

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 89.05.02

ASSESSMENT REPORT 17421

MINING DIVISION: Greenwood

PROPERTY: Boston  
LOCATION: LAT 49 27 30 LONG 118 54 18  
UTM 11 5479933 361945  
NTS 082E07W

CLAIM(S): Boston, Houston  
OPERATOR(S): Carmac Res.  
AUTHOR(S): Gilmour, W.R.  
REPORT YEAR: 1988, 20 Pages  
COMMODITIES  
SEARCHED FOR: Copper, Lead, Zinc

GEOLOGICAL

SUMMARY: The property is underlain by volcanic and volcanoclastic rocks of the Anarchist Formation (Permian) which are intruded by Jurassic or Cretaceous quartz diorite.

WORK

DONE: Geochemical  
SOIL 59 sample(s) ;ME

LOG NO. 0527	RD.
SECTION:	
FILE NO:	

GEOCHEMICAL ASSESSMENT REPORT

FILMED

ON THE

BOSTON (L. 2301) AND HOUSTON (L. 2302) CLAIMS

BARNATO PROPERTY

CANYON CREEK AREA

GREENWOOD MINING DIVISION, B.C.

NTS: 82E/7W  
 Latitude: 49° 27.5' N  
 Longitude: 118° 54.3' N  
 Owner: Carmac Resources Ltd.  
 Consultants: Discovery Consultants  
 Author: W.R. Gilmour  
 Date: April 25, 1988

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

17,421

GOLD COMMISSIONER  
 RECEIVED and RECORDED  
 MAY 25 1988  
 M.R. \_\_\_\_\_ \$ \_\_\_\_\_  
 GRAND FORKS, B.C.

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## SUMMARY

This report describes the results of exploration work on the BOSTON and HOUSTON claims, part of the Barnato property. Sufficient work for one year of assessment on 16 claims was completed, as requested by F. Hewett acting on behalf of Carmac Resources Ltd.

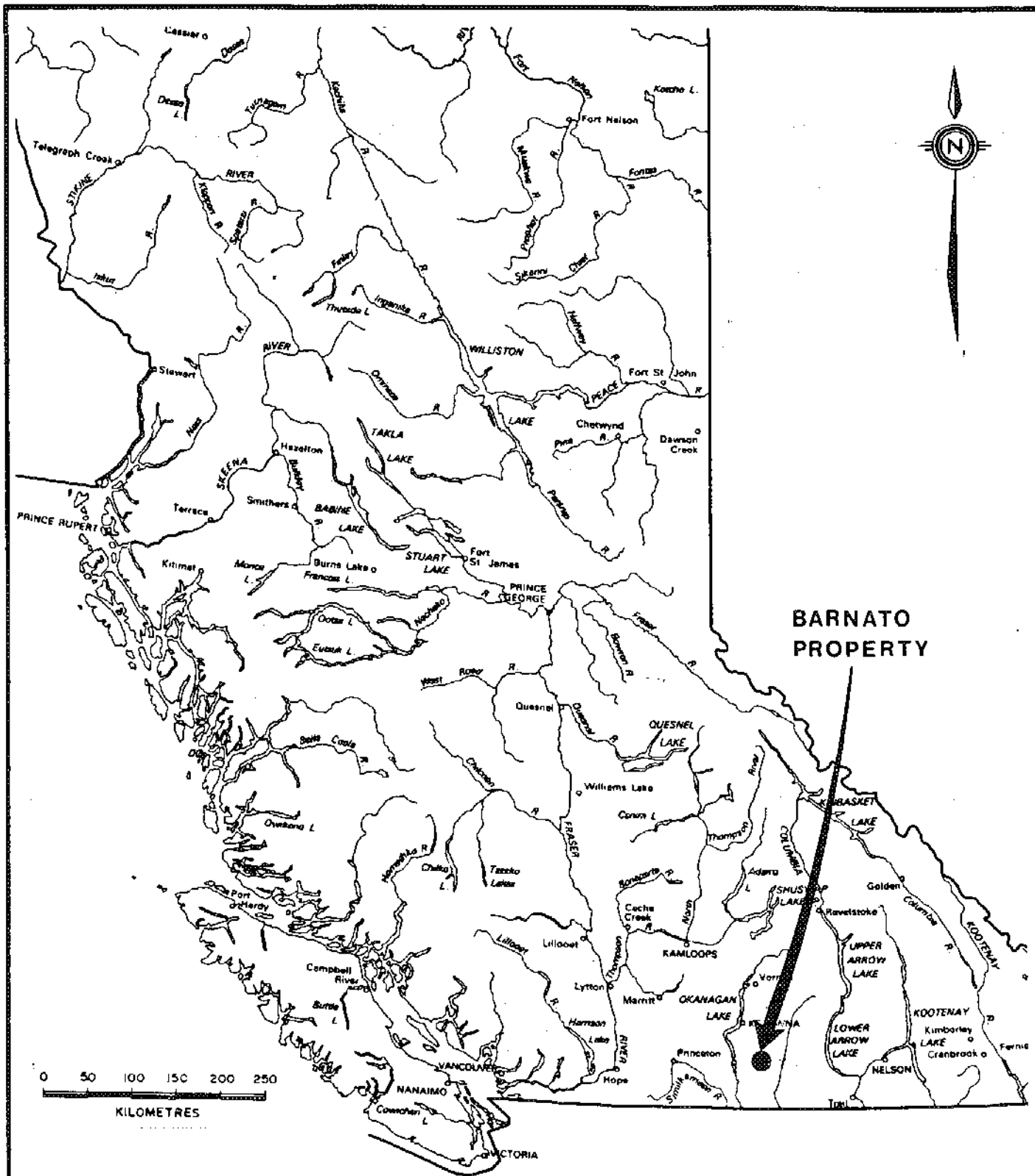
A total of 59 soil samples was collected and analysed for Au, Ag, As, Sb, Cu, Pb, Zn, Mo, Co, Bi and Fe.

Gold and arsenic soil anomalies indicate the presence of mineralization similar to that discovered on other claims of the Barnato property.

LOCATION, ACCESS, TOPOGRAPHY

The BOSTON and HOUSTON claims are located 50 km east of Penticton and 3 km west of the Kettle River, in south-central British Columbia. The claims straddle Lake Ridge which separates the Canyon Creek drainage to the west, and the Crick Creek drainage to the east.

The claims are traversed by a four-wheel drive road which connects Beaverdell Creek, to the northwest, with the Kettle River to the southeast. From the Kettle River Valley at the junction of Westbridge-Christian Valley road and Canyon Creek, the distance via road is 8 km.



<b>DISCOVERY</b>	Consultants	<b>CARMAC RESOURCES LTD.</b>	
<b>BARNATO PROPERTY</b>		<i>LOCATION MAP</i>	
DATE: December 3, 1987	PROJECT: 502	MINING DIVISION: Greenwood	FIGURE: 1

Property

Exploration work was carried out on the following claims:

<u>Claim Name</u>	<u>Units</u>	<u>Crown-granted Claim No.</u>	<u>Record No.</u>	<u>Expiry Date</u>	<u>Owner</u>
Boston	1	2301	1833	Nov. 22, 1988	Carmac
Houston	1	2302	1825	Nov. 22, 1988	Carmac

Assessment work was applied to the following claims:

Mame	1	2864	1582	May 22, 1990*	Carmac
Silver Dollar	1	2842	1583	May 22, 1989*	Carmac
Rambler	1	2861	1584	May 22, 1989*	Carmac
Hunter	1	2859	1585	May 22, 1989*	Carmac
Barnato Fr.	1	2865	1586	May 22, 1989*	Carmac
Hackla	1	2847	1587	May 22, 1989*	Carmac
Anchor	1	2866	1588	May 22, 1989*	Carmac
Denver	1	2862	1589	May 22, 1989*	Carmac
Champion	1	2863	1590	May 22, 1989*	Carmac
Utopia	1	2860	1591	May 22, 1989*	Carmac
Monetor	1	2858	1592	May 22, 1989*	Carmac
Yorkshire Lass	1	3024S	1593	May 22, 1989*	Carmac
Silver Bell	1	2644	1594	May 22, 1989*	Carmac
Barnato	1	2848	1595	May 22, 1989*	Carmac
O.K.	1	5735	1596	May 22, 1989*	Carmac
Kaffir King	1	2646	1597	May 22, 1989*	Carmac

\* Pending acceptance of this report.





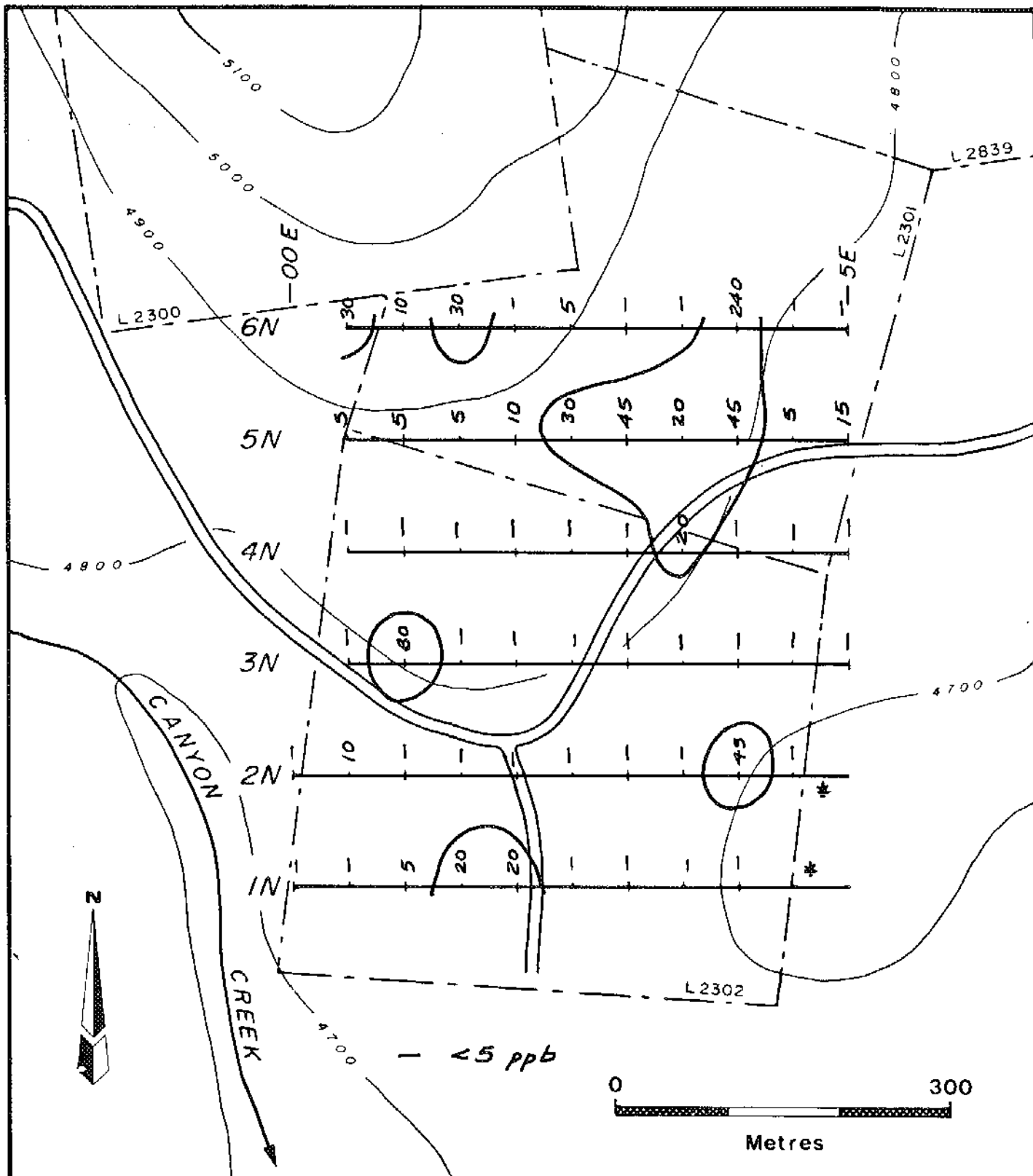
## HISTORY

The BOSTON and HOUSTON claims were Crown-granted in 1906. Although there has been much mineral exploration work, with minor production, on the Barnato property, the references do not indicate any previous significant exploration on these specific claims.

## GEOLOGICAL MINERALIZATION

The property is underlain by intermediate to acidic volcanic and volcanoclastic rocks of probable Permian Age (Anarchist Formation). These layered rocks have been intruded by quartz diorite bodies and dykes of Jurassic/Cretaceous age.

Pyrite, pyrrhotite and arsenopyrite, with minor sphalerite, chalcopyrite and galena, occur in the volcanic and intrusive rocks. This gold-bearing mineralization occurs as siliceous irregular veins, veinlets and segregations.



**DISCOVERY**

Consultants

CARMAC RESOURCES LTD.

BARNATO

PROPERTY

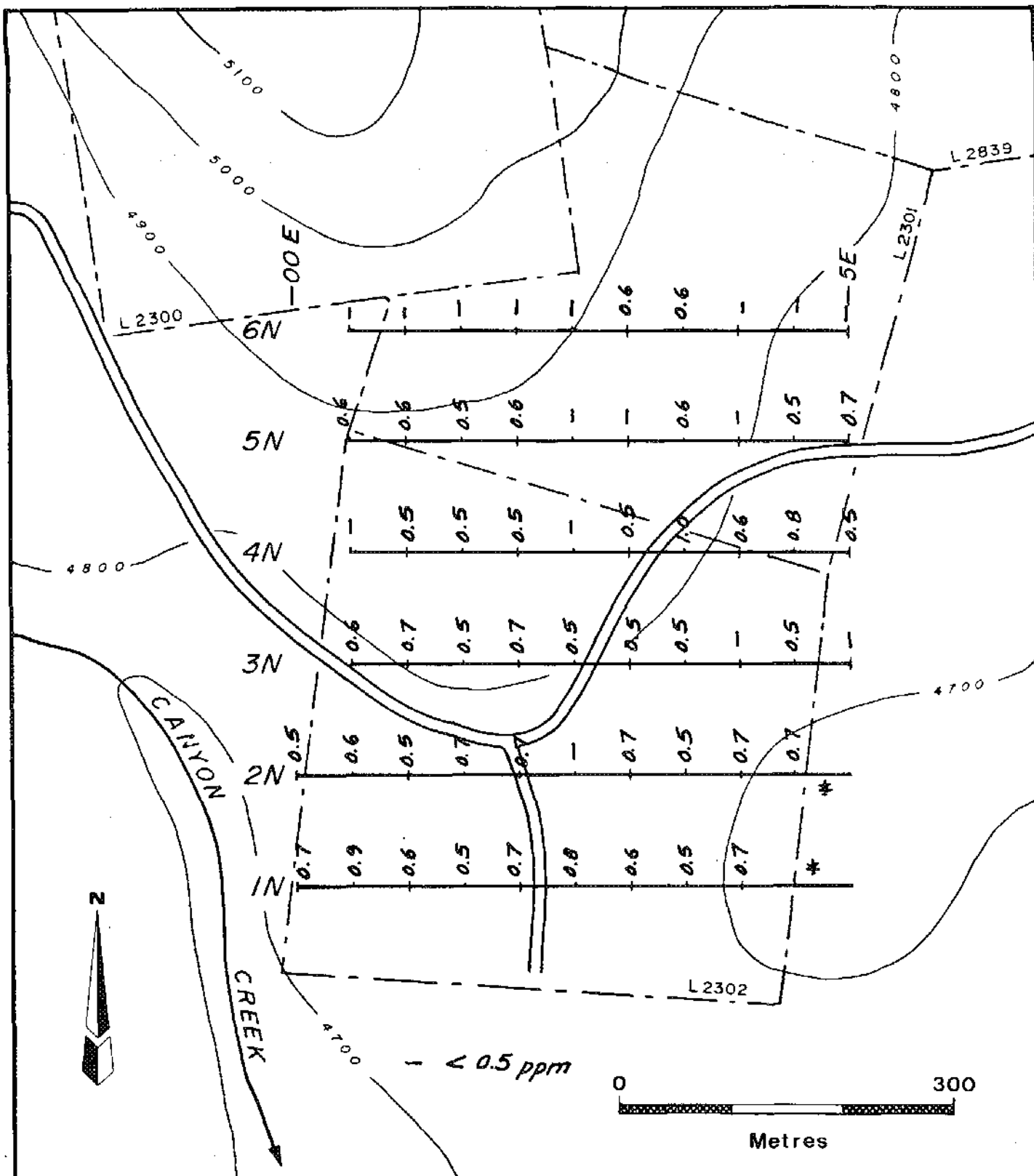
GOLD ppb  
SOIL GEOCHEMISTRY

DATE: December 3, 1987

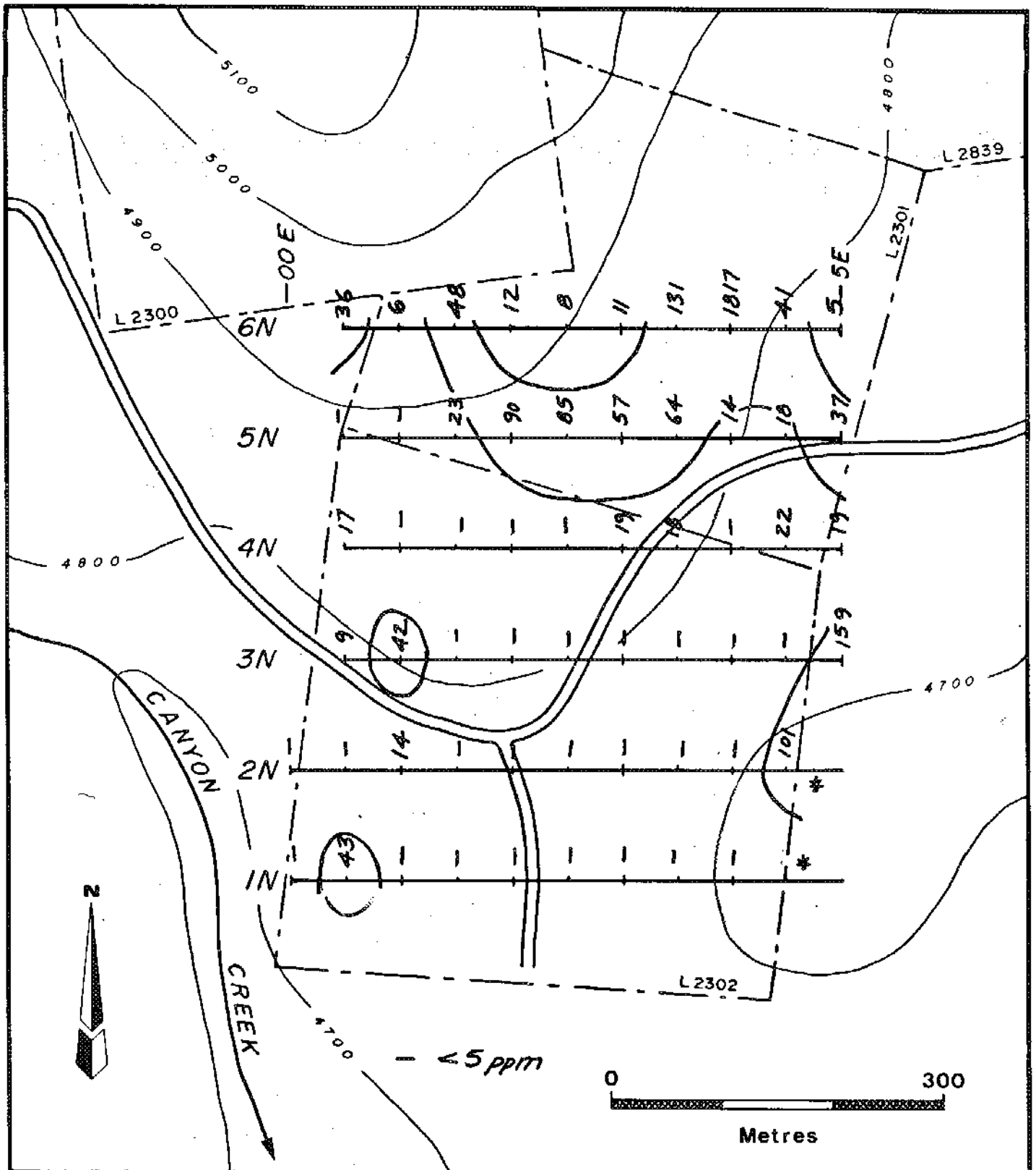
SCALE: 1:5,000

MINING DIVISION: Greenwood

FIGURE: 3



<b>DISCOVERY</b> Consultants	CARMAC RESOURCES LTD.
BARNATO PROPERTY	SILVER ppm SOIL GEOCHEMISTRY
DATE: December 3, 1987	SCALE: 1:5,000
MINING DIVISION: Greenwood	FIGURE: 4



**DISCOVERY**

Consultants

CARMAC RESOURCES LTD.

BARNATO PROPERTY

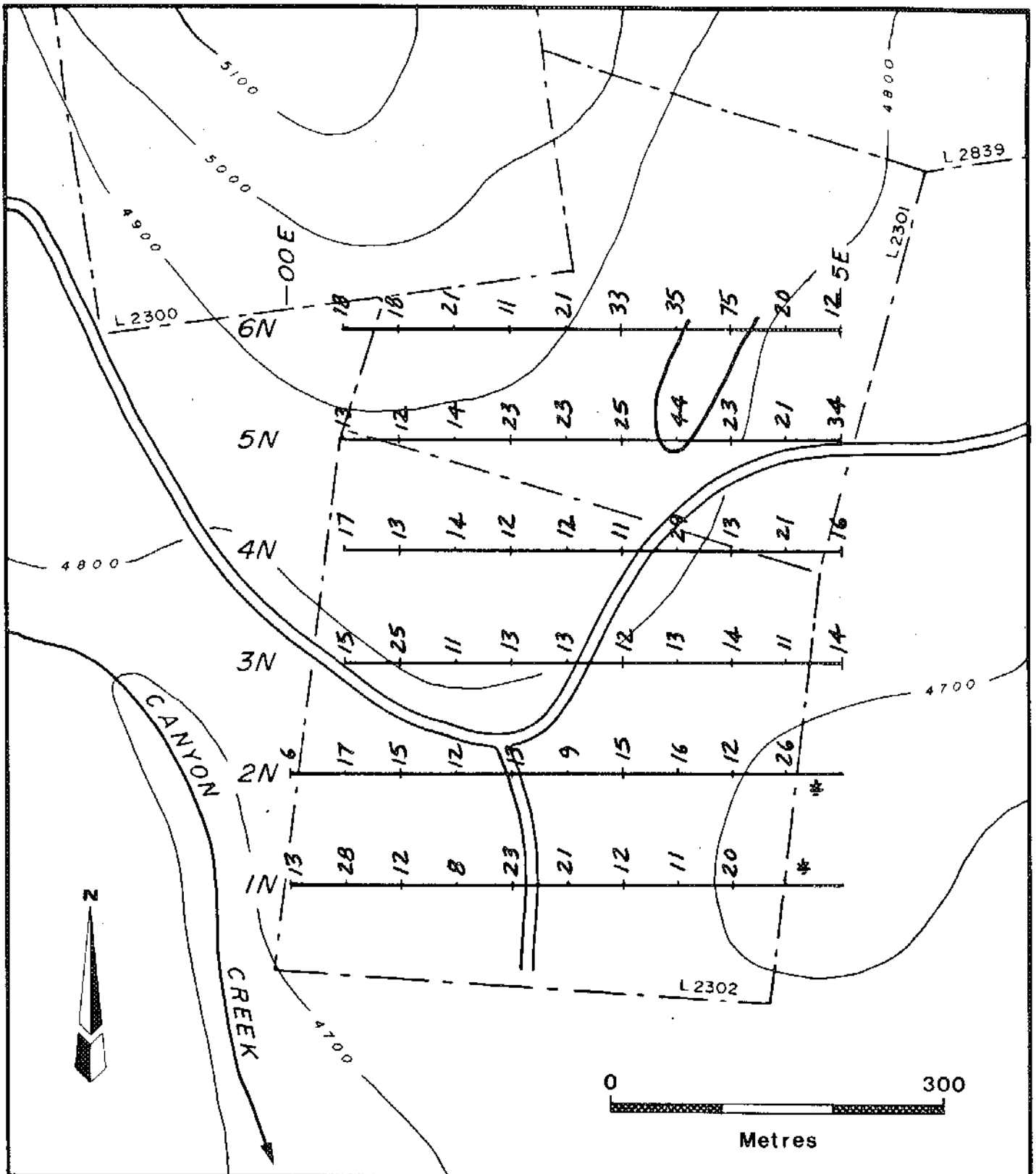
ARSENIC ppm  
SOIL GEOCHEMISTRY

DATE: December 3, 1987

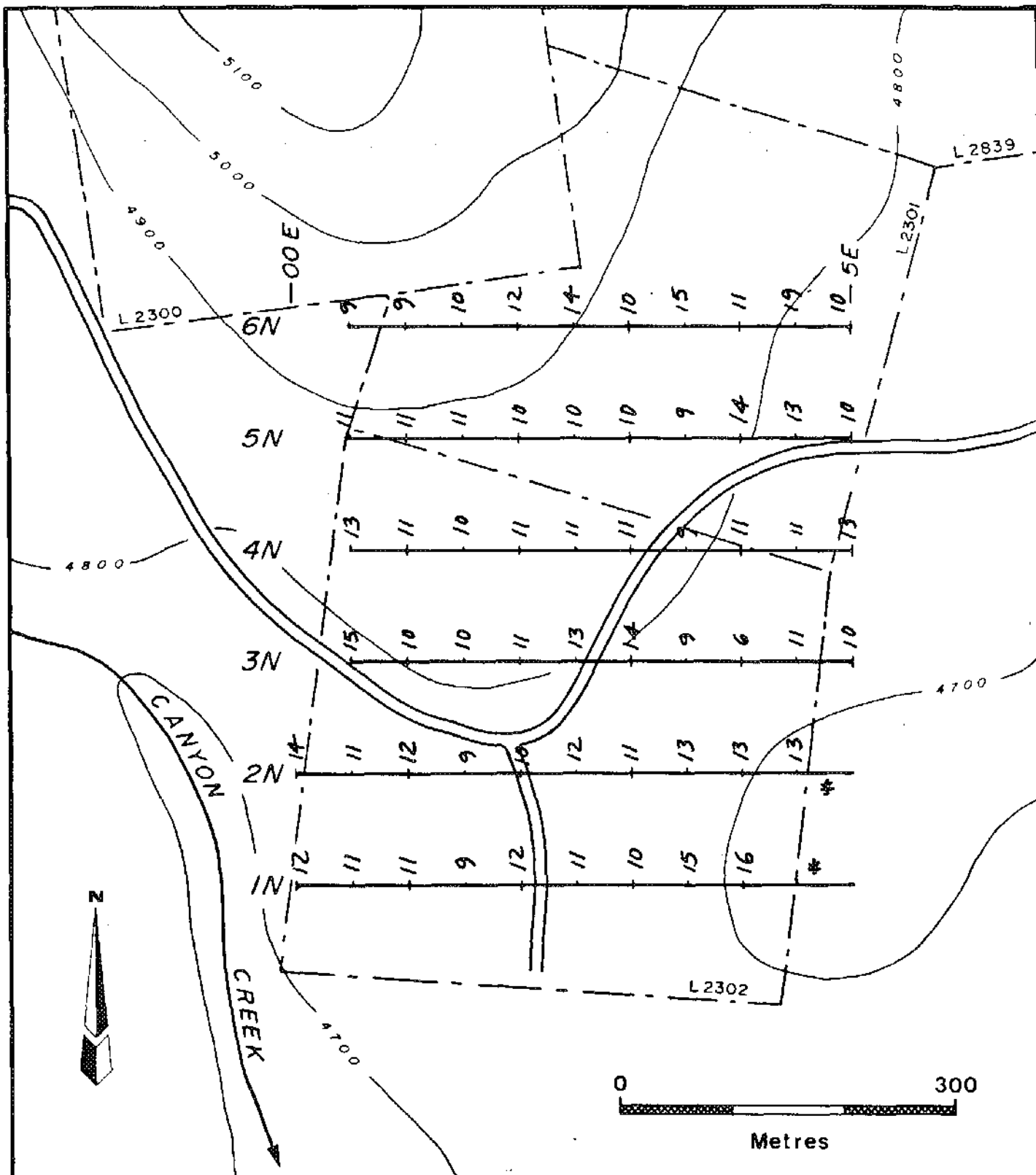
SCALE: 1:5,000

MINING DIVISION: Greenwood

FIGURE: 5



<b>DISCOVERY</b> Consultants	CARMAC RESOURCES LTD.
BARNATO PROPERTY	COPPER ppm SOIL GEOCHEMISTRY
DATE: December 3, 1987	SCALE: 1:5,000
MINING DIVISION: Greenwood	FIGURE: 6



**DISCOVERY**

Consultants

CARMAC RESOURCES LTD.

BARNATO PROPERTY

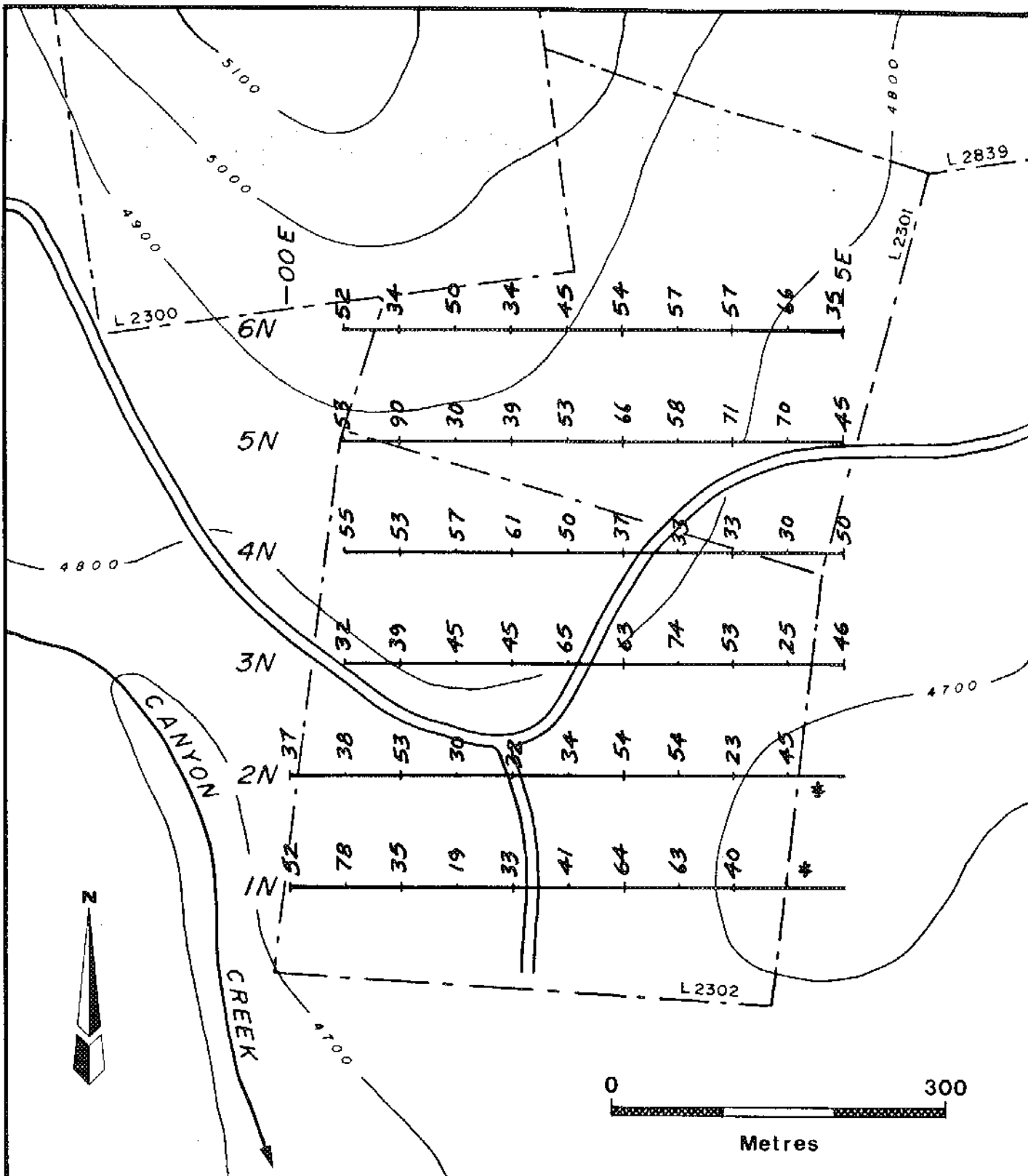
LEAD ppm  
SOIL GEOCHEMISTRY

DATE: December 3, 1987

SCALE: 1:5,000

MINING DIVISION: Greenwood

FIGURE: 7



<b>DISCOVERY</b> Consultants	CARMAC RESOURCES LTD.
BARNATO PROPERTY	ZINC ppm SOIL GEOCHEMISTRY
DATE: December 3, 1987	SCALE: 1:5,000
MINING DIVISION: Greenwood	FIGURE: 8

## GEOCHEMICAL SURVEY

A program of soil sampling was carried out over the HOUSTON claim and the southern portion of the BOSTON claim. A flagged, compass and topolite 100m x 50m grid, totalling 2.8 km was installed. A total of 59 soil samples was collected in numbered wet-strength paper bags and sent to Bondar Clegg and Company for analysis. Wherever possible the samples were collected from the 'B' horizon at approximately 15 cm depth. The -80 mesh fraction was analysed for gold by standard fire assay/atomic absorption methods and for Ag, As, Sb, Cu, Pb, Zn, Mo, Co, Bi and Fe by D.C. Plasma/Atomic Emission Spectroscopy following HN03-HCL extraction. The following table summarizes the results.

	minimum value	maximum value	anomalous value	number anom. samples
Au ppb	<5	240	>15	12
Ag ppm	<0.5	1.0	-	-
Cu ppm	6	75	>40	2
Pb ppm	6	19	-	-
Zn ppm	19	90	-	-
Bi ppm	<2	<2	-	-
As ppm	<5	1817	>30	14
Sb ppm	<5	<5	-	-
Mo ppm	1	4	-	-
Co ppm	4	11	-	-
Fe %	1.3	3.2	-	-

Gold, silver, arsenic, copper, lead and zinc values are plotted on Figures 3 through 8. All results are appended to this report.

A widespread gold-arsenic soil anomaly occurs on the southern portion of the BOSTON claim and is open to the north. One sample is especially anomalous: 240 ppb Au, 1817 ppm As with 75 ppm Cu.



Anomalous copper values were obtained, but are restricted to the area of maximum arsenic and gold values.

Scattered Au and As soil anomalies occur on the HOUSTON claim.

A previous soil geochemical program carried out over other portions of the Barnato property indicated that "arsenic and gold were much more effective and tend to show gold bearings vein systems, with arsenic forming a much broader anomalous zone than gold" (Hewett, 1982).

The soil anomaly on the BOSTON claim seems to indicate the presence of gold-arsenic mineralization.

## REFERENCES

- Crosby, R.O.  
Von Rosen, G.                    Report on Geochemical and Geophysical Survey  
over a portion of the Barnato Group, 1978
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- Gewargis, W.A.                    Assessment Report, Percussion Drilling on the  
Barnato Claim Group, June 18, 1986
- Hewett, F.G.                      Geochemical Report on Barnato One Group,  
May 4, 1982.
- Hewett, F.G.                      A Report on the Barnato Claim Group,  
May 14, 1983
- Hogarth, R.D.                    1981 Diamond Drilling Report for the Barnato  
One Claim Group, January 1982
- McLeod, J.W.                      Geochemical Report on the Barnato Group, 1980
- Pezzot, E.T.  
White, G.E.                      Geophysical Report on an Airborne VLF-EM  
and Magnetometer Survey, October 21, 1980
- Seraphim, R.H.                    Report on Barnato Group,  
August 14, 1980
- Seraphim, R.H.                    Report on Barnato Group, 1977
- Seraphim, R.H.  
Howard, D.A.                      Report on the Kettle #3, GO #1 and #2 located  
claims and Reverted Crown-granted claims, 1983

STATEMENT OF COSTS

1. Professional Services			
W.R. Gilmour 2.25 days @ \$400.00/day supervision, report writing			\$ 900.00
2. Field Crew November 12, 13, 1987			
R. Herzig 2 days @ \$144.00/day	\$288.00		
R. Patrick 2 days @ \$192.00/day	<u>384.00</u>	672.00	
3. Transportation			
4 x 4 Bronco			
2 days @ \$40.00/day	80.00		
495 km @ \$0.35/km	<u>173.25</u>	253.25	
4. Accommodation, meals			67.77
5. Analysis			
Soil Geochemistry			
59 gold @ 6.75	465.75		
59 10-element DCP @ 8.50	501.50		
59 sample preparation @ 0.90	<u>107.10</u>	1020.35	
6. Field Supplies			100.00
7. Secretarial, office, drafting, printing			<u>400.00</u>
	Total		\$3413.37

STATEMENT OF QUALIFICATIONS

I, W.R. Gilmour, of 13511 Sumac Lane, Vernon, B.C., V1B 1A1,  
do hereby certify that:

1. I am a consulting geologist in mineral exploration employed by W.R. Gilmour & Associates Ltd.
2. I have been practising my profession in British Columbia, the Yukon Territory, and Nevada for 17 years.
3. I am a graduate of the University of British Columbia with a Bachelor of Science degree in geology.
4. I am a fellow of the Geological Association of Canada.
5. This report is based upon knowledge of the Barnato property gained from supervision of exploration work on the property.
6. I hold no interest in the property or in Carmac Resources Ltd.

  
W.R. Gilmour

Vernon, B.C.  
April 25, 1988

## APPENDIX I

Sample ID	Au ppb	Ag ppm	As ppm	Sb ppm	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Co ppm	Bi ppm	Fe %
BG-1N 0+00E	-5	0.7	-5	-5	13	12	52	3	6	-2	1.73
BG-1N 0+50N	-5	0.9	43	-5	28	11	78	2	7	-2	1.71
BG-1N 1+00E	5	0.6	-5	-5	12	11	35	2	6	-2	1.76
BG-1N 1+50E	20	0.5	-5	-5	8	9	19	2	4	-2	1.26
BG-1N 2+00E	20	0.7	-5	-5	23	12	33	3	7	-2	1.97
BG-1N 2+50E	-5	0.8	-5	-5	21	11	41	3	7	-2	2.07
BG-1N 3+00E	-5	0.6	-5	-5	12	10	64	2	6	-2	1.54
BG-1N 3+50E	-5	0.5	-5	-5	11	15	63	1	5	-2	1.69
BG-1N 4+00E	-5	0.7	-5	-5	20	16	40	3	6	-2	2.16
BG-2N 0+00E	-5	0.5	-5	-5	6	14	37	1	4	-2	1.35
BG-2N 0+50E	10	0.6	-5	-5	17	11	38	2	6	-2	1.93
BG-2N 1+00E	-5	0.5	14	-5	15	12	53	2	10	-2	2.15
BG-2N 1+50E	-5	0.7	-5	-5	12	9	30	2	6	-2	1.43
BG-2N 2+00E	-5	0.7	-5	-5	13	10	32	3	6	-2	1.76
BG-2N 2+50E	-5	-0.5	-5	-5	9	12	34	1	5	-2	1.49
BG-2N 3+00E	-5	0.7	-5	-5	15	11	54	1	5	-2	1.48
BG-2N 3+50E	-5	0.5	-5	-5	16	13	54	2	6	-2	1.78
BG-2N 4+00E	45	0.7	-5	-5	12	13	23	2	6	-2	1.83
BG-2N 4+50E	-5	0.7	101	-5	26	13	45	2	7	-2	1.99
BG-3N 0+50E	-5	0.6	9	-5	15	15	32	4	7	-2	1.98
BG-3N 1+00E	80	0.7	42	-5	25	10	39	3	7	-2	2.02
BG-3N 1+50E	-5	0.5	-5	-5	11	10	45	1	5	-2	1.54
BG-3N 2+00E	-5	0.7	-5	-5	13	11	45	2	6	-2	1.67
BG-3N 2+50E	-5	0.5	-5	-5	13	13	65	2	6	-2	1.62
BG-3N 3+00E	-5	0.5	-5	-5	12	14	63	2	6	-2	1.57
BG-3N 3+50E	-5	0.5	-5	-5	13	9	74	2	6	-2	1.72
BG-3N 4+00E	-5	-0.5	-5	-5	14	6	53	2	6	-2	1.74
BG-3N 4+50E	-5	0.5	-5	-5	11	11	25	1	5	-2	1.49
BG-3N 5+00E	-5	-0.5	159	-5	14	10	46	1	6	-2	1.73
BG-4N 0+50E	-5	-0.5	17	-5	17	13	55	2	7	-2	2.10
BG-4N 1+00E	-5	0.5	-5	-5	13	11	53	1	6	-2	1.52
BG-4N 1+50E	-5	0.5	-5	-5	14	10	57	2	7	-2	1.60
BG-4N 2+00E	-5	0.5	-5	-5	12	11	61	2	5	-2	1.53
BG-4N 2+50E	-5	-0.5	-5	-5	12	11	50	1	6	-2	1.53
BG-4N 3+00E	-5	0.5	19	-5	11	11	37	1	5	-2	1.54
BG-4N 3+50E	20	1.0	18	-5	29	9	33	2	7	-2	1.89
BG-4N 4+00E	-5	0.6	-5	-5	13	11	33	1	5	-2	1.46
BG-4N 4+50E	-5	0.8	22	-5	21	11	30	3	6	-2	1.75
BG-4N 5+00E	-5	0.5	19	-5	16	13	50	2	6	-2	1.65
BG-5N 0+50E	5	0.6	-5	-5	13	11	53	2	6	-2	1.58
BG-5N 1+00E	5	0.6	-5	-5	12	11	90	2	6	-2	1.51
BG-5N 1+50E	5	0.5	23	-5	14	11	30	2	6	-2	1.84
BG-5N 2+00E	10	0.6	90	-5	23	10	39	2	6	-2	1.63
BG-5N 2+50E	30	-0.5	85	-5	23	10	53	2	8	-2	2.09
BG-5N 3+00E	45	-0.5	57	-5	25	10	66	2	9	-2	2.22
BG-5N 3+50E	20	0.6	64	-5	44	9	58	3	9	-2	2.22
BG-5N 4+00E	45	-0.5	14	-5	23	14	71	2	7	-2	2.02
BG-5N 4+50E	5	0.5	18	-5	21	13	70	3	8	-2	2.06
BG-5N 5+00E	15	0.7	37	-5	34	10	45	3	8	-2	2.05
BG-6N 0+50E	30	-0.5	36	-5	18	9	52	2	8	-2	2.29
BG-6N 1+00E	10	-0.5	6	-5	18	9	34	1	6	-2	1.90
BG-6N 1+50E	30	-0.5	48	-5	21	10	50	2	7	-2	1.87
BG-6N 2+00E	-5	-0.5	12	-5	11	12	34	2	5	-2	1.50
BG-6N 2+50E	5	-0.5	8	-5	21	14	45	2	7	-2	1.95
BG-6N 3+00E	-5	0.6	11	-5	33	10	54	2	9	-2	2.09
BG-6N 3+50E	-5	0.6	131	-5	35	15	57	2	8	-2	1.94
BG-6N 4+00E	240	-0.5	1817	-5	75	11	57	2	11	-2	3.19
BG-6N 4+50E	-5	-0.5	41	-5	20	19	66	2	7	-2	1.71
BG-6N 5+00E	-5	-0.5	5	-5	12	10	35	1	4	-2	1.49