87-615 - 16270

GEOCHEMICAL SAMPLING OF THE MT. TOM PROPERTY; MINERAL CLAIMS HARRY (7782), TOM (7783) AND DICK(7784).

Mt. Tom Area
Cariboo Mining Division, British Columbia
N.T.S. Map Area 93H/4E
Latitude 53° 09'~~N~~ 08" Longitude 121° ~~42W~~ 40'24"

for

Owner: Mr. Paul McCarthy
3175 W.14th Ave.
Vancouver, B.C.
V6K 2X9

by

Operator: K.V. Campbell, Ph.D.

October, 1987

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1 INTRODUCTION

This report presents the results of geochemical soil sampling on the Mt. Tom property located in the Cariboo Mining Division of central British Columbia. The property consists of three mineral claims owned by Mr. Paul McCarthy of Vancouver, B.C.

The work was designed to confirm the presence of previously reported geochemical soil anomalies, prior to any subsequent exploration on the claims.

Six man-days, July 14th to 16th, were spent on the claims collecting 112 soil samples which were analysed for Pb, Zn, Ag, As, Bi and Au.

1.1 Location and Access

The Mt. Tom property is located 10 km northwest of the village of Wells in central British Columbia (Figure 1). The claims are situated within National Topographic System area 93H/4E and are centered at approximately 53°09'N latitude and 121°42'W longitude.

Access to the property is by the Hardscrabble Road which starts at the northwest corner of Wells. This road is suitable for 4-wheel drive vehicles and it is about 10 km to the property. A hiking trail leads to the work area along the broad ridge leading to Mt. Tom from the height of land between Hardscrabble and Sugar Creeks.

CAMPBELL & ASSOCIATES
GEOLOGICAL CONSULTANTS

Scale 1:250,000
0 5 km

OCT. '87 | 93H/4E

FIGURE 1

Mt. Tom Property
LOCATION MAP

1.2 Ownership and Claims Status

Figure 2 is a recent claim plan of the area. Table 1 summarizes particulars of the claims.

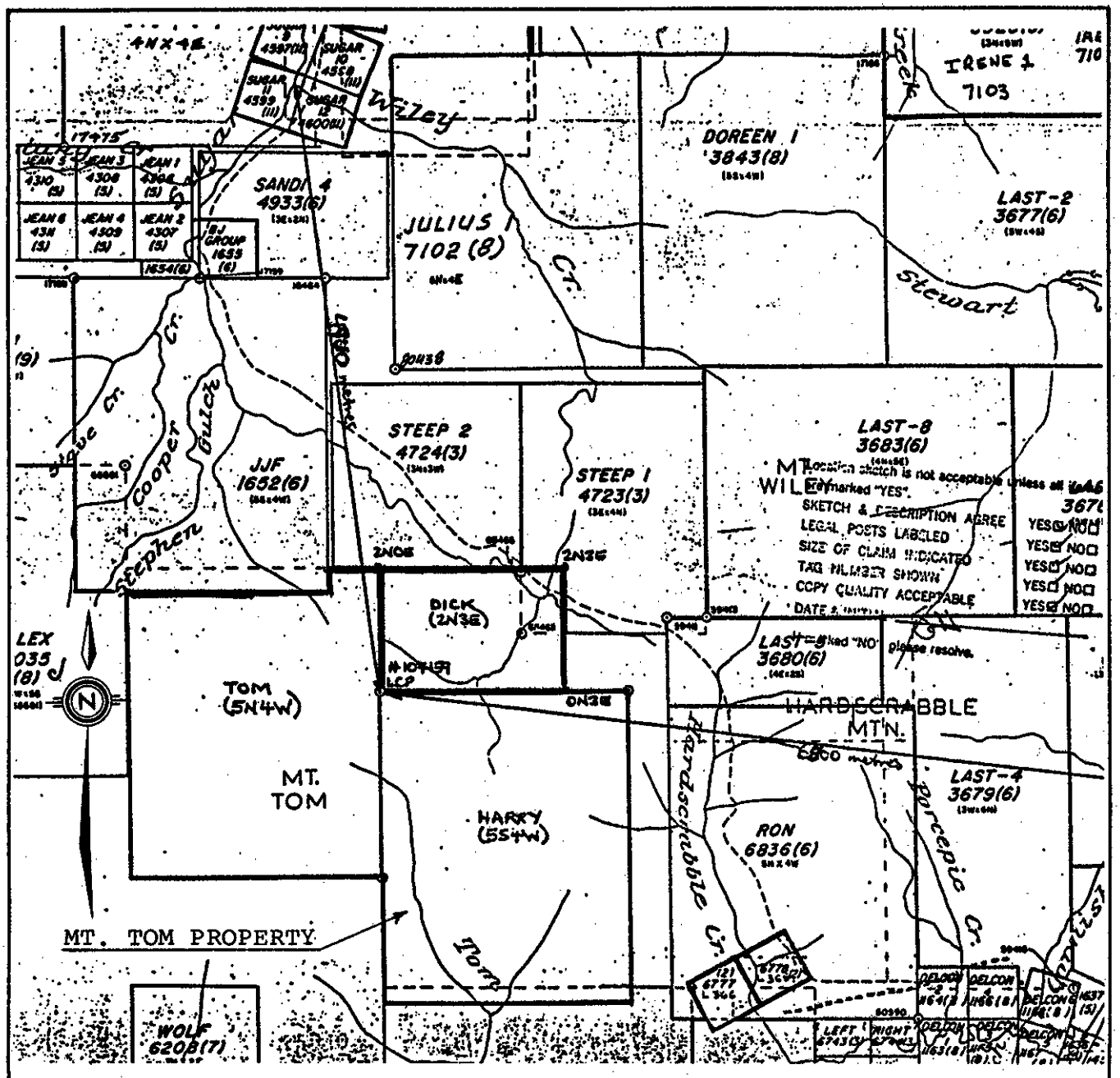
Table 1. Summary of Claim Information

Claim Name	Record No.	Units	Anniversary Date
Harry	7782	20	July 18
Tom	7783	20	July 18
Dick	7784	6	July 18

All three claims are owned by Mr. Paul McCarthy.

1.3 History

Previous work on the ground now covered by the Harry, Tom and Dick claims is described in two reports by the author; 'Report on the Geology and Results of Prospecting of the Mt. Tom Property' (1981) for Canadian Mineral Corporation, and 'Report on the Geology and Results of Geochemical and Geophysical Exploration of the Mt. Tom Property' (1983) for Consolidated Ascot Petroleum Corporation and Canadian-United Mineral Inc. The 1983 work was successful in identifying coincident multielement (Ag, As, Pb, Zn and Au) soil and silt geochemical anomalies that cross the property in a northwest direction. These anomalies are believed to be controlled by stratigraphy and structures, similar to those that control the formation of auriferous pyritic ore bodies to the southeast (Mosquito Creek Gold Mine, Island Mtn. Mine, Cariboo Gold Quartz Mine). Mr. McCarthy re-staked the claims in 1986 when the earlier Mt. Tom Group expired.



SCALE 1:50,000

500 m 0 1 2km

MT. TOM PROPERTY			
CLAIM PLAN			
PROJECT	DRAWN	DATE OCT '87	FIGURE 2
Revised		N.T.S. 93H/4E	
K.V. CAMPBELL & ASSOCIATES LTD.			

2 GEOMORPHOLOGY

The geomorphology is described in detail in Campbell (1983) and is not repeated here. Briefly, the claims area lies on a remnant of a dissected plateau of Late Tertiary(?) age. Relief is moderate and the claims are covered with ground moraine or lodgement till of local origin which is thickly forested.

3 GEOLOGY

The geology is described in detail in earlier reports by the author (Campbell, 1981 and 1983). The following summarizes the geology as presently known.

The rocks units underlying the Mt. Tom property make up two Paleozoic tectonostratigraphic packages. The uppermost of these is the Mississippian to Permian Antler Formation, an oceanic assemblage of metavolcanic rocks with minor sedimentary rocks that has been thrust eastwards over older metasedimentary units. On the Mt. Tom property the Antler Formation is represented by a klippe of light green, quartz chlorite schist. It is of little exploration interest.

The second package of rock units that underlies most of the northern and eastern claims area are Devonian(?) to Permian(?) metasedimentary rocks that originated in a deep, quiet water environment. These include fine grained black limestone and marble, black siltite, phyllite and argillite, gray phyllite and gray, quartz sericite schist and micaceous quartzite. The rock units are the host of gold deposits along the Barkerville Gold Belt.

4 1987 GEOCHEMICAL SAMPLING

4.1 Introduction

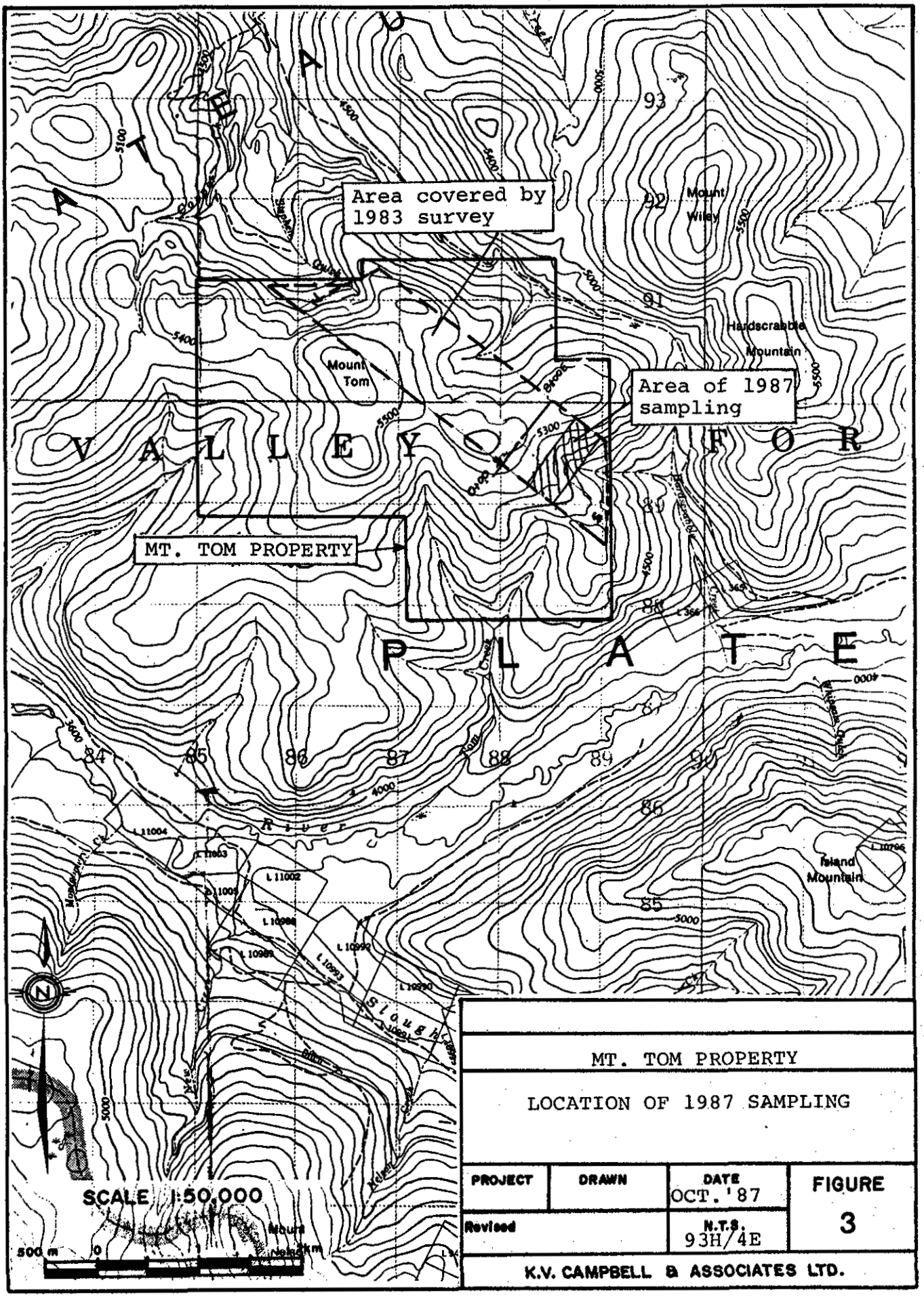
The 1987 geochemical sampling was performed to test the presence of the soil anomalies reported in 1983. Figure 3 shows the location of the 1983 sampling grid and the area that was resampled in 1987. Lines through the anomalous area were resampled. In addition, stations at 25 m inervals and fill-in lines at 50 intervals were sampled. The location of the 1983 geochemical anomalous areas are shown in Figure 4 along with the fill-in lines and stations sampled in this work. In all, 112 soil samples were collected and analysed by ICP for Pb, Zn, Ag, As and Bi, and by atomic absorption for Au.

4.1 Sampling Method

Conventional sampling practices were followed. Samples were collected at grid stations and placed in 3½ x 6" Kraft paper bags. Sampling was preceded by digging pits with a shovel and determining the local profile. New sample pits were re-dug at stations sampled in 1983. Samples were air-dried before sending to the laboratory.

4.3 Analytical Procedure

The samples were analysed by Acme Analytical Laboratories, 852 E. Hastings St, Vancouver, B.C. Samples were dried, sieved to minus-80 mesh, and subjected to a 5 element ICP (inductively coupled argon plasma) analytical technique, after digestion for one hour at 95°C in 3:1:2 - HCl:HNO3:H2O. Gold analysis was by ignition at 600°C and hot aqua regia leach on a 10 gram sample, MIBK (methyl isobutly ketone) extraction followed by graphite furnace atomic absorption determination.



MT. TOM PROPERTY

LOCATION OF 1987 SAMPLING

PROJECT	DRAWN	DATE	FIGURE
		OCT. '87	3
Revised		N.T.S. 93H/4E	

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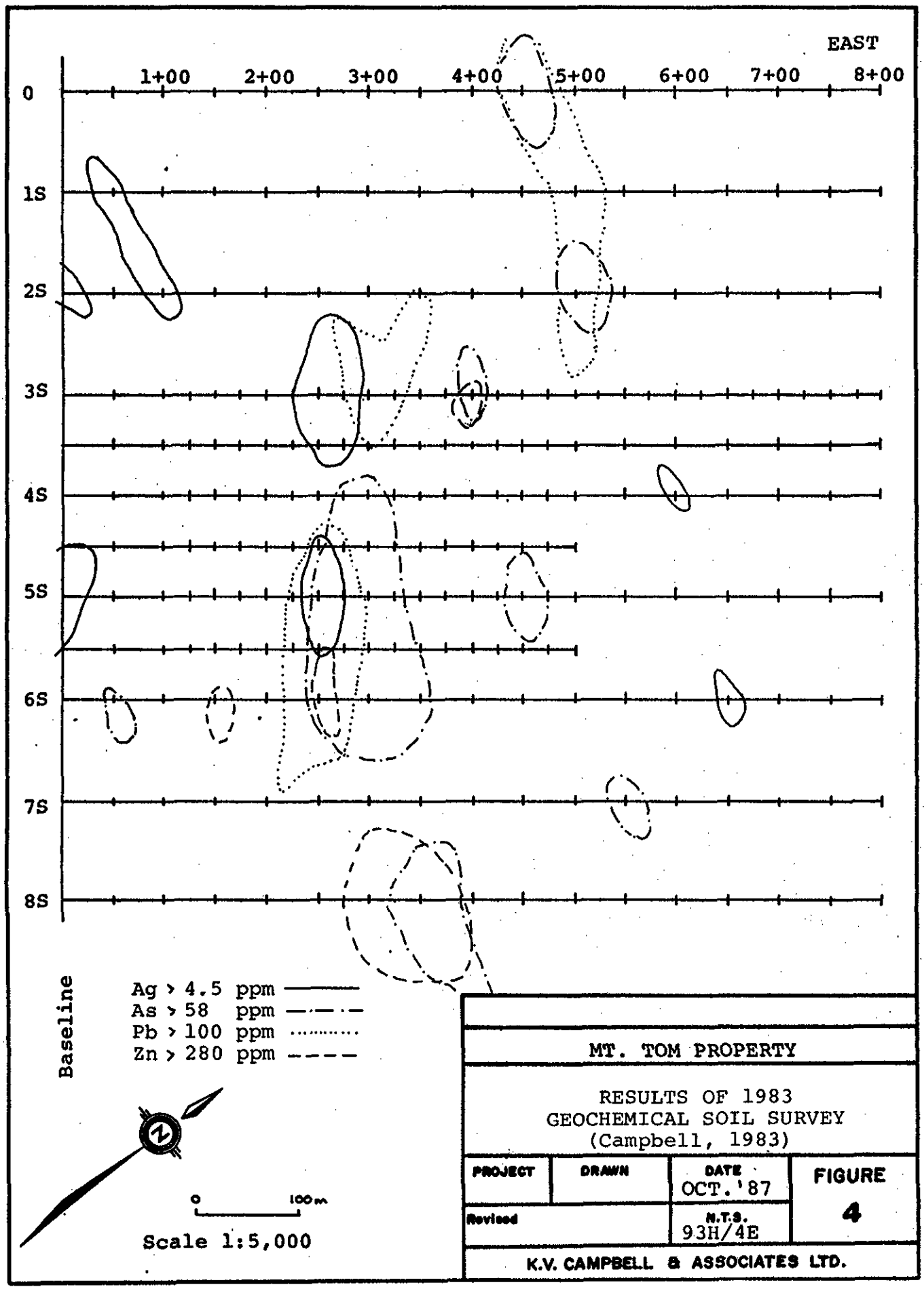

MT. TOM PROPERTY

RESULTS OF 1983
GEOCHEMICAL SOIL SURVEY
(Campbell, 1983)

PROJECT	DRAWN	DATE OCT. '87	FIGURE 4
Revised		N.T.S. 93H/4E	

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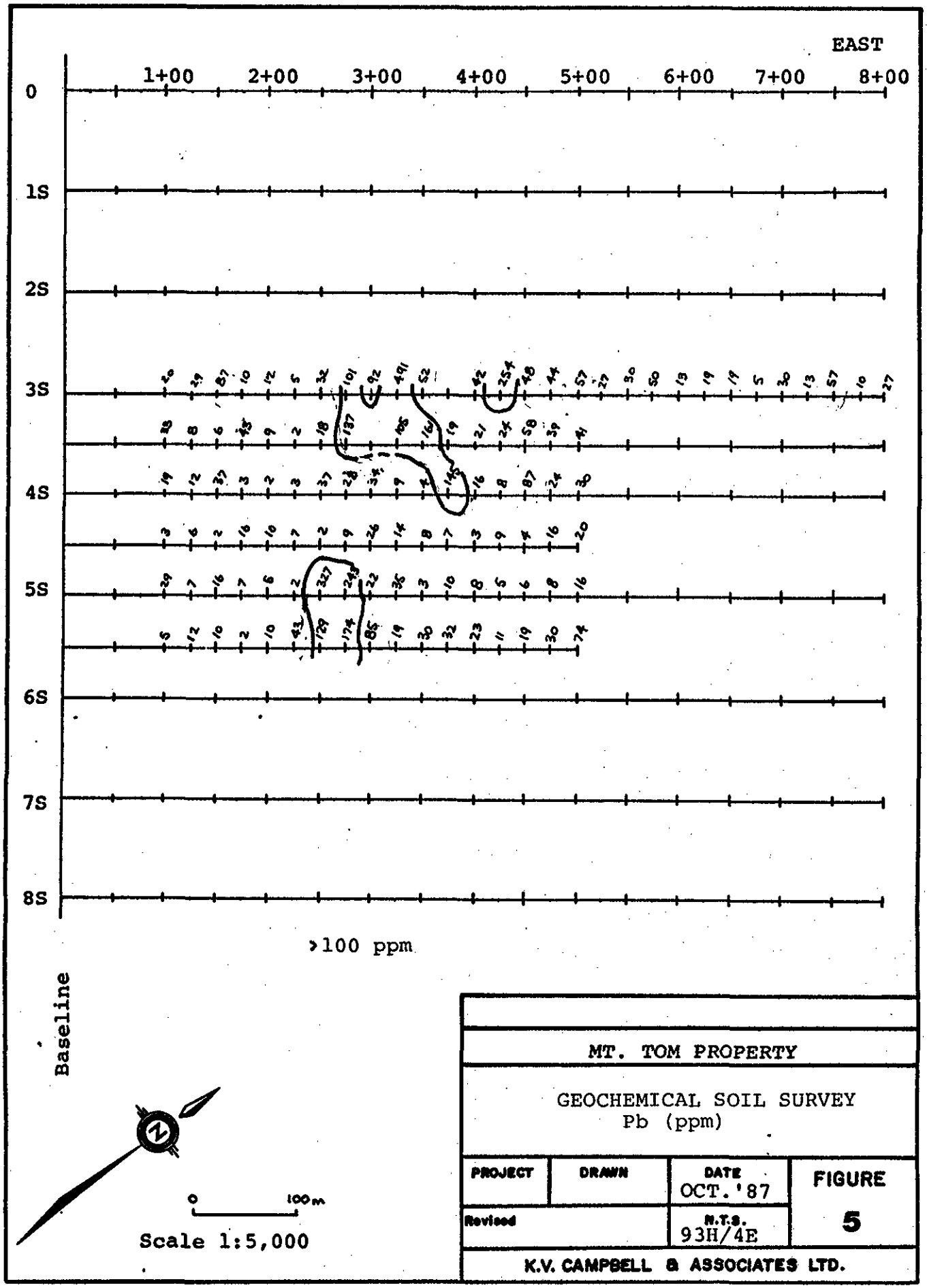
4.4 Overburden Origin and Soil Profiles

The ground is covered by a thick mantle of locally derived till with moderately well developed soil profiles. The organic mat is generally 5-10 cm thick and underlain by a BF horizon 10 to 20 cm thick which in turn overlies the parent material. Sampling in 1981 established that metal contents increased with depth and that the highest values occurred in the C horizon. This horizon was sampled in the 1987 work as it was in 1983.

4.5 Results

The analytical results for the soil samples are included in Appendix I. Results for Pb, Zn, Ag, As and Au are also plotted in Figures 5 to 9 respectively. The results for bismuth are not plotted due to the lack of significant variation.

The results confirm the presence of significant Pb, Ag, As and Au geochemical anomalies in the central part of the grid, between 2+50 E and 5+00 E.



MT. TOM PROPERTY

GEOCHEMICAL SOIL SURVEY
Pb (ppm)

PROJECT	DRAWN	DATE	FIGURE
		OCT. '87	
Revised		N.T.S. 93H/4E	5

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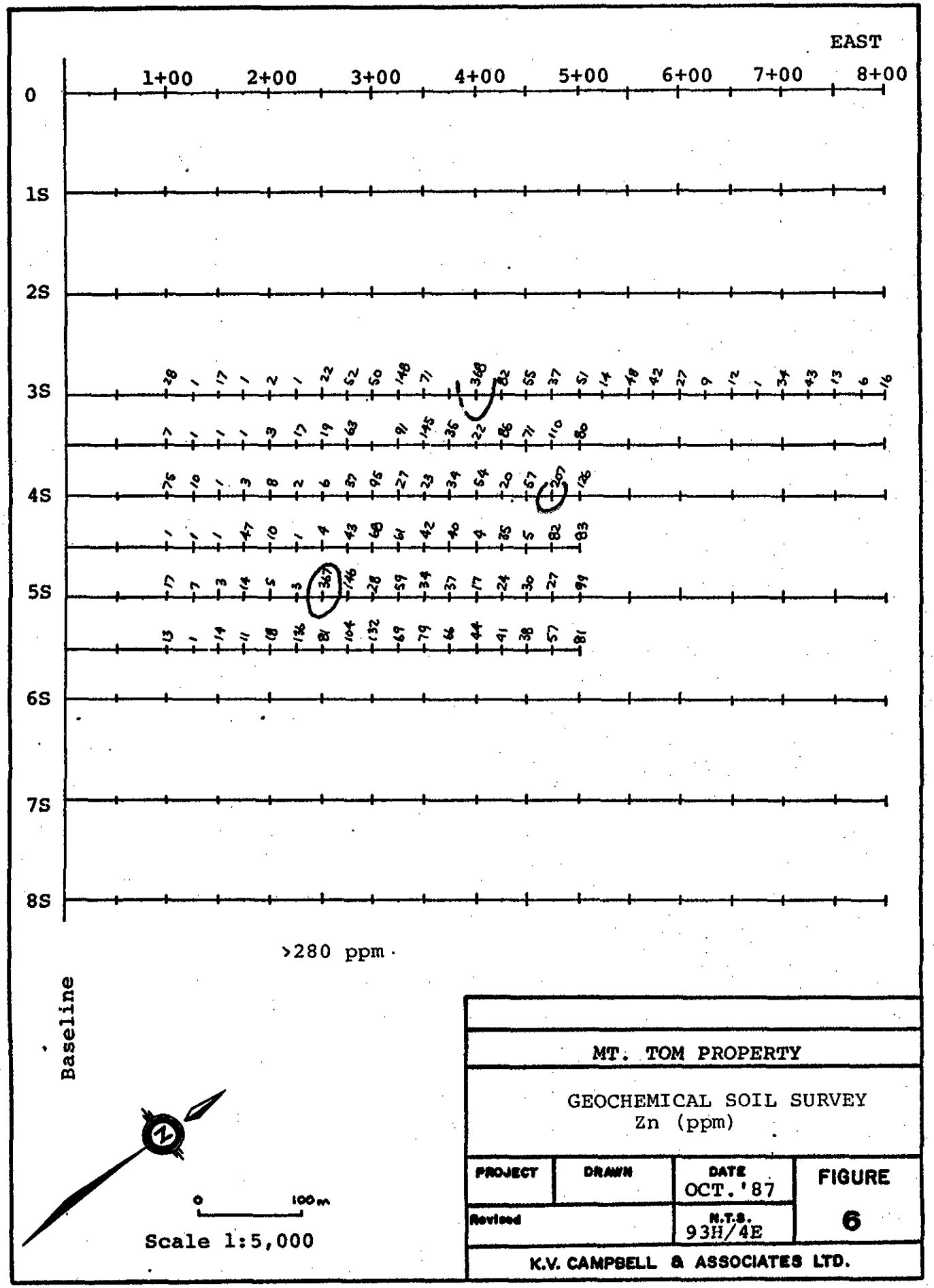

MT. TOM PROPERTY

GEOCHEMICAL SOIL SURVEY
Zn (ppm)

PROJECT	DRAWN	DATE	FIGURE
		OCT. '87	
Revised		N.T.S. 93H/4E	6

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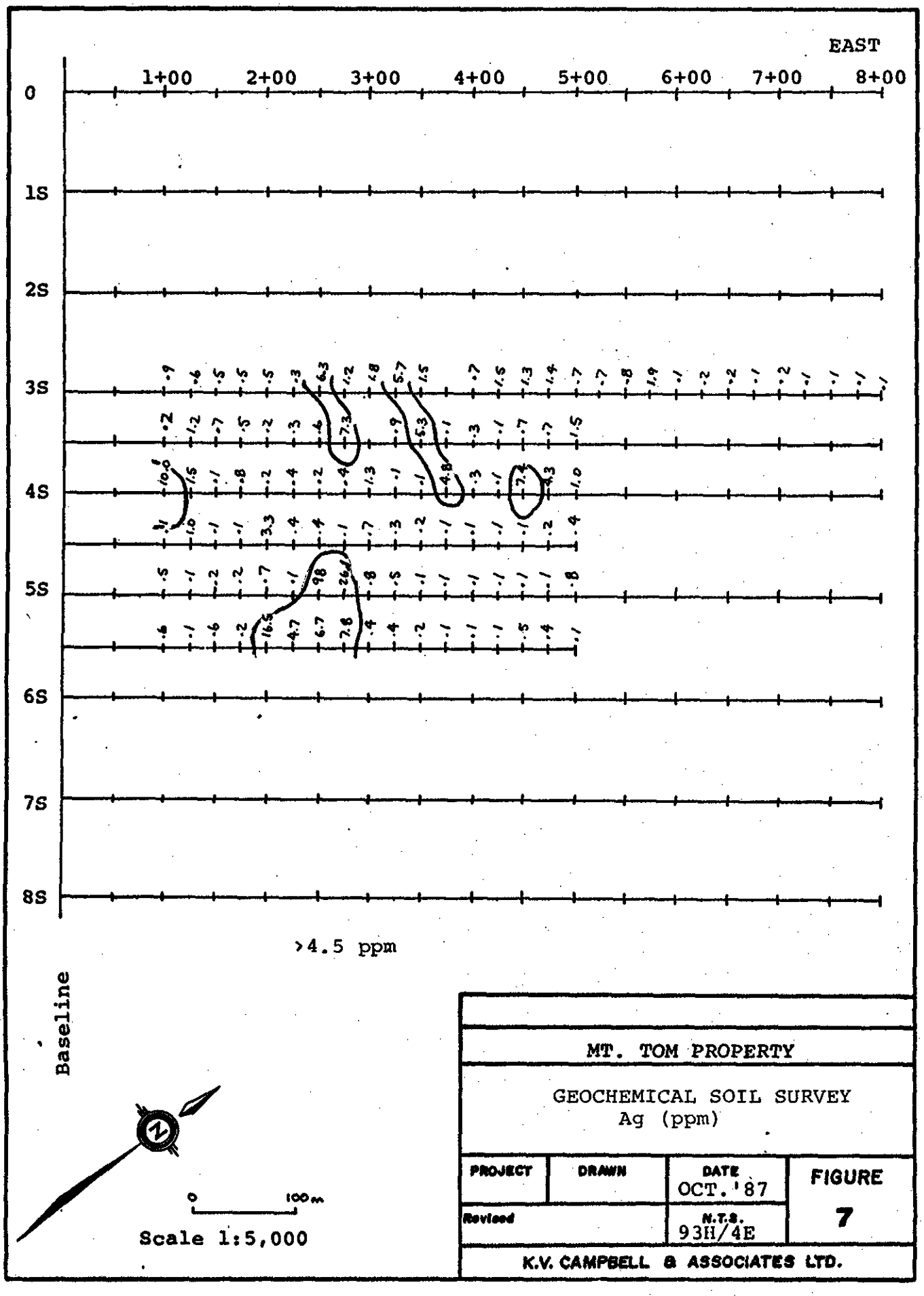

MT. TOM PROPERTY

GEOCHEMICAL SOIL SURVEY
Ag (ppm)

PROJECT	DRAWN	DATE	FIGURE
		OCT. '87	7
Revised		N.T.S. 93H/4E	

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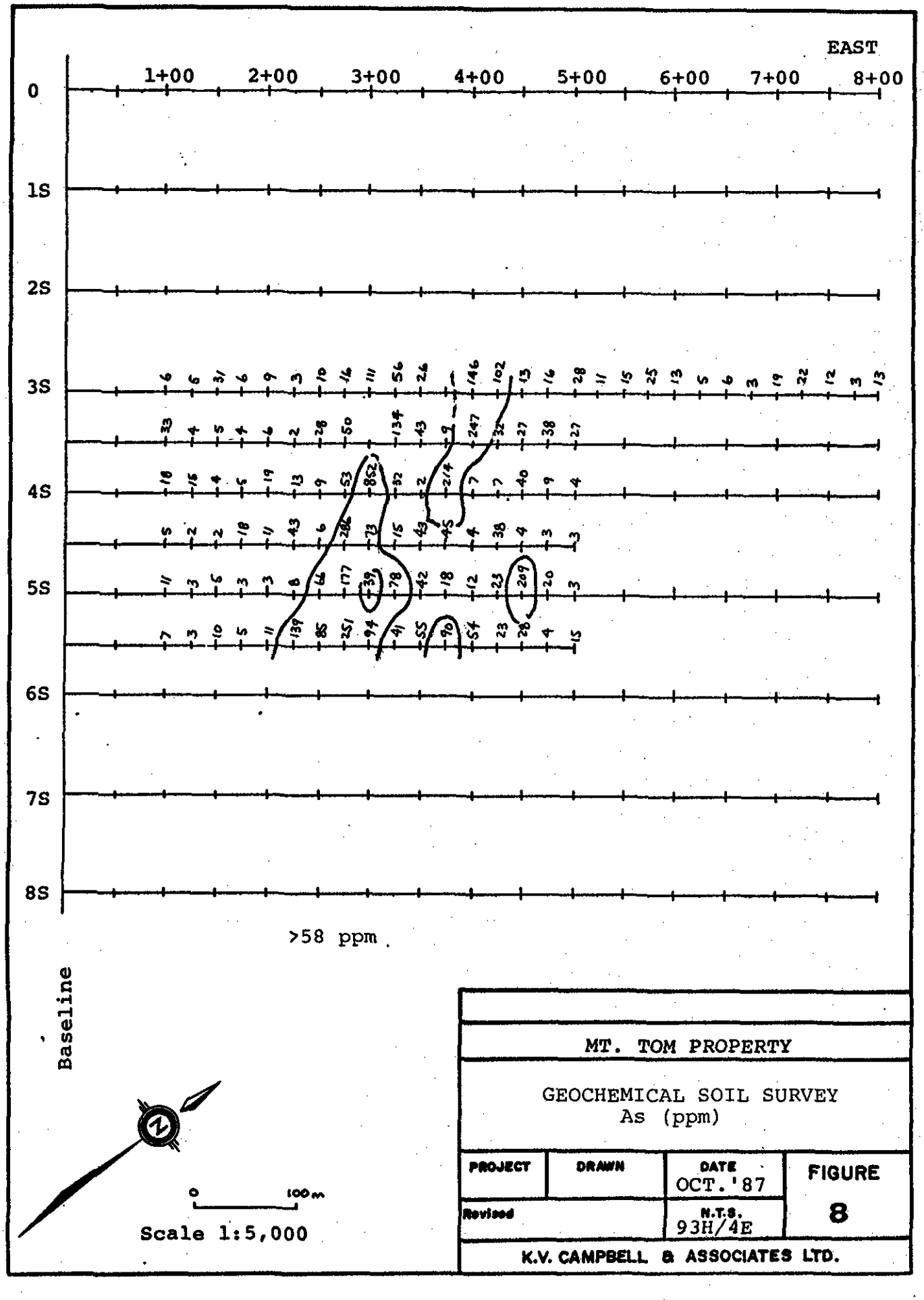

MT. TOM PROPERTY

GEOCHEMICAL SOIL SURVEY
As (ppm)

PROJECT	DRAWN	DATE	FIGURE
		OCT.'87	
Revised		N.T.S. 93H/4E	8

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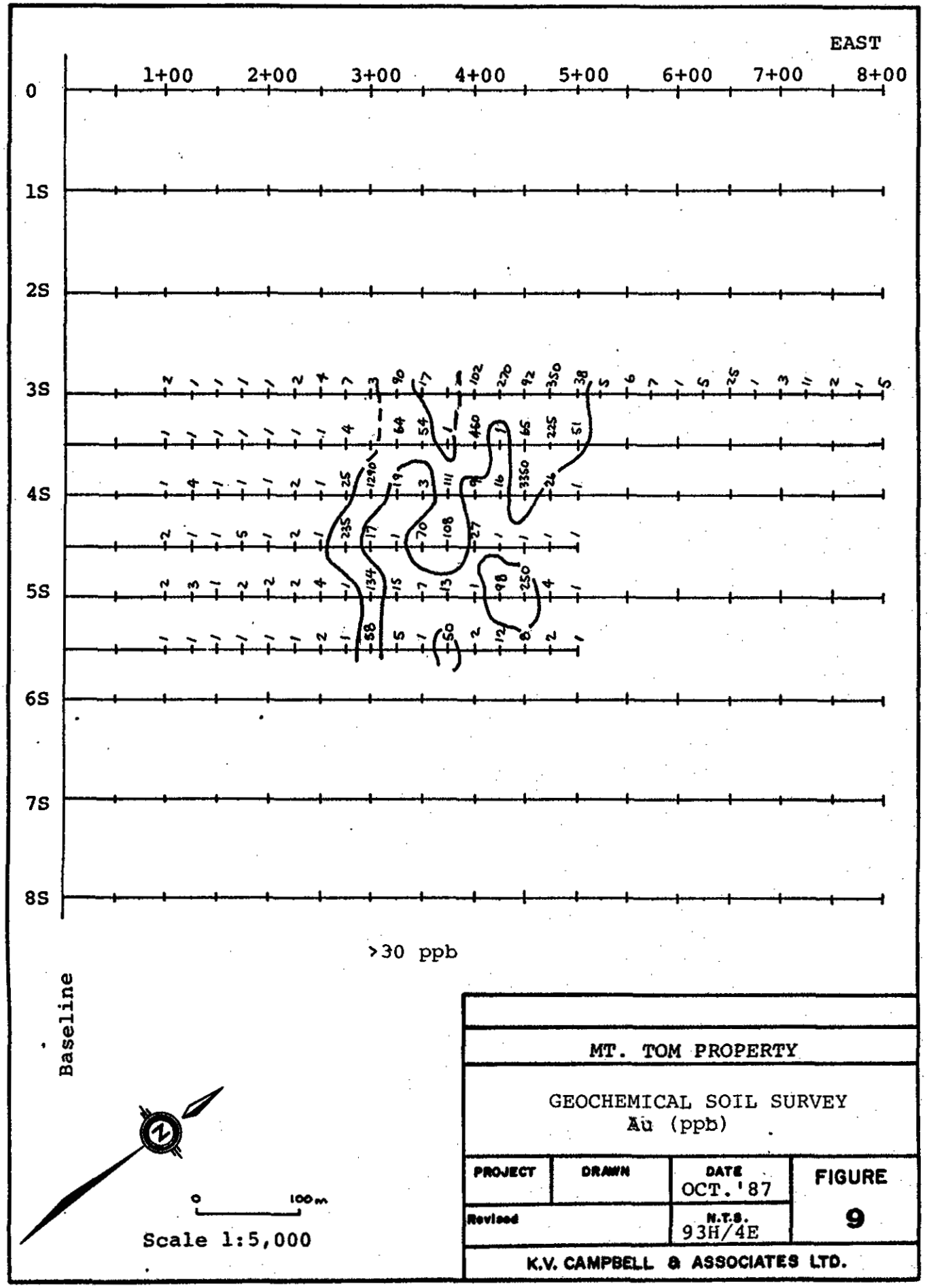

MT. TOM PROPERTY

GEOCHEMICAL SOIL SURVEY
Au (ppb)

PROJECT	DRAWN	DATE	FIGURE
		OCT. '87	9
Revised		N.T.S. 93H/4E	

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5 CONCLUSIONS

The results confirm previous geochemical sampling. Anomalous lead, arsenic and gold values are distributed along a northwesterly trending zone in the central part of the grid.

6 RECOMMENDATIONS

The next stage of work on the property should include:

1) Preparation of a topographic map at a scale of 1:5000.
2) Completion of detailed geochemical soil sampling on lines spaced at 50 m and station intervals of 25 m.

K.V. Campbell, Ph.D.

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8 ITEMIZED COST STATEMENT

Fees and Wages

K.V. Campbell; 5 days @ $400/day	$ 2,000.00
J. Campbell; 3 days @ $500/day	$ 150.00

Disbursements

Analyses	$ 1,047.50
Food and accomodation; 3 days per diem	$ 120.00
Truck rental; 3 days @ $50/day	$ 150.00
Air fare; Vancouver - Quesnel return	$ 142.00
Gas	$ 75.00
Reprographics, word processing	$ 150.00
Drafting	$ 90.00
Total	$ 3,924.50

9 CERTIFICATE

I, KENNETH VINCENT CAMPBELL, resident of Wells, Province of British Columbia, hereby certify as follows:

1. I am a Consulting Geologist with an office at the corner of Blair and Dawson Avenues, Wells, B.C.

2. I graduated with a degree of Bachelor of Science, Honours Geology, from the University of British Columbia in 1966, a degree of Master of Science, Geology, from the University of Washington in 1969, and a degree of Doctor of Philosophy, Geology, from the University of Washington in 1971.

3. I have practiced my profession for 21 years. I am a Fellow of the Geological Association of Canada (F0078).

4. This report, dated October 5, 1987, is based on my field work between July 14 and 16, 1987 on the Tom, Dick and Harry claims.

DATED at Wells, Province of British Columbia
this 5th day of October, 1987.

K.V. Campbell, Ph.D.
Geologist

APPENDIX I

Geochemical Analyses

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 12 1987
DATE REPORT MAILED: Aug. 24/87.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-3 SOIL P4 SOIL/ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

K.V. CAMPBELL & ASSOCIATES File # 87-3228 Page 1

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM	AU* PPB
L3S 1+00E	20	28	.9	6	2	2
L3S 1+25E	29	1	.6	5	2	1
L3S 1+50E	87	17	.5	31	2	1
L3S 1+75E	10	1	.5	6	2	1
L3S 2+00E	12	2	.5	9	2	1
STD C/AU-S	41	134	7.4	39	22	53
L3S 2+25E	5	1	.3	3	2	2
L3S 2+50E	32	22	6.3	10	3	4
L3S 2+75E	101	52	1.2	16	2	7
L3S 3+00E	92	50	1.8	111	2	3
L3S 3+25E	491	148	5.7	56	3	90
L3S 3+50E	52	71	1.5	26	3	17
L3S 4+00E	42	368	.7	146	2	102
L3S 4+25E	254	82	1.5	102	5	270
L3S 4+50E	48	55	1.3	13	2	92
L3S 4+75E	44	37	1.4	16	2	350
L3S 5+00E	57	51	.7	28	3	38
L3S 5+25E	27	14	.7	11	5	5
L3S 5+50E	30	48	.8	15	2	6
L3S 5+75E	50	42	1.9	25	4	7
L3S 6+00E	13	27	.1	13	2	1
L3S 6+25E	19	9	.2	5	2	5
L3S 6+50E	19	12	.2	6	2	25
L3S 6+75E	5	1	.1	3	2	1
L3S 7+00E	30	34	.2	19	2	3
L3S 7+25E	13	43	.1	22	5	11
L3S 7+50E	57	13	.1	12	4	2
L3S 7+75E	10	6	.1	3	3	1
L3S 8+00E	27	16	.1	13	4	5
L3+50S 1+00E	33	7	.2	33	6	1
L3+50S 1+25E	8	1	1.2	4	2	1
L3+50S 1+50E	6	1	.7	5	3	1
L3+50S 1+75E	43	1	.5	4	2	1
L3+50S 2+00E	9	3	.2	6	2	1
L3+50S 2+25E	2	17	.3	2	2	1
L3+50S 2+50E	18	19	.6	28	3	1
L3+50S 2+75E	137	63	7.3	50	5	4

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM	AU* PPB
L3+50S 3+25E	105	91	.9	134	2	64
L3+50S 3+50E	161	145	5.3	43	2	54
L3+50S 3+75E	19	35	.1	9	2	1
L3+50S 4+00E	21	22	.3	247	2	450
L3+50S 4+25E	24	86	.1	32	3	1
L3+50S 4+50E	58	71	.7	27	3	65
L3+50S 4+75E	39	110	.7	38	2	225
L3+50S 5+00E	41	80	1.5	27	2	51
L4+00S 1+00E	19	75	10.0	18	2	1
L4+00S 1+25E	12	10	1.5	15	2	4
L4+00S 1+50E	37	1	.1	4	2	1
L4+00S 1+75E	3	3	.8	5	3	1
L4+00S 2+00E	2	8	.2	19	2	1
L4+00S 2+25E	3	2	.4	13	2	2
L4+00S 2+50E	37	6	.2	9	4	1
L4+00S 2+75E	28	37	.4	53	2	25
L4+00S 3+00E	34	95	1.3	852	2	1290
L4+00S 3+25E	9	27	.1	32	3	19
L4+00S 3+50E	4	23	.1	2	2	3
L4+00S 3+75E	145	34	4.8	214	2	111
L4+00S 4+00E	16	54	.3	7	4	9
L4+00S 4+25E	8	20	.1	7	2	16
L4+00S 4+50E	87	57	7.4	40	2	3350
L4+00S 4+75E	24	207	4.3	9	2	26
L4+00S 5+00E	30	126	1.0	4	2	1
L4+50S 1+00E	3	1	.1	5	2	2
L4+50S 1+25E	6	1	1.0	2	2	1
L4+50S 1+50E	2	1	.1	2	2	1
L4+50S 1+75E	16	47	.1	18	2	5
L4+50S 2+00E	10	10	3.3	11	3	1
L4+50S 2+25E	7	1	.4	43	2	2
L4+50S 2+50E	2	4	.4	6	2	1
L4+50S 2+75E	9	43	.1	286	2	235
L4+50S 3+00E	26	68	.7	73	2	17
L4+50S 3+25E	14	61	.3	15	2	1
L4+50S 3+50E	8	42	.2	43	3	70
STD C/AU-S	42	131	6.6	39	20	47

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM	AU* PPB
L4+50S 3+75E	7	40	.1	45	2	108
L4+50S 4+00E	3	4	.1	4	2	27
L4+50S 4+25E	9	35	.1	38	4	1
L4+50S 4+50E	4	5	.1	4	2	1
L4+50S 4+75E	16	82	.2	3	2	1
L4+50S 5+00E	20	83	.4	3	2	1
L5+00S 1+00E	29	17	.5	11	2	2
L5+00S 1+25E	7	7	.1	3	2	3
L5+00S 1+50E	16	3	.2	5	2	1
L5+00S 1+75E	7	14	.2	3	2	2
L5+00S 2+00E	5	5	.7	3	2	2
L5+00S 2+25E	2	3	.1	8	2	2
L5+00S 2+50E	327	367	98.0	66	2	4
L5+00S 2+75E	243	146	26.1	177	2	1
L5+00S 3+00E	22	28	.8	39	2	134
L5+00S 3+25E	35	59	.5	78	2	15
L5+00S 3+50E	3	34	.1	42	3	7
L5+00S 3+75E	10	37	.1	18	2	13
L5+00S 4+00E	8	17	.1	12	2	1
L5+00S 4+25E	5	24	.1	23	2	98
L5+00S 4+50E	6	30	.1	209	6	250
L5+00S 4+75E	8	27	.1	20	2	4
L5+00S 5+00E	16	99	.8	3	3	1
L5+50S 1+00E	5	13	.6	7	2	1
L5+50S 1+25E	12	1	.1	3	2	1
L5+50S 1+50E	10	14	.6	10	2	1
L5+50S 1+75E	2	11	.1	5	2	1
L5+50S 2+00E	10	18	.2	11	2	1
L5+50S 2+25E	43	136	16.5	139	2	1
L5+50S 2+50E	129	81	4.7	85	2	2
L5+50S 2+75E	174	104	6.7	251	2	1
L5+50S 3+00E	85	132	7.8	94	2	58
L5+50S 3+25E	19	69	.4	41	3	5
L5+50S 3+50E	30	79	.4	55	3	1
L5+50S 3+75E	32	66	.2	90	2	50
L5+50S 4+00E	23	44	.1	54	3	2
STD C/AU-S	42	132	7.4	42	22	52

SAMPLE#	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM	AU* PPB
L5+50S 4+25E	11	41	.1	23	2	12
L5+50S 4+50E	19	38	.5	28	2	8
L5+50S 4+75E	30	57	.4	4	3	2
L5+50S 5+00E	74	81	.1	15	3	1
3+50S 4+25E Rock	7	19	.1	13	2	2