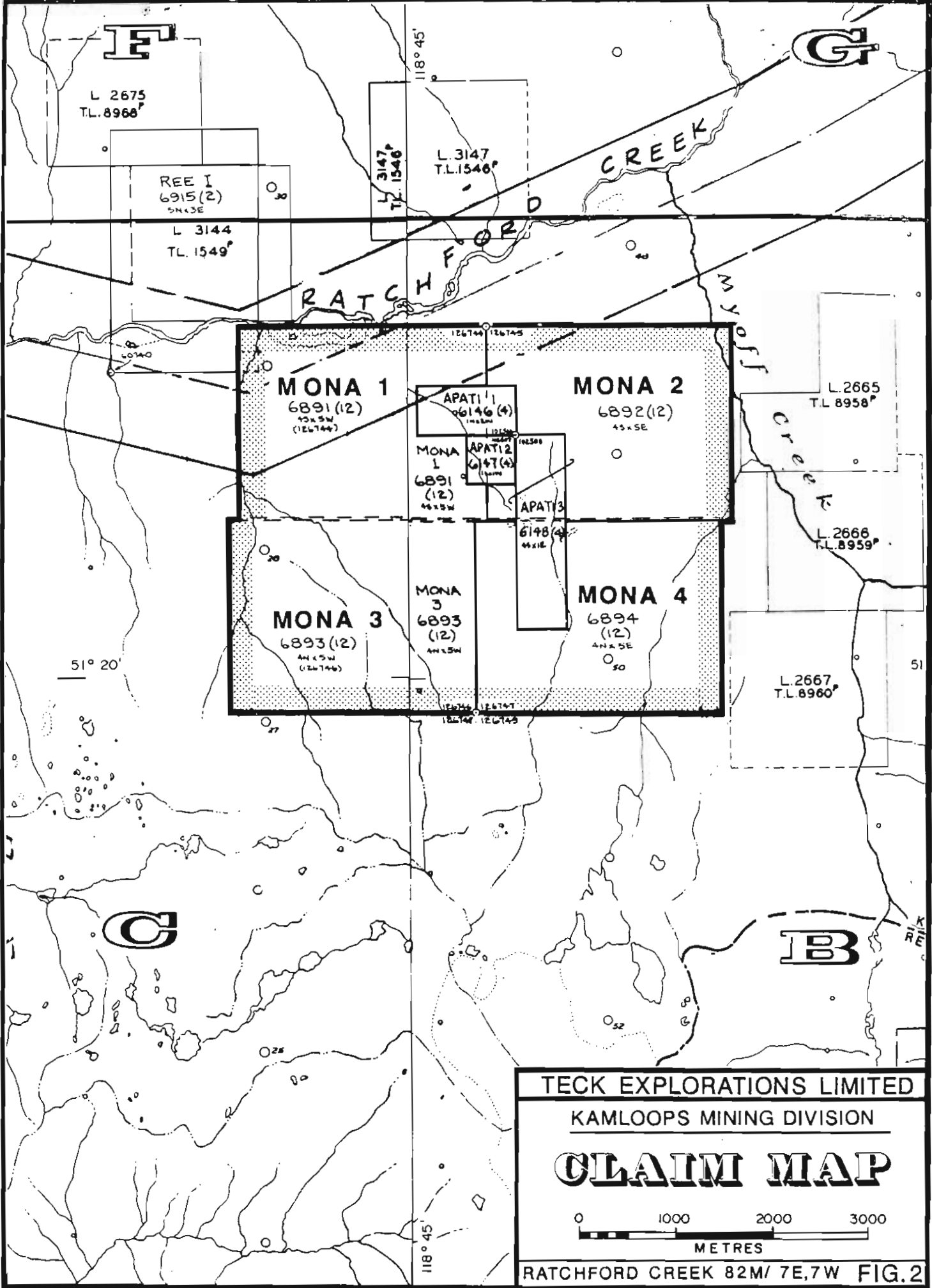
**PROPERTY  
LOCATION**

**TECK EXPLORATIONS LIMITED  
KAMLOOPS MINING DIVISION**

***LOCATION MAP***



**RATCHFORD CREEK 82M/ 7E,7W FIG.1**



L 2675  
T.L. 8968<sup>P</sup>

REE I  
6915(2)  
5N x 3E

L 3144  
T.L. 1549<sup>P</sup>

L 3147  
T.L. 1546<sup>P</sup>

L 3147  
T.L. 1546<sup>P</sup>

**MONA 1**  
6891 (12)  
5N x 5W  
(126744)

APATI 1  
6146 (4)  
1N x 5W  
(126745)

**MONA 2**  
6892 (12)  
4S x 5E

MONA 1  
6891 (12)  
4N x 5W

APATI 2  
6147 (4)  
1N x 5W  
(126746)

APATI 3  
6148 (4)  
4S x 1E  
(126747)

**MONA 3**  
6893 (12)  
4N x 5W  
(126746)

MONA 3  
6893 (12)  
4N x 5W

**MONA 4**  
6894 (12)  
4N x 5E  
50

L. 2665  
T.L. 8958<sup>P</sup>

L. 2666  
T.L. 8959<sup>P</sup>

L. 2667  
T.L. 8960<sup>P</sup>

51° 20'

118° 45'

TECK EXPLORATIONS LIMITED  
KAMLOOPS MINING DIVISION

**CLAIM MAP**



RATCHFORD CREEK 82M/ 7E,7W FIG.2

- \* Upon acceptance of assessment work declared in Statement of Exploration and Development recorded December 21, 1987 and described in this report.

### LOCATION AND ACCESS

The property is located south of Ratchford Creek and west of Myoff Creek, 55 km northwest of Revelstoke, in the Kamloops Mining Division, B.C. NTS location is 82 M/7, and geographical coordinates are 51°20'N and 118°45'W (Figure 1).

Road access to the property is by driving northerly on the Perry River logging road from Craigellache on the Trans-Canada Highway to 100 m past the 46 km marker, then west on a secondary dirt road crossing Myoff Creek. The road is not negotiable by 4WD truck beyond 1 km of Myoff Creek, but continues for an additional 4 to 6 km to the main showing on the property (Figure 3).

For the purposes of the current program a helicopter from Revelstoke was used for access and to supply fuel to equipment.

### PHYSIOGRAPHY

Elevations on the property range from 625 metres at Ratchford Creek to 2,050 metres at the southern property boundary. Slopes below 1,200 metres elevation are generally steep, but become more gradual at higher elevations. The west fork of Myoff Creek in the eastern part of the property forms a steep walled valley.

Vegetation consists of fir, cedar, and hemlock. The area which includes the main showing has been logged recently.

### PREVIOUS WORK

The property was explored initially by Duval International Corporation in 1983. Their work as described in Assessment Report #11639 consisted of geological mapping, prospecting, and panned stream silt sampling.

### REGIONAL GEOLOGY

Regionally the area is within the Proterozoic Shuswap Complex of highly metamorphosed rocks. The claims lie along the northern margin of the Frenchman's Cap Dome within a succession of metasedimentary rocks including quartzite, quartz-mica schist, pelitic schist, calc-silicate schist, paragneiss, and locally marble. Two periods of folding have deformed the sediments.

McMillan (1970) has identified two types of carbonatites within the calc-silicate unit. Type I, the thicker of the two, is believed to be an intrusive, and is composed of 70 to 80% calcite with accessory minerals. Type II, named the Mount Grace Carbonatite by Hoy and Kwong (1984), is about 3 metres thick with a 45 km intermittent strike length. It is believed to be a volcanic unit.

### PROPERTY GEOLOGY

A conformable Type I carbonatite outcrops in the centre of the claim group for a strike distance of 2.5 km and a thickness of 200 m (Pilchner, 1983). It is emplaced in a sequence of biotite hornblende gneiss and quartzite. Maximum true thickness exposed in the current trenching program was 82 metres. The carbonatite has a northwesterly strike with dips varying from 25 to 45 degrees southwest. Mineralogy is typical of a Type I carbonatite with predominant calcite, but contains bands of 70 to 80% biotite up to 3 metres thick. In two trenches lenses of up to 7.6 metres thick of quartz-feldspar pegmatite were exposed within the carbonatite near its eastern contact.

## SUMMARY OF WORK

A total of 89 stream silt samples from four main drainages on the property were collected during two sampling programs. The initial 66 samples were sent to Min-En Laboratory in North Vancouver for La, Nb, and F analyses of -80 mesh fractions by sodium carbonate fusion and ICP determinations. The additional 23 samples, seven of which were a resampling of previous locations, were sent to Bondar-Clegg Laboratory in North Vancouver for Nb and La analyses by X-ray fluorescence determination of the -80 mesh fraction. Niobium and lanthanum values are plotted on Figure 3 with repeat Bondar-Clegg analyses in parentheses.

The original Duval grid was rechainned and flagged for geophysical surveys.

A total of 17.85 line-kilometres of magnetometer surveying using a Scintrex MF-2 fluxgate magnetometer was completed on lines spaced at 100 metres and station intervals of 25 metres. Readings were taken on the 3,000 gamma full scale range and diurnal variation corrections were not required. *The vertical component of field was measured.*

A total of 15.35 line-kilometres of spectrometer surveying was completed using an EDA GRS-400 threshold gamma ray spectrometer/scintillometer to read total counts per second above 0.40 MeV averaged over 10 seconds. Readings were taken on 100 metre spaced lines with stations at 50 metre intervals. In anomalous areas the station interval was reduced to 25 metres.

A 225 Caterpillar back-hoe was used to excavate eight trenches (ATR-1 to 8) to bedrock for a total linear length of 749 metres. The trenches averaged 2 metres deep by 2 metres wide. Old winter logging roads, unsuitable for use by regular 4WD trucks, were used to access the trenched area.

A total of 282 rock chip rock chip samples were collected from the trenches over intervals of 2 to 5 metres and analysed for Nb, La, Ce, and Y by Bondar-Clegg Laboratory using X-ray fluorescence. Fifteen samples with plus 2000 ppm Nb were assayed for Nb<sub>2</sub>O<sub>5</sub> with favourable comparison between geochemical analyses and assays.



Spectrometer readings were taken in the trenches at one metre intervals. Soil profile samples from the walls of the trenches were taken at two locations to determine whether niobium and lanthanum are enriched above unweathered bedrock.

## RESULTS

### A. Silt Sampling

A comparison of the seven re-sampled location results using ICP and X-ray fluorescence determinations for niobium and lanthanum are listed below:

<u>Sample Number</u>	<u>Niobium ppm</u>		<u>Lanthanum ppm</u>	
	<u>ICP</u>	<u>X-Ray</u>	<u>ICP</u>	<u>X-Ray</u>
AA-1	4,182	895	1,558	540
AA-2	387	300	491	390
AA-3	1,841	760	1,321	735
AA-4	684	520	3,800	4,755
AA-5	616	580	4,115	4,645
AA-6	233	560	990	5,000
AA-7	1,841	700	13,240	8,800

Niobium values by ICP vary from 58% lower to 367% higher than X-ray fluorescence determinations; lanthanum values by ICP vary from 80% lower to 189% higher than X-ray fluorescence determinations. The discrepancies could be explained partly by heterogeneous dispersion of niobium and lanthanum in silts, but are more likely due to poorer accuracy of the ICP method. Comparison of quantitative assaying of trench rock samples and X-ray fluorescence geochemical determinations compare favourably. Consequently, the ICP values shown on the silt survey map (Figure 3) should be considered semi-quantitative.

AA Creek, which drains the area of main carbonatite showings, is anomalous in niobium, lanthanum, and fluorine. It serves as a good comparison for anomalies located in other drainages.

B. Magnetometer Survey

A strong positive magnetic anomaly correlates closely with the carbonatite as mapped by Duval in 1983, and is probably caused by its magnetite and pyrrhotite content. Bedrock exposed by trenching contains up to 2% disseminated magnetite and/or pyrrhotite as well as 5 cm thick lenses of magnetite in the carbonatite.

The aeromagnetic map of the area (8505G) shows a 4 kilometre narrow northerly trending magnetic low immediately east of the carbonatite body. It may be a dipole effect caused by magnetite in the carbonatite.

C. Scintillometer Survey

A total count scintillometer anomaly agrees reasonably closely with the magnetic high, and probably is caused by the pyrochlore content in the carbonatite. Notable differences between magnetic and scintillometer highs occur on lines 22N and 25N (Figures 4 and 5), and probably are due to magnetite and/or pyrrhotite variations in the carbonatite.

D. Soil Profiles

Two soil profiles were taken to assist in interpretation of Duval's soil geochemistry (Figures 7 and 8) and to determine whether any enrichment has occurred in soils. Results are tabulated below:

Profile for Trench ATR-3 at 55m.

<u>Depth (cm)</u>	<u>Description</u>	<u>ppm Nb</u>	<u>ppm La</u>
0- 10	Brown, organic A with 10% B	430	870
10- 60	Brown, B horizon, minor mica	505	4600
60-110	Decomposed cbte, rusty, 20% mica	570	1600
110-160	Decomposed cbte, as above	1115	2300
160-210	As above, minor hornblende	1300	1240
210-260	As above	1110	865

# Trench ATR-1

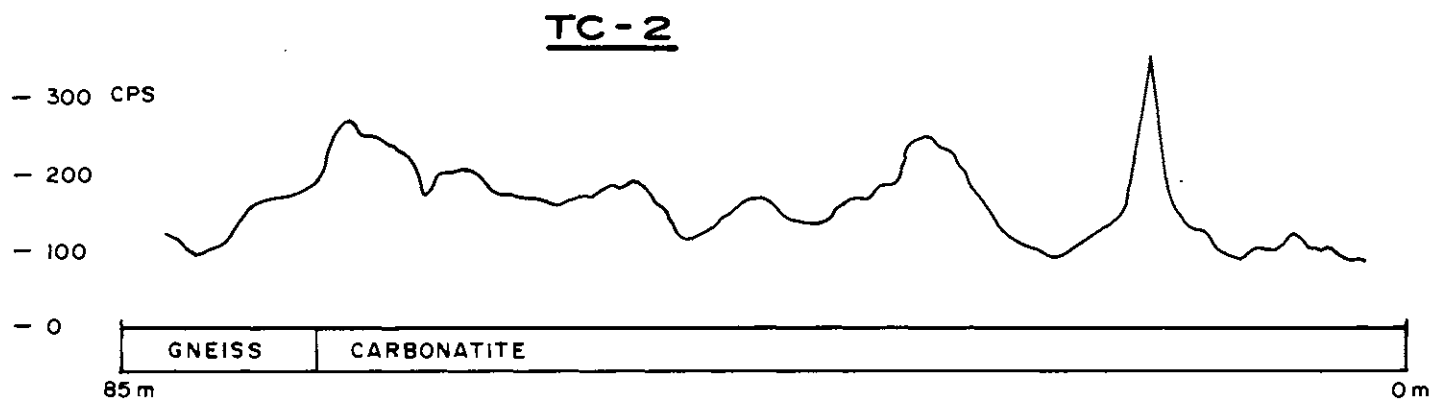
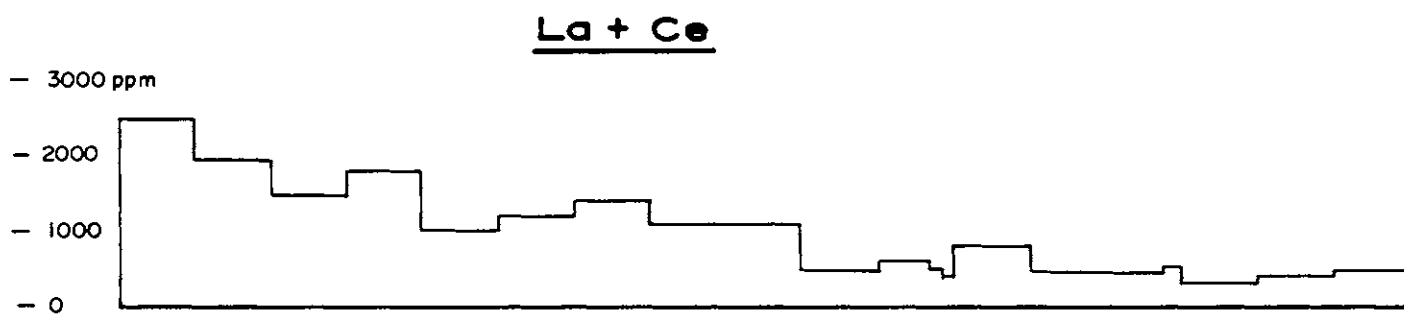
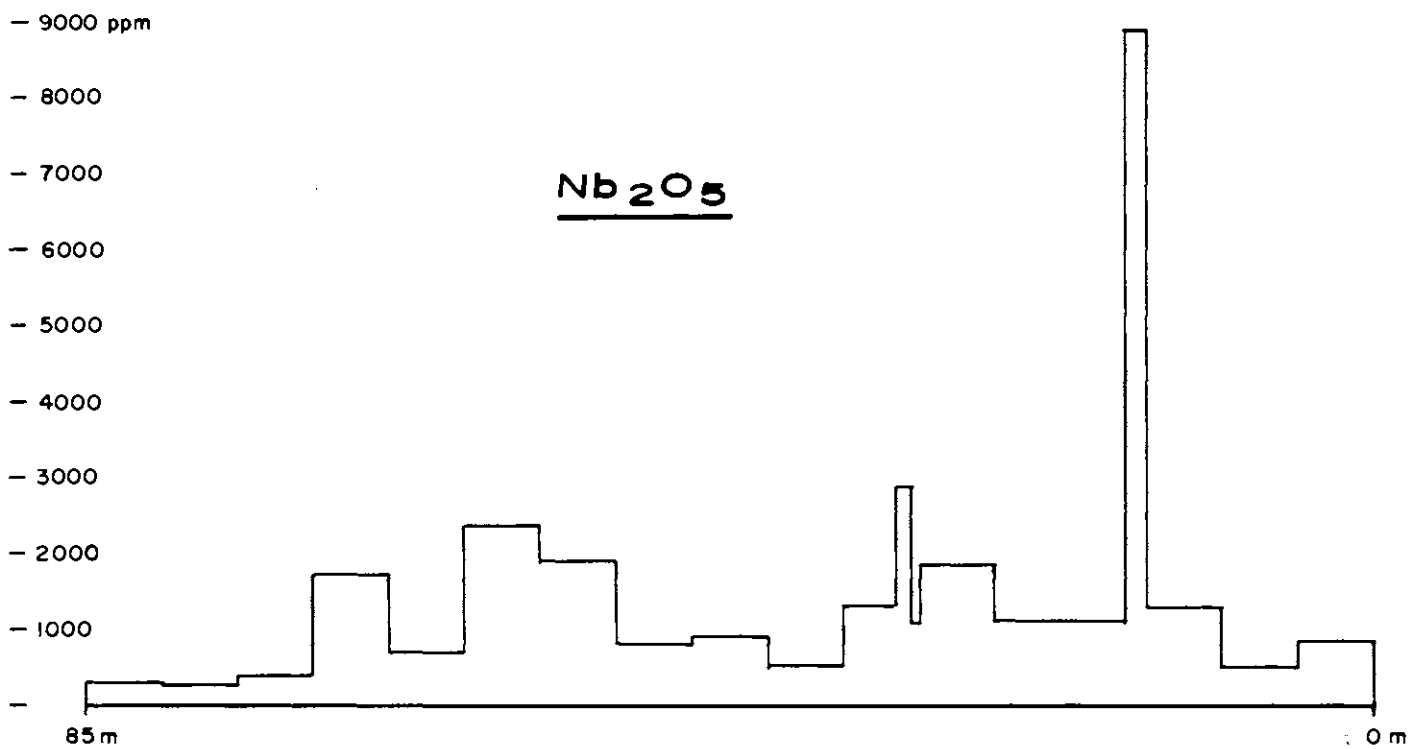


FIG. 5

**Trench ATR-2**

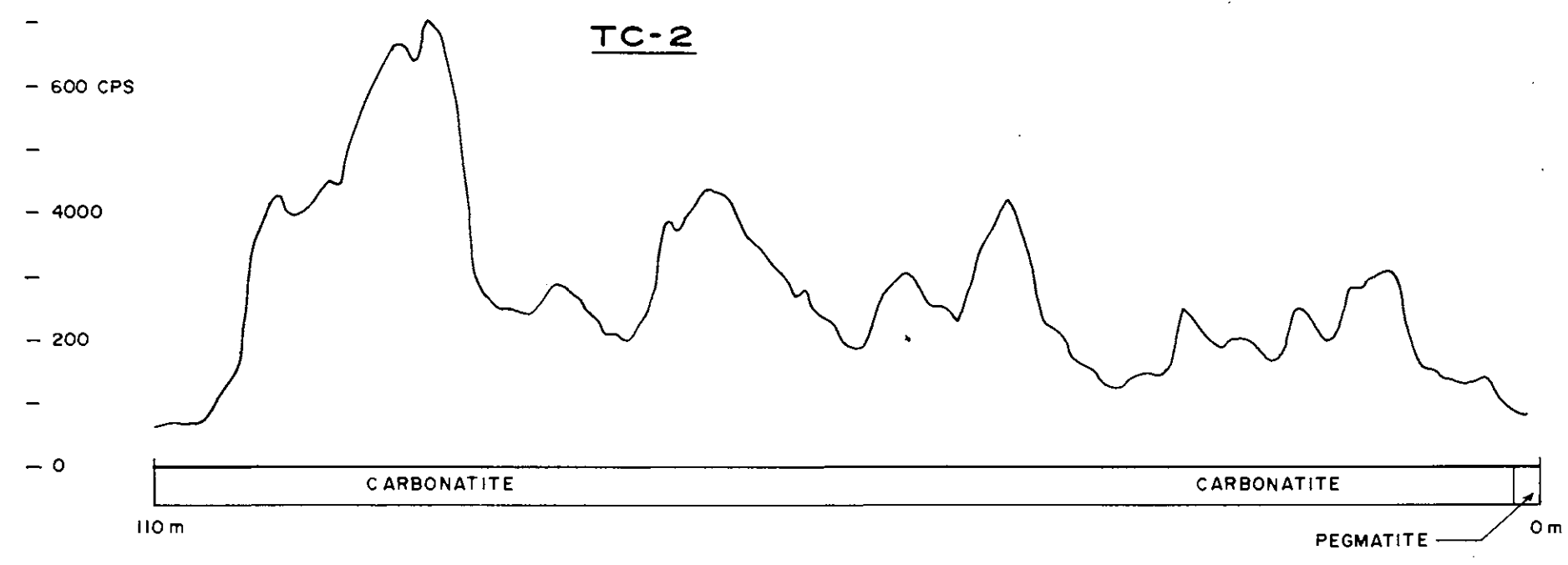
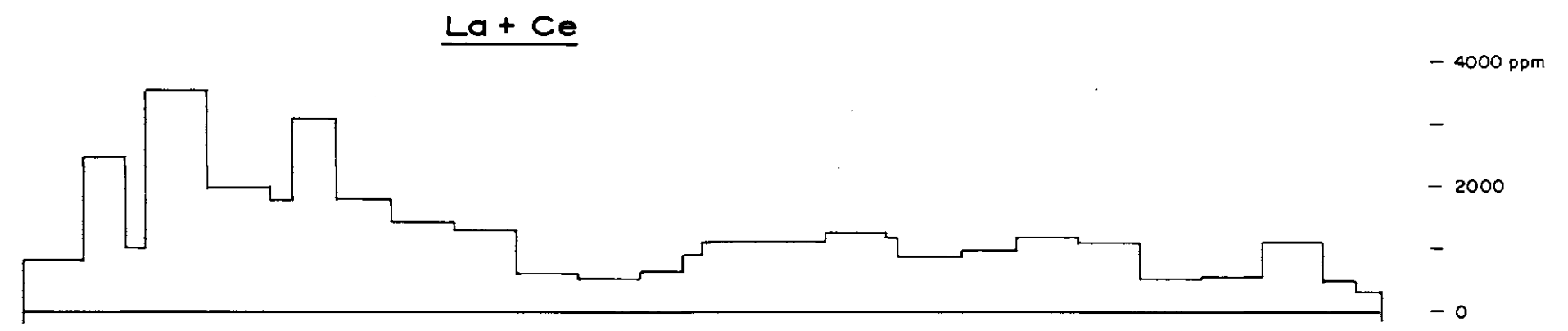
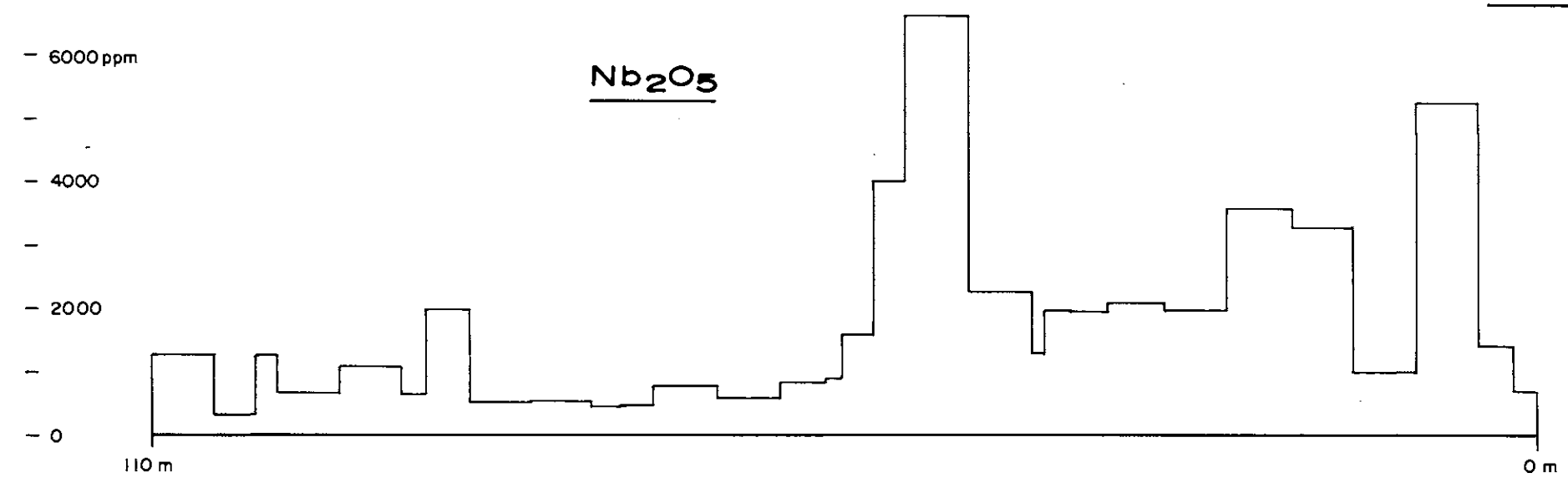


FIG.10

# Trench ATR-3

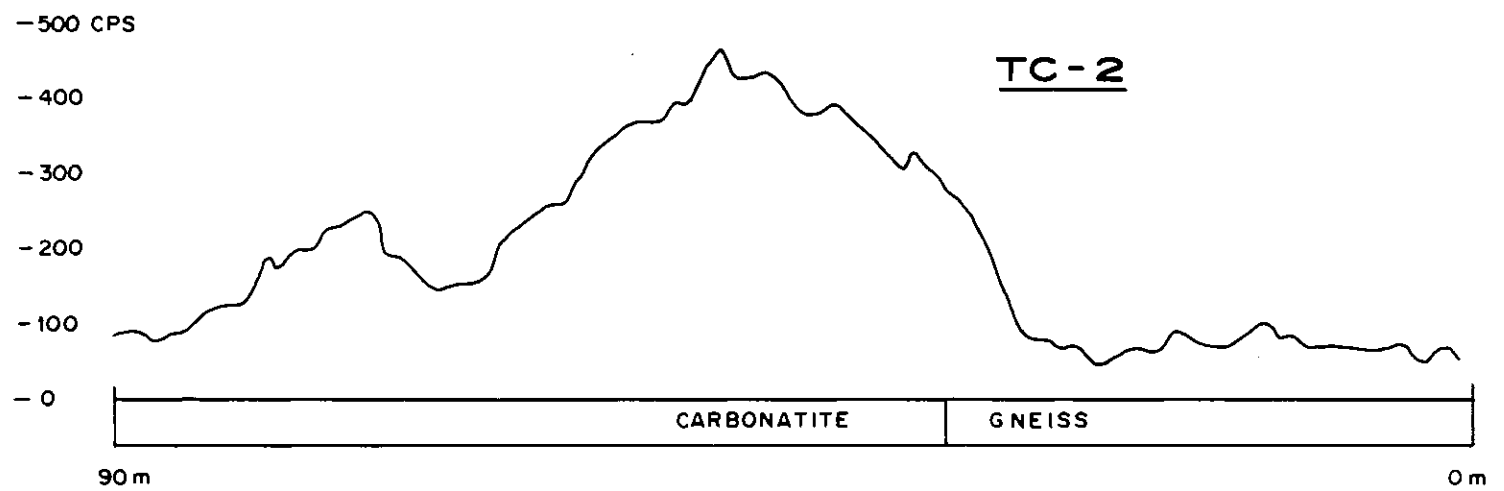
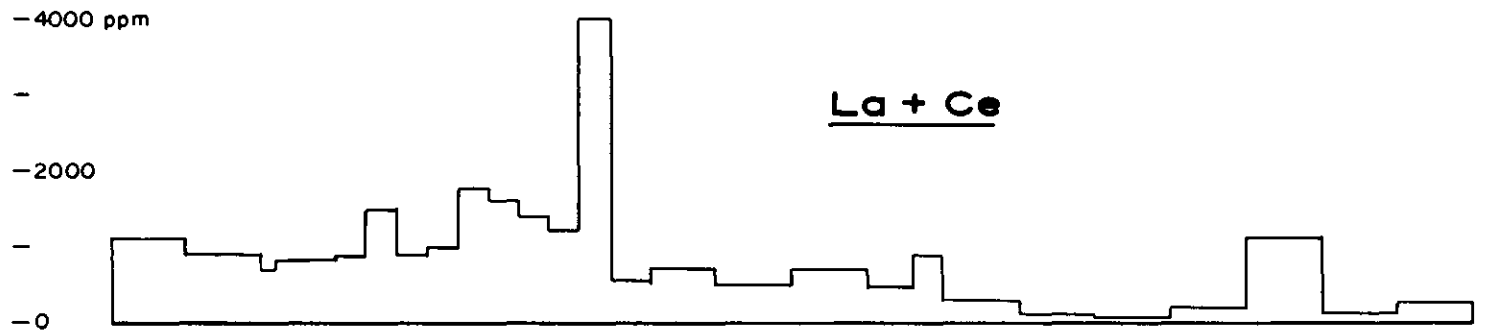
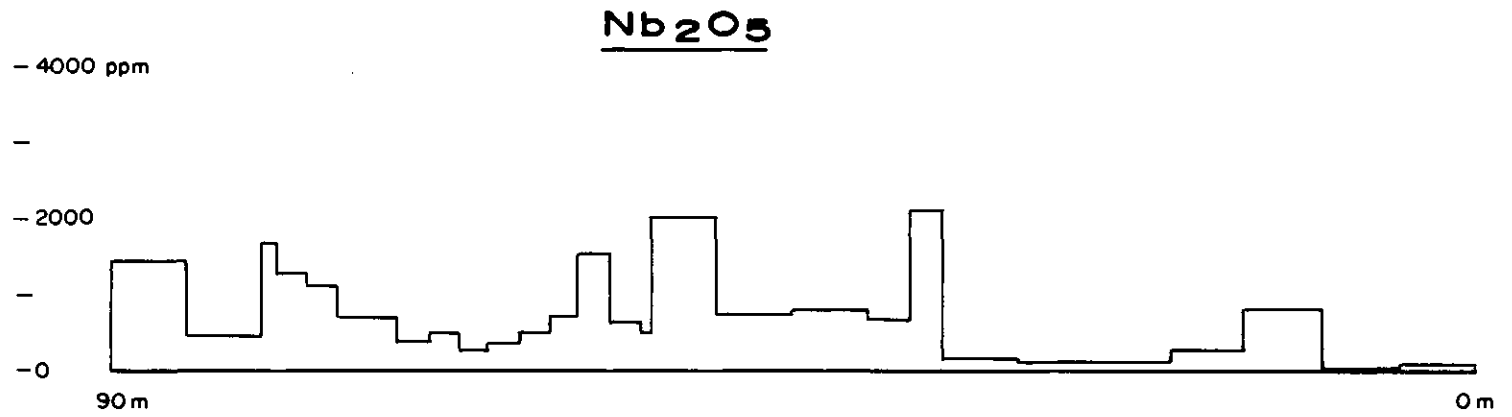
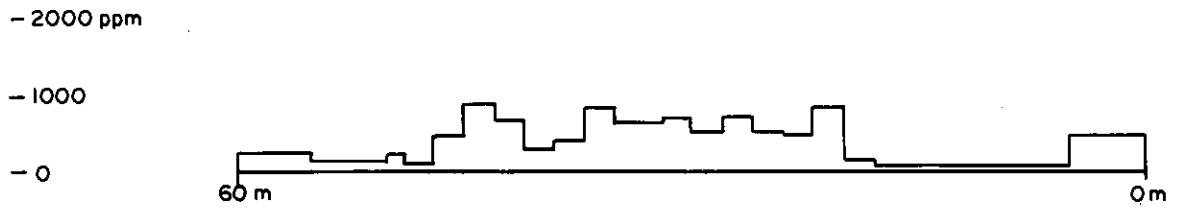


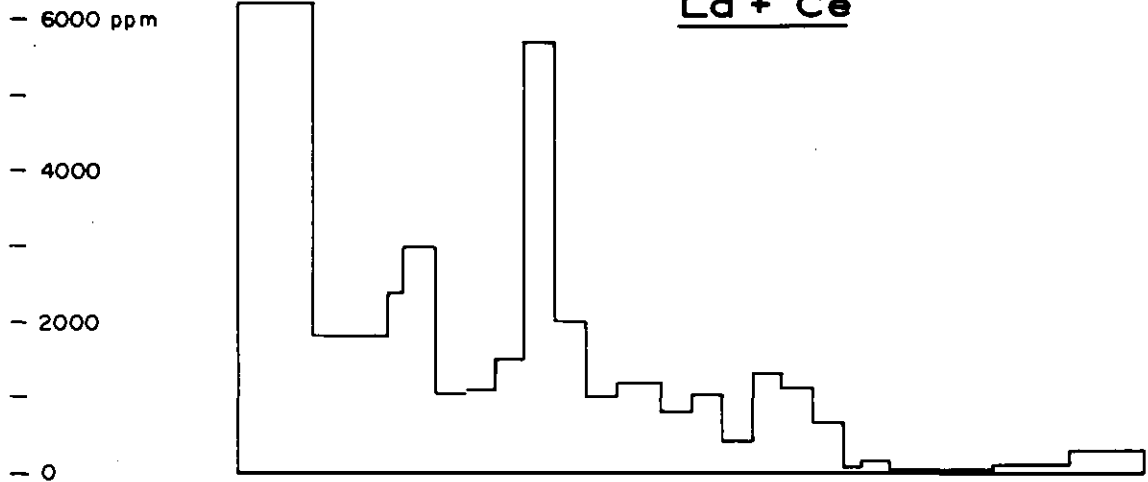
FIG. 11

# Trench ATR-4

Nb<sub>2</sub>O<sub>5</sub>



La + Ce



TC-2

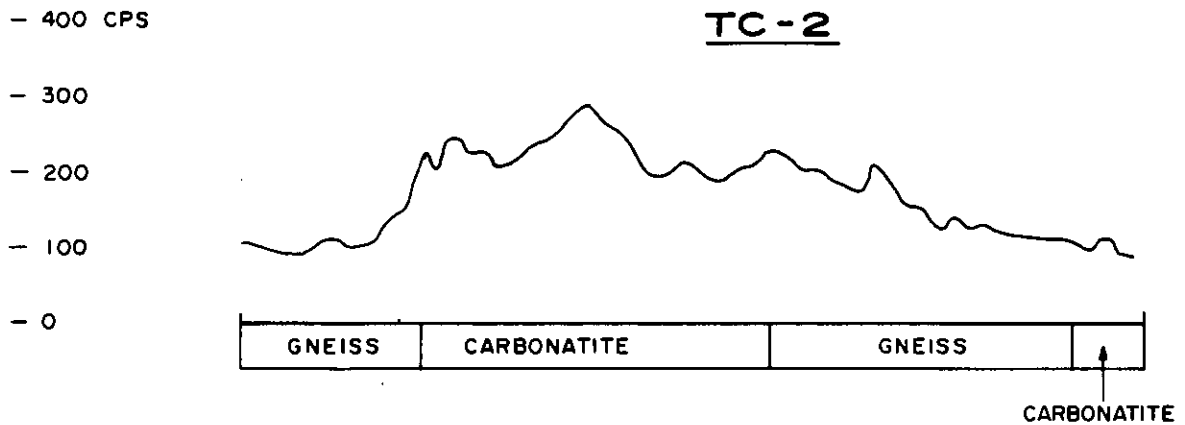


FIG. 12

**Trench ATR-5**

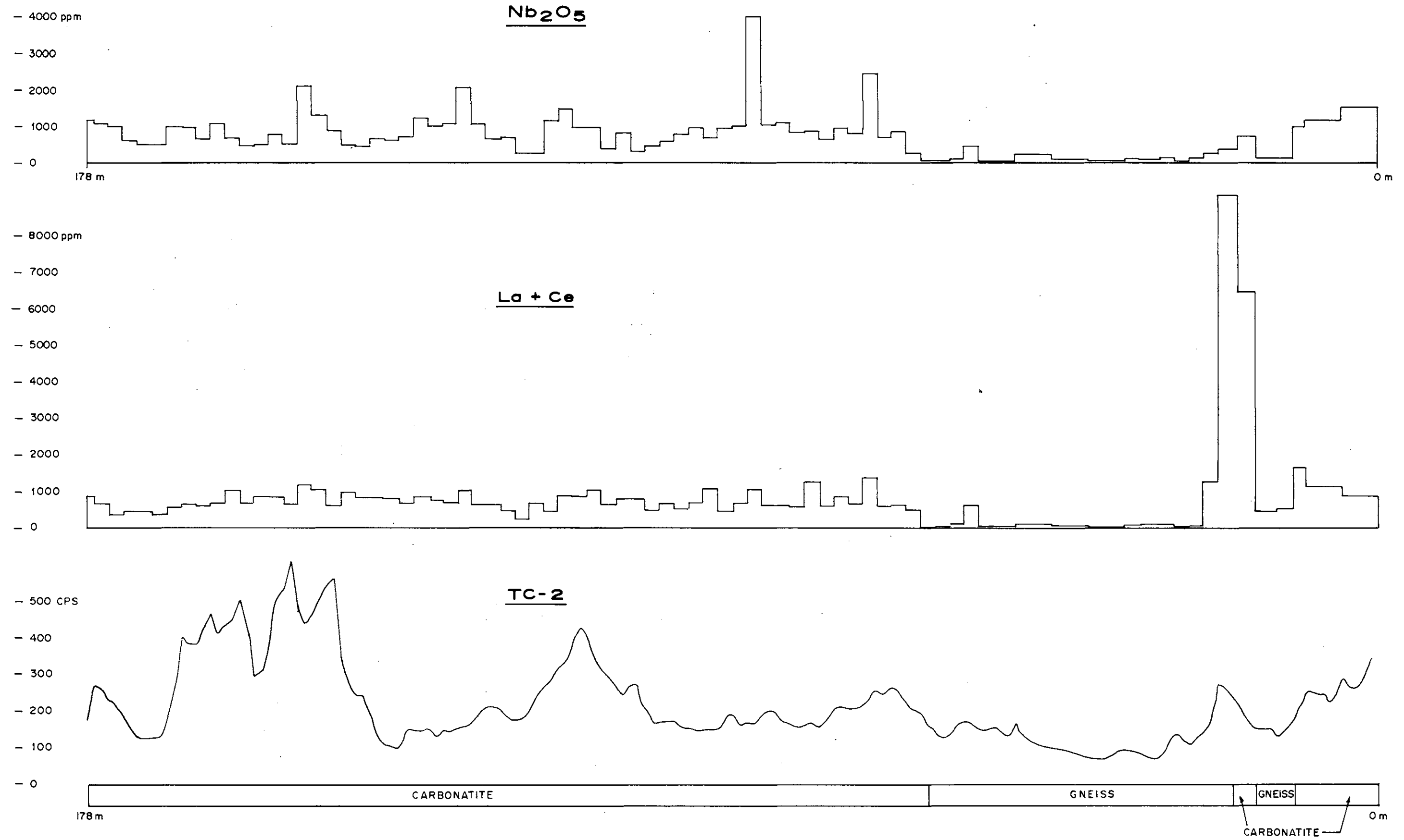


FIG. 13

# Trench ATR-6

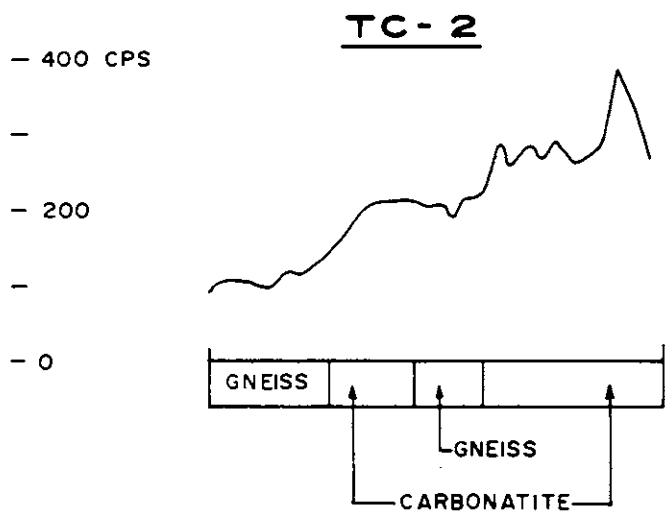
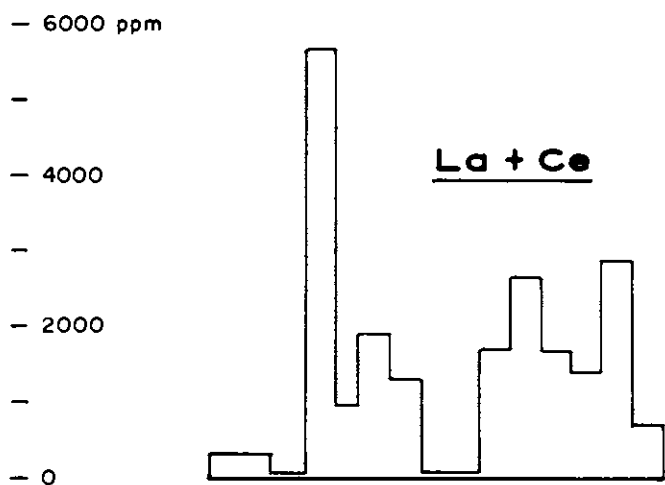
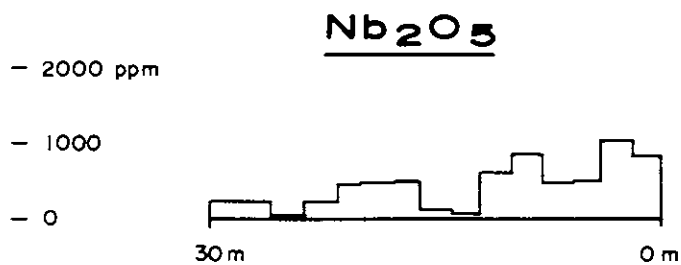
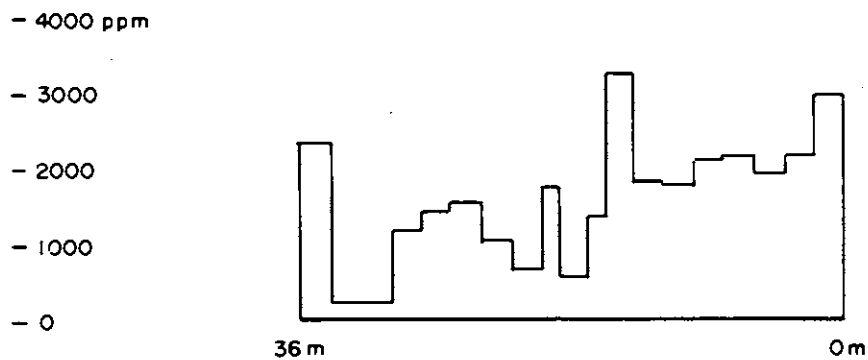


FIG. 14

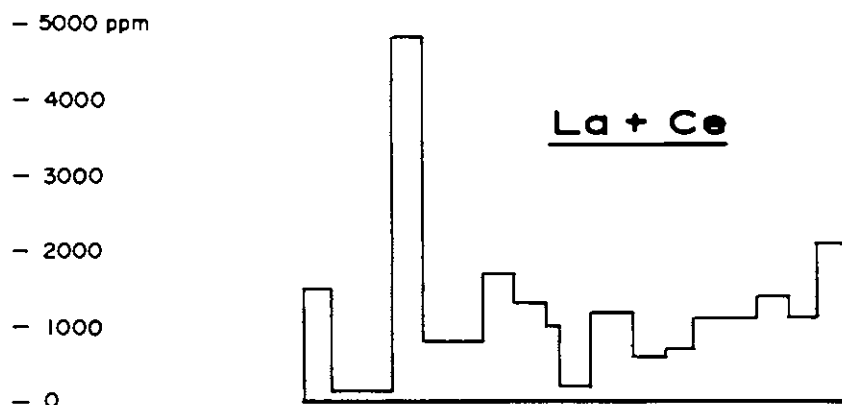


# Trench ATR-7

Nb<sub>2</sub>O<sub>5</sub>



La + Ce



TC-2

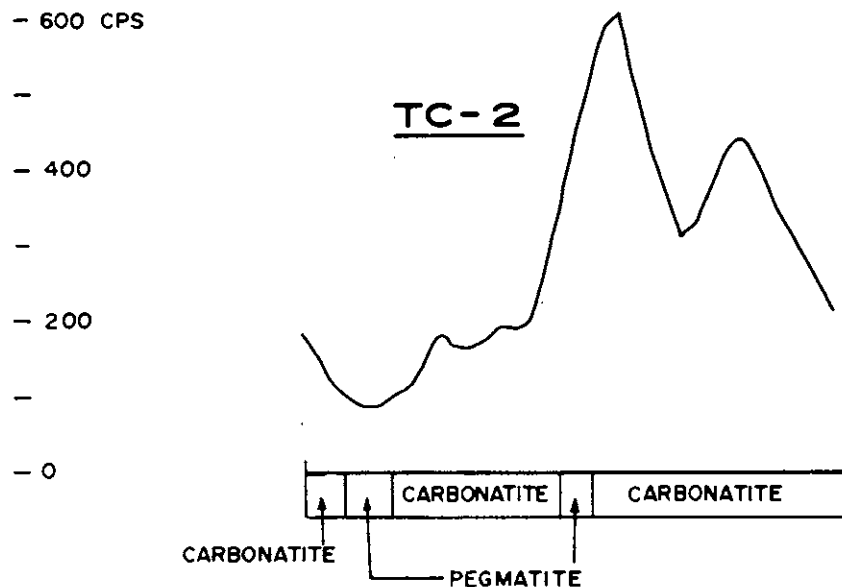
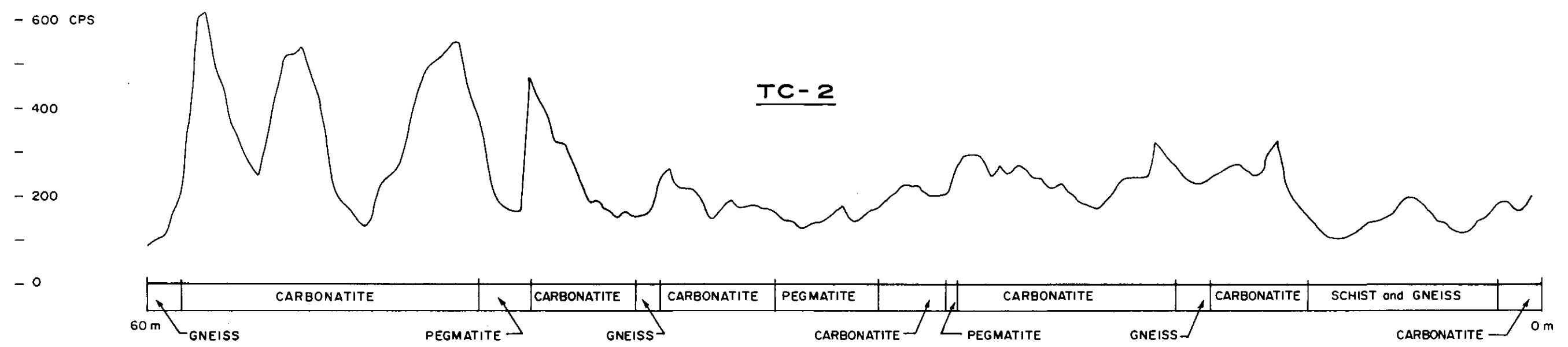
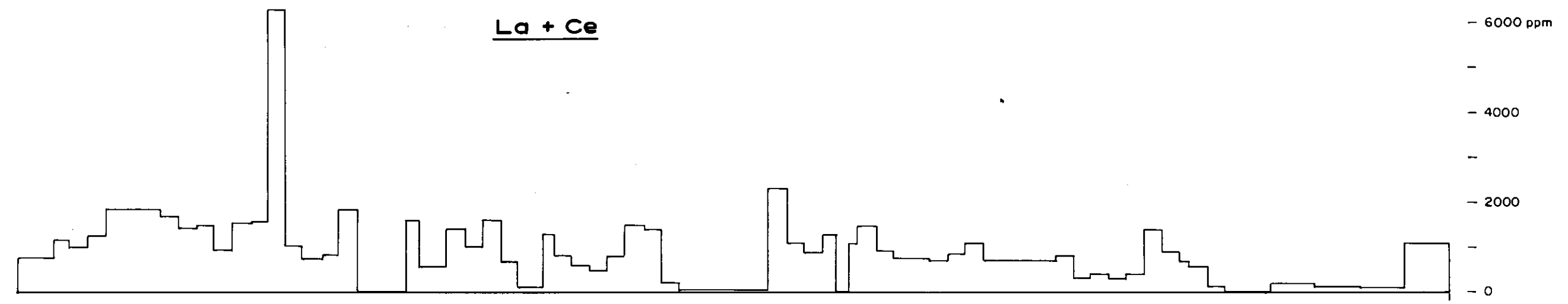
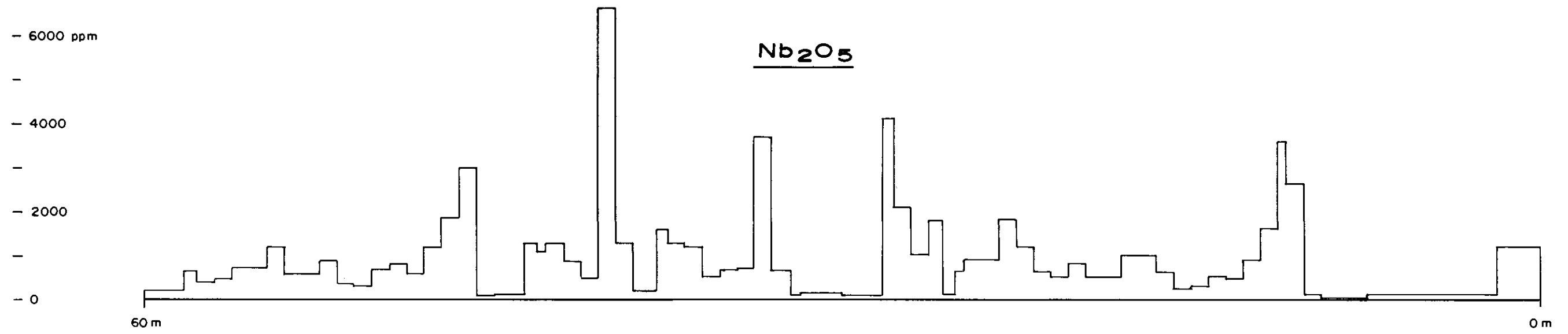


FIG. 15

**Trench ATR-8**



**FIG. 16**

Profile for Trench ATR-7 at 12 m.

<u>Depth (cm)</u>	<u>Description</u>	<u>ppm Nb</u>	<u>ppm La</u>
0- 10	Brown, organic A horizon	395	230
10- 60	Brown, B horizon, minor mica	1255	775
60-110	Decomposed cbte, mica, minor rust	1525	825
110-160	As above, 5 cm magnetite lens	535	2700
160-180	As above	610	540

"A" horizon soils are moderately anomalous in niobium and lanthanum. There appears to be an enrichment in both niobium and rare earths in the lower "B" to "C" horizons. Soil geochemistry probably outlines the carbonatite fairly well, but some of the more anomalous areas may be due to a thinner layer of overburden.

E. Trenching

Trench locations are shown on Figure 3. Trench geology and niobium analyses from chip samples are shown on Figure 6. Niobium values, combined La and Ce values, and total count scintillometer readings (TC-2) are shown in profile for each trench in Figures 9-16.

There is a good correlation between niobium values and total count scintillometer readings. Lanthanum and cerium analyses indicate a higher concentration of rare earth elements towards the footwall of the carbonatite. Niobium values from each trench are summarized below with corresponding true widths.

Trench ATR-1 - 0.14% Nb<sub>2</sub>O<sub>5</sub> over 47.0 m (0-70.0 m) including 0.18% Nb<sub>2</sub>O<sub>5</sub> over 16.8 m (10.0 - 35.0 m);

Trench ATR-2 - 0.19% Nb<sub>2</sub>O<sub>5</sub> over 55.0 m (1.9-110.0 m) including 0.30% Nb<sub>2</sub>O<sub>5</sub> over 24.4 m (1.9 - 55.0 m);

Trench ATR-3 - 0.10% Nb<sub>2</sub>O<sub>5</sub> over 34.5 m (35.0-90.0 m) including 0.12% Nb<sub>2</sub>O<sub>5</sub> over 16.0 m (35.0 - 59.0 m);

Trench ATR-4 - 0.06% Nb<sub>2</sub>O<sub>5</sub> over 11.6 m (20.0 - 47.0 m);

Trench ATR-5 - 0.10% Nb<sub>2</sub>O<sub>5</sub> over 72.6 m (65.0 - 178.0 m) including 0.14% Nb<sub>2</sub>O<sub>5</sub> over 4.2 m (0-11.7 m);

Trench ATR-6 - 0.07% Nb<sub>2</sub>O<sub>5</sub> over 4.2 m (0-12.0 m) and 0.06% Nb<sub>2</sub>O<sub>5</sub> over 2.0 m (16.0 - 21.8 m);

Trench ATR-7 - 0.14% Nb<sub>2</sub>O<sub>5</sub> over 23.4 m (0-36.0 m);

Trench ATR-8 - The carbonatite in this trench is not a continuous body across strike. Several pegmatite dykes and beds of gneiss and mica schist are included in the carbonatite. Values from the carbonatite sections are listed below:

<u>From (m)</u>	<u>To (m)</u>	<u>True Width (m)</u>	<u>% Nb<sub>2</sub>O<sub>5</sub></u>
27.0	38.0	7.5	0.14
42.0	67.0	15.0	0.09
68.5	75.5	4.7	0.20
88.0	101.2	8.4	0.14
104.0	116.5	7.7	0.19

Total carbonatite in the trench is 66.1 metres with an average grade of 0.12% Nb<sub>2</sub>O<sub>5</sub>.

The average grade of carbonatite from all trenches is 0.13% Nb<sub>2</sub>O<sub>5</sub>.

Yttrium values were low in all samples.


CONCLUSIONS


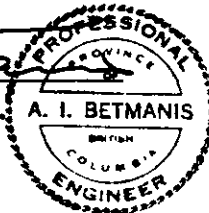
Niobium occurs throughout the carbonatite where trenched, but values are well below economic grades commonly mined.

Lanthanum and cerium values show an enrichment in light rare earth elements near the base of the carbonatite, but values are generally low.

High lanthanum values occur in stream silt samples in the lower part of AD Creek. Further investigation of the drainage is recommended to locate the source of the values.

Respectfully submitted,

  
Gudmund Lovang

  
A. I. Betmanis, P.Eng. 

REFERENCES

- Høy, T. and Kwong, Y.T.J. (1986): The Mount Grace Carbonatite - A Niobium and Light Rare Earth Element-enriched Marble of Probable Pyroclastic Origin in the Shuswap Complex, Southeastern British Columbia; in Economic Geology, vol. 81, pp 1374-86.
- McMillan, W.J. (1970): West Flank Frenchman Cap Gneiss Dome, Shuswap Terrain, British Columbia; in Structure of the Canadian Cordillera, GSC Special Paper no. 6, pp 99-106.
- Pilcher, S.H. (1983): Report on the Geology and Geochemical Surveys and Physical Work, Ren I, II, III, and IV Claims, Kamloops Mining Division, B.C.; Assessment Report 11,639 dated October 4, 1983.

STATEMENT OF QUALIFICATIONS

I, Gudmund Lovang, with residence at 1132 Semlin Drive, Vancouver, B.C., do hereby certify that:

1. I have been employed by Teck Explorations Limited, or its associated companies, as a geotechnician and field party chief in mineral exploration continuously for the past 18 years within British Columbia, Western U.S.A. and Ontario;
2. I have completed geophysical and geological courses at the B.C. Institute of Technology;
3. I have completed geochemical courses at the University of British Columbia;
4. I supervised the field work on the Apatí Group of mineral claims described in this report.



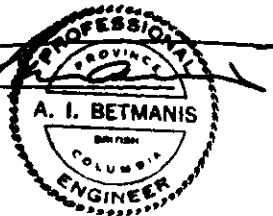
Gudmund Lovang

STATEMENT OF QUALIFICATIONS

I, Andris I. Betmanis, do hereby certify that:

1. I am a geologist residing at 2600 Belloc Street, North Vancouver, B.C.;
2. I am a graduate of the University of Toronto with a degree of BASc in Applied Geology in 1965;
3. I am a registered member of the Association of Professional Engineers of the Province of British Columbia, registration number 8336;
4. I have practiced my profession as an exploration geologist continuously for more than 20 years.
5. I am familiar with the work here described on the Apati Group of mineral claims but I have not visited the property.

A. I. Betmanis





SUMMARIZED COST STATEMENT

A. August 13 - August 31, 1987, silt, magnetometer and spectrometer surveys

G. May, 19 days @ \$135/day	\$ 2,565.00
G. Schlossen, 19 days @ \$125/day	2,375.00
Okanagan Helicopters, Revelstoke	2,799.44
Truck rental, 19 days @ \$50/day	950.00
4-wheeler motorbike, 13 days @ \$25/day	325.00
Meals and accommodations, 38 man-days @ \$40/day	1,520.00
Spectrometer rental	759.00
Laboratory costs, Min-En and Bondar-Clegg	2,151.55
Communications, flagging, sundries, etc.	250.00
Report writing, drafting, printing	<u>900.00</u>

Total for period A \$14,594.99

B. September 21 - October 10, 1987, back-hoe trenching, mapping, sampling, and spectrometer survey

G. Lovang, 14 days @ \$168/day	2,352.00
G. May, 20 days @ \$135/day	2,700.00
Speers Construction Ltd., Revelstoke; D-7 Bulldozer and Caterpillar 225 hoe, 139.5 hours	17,330.50
Okanagan Helicopters, Revelstoke	11,745.51
Truck rental, 20 days @ \$35/day	700.00
4-wheeler motorbike, 18 days @ \$25/day	450.00
Meals and accommodations, 34 man-days @ \$40/day	1,360.00
Spectrometer rental	559.30
Laboratory costs, Bondar-Clegg	7,166.43
Communications, flagging, sundries, etc.	280.00
Report writing, drafting, printing	<u>2,200.00</u>

Total for Period B \$46,843.74

ITEMIZED COST STATEMENT

Geochemical

Personnel

G. May, August 13 - August 16, 4 days @ \$135/day	540.00
B. Schlossen, August 13 - August 16, 4 days @ \$125/day	500.00

Transportation

Okanagan Helicopters	2,799.44
Truck rental including fuel, 4 days @ \$50/day	200.00

Meals and Accommodations

8 man-days @ \$40/day	320.00
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Laboratory Cost

Min-En Laboratories, North Vancouver	
66 silt samples analyzed for La, Nb and F at \$27.94/sample	1,844.04

Bondar-Clegg, North Vancouver	
23 silt samples analyzed for Nb and La at \$13.37/sample	307.51

Communications, flagging, bags, etc.	50.00
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Report writing, drafting, printing, etc.	<u>300.00</u>
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Total geochemical	<u>\$6,860.99</u>
-------------------	-------------------

ITEMIZED COST STATEMENT

Geophysical

Personnel

G. May, August 17 - August 31, 15 days @ 135/day	\$2,025.00
B. Schlossen, August 17 - August 31, 15 days @ \$125/day	1,875.75

Transportation

Truck rental, including fuel, 15 days @ \$50/day	750.00
4-wheeler motorbike, 13 days @ \$25/day	325.00

Meals and Accommodations

30 man-days @ \$40/day	1,200.00
------------------------	----------

Spectrometer rental	759.00
---------------------	--------

Communications, flagging, sundries, etc.	200.00
--	--------

Report writing, drafting, printing	<u>600.00</u>
------------------------------------	---------------

Total geophysical	<u>\$7,734.00</u>
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ITEMIZED COST STATEMENT

Trenching

Contractor: Speers Construction Ltd., Revelstoke  
Equipment: D-7 Bulldozer and Caterpillar 225 Excavator  
Work Done: Improving access on 7 km of existing logging road and  
excavating 0.749 km in 8 trenches  
Time: 139.5 hours, including mob and demob

Total contract trenching \$17,330.50

Supervision, geology, rock chip sampling and  
Spectrometric survey of the trenches

Personnel

G. Lovang, September 27 - October 10, 14 days @ \$168/day 2,352.00  
G. May, September 22 - October 10, 19 days @ \$135/day 2,565.00

Transportation

Okanagan Helicopters, Revelstoke 11,745.51  
Truck rental, including fuel, 19 days @ \$35/day 665.00  
4-wheeler motorbike, 18 days @ \$25/day 450.00

Meals and Accommodations

33 man-days @ \$40/day 1,320.00

ITEMIZED COST STATEMENT

Supervision, geology, rock chip sampling and  
Spectrometric survey of the trenches (continued)

Spectrometer rental \$559.30

Laboratory Cost

Bondar-Clegg, North Vancouver,  
282 rock chip samples analyzed for Nb, La, Ce  
and Y @ \$25.40/sample \$7,525.80

15 rock chip samples assayed for Nb at  
at \$24.20/sample 363.00 \$7,525.80

Communication, flagging, sundries, etc. 280.00

Report writing, drafting, printing, etc. 2,050.63

Total \$29,513.24

TOTAL COST

Geochemical Survey \$6,860.99

Geophysical Surveys 7,734.00

Contract Trenching 17,330.50

Geology, sampling and radiometric survey of trenches 29,513.24

\$61,438.73

ADDENDUM TO ASSESSMENT REPORT #17182

REPORT ON GEOCHEMICAL AND GEOPHYSICAL SURVEYS AND TRENCHING  
ON THE APATI CLAIM GROUP  
KAMLOOPS MINING DIVISION, B.C.

BY

GUDMUND LOVANG, AND  
A. I. BETMANIS, P.ENG.

NTS 82 M/7

Dated March 16, 1988

APPENDIX

Certificates of Analyses

August 19, 1988  
Vancouver, B.C.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

SEP 24 1987

PHONE: (604) 980-5814 OR (604) 980-4524

TELEX: VIA USA 7601067 BC

**Certificate of GEOCHEM**

Company: TECK EXPLORATIONS LTD.

Project: APATI PROPERTY #1351

Attention: BILL MEYER

File: 7-1137/P1

Date: SEPT 24/87

Type: SILT GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	LA PPM	NR PPM	F PPM	
A-A 1	1558	4182	3900	<i>66 silt samples per statement of Costs page 14.</i>
A-A 2	491	387	2350	
A-A 3	1321	1841	3300	
A-A 4	742	685	1800	
A-A 5	818	1655	3500	
A-A 6	479	960	1700	
A-A 7	206	257	1800	
A-A 8	358	580	1625	
A-A 9	282	676	1875	
A-A 10	676	542	2400	
A-A 11	1170	2104	2350	
A-A 12	2768	984	4400	
A-A 13	2875	2529	3600	
A-A 14	2632	6567	8600	
A-A 15	1774	3564	6400	
A-A 16	1722	1797	7200	
A-A 17	3446	7693	7800	
A-A 18	1998	2481	4300	
A-A 19	2545	2172	6800	
A-B 1	225	169	800	
A-B 2	837	779	1500	
A-B 3	214	249	850	
A-B 4	277	224	1000	
A-B 5	266	160	925	
A-B 6	235	338	1225	
A-B 7	665	379	1050	
A-B 8	202	231	800	
A-B 9	422	253	1175	
A-B 10	384	206	1400	
A-B 11	662	317	1125	

Certified by

  
 MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

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

TELEX: VIA USA 7401067 UC

**Certificate of GEOCHEM**

Company: TECK EXPLORATIONS LTD.

File: 7-1137 (P2)

Project: APATI PROPERTY #1351

Date: SEPT 24/87


Attention: BILL MEYER

Type: SILT GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	LA PPM	NB PPM	F PPM
A-B 12	219	159	1000
A-B 13	322	273	1200
A-B 14	323	251	1150
A-B 15	1866	1076	1075
A-B 16	635	795	1300
A-B 17	557	461	1275
A-B 18	154	141	1150
A-C 0	152	355	1150
A-C 1	141	188	1175
A-C 2	145	146	1000
A-C 3	219	225	1200
A-C 4	177	143	1100
A-C 5	182	207	1175
A-C 6	123	155	1150
A-C 7	77	131	625
A-C 8	78	124	875
A-C 9	93	176	1175
A-C 10	79	135	650
A-C 11	93	126	600
A-C 12	67	144	725
A-C 13	82	135	1000
A-C 14	66	118	600
A-C 15	59	124	550
A-C 16	608	132	700
A-C 17	72	122	750
A-C 18	97	122	725
A-C 19	146	247	500
A-D 1	87	140	1025
A-D 2	246	175	1450
A-D 3	154	162	1350

Certified by



MIN-EN LABORATORIES LTD.



**MIN-EN LABORATORIES LTD.**

*Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

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

TELEX: VIA USA 7601067 UC

**Certificate of GEOCHEM**

Company: TECK EXPLORATIONS LTD.

File: 7-1137/P3

Project: APATI PROPERTY #1351

Date: SEPT 24/87

Attention: BILL MEYER

Type: SILT GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	LA PPM	NB PPM	F PPM
A-D 4	3800	684	4300
A-D 5	4115	616	6100
A-D 6	990	233	3450
A-D 7	9738	2007	2900
A-D 8	10400	792	4400
A-D 9	13240	1841	3375

Certified by \_\_\_\_\_



MIN-EN LABORATORIES LTD.

ROCK CHIP SAMPLES

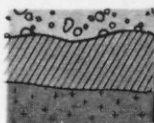
Reference

Text p 4

Statement of Costs p 17

Bondar-Clegg & Company Ltd.

130 Pemberton Ave.  
North Vancouver, B.C.  
Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352667



BONDAR-CLEGG

Certificate  
of Analysis

REPORT: 427-8689 ( COMPLETE )

REFERENCE INFO:

CLIENT: TECK EXPLORATIONS LTD.  
PROJECT: 1351

SUBMITTED BY: B. LOVANG  
DATE PRINTED: 9-DEC-87

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Nb Niobium	15	0.001 PCT		

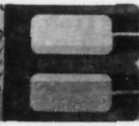
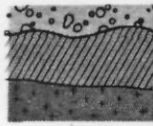
SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	15	2 -150	15	ASSAY PREP	15

REPORT COPIES TO: MR. B. LOVANG  
MR. W. MEYER

INVOICE TO: MR. W. MEYER

*15 rock chip sample assayed  
per Statement of costs p 17*

Bondar-Clegg & Company Ltd.  
130 Pemberton Ave.  
North Vancouver, B.C.  
Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352667



**BONDAR-CLEGG**

**Certificate  
of Analysis**

REPORT: 427-8689

PROJECT: 1351

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Nb PCT
R2 10424		0.312
R2 10431		0.285
R2 10449		0.273
R2 10655		0.747
R2 10660		0.263
R2 10675		0.265
R2 10676		0.308
R2 10682		0.573
R2 10683		0.358
R2 10997		0.318
R2 30805		0.370
R2 30810		0.343
R2 30819		0.592
R2 30827		0.300
R2 ATR-25-?		0.445

ROCK CHIP SAMPLES

Reference

Text p 4, 7-8

Figures 9-16

Statement of Costs p 17

Bondar-Clegg & Company Ltd.  
 130 Pemberton Ave.  
 North Vancouver, B.C.  
 Canada V7P 2R5  
 Phone: (604) 985-0681  
 Telex: 04-352667



Geochemical  
 Lab Report

REPORT: 127-8689 ( COMPLETE )

REFERENCE INFO:

CLIENT: TECK EXPLORATIONS LTD.  
 PROJECT: 1351

SUBMITTED BY: UNKNOWN  
 DATE PRINTED: 28-OCT-87

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Nb Niobium	282	5 PPM		X-RAY Fluorescence
2	La Lanthanum	282	5 PPM		X-RAY Fluorescence
3	Ce Cerium	282	5 PPM		X-RAY Fluorescence
4	Y Yttrium	282	5 PPM		X-RAY Fluorescence

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	282	2 -150	282	CRUSH, PULVERIZE -150	282

NOTES: = indicates SEE OBS REMARKS

REMARKS: = Nb - INTERFERENCE NOTED DUE TO HIGH Sr.  
 = Y - INTERFERENCE NOTED DUE TO HIGH Sr

REPORT COPIES TO: MR. B. LOVANG  
 MR. W. MEYER

INVOICE TO: MR. W. MEYER

*282 rock chip sample (geochem)  
 per statement of costs p 17*



REPORT: 127-8689

A-

914.99

PROJECT: 1351

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM	SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM
R2 10401	23-71	290	320	565	26	R2 10442	ATR-8 0-5	845	385	745	49
R2 10402	71-73	470	500	990	44	R2 10443	10	72	64	105	18
R2 10403	75	485	315	575	37	R2 10444	15	94	63	82	12
R2 10404	77	815	275	565	42	R2 10445	20	110	86	140	21
R2 10405	79	835	265	525	43	R2 10446	25	27	18	21	11
R2 10406	80	1200	235	455	36	R2 10447	27	71	67	110	27
R2 10407	85	315	320	625	25	R2 10448	29	1800	195	420	35
R2 10408	85-30	1100	360	780	43	R2 10449	30	2500	230	505	51
R2 10409	0-2	575	565	1155	72	R2 10450	32	1140	310	610	51
R2 10411	4	710	955	1955	81	R2 10451	93-95	715	225	465	29
R2 10412	-	405	490	955	57	R2 10452	97	540	145	330	20
R2 10413	8	330	590	1120	44	R2 10453	99	400	230	515	28
R2 10414	3-5	615	960	1740	50=	R2 10454	101	315	160	325	32
R2 10415	10-12	415	610	1140	49	R2 10455	103	235	270	560	43
R2 10416	14	54	67	95	30	R2 10456	105	575	265	540	40
R2 10417	16	65	54	84	33	R2 10457	107	270	205	440	26
R2 10418	18	410	470	880	54	R2 10458	109	705	350	740	40
R2 10419	20	410	645	1240	70	R2 10459	111	715	255	590	36
R2 10420	20-21.8	350	340	655	59	R2 10460	113	1065	300	680	60
R2 10421	21.8-23.8	150	2700	3000	15	R2 10461	115	835	145	315	26
R2 10422	26	39	22	31	35	R2 10462	117	235	225	470	28
R2 10423	30	180	125	225	28	R2 10463	119	250	120	260	10
R2 10424	0-2	2100	645	1435	67	R2 10464	121	485	170	380	24
R2 10425	4	835	365	765	56	R2 10465	123	460	240	520	24
R2 10426	6	695	445	965	56	R2 10466	125	740	240	510	30
R2 10427	8	820	330	740	56	R2 10467	127	1440	340	685	36
R2 10428	10	800	350	745	54	R2 10468	129	780	225	465	25
R2 10429	12	565	240	475	33	R2 10469	131	730	255	540	43
R2 10430	14	590	191	400	28	R2 10470	133	870	330	655	59
R2 10431	16	2300	395	815	75	R2 10471	135	495	235	510	41
R2 10432	17	1000	402	830	55	R2 10472	137	445	260	560	50
R2 10433	19	410	82	145	10	R2 10473	139	470	300	595	49
R2 10434	20	1275	325	680	68	R2 10474	141	315	260	555	73
R2 10435	22	500	430	885	61	R2 10475	143	370	315	655	63
R2 10436	24	740	585	1170	45=	R2 10476	145	660	200	455	49
R2 10437	26	1800	270	530	50=	R2 10477	147	935	355	730	38
R2 10438	28	1100	290	505	35=	R2 10478	149	1500	390	810	60
R2 10439	30	830	2040	2750	70	R2 10479	151	400	220	450	47
R2 10440	34	220	90	96	<5	R2 10480	153	570	285	605	56
R2 10441	36	1700	490	985	49	R2 10481	155	370	305	635	35=



REPORT: 127-8689

PROJECT: 1351

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM	SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM
R2 10482	155-157	325	235	495	47	R2 10623	50-55	125	690	1100	<5
R2 10483	159	490	340	740	76	R2 10624	4 60	160	3520	2700	19
R2 10484	161	790	230	505	28	R2 10651	FLOAT	26	89	160	17
R2 10485	163	465	210	450	38	R2 10652	0-5	620	175	315	41
R2 10486	165	695	225	480	43	R2 10653	10	390	150	260	21
R2 10487	167	700	190	410	31	R2 10654	14	910	100	190	23
R2 10488	169	355	130	295	22	R2 10655	15.5	6200	175	360	78
R2 10489	171	340	180	370	45	R2 10656	20	760	135	275	31
R2 10490	173	430	170	365	34	R2 10657	25	775	130	285	28
R2 10491	ATR-5 175	710	130	275	32	R2 10658	30	1300	250	545	55=
R2 10492	177	765	230	485	50=	R2 10659	30.4	790	150	270	32
R2 10493	178	840	295	605	44	R2 10660	31.4	2040	145	295	49
R2 10494	55-57	460	190	400	37	R2 10661	35	925	200	405	34
R2 10495	59	1100	1275	2720	105	R2 10662	40	365	180	305	37
R2 10496	61	470	400	795	38	R2 10663	45	590	355	750	48
R2 10497	63	335	505	920	33	R2 10664	50	555	360	755	52
R2 10498	65	285	545	1020	45	R2 10665	55	1300	475	945	56
R2 10499	67	195	590	1165	55	R2 10666	60	1700	400	785	47
R2 10500	67-69	345	370	665	35	R2 10667	65	505	340	665	35
R2 10602	0-5	350	120	235	61	R2 10668	70	1240	590	1200	39
R2 10603	10	58	41	60	28	R2 10669	75	290	515	1000	23
R2 10604	15	48	37	46	35	R2 10670	80	155	685	1300	17
R2 10605	17	33	29	32	34	R2 10671	85	170	855	1645	24
R2 10606	18	37	45	76	66	R2 10672	0-1.9	525	120	220	20
R2 10607	20	100	44	44	29	R2 10673	4.5	970	170	350	33
R2 10608	22	580	215	430	55	R2 10674	9.5-14.5	725	210	405	33
R2 10609	24	335	395	750	65=	R2 10675	19.5	2300	210	375	74
R2 10610	26	385	470	895	55	R2 10676	24.5	2500	370	745	90=
R2 10611	28	500	140	260	37	R2 10677	29.5	1400	385	830	93
R2 10612	30	385	335	690	50	R2 10678	34	1500	350	715	60=
R2 10613	32	500	370	435	36	R2 10679	39	1400	310	640	50=
R2 10614	35	470	425	770	41	R2 10680	40	935	385	795	85=
R2 10615	37	570	340	675	46	R2 10681	45	1600	420	825	90=
R2 10616	39	290	690	1325	70=	R2 10682	50	4600	420	850	115=
R2 10617	41	240=	2520	3200	65=	R2 10683	52.5	2800	380	760	85=
R2 10618	43	525	535	1025	50	R2 10684	55	1100	340	680	55=
R2 10619	45	620	375	735	35	R2 10685	56.5	645	280	550	63
R2 10620	47	370	355	700	45	R2 10686	60	595	200	400	35
R2 10621	49	78	1065	1870	15	R2 10687	65	420	180	360	23
R2 10622	50	155	955	1480	13	R2 10688	70	545	210	430	39





REPORT: 127-8689

PROJECT: 1351

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM	SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM	
R2 10689	70-75	370	420	855	65=	R2 10964	55	355	150	330	20	
R2 10690	80	430	490	1000	60=	R2 10965	6-5	1100	305	600	70=	
R2 10691	84.3	425	595	1190	65=	R2 10966	10	870	395	775	42	
R2 10692	88	1400	1100	2100	80=	R2 10967	11.7	775	595	1075	45=	
R2 10693	90	450	640	1185	55=	R2 10968	14	100	220	345	17	
							ATR 5					
R2 10694	95	770	720	1245	70=	R2 10969	16.7	93	155	310	16	
R2 10695	100	485	1165	2155	60=	R2 10970	19.6	605	2800	3700	46	
R2 10696	101.5	945	340	675	68	R2 10971	22	285	5300	3900	32	
R2 10697	105	250	915	1625	15	R2 10972	24	205	415	830	20	
R2 10698	110	900	280	545	21	R2 10973	26	120	34	44	23	
R2 10699	0-5	62	135	230	6	R2 10974	28	38	22	30	18	
R2 10700	ATR 3	10	42	59	105	43	R2 10975	30	58	39	59	36
R2 10901	32-34	620	485	925	41	R2 10976	32.9	50	46	71	26	
R2 10902	34-36	320	145	235	20	R2 10977	35	88	41	60	40	
R2 10903	38	395	135	195	19	R2 10978	40	41	13	7	28	
	ATR-8											
R2 10904	40	235	150	265	22	R2 10979	45	45	32	26	42	
R2 10905	42	160	110	190	20	R2 10980	50	220	49	74	36	
R2 10906	42	44	415	290	545	40	R2 10981	55	57	24	33	6
R2 10907	46	725	250	515	40=	R2 10982	57	310	220	415	25	
R2 10908	48	735	230	495	40	R2 10983	59	96	50	94	<5	
R2 10909	50	380	240	480	32	R2 10984	61	48	12	13	<5	
R2 10910	52	385	245	480	39	R2 10985	63	115	32	43	41	
R2 10911	54	545	400	715	43	R2 10986	65	265	190	290	44	
R2 10912	56	365	295	535	45=	R2 10987	67	655	240	420	51	
R2 10913	58	450	265	515	45	R2 10988	69	505	215	385	41	
	B											
R2 10914	60	845	285	565	60=	R2 10989	71	1700	470	915	55	
R2 10915	62	1300	280	555	48	R2 10990	73	550	240	475	50	
R2 10916	64	645	325	650	50=	R2 10991	75	685	295	600	48	
R2 10917	66	685	495	955	55=	R2 10992	77	465	210	430	37	
R2 10918	67	430	380	775	55=	R2 10993	79	620	420	845	49	
R2 10954	ATR-3	10-15	550	385	755	97	R2 10994	81	590	190	405	22
R2 10955	20	175	73	130	38	R2 10995	83	815	210	445	26	
R2 10956	25	92	20	18	16	R2 10996	85	740	215	430	24	
R2 10957	30	100	36	49	11	R2 10997	87	2800	360	760	50=	
R2 10958	35	125	115	215	18	R2 10998	89	795	225	475	28	
							5					
R2 10959	37	1500	285	580	52	R2 10999	91	700	155	325	15	
R2 10960	40	495	170	350	36	R2 11000	93	485	365	740	23	
R2 10961	45	575	240	515	55	R2 30801	67-68.5	100	17	<5	<5	
R2 10962	50	530	225	465	48	R2 30802	70	1260	410	860	60=	
R2 10963	54.3	1400	225	470	59	R2 30803	72	715	305	650	40=	
							ATR 8					



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PROJECT: 1351

PAGE 4

SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM	SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM	Ce PPM	Y PPM
R2 30804	74	1500	395	770	60=	R2 30844	160	145	270	525	<5
R2 30805	75.5	2900	775	1500	100=	R2 ATR-2 5-?		3700	355	745	77
R2 30806	80	95	33	10	<5						
R2 30807	85	135	30	33	<5						
R2 30808	50	110	27	<5	9						
ATR-8											
R2 30809	88	450	105	150	30						
R2 30810	90	2600	475	940	80=						
R2 30811	92	490	485	975	65=						
R2 30812	74	450	270	555	53						
R2 30813	96	370	170	345	18						
R2 30814	98	820	190	425	31						
R2 30815	100	915	290	620	53						
R2 30816	101.2	1100	415	875	82						
R2 30817	104	140	60	81	20						
R2 30818	106	895	285	475	25						
R2 30819	108	4600	595	1000	79						
R2 30820	110	350	390	615	23						
R2 30821	112	625	545	845	40						
R2 30822	114	920	190	390	40						
R2 30823	115	790	190	395	45						
R2 30824	116.5	920	520	1100	120						
R2 30825	120	90	24	<5	<5						
R2 30826	122	72	24	<5	<5						
R2 30827	124	2100	560	1200	125						
R2 30828	126	1300	280	585	65						
R2 30829	128	860	255	525	46						
R2 30830	130	435	345	705	51						
R2 30831	132	580	2600	3700	60=						
R2 30832	134	500	555	1020	60=						
R2 30833	136	205	515	985	65=						
ATR-8											
R2 30834	138	265	325	635	60						
R2 30835	140	625	510	990	58						
R2 30836	142	430	480	935	70=						
R2 30837	144	425	580	1115	65=						
R2 30838	146	855	640	1210	50=						
R2 30839	148	460	615	1235	60=						
R2 30840	150	500	630	1250	85=						
R2 30841	152	365	415	835	55=						
R2 30842	154	275	345	700	62						
R2 30843	155.8	533	400	795	55						

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APATI # 1351

TRENCH	LENGTH in metres	# of Samples
ATR 1	85	20
ATR 2	110	27
ATR 3	90	28
ATR 4	60	23
ATR 5	178	79
ATR 6	30	15
ATR 7	36	18
ATR 8	160	71
TOTAL →	749 m	281

Over 1000 ppm Nb. with ~~footage~~ meters.

PROJECT # 1351  
 APATI

	metres	Nb ppm		metres	Nb ppm
<u>Trench ATR-1</u>	14.5 -15.5	6200	<u>Trench ATR-5</u>	0 -5.0	1100
	25.0 -30.0	1300		69.0 -71.0	1700
	30.4 -31.4	2040		85.0 -87.0	2800
	50.5 -55.0	1300		111.0-113.0	1065
	55.0 -60.0	1700		125.0-127.0	1440
	65.0 -70.0	1240		147.0-149.0	1500
<u>total</u>	<u>21.2</u>		<u>total</u>	<u>15.0</u>	
			<u>Trench ATR-7</u>	14.0 -16.0	2300
<u>Trench ATR-2</u>	14.5 -19.5	2300		16.0 -17.0	1000
	14.5 -24.5	2500		19.0 -20.0	1275
	24.5 -29.5	1400		24.0 -26.0	1800
	29.5 -34.0	1500		26.0 -28.0	1100
	34.0 -39.9	1400		34.0 -36.0	1700
	40.0 -45.0	1600	<u>total</u>	<u>10.0</u>	
	45.0 -50.0	4600			
	50.0 -52.5	2800	<u>Trench ATR-8</u>	27.0 -29.0	1800
	52.5 -55.0	1100		29.0 -30.0	2500
	84.3 -88.0	1400		30.0 -32.0	1140
<u>total</u>	<u>43.2</u>			60.0 -62.0	1300
				68.5 -70.0	1260
<u>Trench ATR-3</u>	35.0 -37.0	1500		72.0 -74.0	1500
	50.0 -54.3	1400		74.0 -75.5	2900
	57.0 -59.0	1100		88.0 -90.0	2600
	79.0 -80.0	1200		100.0-101.2	1100
	85.0 -90.0	1100		106.0-108.0	4600
<u>total</u>	<u>14.3</u>			122.0-124.0	2100
				124.0-126.0	1300
<u>Trench ATR-4</u>	<1000 ppm Nb		<u>total</u>	<u>21.2</u>	
<u>Trench ATR-6</u>	<1000 ppm Nb				

SILT SAMPLES

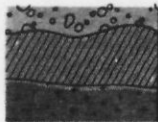
Reference

Text p 4

Figures 3

Statement of Costs p 14

Bondar-Clegg & Company Ltd.  
130 Pemberton Ave.  
North Vancouver, B.C.  
Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352667



**BONDAR-CLEGG**

**Geochemical  
Lab Report**

REPORT: 127-8690 ( COMPLETE )

REFERENCE INFO:

CLIENT: TECK EXPLORATIONS LTD.  
PROJECT: 1351

SUBMITTED BY: UNKNOWN  
DATE PRINTED: 28-OCT-87

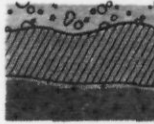
ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Nb Niobium	23	5 PPM		X-RAY Fluorescence
2	La Lanthanum	23	5 PPM		X-RAY Fluorescence

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS SILT	11	1 -80	23	DRY, SIEVE -80	23
I STREAM SEDIMENT, SILT	12				

REPORT COPIES TO: MR. B. LOVANG  
MR. W. MEYER

INVOICE TO: MR. W. MEYER

*23 "silt" samples  
per Statement of Costs  
page 14*



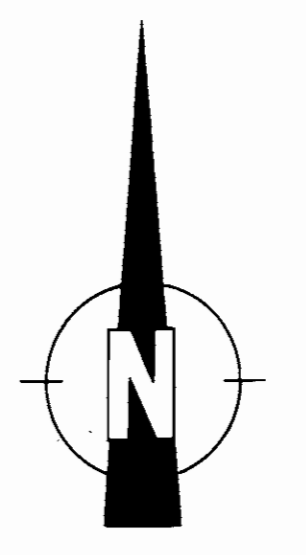
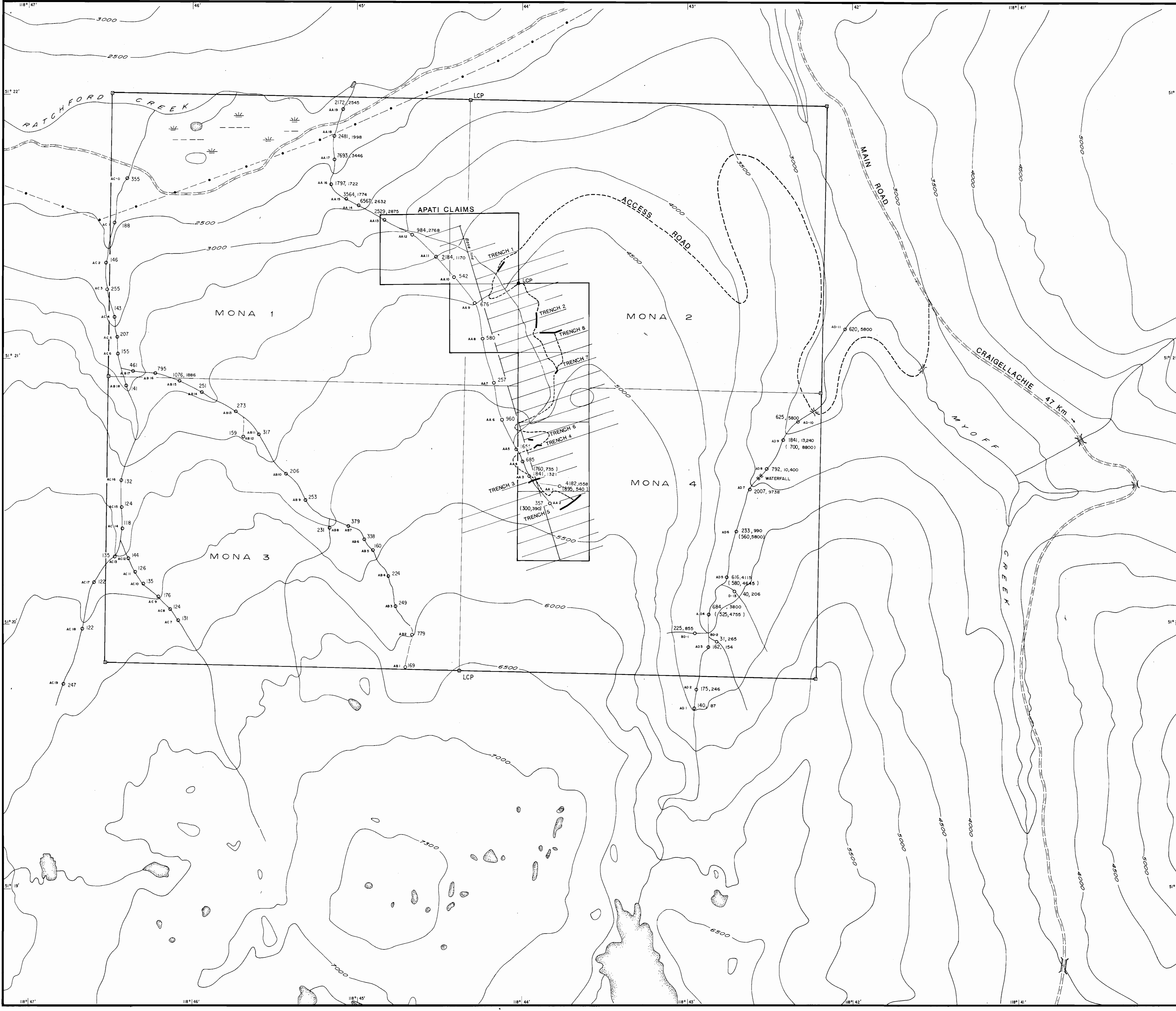
REPORT: 127-8690

PROJECT: 1351

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Nb PPM	La PPM
S1 AP-1		430	870
S1 AP-2		505	4600
S1 AP-3		570	1600
S1 AP-4		1115	2300
S1 AP-5		1300	1240
S1 AP-6		1110	865
S1 AP-7		395	230
S1 AP-8		1255	775
S1 AP-9		1525	825
S1 AP-10		535	2700
S1 AP-11		615	540
T1 AAR-1		895	540
T1 AAR-2		300	390
T1 AAR-3		760	735
T1 AD-10		625	5800
T1 AD-11		620	6900
T1 ADR-4		525	4755
T1 ADR-5		580	4645
T1 ADR-6		560	5000
T1 ADR-9		700	8800
T1 BD-1		225	855
T1 BD-2		31	265
T1 D-13		40	206

*Repeat sections*



**LEGEND**

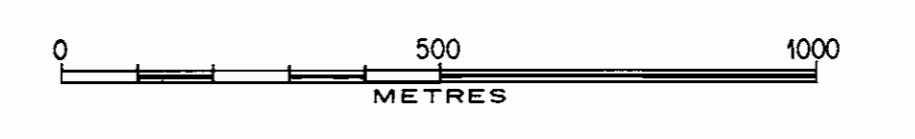
Sample No. Nb (ppm)  
 La (ppm)  
 Resampled

Trench  
**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**17,182**  
 CONTOUR INTERVAL 500 FEET

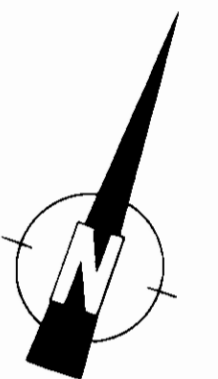
**TECK EXPLORATIONS LIMITED**  
 APATI - KAMLOOPS MINING DIVISION

**STREAM SAMPLES AND  
 TRENCH LOCATIONS  
 (Nb and La in ppm)**

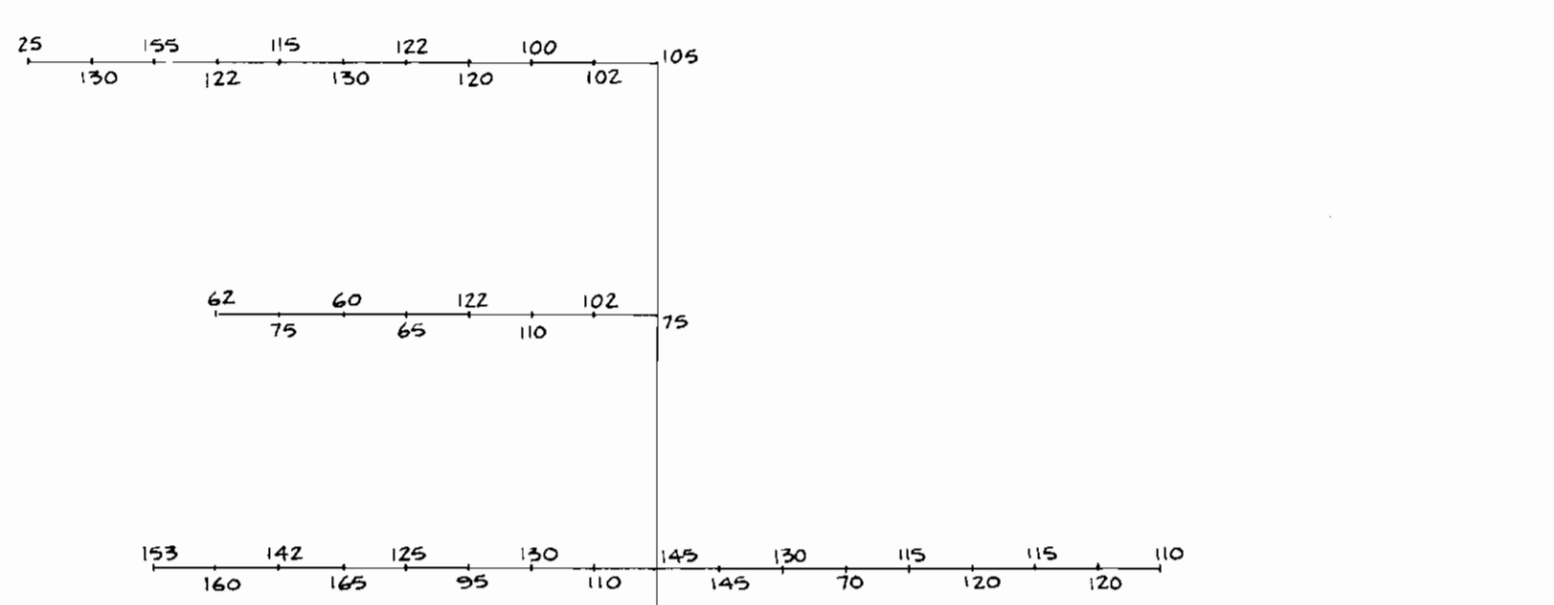


Compiled by: G.L. Date: Mar. 1988 FIG. 3  
 Drawn by: WR. Scale: 1:10000 NTS: 82 M/7





25+00 N  
24+00 N  
23+00 N  
22+00 N  
21+00 N  
20+00 N  
19+00 N  
18+00 N  
17+00 N  
16+00 N  
15+00 N  
14+00 N  
13+00 N  
12+00 N  
11+00 N  
10+00 N  
9+00 N  
8+00 N  
7+00 N  
6+00 N  
5+00 N  
4+00 N  
3+00 N  
2+00 N  
1+00 N  
0+00



**LEGEND**

ATR-6 Trench

Winter logging trail - approximate

**POSTINGS:**

147 150 152 150 gammas

(all readings x10 gammas)

**CONTOURS:**

160 gammas

200 gammas

400 gammas

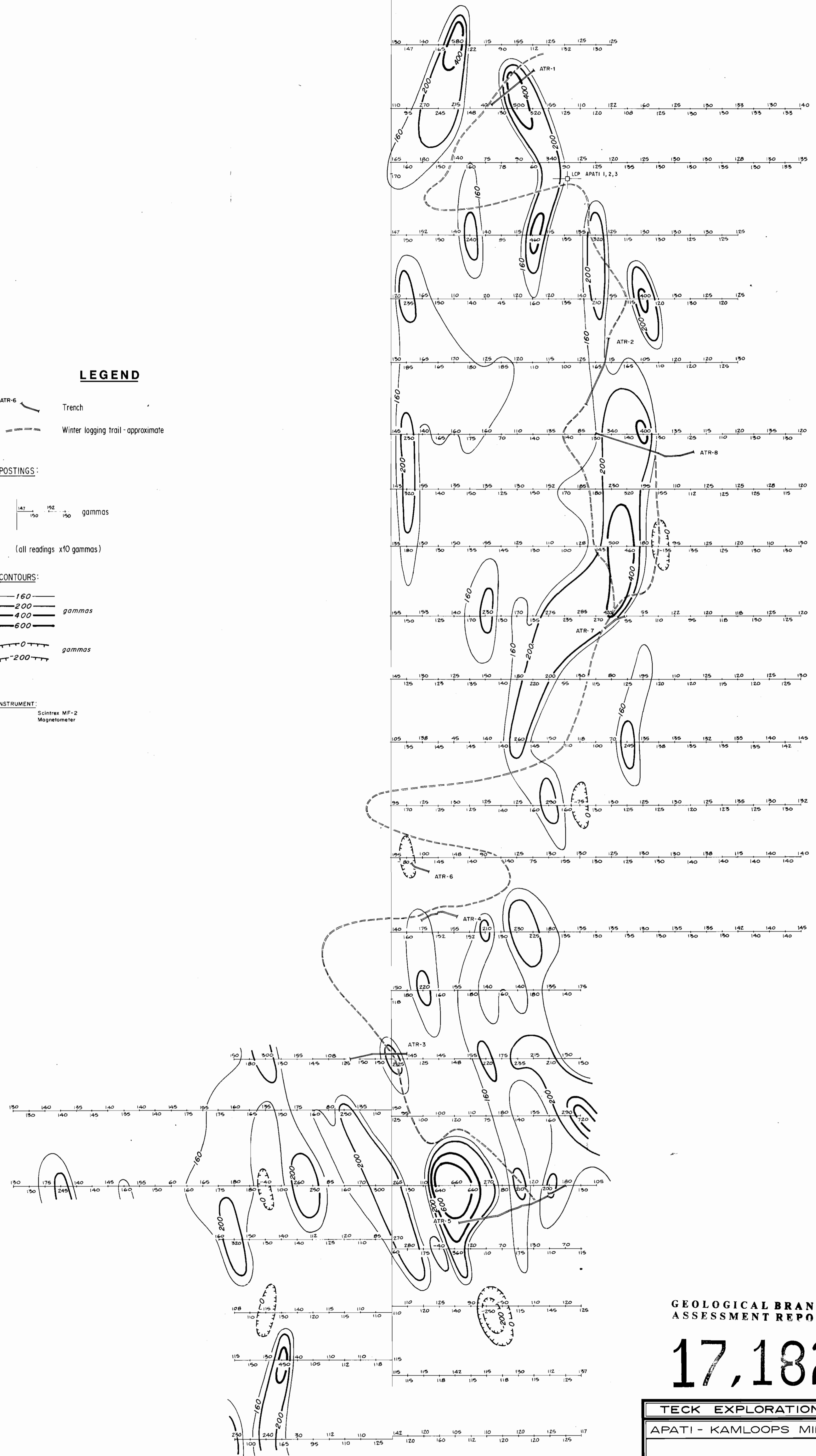
600 gammas

0 gammas

200 gammas

**INSTRUMENT:**

Scintrex MF-2 Magnetometer



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,182

TECK EXPLORATIONS LIMITED

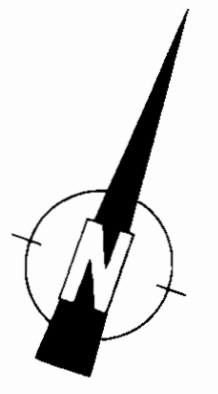
APATI - KAMLOOPS MINING DIVISION

**MAGNETOMETER SURVEY**

0 100 200 300 400 METRES

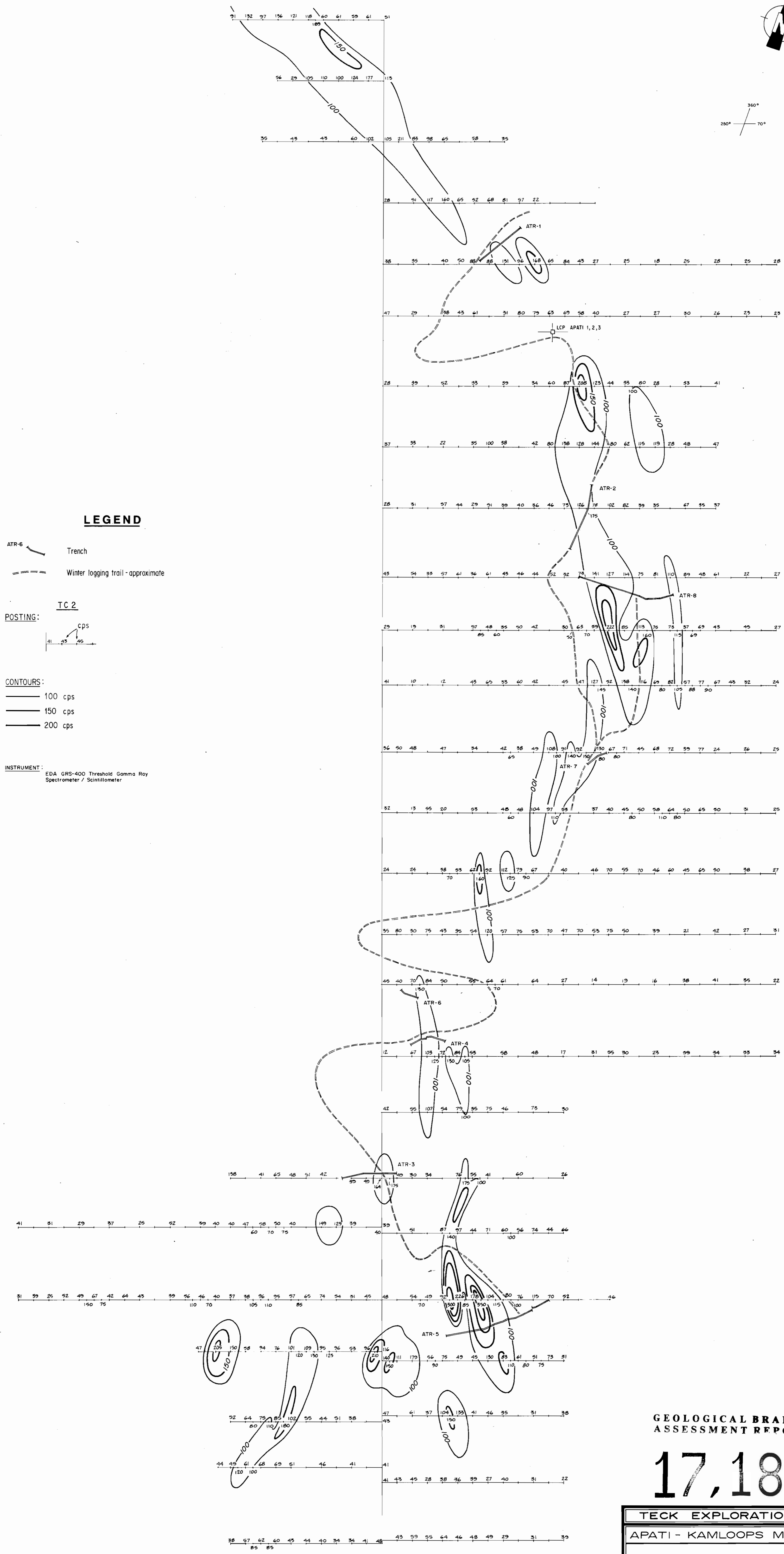
COMPILED BY: DRAWN BY: WR DATE: DEC '87 NTS: 82 M/7 FIG. 4

6+00 W 5+00 W 4+00 W 3+00 W 2+00 W 1+00 W 0+00 1+00 E 2+00 E 3+00 E



360°  
250° 70°

25+00 N  
24+00 N  
23+00 N  
22+00 N  
21+00 N  
20+00 N  
19+00 N  
18+00 N  
17+00 N  
16+00 N  
15+00 N  
14+00 N  
13+00 N  
12+00 N  
11+00 N  
10+00 N  
9+00 N  
8+00 N  
7+00 N  
6+00 N  
5+00 N  
4+00 N  
3+00 N  
2+00 N  
1+00 N  
0+00



**LEGEND**

- ATR-6 Trench
- Winter logging trail - approximate
- TC 2
- POSTING: cps
- CONTOURS:
  - 100 cps
  - 150 cps
  - 200 cps
- INSTRUMENT: EDA GRS-400 Threshold Gamma Ray Spectrometer / Scintillometer

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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TECK EXPLORATIONS LIMITED  
 APATI - KAMLOOPS MINING DIVISION

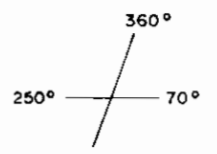
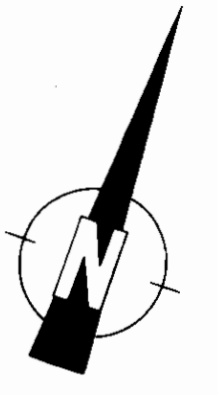
**SPECTROMETER SURVEY**

0 100 200 300 400  
METRES

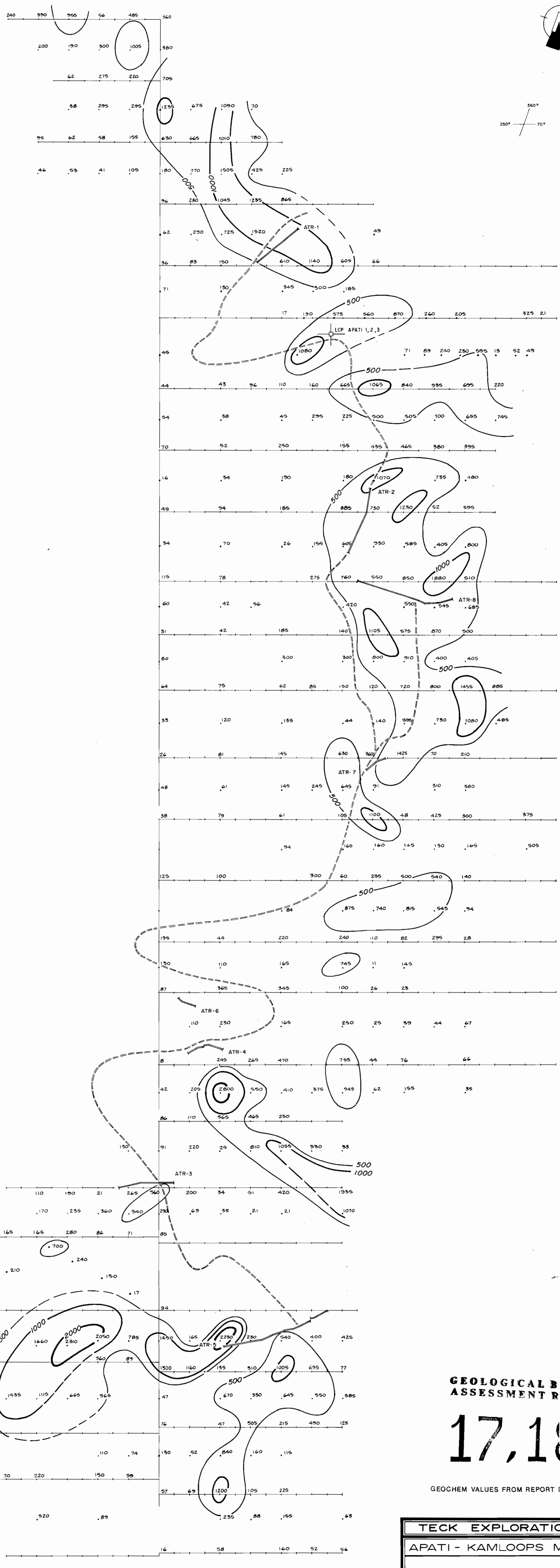
COMPILED BY: DRAWN BY: WR DATE: DEC. '87 NTS: 82 M/7 FIG. 5

6+00 W 5+00 W 4+00 W 3+00 W 2+00 W 1+00 W 0+00 1+00 E 2+00 E 3+00 E





25+00 N  
24+00 N  
23+00 N  
22+00 N  
21+00 N  
20+00 N  
19+00 N  
18+00 N  
17+00 N  
16+00 N  
15+00 N  
14+00 N  
13+00 N  
12+00 N  
11+00 N  
10+00 N  
9+00 N  
8+00 N  
7+00 N  
6+00 N  
5+00 N  
4+00 N  
3+00 N  
2+00 N  
1+00 N  
0+00



**LEGEND**

- ATR-6 Trench
- Winter logging trail - approximate

**NIOBIUM**

- Contours:
- 500 ppm
  - 1000 ppm
  - 2000 ppm

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**17,182**

GEOCHEM VALUES FROM REPORT BY S.H. PILCHER, 1983

**TECK EXPLORATIONS LIMITED**  
 APATI - KAMLOOPS MINING DIVISION

**SOIL GEOCHEMISTRY**  
 (Nb in ppm)

0 100 200 300 400  
 METRES

COMPILED BY: DRAWN BY: WR DATE: DEC '87 NTS: 82 M/7 FIG. 7

6+00 W 5+00 W 4+00 W 3+00 W 2+00 W 1+00 W 0+00 1+00 E 2+00 E 3+00 E

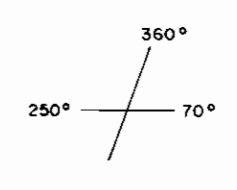
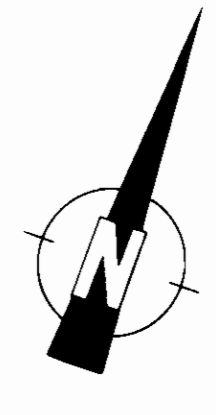
25+00 N  
24+00 N  
23+00 N  
22+00 N  
21+00 N  
20+00 N  
19+00 N  
18+00 N  
17+00 N  
16+00 N  
15+00 N  
14+00 N  
13+00 N  
12+00 N  
11+00 N  
10+00 N  
9+00 N  
8+00 N  
7+00 N  
6+00 N  
5+00 N  
4+00 N  
3+00 N  
2+00 N  
1+00 N  
0+00

**LEGEND**

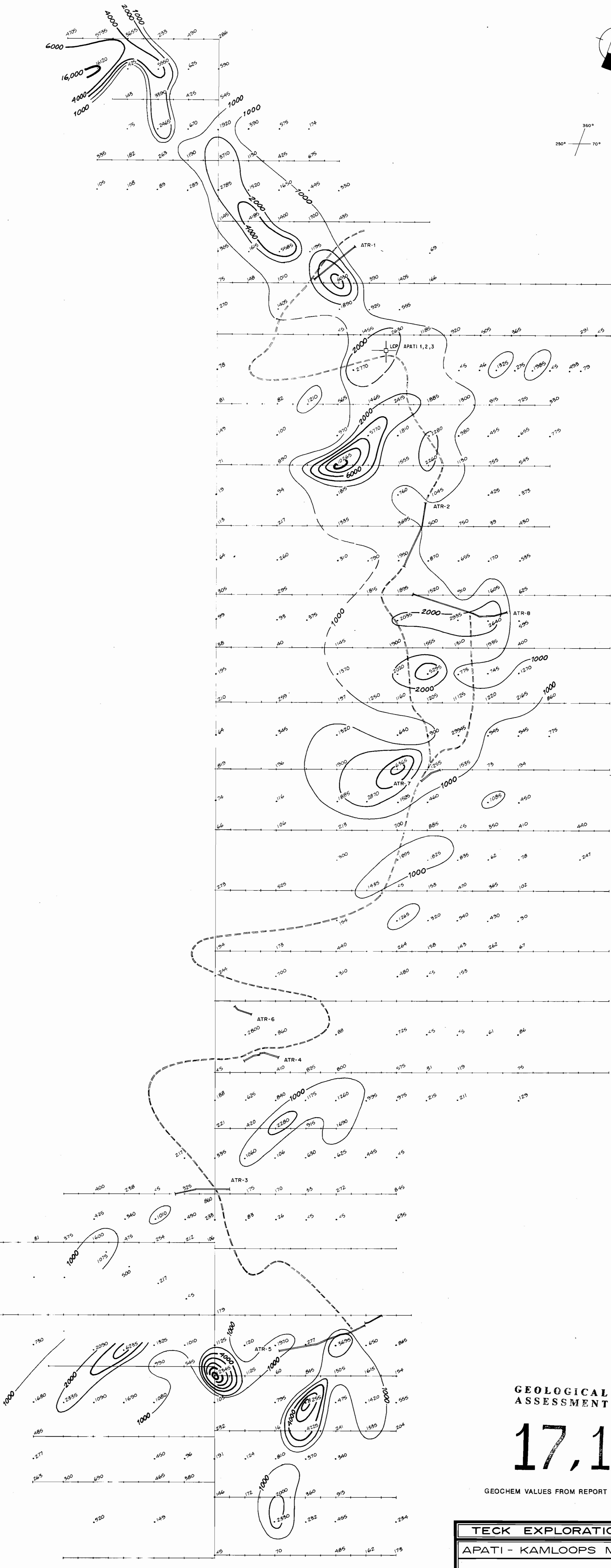
ATR-6 Trench  
Winter logging trail - approximate

**LANTHANUM + CERIUM**

1000 ppm  
2000 ppm  
4000 ppm  
6000 ppm  
8000 ppm  
≥ 10000 ppm



6+00 W 5+00 W 4+00 W 3+00 W 2+00 W 1+00 W 0+00 1+00 E 2+00 E 3+00 E



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**17,182**

GEOCHEM VALUES FROM REPORT BY S.H. PILCHER, 1983

**TECK EXPLORATIONS LIMITED**  
APATI - KAMLOOPS MINING DIVISION

**SOIL GEOCHEMISTRY**  
(La + Ce in ppm)

0 100 200 300 400  
METRES

COMPILED BY: DRAWN BY: WR DATE: DEC '87 NTS: 82 M/7 FIG. 8