

1025

GEOCHEMICAL AND TRENCHING REPORT  
ON THE  
DEL SANTO CLAIM BLOCK  
BURN 4-7, DEL SANTO 1-2, DEL 1-4  
OMINECA MINING DIVISION  
NTS 93L/10  
54° 40' NORTH LATITUDE  
126° 41' WEST LONGITUDE

OWNER: CANADIAN-UNITED MINERALS, INC.

R. HELGASON

CONSULTANT: CUN MANAGEMENT GROUP INC.

SEPTEMBER 22, 1988

FILMED

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,874

SUB-RECORDS  
RECEIVED  
OCT 11 1988  
M.R. # \_\_\_\_\_ S. \_\_\_\_\_  
VANCOUVER, B.C.

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## INTRODUCTION

In 1987, Canadian-United Minerals, Inc., optioned from Silver Tusk Mines Ltd., claims in the Deep Creek area totalling 144 units. The western 70 units of these claims are referred to in this report as the Del Santo claim group. Work on the Del Santo group in 1988 included follow up soil geochemistry and hand and backhoe trenching of previously outlined soil anomalies. This work was carried out under the direct supervision of the author and results are the subject of this report.

## LOCATION, ACCESS AND PHYSIOGRAPHY

The Del Santo property is located near the head of Deep Creek, approximately 33 kilometers east southeast of the town of Smithers in north central British Columbia. More precisely, the centre of the claims is at 54°40'N. latitude, 126° 41'W. longitude.

Access to the property is via Kerr road which turns east off Highway 16 at the farming centre of Quick. An unnamed, four wheel drive road extends northeast from the end of Kerr road, 9 kilometers through the claims to the Del Santo showing. This road crosses private farm land and is controlled by a locked gate near its origin. A gate key can be obtained from Gordon Kerr who lives on Kerr road nearby. In addition, helicopter access is available by charter from Smithers.

Topography is predominately hilly with moderate slopes and numerous rocky knolls. Flat areas tend to be marshy and several small streams drain the property. Elevations range from 1,000 to 1,460 meters. Forest cover is thick, consisting mainly of balsam, fir, spruce and lesser pine. Alder, willow and buck brush are also common in wetter areas.

Supplies and services are readily available from Smithers which is a major centre for the region with good road and rail access and daily airline flights from Vancouver.

# DEL SANTO CLAIM BLOCK



FIGURE 1

### CLAIM STATUS

The Del Santo claim group comprises the following contiguous claims located within the Omineca Mining Division.

<u>Claim</u>	<u>Record #</u>	<u>Units</u>	<u>Expiry Date</u>
Burn 4	6948	20	April 03, 1990*
Burn 5	6949	20	April 03, 1990
Burn 6	6950	12	April 03, 1990
Burn 7	6951	12	April 03, 1990
Del 1-4	8029-32	4	October 21, 1990
Del Santo 1-2	47874-5	2	March 20, 1991

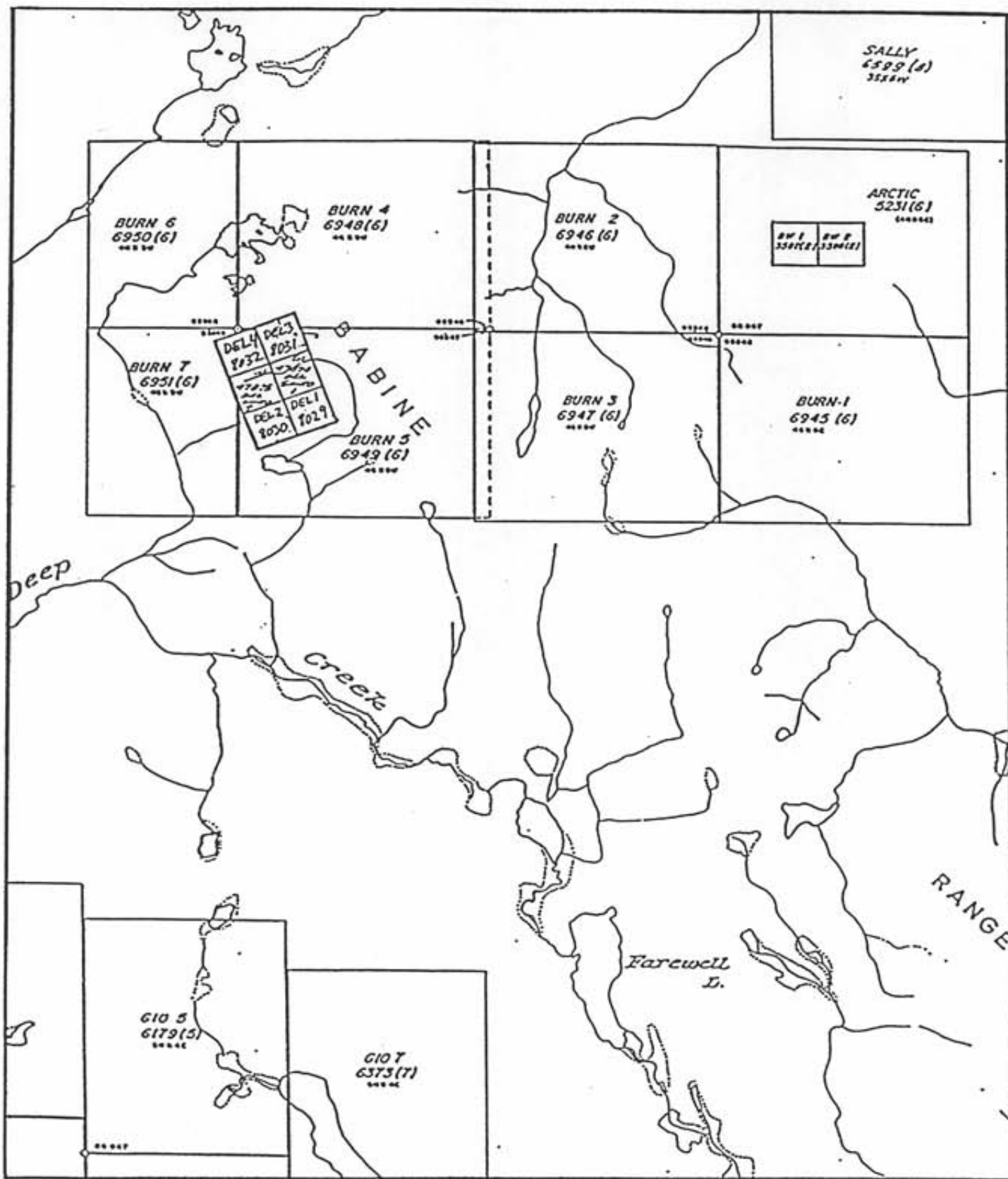
\* Pending acceptance of assessment applied for in this report.

### HISTORY

The first recorded activity in the Del Santo area is in 1914 when "a number of claims" were staked over "quartz veins carrying iron pyrites and arsenopyrites with fair values in gold". Further investigations were conducted during 1928/29 on at least two 6.2 - 12.4 meter wide sheared and mineralized zones (Del Santo showing). This work included several open cuts and a short adit. values in silver, copper and zinc were reported over lengths of up to 150 meters.

More recently, the area was restaked by M. Chapman and F. Madigan during the 1960's and optioned to several companies as a porphyry copper prospect. In 1967/68 Texas Gulf carried out geological mapping and limited magnetometer and E.M. work. Falconbridge Nickel conducted further, more detailed geological mapping and geophysics, as well as linecutting, soil geochemistry and trenching during 1969. This was followed up with 3 very short diamond drill holes in 1970, the results of which are not available.

Trenching was also carried out by Union Miniere (Umex) in 1976 and further mapping and geophysics were done by Petra Gem Explorations in 1978. The most recent work done on the property was conducted by D. Groot Logging Ltd. in 1982 and consisted of further trenching, road construction and repair, and drilling of four diamond drill holes under the main showing. In 1987 a program of soil sampling, trenching and geological mapping was conducted by Canadian-United Minerals.



CLAIM MAP  
NTS 93/L 10 E

SCALE 1:55,000

FIGURE 2

## GENERAL GEOLOGY

The claims area is underlain by subaerial to submarine volcanic, volcanoclastic and sedimentary rocks of the Hazelton Group. MacIntyre (1985) states that the Hazelton Group is an island-arc assemblage deposited in the northwest trending Hazelton Trough between Early to Middle Jurassic time. Tipper and Richards divided the Hazelton Group into three formations in the Smithers area. These three, from oldest to youngest, are the Telkwa Formation, the Nilkitkwa Formation and the Smithers Formations.

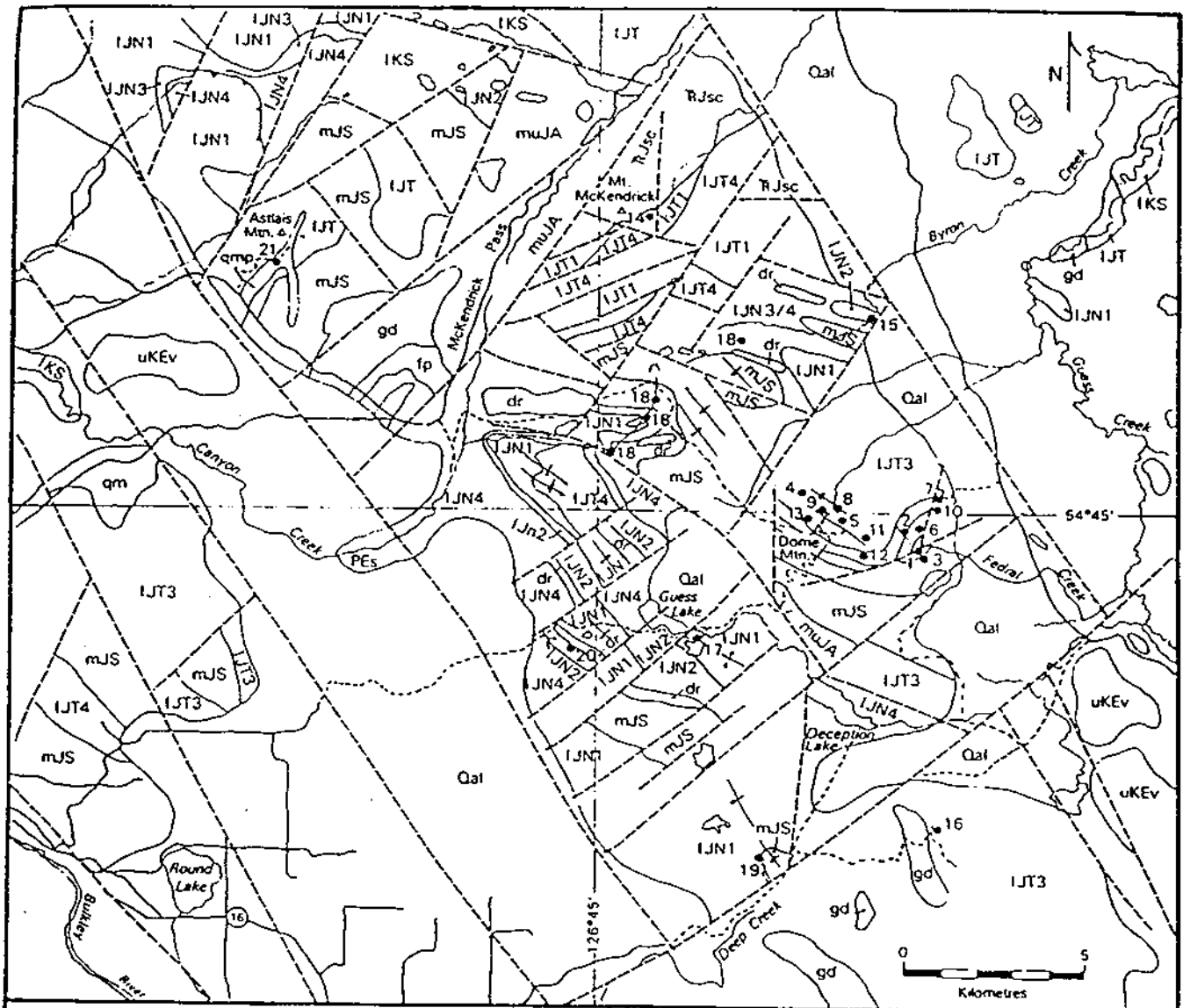
The Telkwa Formation is the thickest and most extensive formation of the Hazelton Group. It is a mix of subaerial and submarine pyroclastics and flows with minor sedimentary intercalations. On Dome Mountain, just north of Del Santo, the Telkwa Formation is predominately maroon, coarse grained agglomerate and tuff breccia.

Overlying the Telkwa Formation conformably to disconformably is the Nilkitkwa Formation. This unit is a mix of pyroclastic, flow and marine sedimentary rocks. The basal portion is well bedded, brick red, fine grained tuffs which give way up section to a series of amygdaloidal, andesitic flows. Both of these units are very distinctive. Above this basal volcanic sequence the Nilkitkwa Formation grades into marine sedimentary rocks which range from granule and pebble conglomerate to argillites and siltstones with minor limestone layers.

The Smithers Formation disconformably overlies the Nilkitkwa Formation. It consists of fossiliferous sandstone and siltstone with lesser intercalated felsic tuff. Smithers Formation is not known to occur in the Del Santo area.

Several small elongated plugs or dykes of fine to medium grained diorite or diabase intrude the Hazelton Group rocks in the area. These mafic intrusives are probably Jurassic in age and therefore related to the Topley Intrusions. Quartz monzonite dykes also occur in the area.





LEGEND		MINERAL OCCURRENCES		
<b>QUATERNARY</b>	<b>Qal</b> alluvium	Type	Occurrence Name	Commodity
<b>PALEOCENE TO EOCENE</b>	<b>PEs</b> mudstone, siltstone	1 Oz Vein	Dome Mtn. - Forks	Au, Ag, Zn, Pb, Cu, (As, Sb)
<b>LATE CRETACEOUS TO TERTIARY</b>	<b>uKEv</b> andesitic volcanic rocks	2 Oz Vein	Dome Mtn. - Cabin	Au, Ag, Zn, Pb, Cu, (As, Sb)
<b>EARLY CRETACEOUS - SKEENA GROUP</b>	<b>IKS</b> RED ROSE FORMATION micaceous sandstone, siltstone, conglomerate, mudstone	3 Oz Vein	Dome Mtn. - 9800	Au, Ag, Zn, Pb, Cu, (As, Sb)
<b>LATE JURASSIC</b>	<b>muJA</b> BOWSER LAKE GROUP ASWANIAN FORMATION epidiorite, shaly siltstone, quartzose turbidites	4 Oz Vein	Dome Mtn. - Ptarmigan	Au, Ag, As, Zn, Pb, Cu
<b>EARLY TO MIDDLE JURASSIC</b>	<b>mJS</b> HAZELTON GROUP SANTHERS FORMATION buffaceous sandstone, siltstone, conglomerate	5 Oz Vein	Dome Mtn. - Hawk	Au, Ag, As, Zn, Pb, Cu
	<b>IJN4</b> MILKITWA FORMATION thin bedded argillite, chert and limestone	6 Oz Vein	Dome Mtn. - Boulder	Au, Ag, Zn, Pb, Cu
	<b>IJN3</b> buffaceous conglomerate, siltstone, cherty silt	7 Oz Vein	Dome Mtn. - Free Gold	Au, Ag, Zn, Pb, Cu
	<b>IJN2</b> mylonic volcanic rocks	8 Oz Vein	Dome Mtn. - Eagle	Au, Ag, Zn, Pb, Cu
	<b>IJN1</b> red sandstones, amygdaloidal flows, isolated lapilli tuff	9 Oz Vein	Dome Mtn. - Gem	Au, Ag, Zn, Cu, Pb
	<b>IJT4</b> TELKWA FORMATION phylic maroon tuff	10 Oz Vein	Dome Mtn. - Chance	Au, Ag, Cu, Zn, Pb
	<b>IJT3</b> fragmental volcanic rocks	11 Oz Vein	Dome Mtn. - Hoopes	Au, Ag, Cu, Zn, Pb
	<b>IJT2</b> porphyritic andesite	12 Oz Vein	Dome Mtn. - Jane	Au, Ag, Cu, (Zn, Pb, Ba)
	<b>IJT1</b> polymictic conglomerate, epiclastic rocks	13 Oz Vein	Dome Mtn. - Raven	Au, Ag, Cu
	<b>RJsc</b> TRASSIC TO LOWER JURASSIC greenstone - sill complex	14 Oz Vein	Mt. McKendrick	Au, Ag, Pb, Zn, Cu, (As, Sb)
	<b>dr</b> INTRUSIVE ROCKS diorite	15 Cu Vein	Tina	Cu, Ag
	<b>gd</b> granodiorite	16 Cu Vein	Brenda, Tony, BW	Cu, Ag
	<b>qmp</b> quartz monzonite porphyry	17 Cu Vein	Camp Lake	Cu, Ag
	<b>fp</b> felsic porphyry	18 Massive	Ascot	Zn, Pb, Ba
	<b>qp</b> quartz porphyry	19 Massive	Del Santo	Cu, Zn, Ag
		20 Porph	Burbridge Lake	Cu, Mo
		21 Porph	Big Onion	Cu, Mo

REGIONAL GEOLOGY  
(From D.G. MacIntyre, 1986)

Figure 3

## PROPERTY GEOLOGY

The property area is underlain predominantly by fine grained, green to maroon colored andesite flows and tuffs of the Nilkitkwa Formation. To the east of the Delsanto showing area, these are interfingered with fine grained, light green to grey latites in an apparent facies change. Interbedded with the andesites are several bands of argillaceous and calcareous sediments. Bedding of the sediments strikes predominantly north-south with steep dips. Faulting is common both crosscutting and conformable to stratigraphy and some evidence of folding also occurs.

The Nilkitkwa rocks are intruded by several biotite-feldspar porphyry dykes and by a stock of similar composition which is exposed southeast of the main showing. Strong hornfelsing and skarnification are common in the sediments adjacent to these intrusive rocks.

## SOIL SAMPLING

As a follow up to the 1987 soil anomalies a program of selective soil sampling was conducted to try to extend and define the anomalies.

Samples were taken using a prospectors mattock from a depth of 30 cm in the "B" horizon whenever possible and placed in kraft soil bags and shipped to Acme Analytical Labs in Vancouver, B.C. for analysis. At the lab, the samples were oven dried, and then screened to #80 mesh. A 0.5 gram sample of screened material was digested with 3 ml aqua regia (3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O) at 95° C for 1 hour and then diluted to 10 ml with distilled water. The solution was then analyzed by standard ICP (inductively coupled argon plasma) techniques for copper, lead, zinc, silver, and arsenic.

Levels for anomalous values were determined statistically using an anomalous threshold of approximately two standard deviations above the arithmetic mean. Values in excess of approximately twice the anomalous threshold are considered

strongly anomalous. Levels in parts per million (ppm) are summarized below.

ELEMENT	BACKGROUND	ANOMALOUS	STRONGLY ANOMALOUS
Copper	0 - 55	56 - 100	>100
Lead	0 - 30	31 - 60	> 60
Zinc	0 - 250	251 - 500	>500
Silver	0 - 1.0	1.1 - 2.0	>2.0
Arsenic	0 - 25	26 - 50	> 50

Three separate areas were sampled with a total of 216 samples collected. Results are plotted on figures 12 to 26.

Anomaly one was a strong zinc, lead and silver anomaly centred on lines 18+00S and 20+00S. Sampling in 1988 was focused south of the strong 1987 anomaly in an attempt to extend the anomaly, however the next lines south failed to extend the anomaly. No coherent pattern of anomalies showed up as a result of the 1988 sampling around anomaly one.

Anomaly two was a medium to strong zinc anomaly on lines 4+00N and 4+50 N adjacent to a swamp. Sampling in 1988 attempted to trace the anomaly north into an area of reduced overburden. The only anomalous results were four stations anomalous in zinc and two anomalous in silver. The zinc anomalies line up in a north-south trend, but are lesser in magnitude than the 1987 anomalies.

Anomaly three, centred around line 14+00N, was also covered by an expanded grid. Results were weak and spotty. The strongest result is a 4.2 ppm Ag on line 15+50N at 30+00W.

#### TRENCHING

As a follow up to the 1987 detailed soil sampling several trenches were dug to expose bedrock. At anomaly one, three hand trenches were dug to test the multielement anomaly. No mineralization was found to explain the anomaly and rock samples from the trenches returned lower values than the soil samples. The host rock seen varies from a slightly silicified,

manganiferous, andesitic volcanic to a grey calcareous phyllite.

Anomaly two was readily accessible, so two trenches were dug using a backhoe mounted on a John Deere skidder. No mineralization other than a couple of pyrite bands was seen. The host is a fine grained tuff grading into a bedded calcareous siltstone and limestone. Abundant quartz and carbonate veins crosscut the sediments. Samples of bedrock did not return any anomalous values.

Two hand trenches tested anomaly three. One of the trenches, 14+50N 32+50W, didn't reach bedrock while the other, L14+50N 28+50W, hit calcareous siltstone with minor quartz veining and no sulphides.

#### CONCLUSIONS

The follow up soil sampling and trenching failed to unearth any economic mineralization associated with anomalous soil samples. No alteration or indications of mineralization were found so no further work is recommended.

STATEMENT OF COSTS

R. Helgason Geologist 5 days @ \$350/day	\$ 1,750
T. Berger Geologist 5 days @ \$250/day	1,250
J. Pardoe Geologist 2 days @ \$300/day	600
A. Pickering Assistant 5 days @ \$200/day	1,000
B. Lepsoe Assistant 4 days @ \$200/day	800
Room and Board 21 days @ \$50/day	1,050
Backhoe 10 hours @ \$60/hour	600
Transport 4 hours @ \$100/hours	400
Truck Rental 5 days @ \$60/day	300
Transportation (gas, airfare, freight)	200
Geochemical Analysis 216 soils @ \$5.50/soil	1,188
15 rocks @ \$12.50/rock	187.50
Field Supplies	225.00
Report Writing 3.5 days @ \$350/day	1,250.00
Drafting 3 days @ \$250/day	750.00
Secretarial 1 day @ \$100/day	100.00
	<hr/>
	\$11,625.50

## REFERENCES

B.C. Department of Mines Annual Reports of the Minister of Mines, 1914, p. 112, 1928, p. 168, 1929 p. 170; Geology, Exploration and Mining 1969, p.120, 1970, p. 158; Exploration in B..C., 1976 p. E150, 1979 p. 228.

Brown, D.H. (1969), Geochemical Report on Del Sauto and Del Santo Claims, Quick B.C., For Falconbridge Nickel Ltd. BCMEMPR Assessment Report 2543.

Brown, D.H. (1970), Report on Del Santo Property, Smithers, B.C. for Falconbridge Nickel Ltd.

Helgesen, D.H. (1970), Geochemical Report, Chapman Option, (Del Santo Group)

Helgason, R., Holland, R., (1986) Report on the Del Santo Claim Block for Silver Tusk Mines Ltd.

Holland R. (1988) Geological, Geochemical and Trenching Report on the Del Santo Claim Group for Canadian-United Minerals, Inc.

MacIntyre, D.G. (1985), Geology of the Dome Mountain Gold Camp, BCMEMPR Paper 1985-1.

Plecash, D.C., (1982), Del Santo Property, Deep Creek Area, for D. Groot Logging Ltd.

Price, B.C., (1979), Geological and Geophysical a Report, Del Santo 1-6, Del Santo 7-10 and Del Santo 31-33 claims, Petra Gem Exploration of Canada Ltd., for M. Chapman and F. Madigan. BCMEMPR Assessment Report 7286.

Tipper, H.W., Richards, T.A., (1976), Jurassic Stratigraphy and History of North-Central British Columbia; Geological Survey of Canada Bulletin 270.

## QUALIFICATIONS

I, Robert Helgason of #4 - 1306 Bidwell Street, Vancouver, B.C., hereby certify that,

1. I graduated from the University of British Columbia in 1980 and hold a B.Sc. (Honours) degree in geology.
2. I am currently employed by CUN Management Inc., of #325-1130 West Pender Street, Vancouver, B.C.
3. I have been employed in my profession by various mining companies for the past eight years.
4. I am a fellow of the Geological Association of Canada.
5. The information contained in this report was obtained as a result of field work carried out by CUN Management Inc. under my supervision.

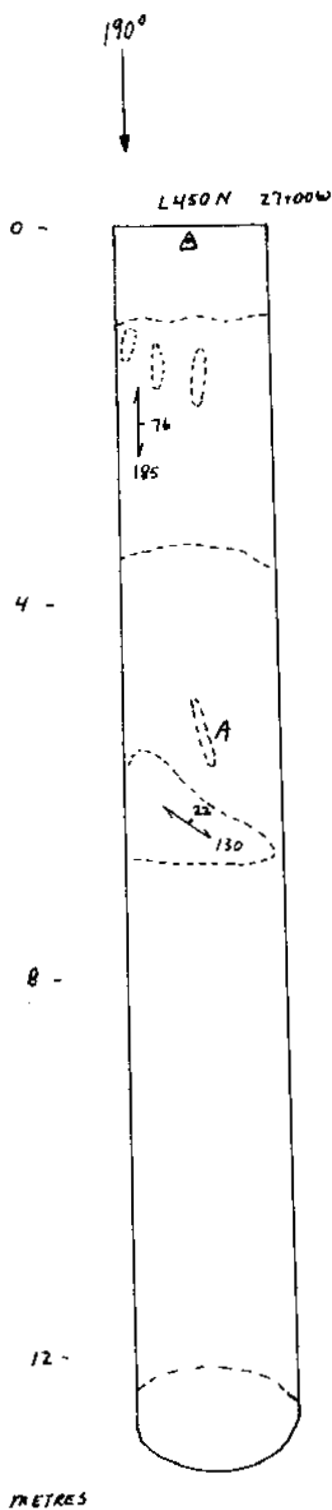
September 22, 1988



APPENDIX 1



SAMPLE	INT (m)	Ag	Cu	Pb	Zn (ppm)
RR 88-16	1-4	1.6	37	49	400
RR 88-17	4-8	1.4	45	229	2815
RR 88-18	8-13	.7	47	18	266



O/B

F.G. FELSIC TUFF  
RUSTY WEATHERING . MINOR PY.  
MINOR QZ-CARB VEINING

F.G. FELSIC TUFF / SLST  
BETTER INDURATED THAN THE ABOVE  
MINOR PY. , MINOR CARB. VEINING.  
A - MINOR COARSER, PYRITIC BAND.  
DK. CHARCOAL CALCAREOUS SLST.

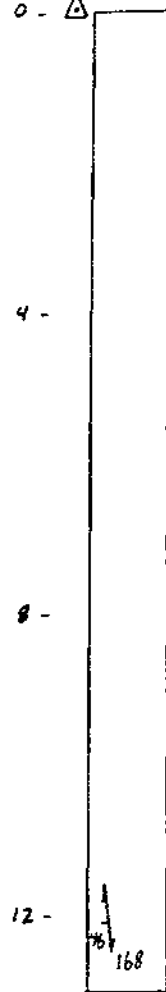
CALCAREOUS SLST/LMST  
ABDT QZ-CARB VEINING  
MINOR PY.

O/B

DELSANTO  
TRDS 88-1

1:80 SEPT. 88

190°  
 ↓  
 L 450N 27150W  
 0 - Δ



SAMPLE	INT. (m)	Ag	Cu	Pb	Zn ppm
RR 88-19	0-4	1.1	21	33	1142
RR 88-20	4-8	1.5	31	28	2470
RR 88-21	8-13	1.9	38	32	4364

RUSTY, STRONGLY CALCITE VEINED  
 AND BRECCIATED ARGILLITE/SHALE  
 MINOR PYRITE.  
 OCCASIONAL LMST BEDS (DK GREY)  
 FINELY BEDDED.

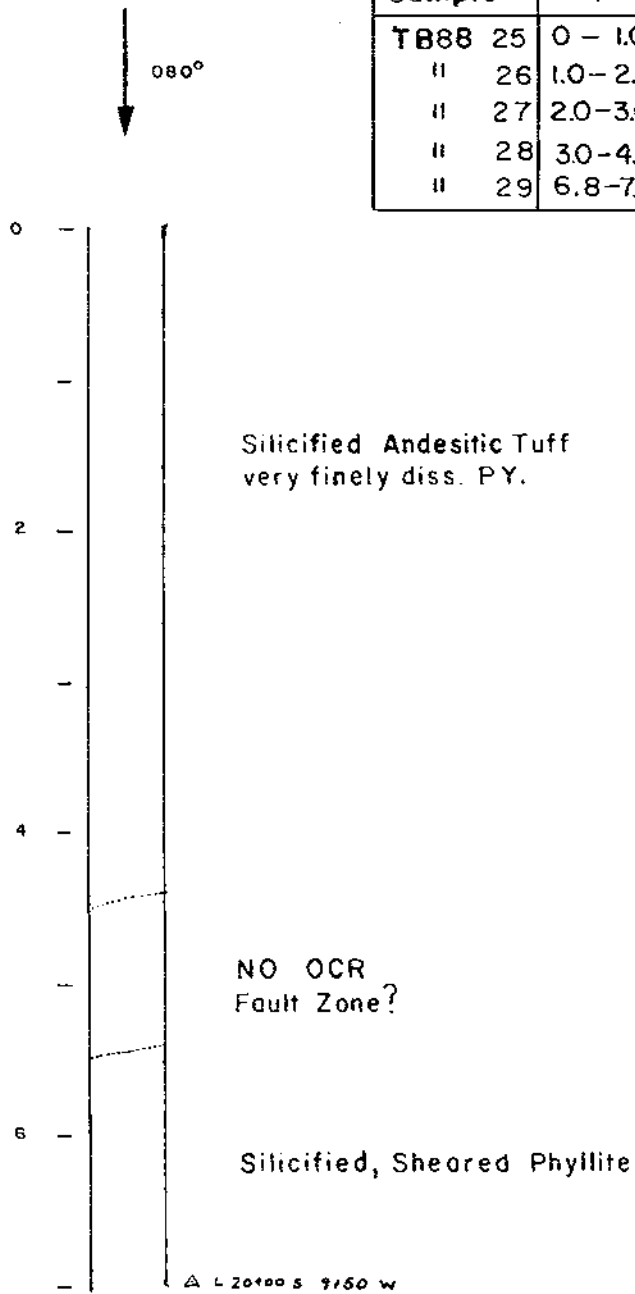
MINOR COARSER, PYRITIC BANDS

DELSANTO

TRDS 88-2

1:100 SEPT. 88

Sample	Int(m)	Ag	Cu	Pb	Zn (ppm)
TB88 25	0 - 1.0	.3	100	17	135
" 26	1.0 - 2.0	.2	86	15	96
" 27	2.0 - 3.0	.2	133	13	142
" 28	3.0 - 4.5	.3	84	20	104
" 29	6.8 - 7.0	.6	42	16	337



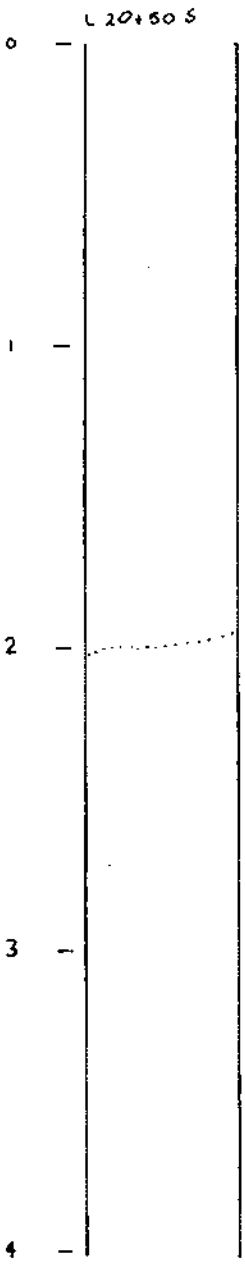
DELSANTO

TRDS 88-3

1:50 SEPT. 88

↓ 270°

Sample	Int (m)	Ag	Cu	Pb	Zn (ppm)
TBBB-30	0-2	2.0	500	47	4739
TBBB-31	2-4	0.5	126	12	136



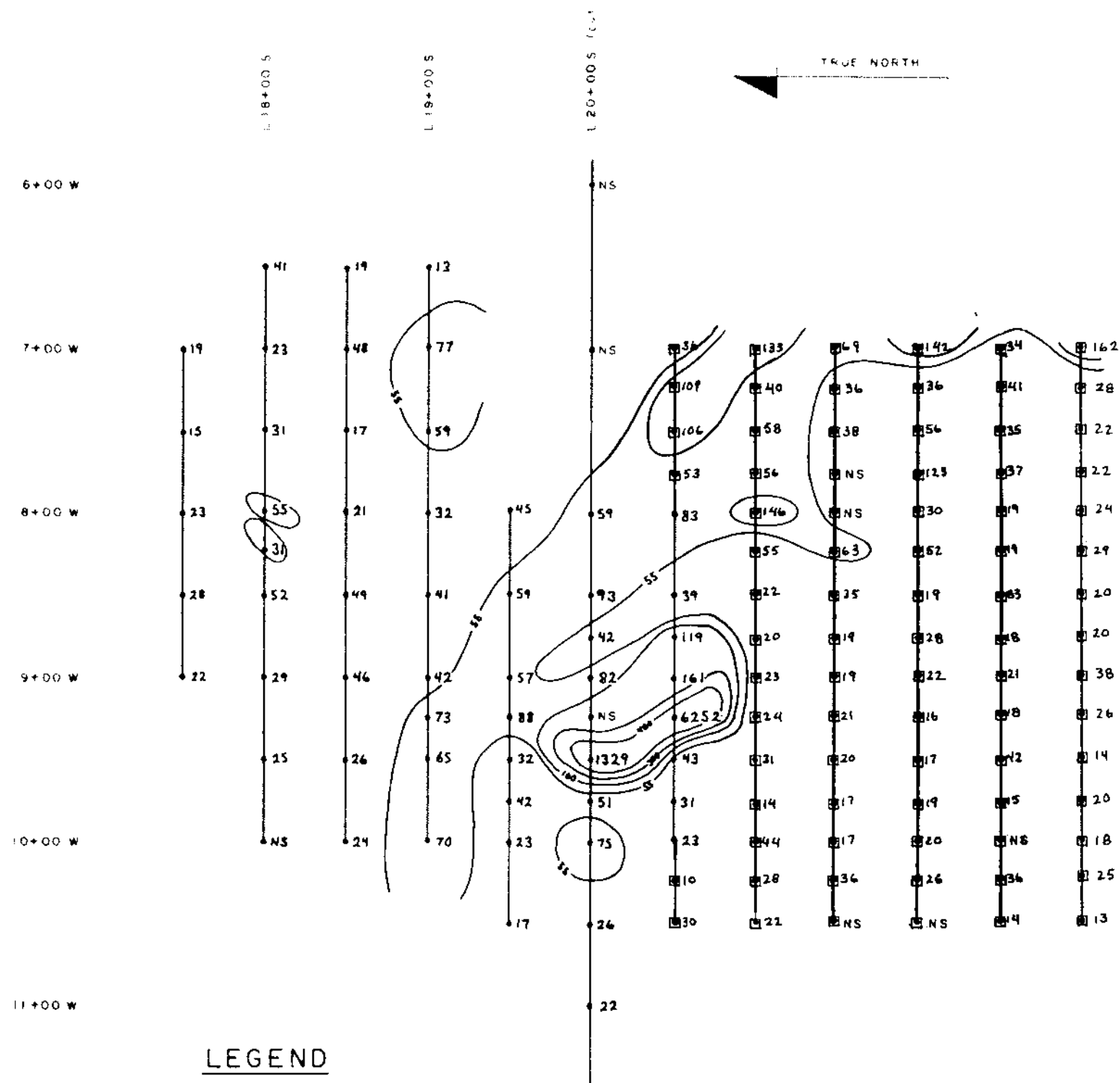
Grey Calcareous Phyllite

Rusty, Argillically Altered?  
Calcareous Phyllite

DELSANTO

TRDS 88-4

1:25 SEPT. 88



### LEGEND

— □ — GRID LINE W/ STATIONS (● 1987 □ 1988)

NS NO SAMPLE TAKEN

○ CAT TRENCH (OLD)

0 - 55 ppm BACKGROUND

55 - 100 ppm ANOMALOUS

> 100 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 55, 100, 200, 400 ppm

SCALE 1:1000



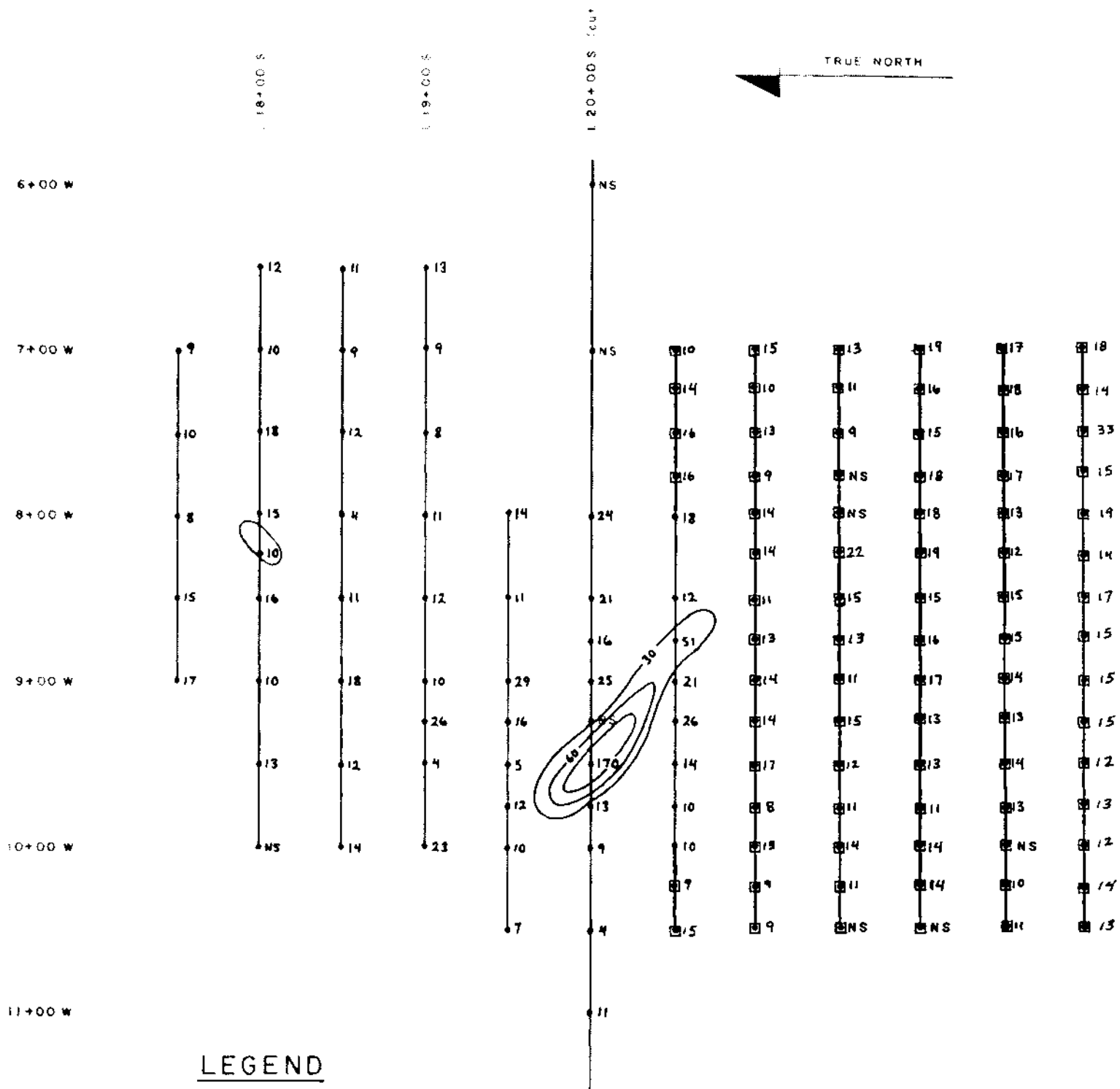
NB Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
Delsanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L18+00 S , L20+00 S

— COPPER —

PILOT MANAGEMENT INC March 1988 FIG. 12



### LEGEND

—●—■— GRID LINE W/ STATIONS ( ● 1987 ■ 1988 )

NS NO SAMPLE TAKEN

○ CAT TRENCH (OLD)

0 - 30 ppm BACKGROUND

31 - 60 ppm ANOMALOUS

> 60 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 30, 60, 120 ppm

SCALE 1:1000



NB. Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DelSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L18+00 S , L20+00 S

—LEAD—

PILOT MANAGEMENT INC

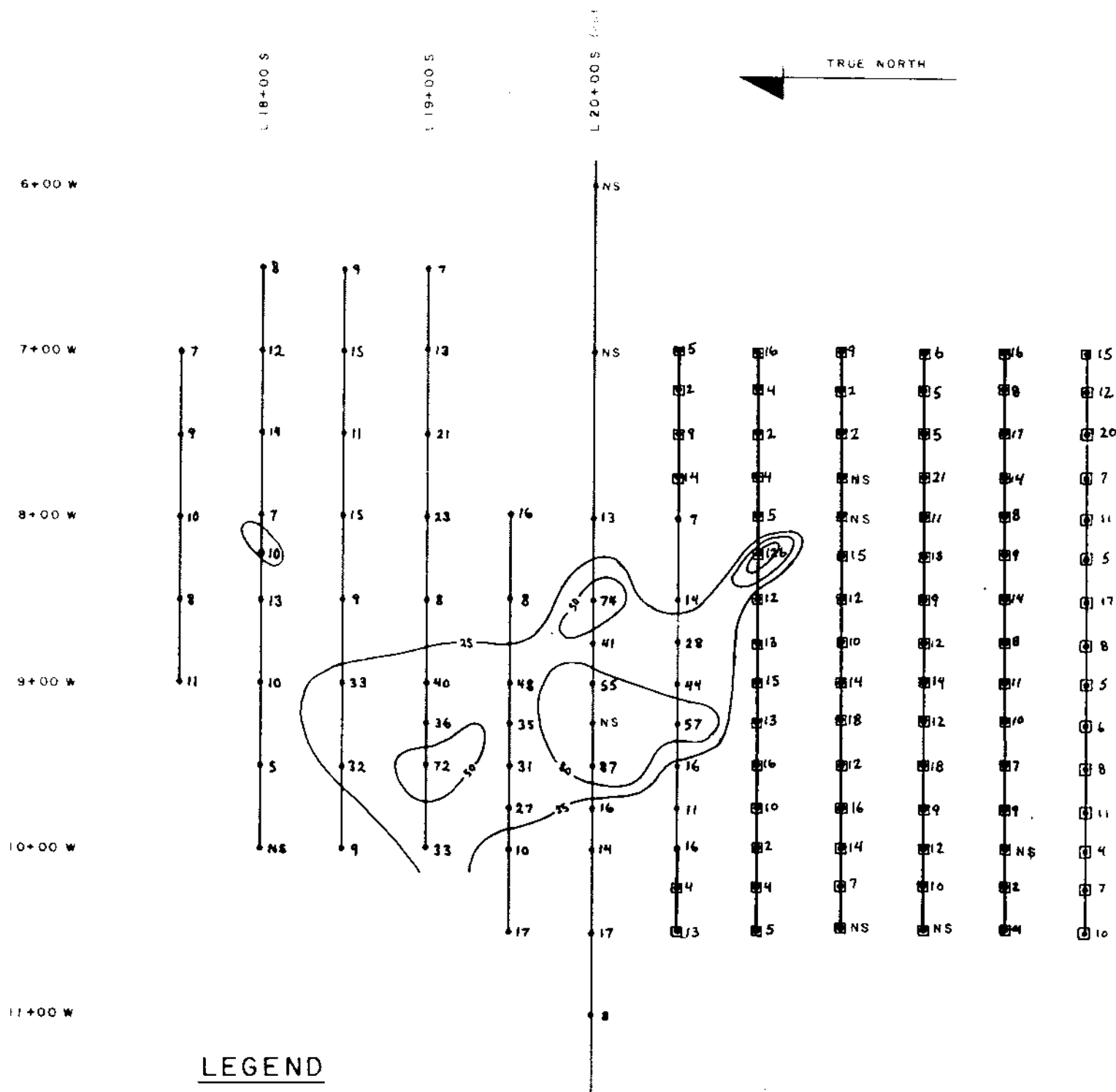
March 1988

FIG. 13









### LEGEND

—●—      GRID LINE W/ STATIONS (● 1987      ■ 1988)

NS      NO SAMPLE TAKEN

○      CAT TRENCH (OLD)

0 - 15 ppm      BACKGROUND

16 - 50 ppm      ANOMALOUS

> 50 ppm      HIGHLY ANOMALOUS

VALUES CONTOURED AT 25, 50 ppm

SCALE 1:1000



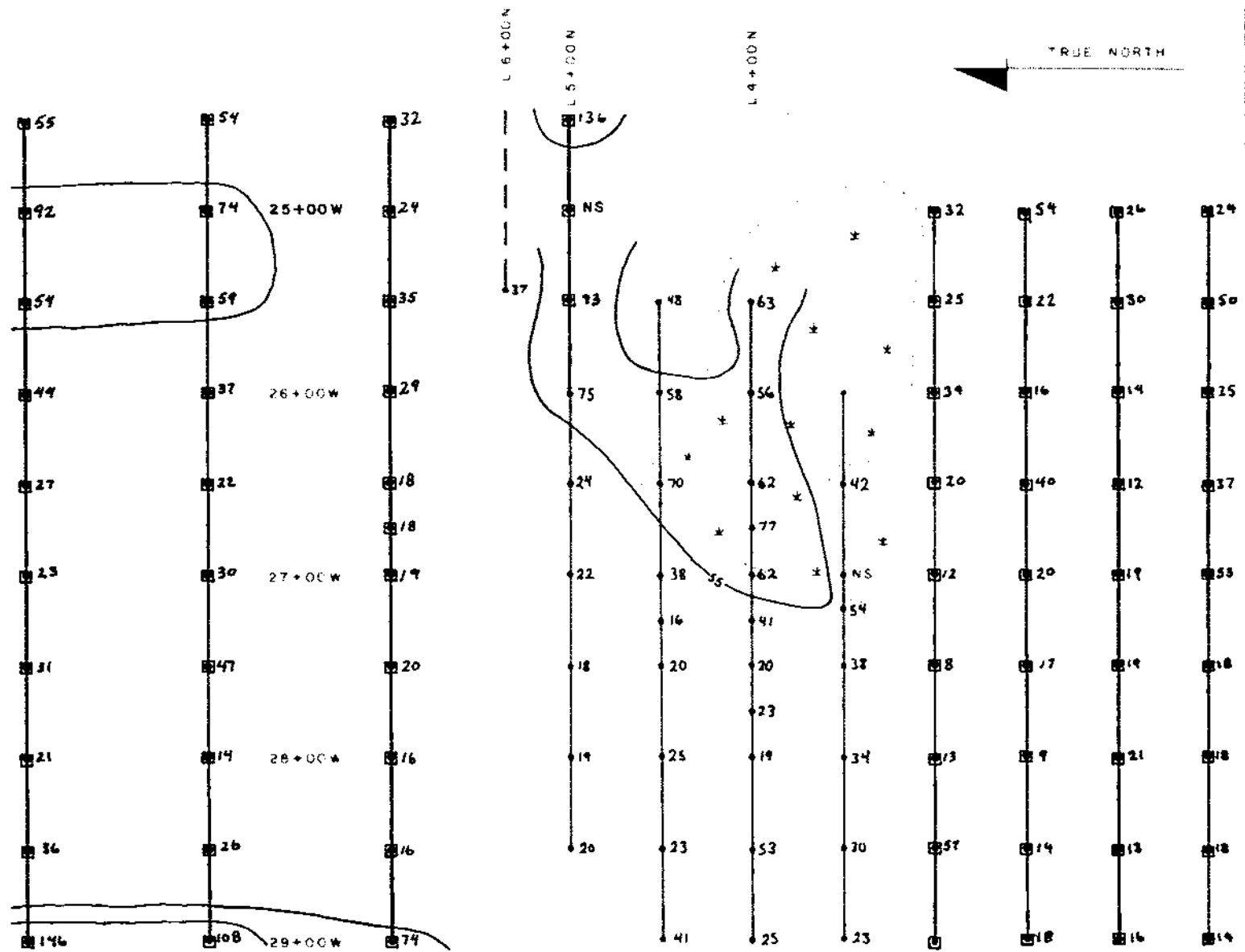
NS: Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DeSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L18+00 S , L20+00 S

—ARSENIC—

PILOT MANAGEMENT INC      March 1988      FIG. 16



### LEGEND

- □ — GRID LINE W/ STATIONS (● 1987 □ 1988)
- — — OLD GRID
- NS NO SAMPLE TAKEN
- \* SWAMP

- 0 - 55 ppm BACKGROUND
- 56 - 100 ppm ANOMALOUS
- > 100 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 55 ppm

SCALE 1:1000



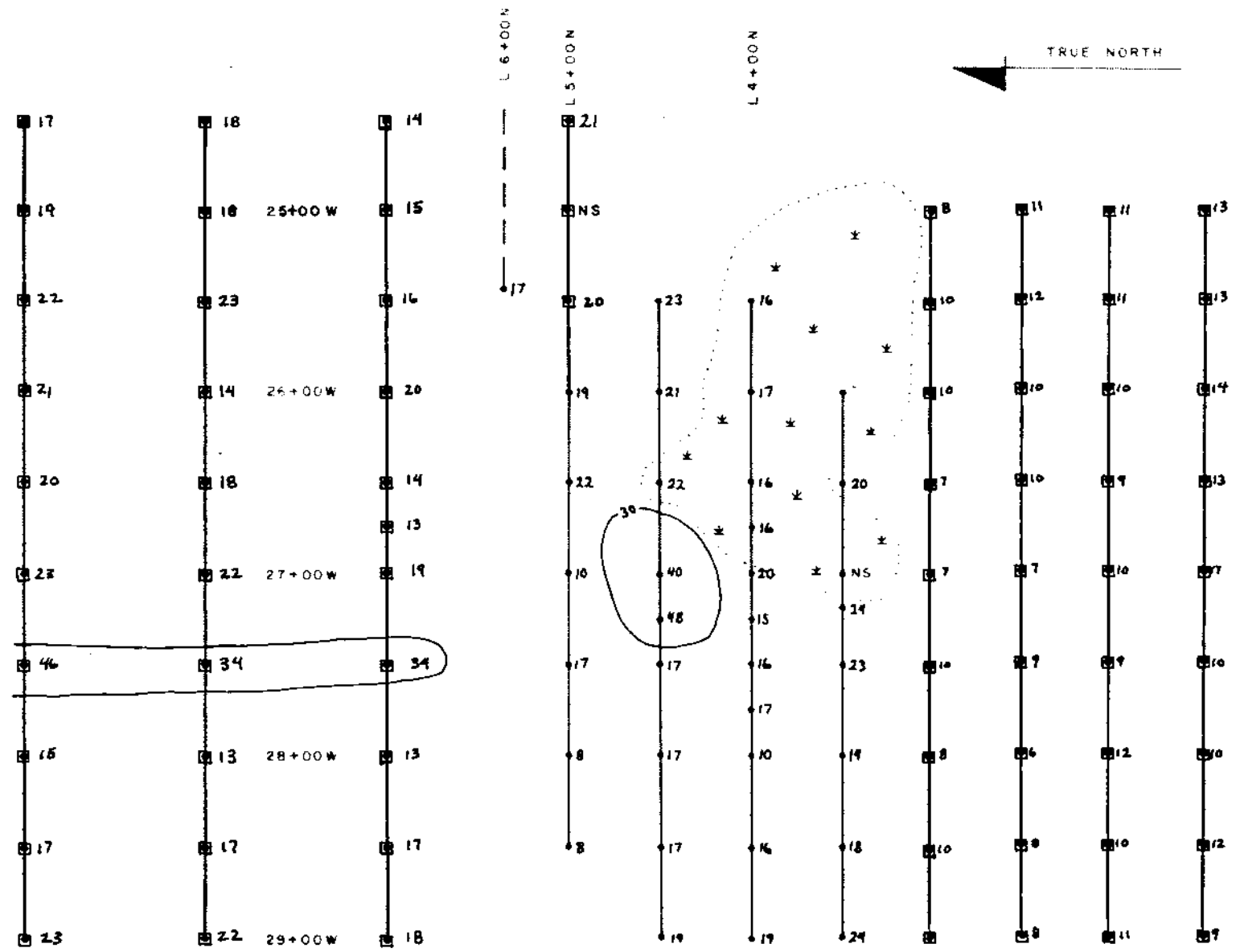
NB. Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DeISanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L 4+00N

— COPPER —

PILOT MANAGEMENT INC March 1988 FIG. 17



### LEGEND

—□— GRID LINE W/ STATIONS ( • 1987 □ 1988 )

— — — OLD GRID

NS NO SAMPLE TAKEN

⊛ SWAMP

0 - 30 ppm BACKGROUND

31 - 60 ppm ANOMALOUS

> 60 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 30 ppm

SCALE 1:1000



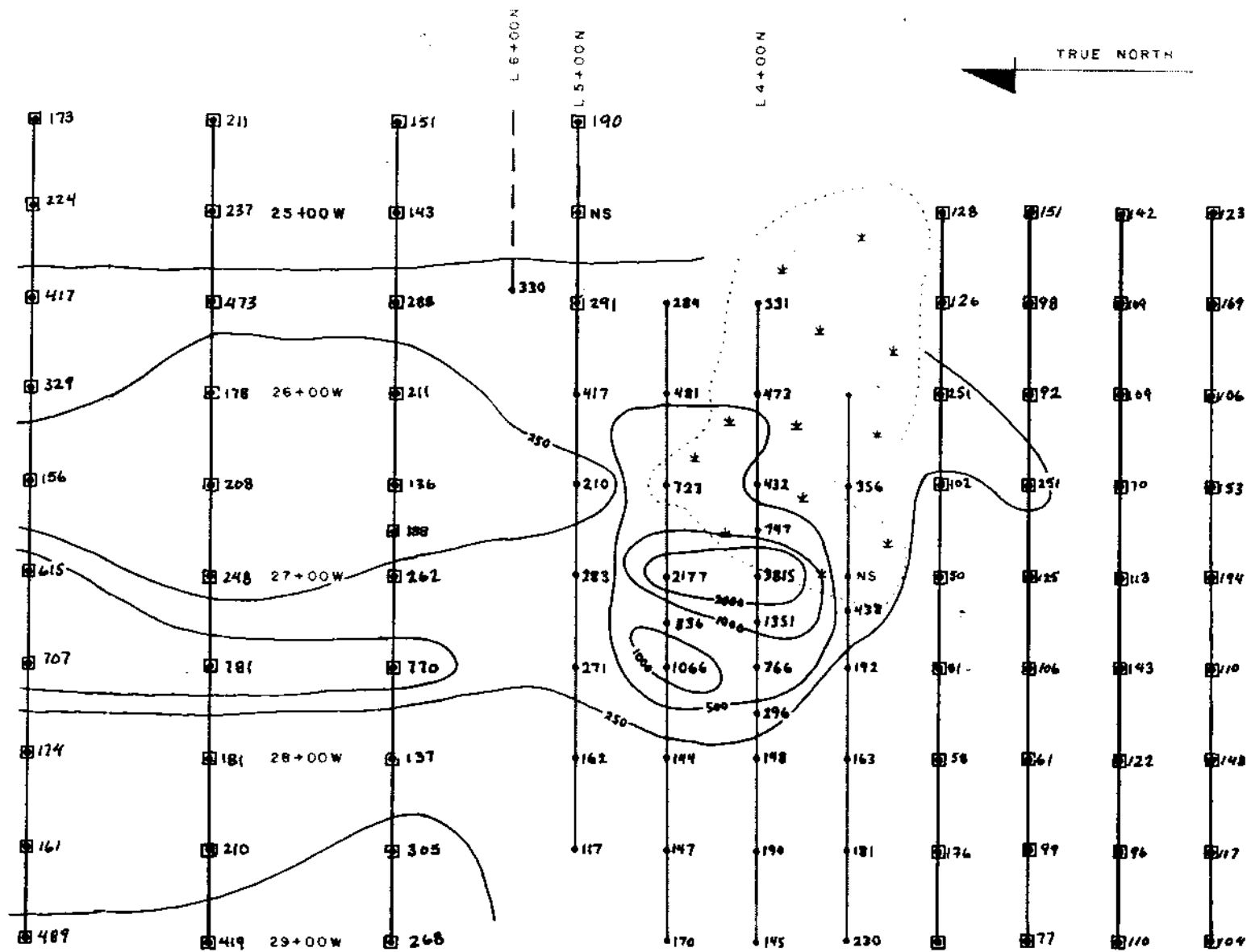
NB. Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DelSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L 4+00N

—LEAD—

PILOT MANAGEMENT INC March 1988 FIG. 18



### LEGEND

—●—■— GRID LINE W/ STATIONS ( ● 1987 ■ 1988 )

— OLD GRID

NS NO SAMPLE TAKEN

⋆ ⋆ SWAMP

0 - 250 ppm BACKGROUND

251 - 500 ppm ANOMALOUS

> 500 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 250, 500, 1000, 2000 ppm

SCALE 1:1000



NB: Grid is not in metric units

CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
Delsanto Grid

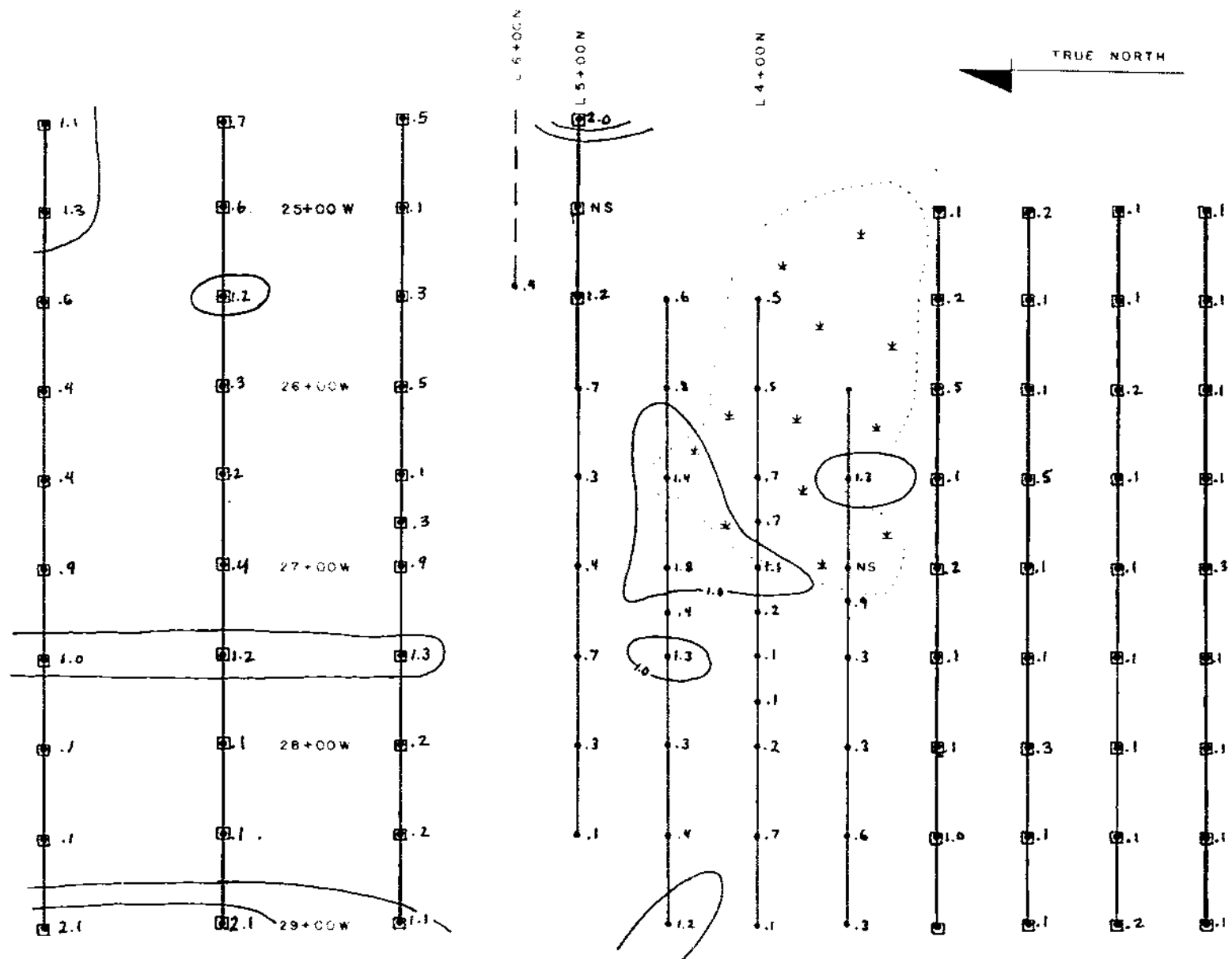
FOLLOW-UP SOIL GEOCHEMISTRY  
L 4+00N

-ZINC-

PILOT MANAGEMENT INC

March 1988

FIG. 19



### LEGEND

—●— [ ] — GRID LINE w/ STAT ONS (● 1987 [ ] 1988)

— — — OLD GRID

NS NO SAMPLE TAKEN

\* \* SWAMP

0 - 1.0 ppm BACKGROUND

1.1 - 2.0 ppm ANOMALOUS

> 2.0 ppm HIGHLY ANOMALOUS

VALUES CONTOURED AT 1.0, 2.0 ppm

SCALE 1:1000



NB. Grid is not in metric units

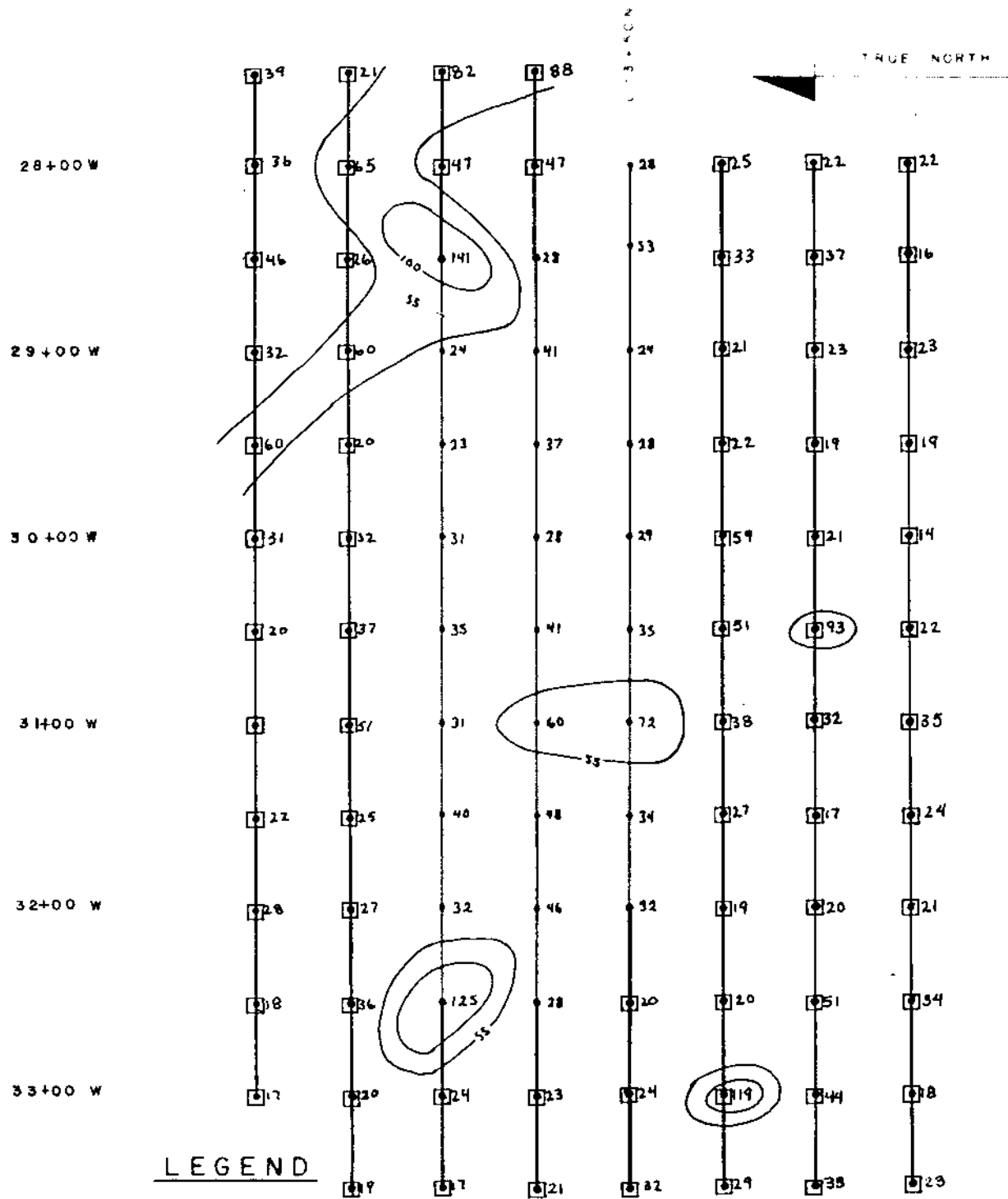
CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DeLSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L 4+00N

— SILVER —

PILOT MANAGEMENT INC March 1988 FIG. 20



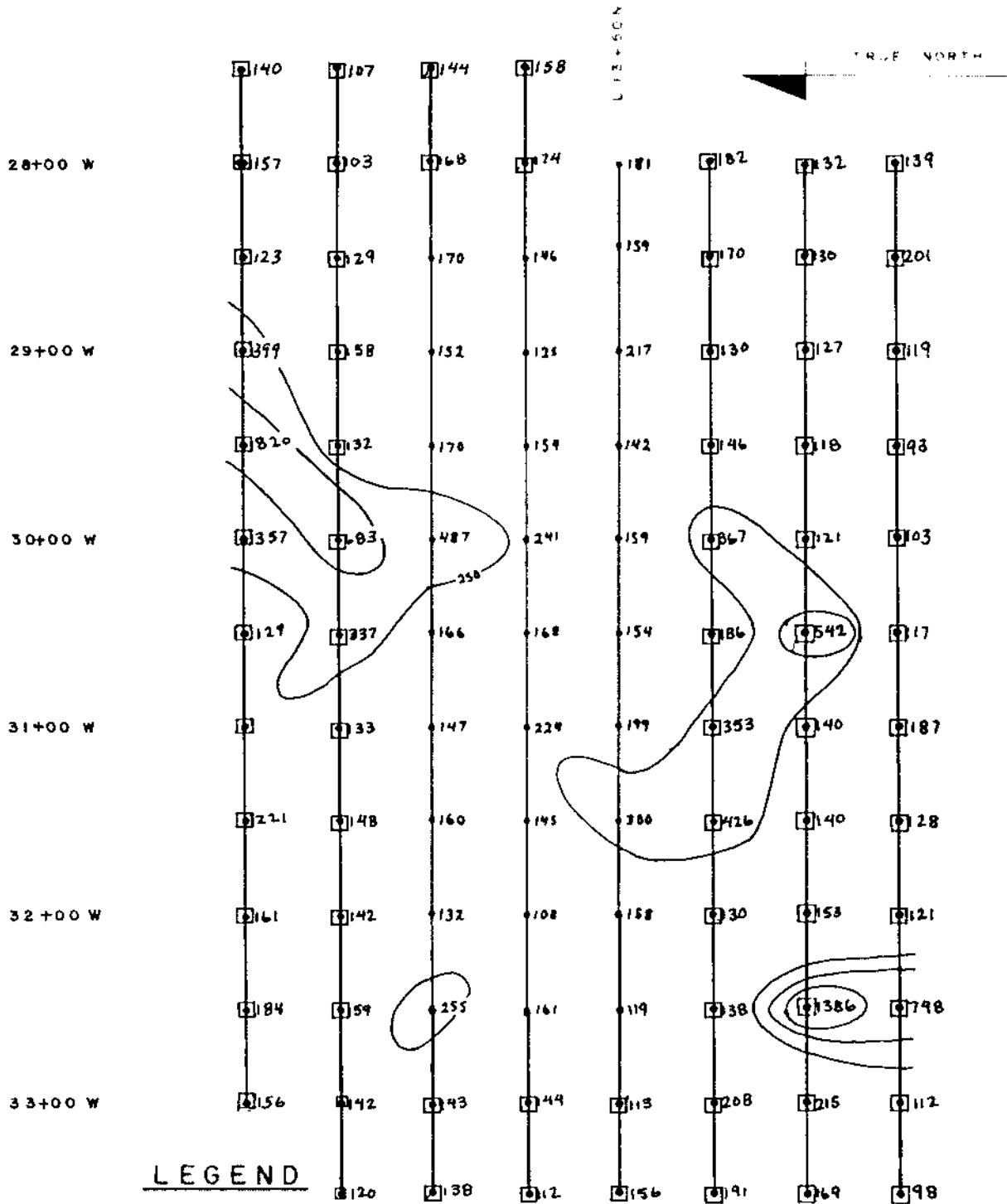


CANADIAN UNITED MINERALS INC  
 DELSANTO PROJECT  
 DelSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
 L 14+00 N  
**- COPPER -**





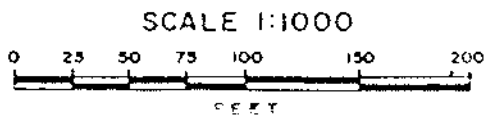


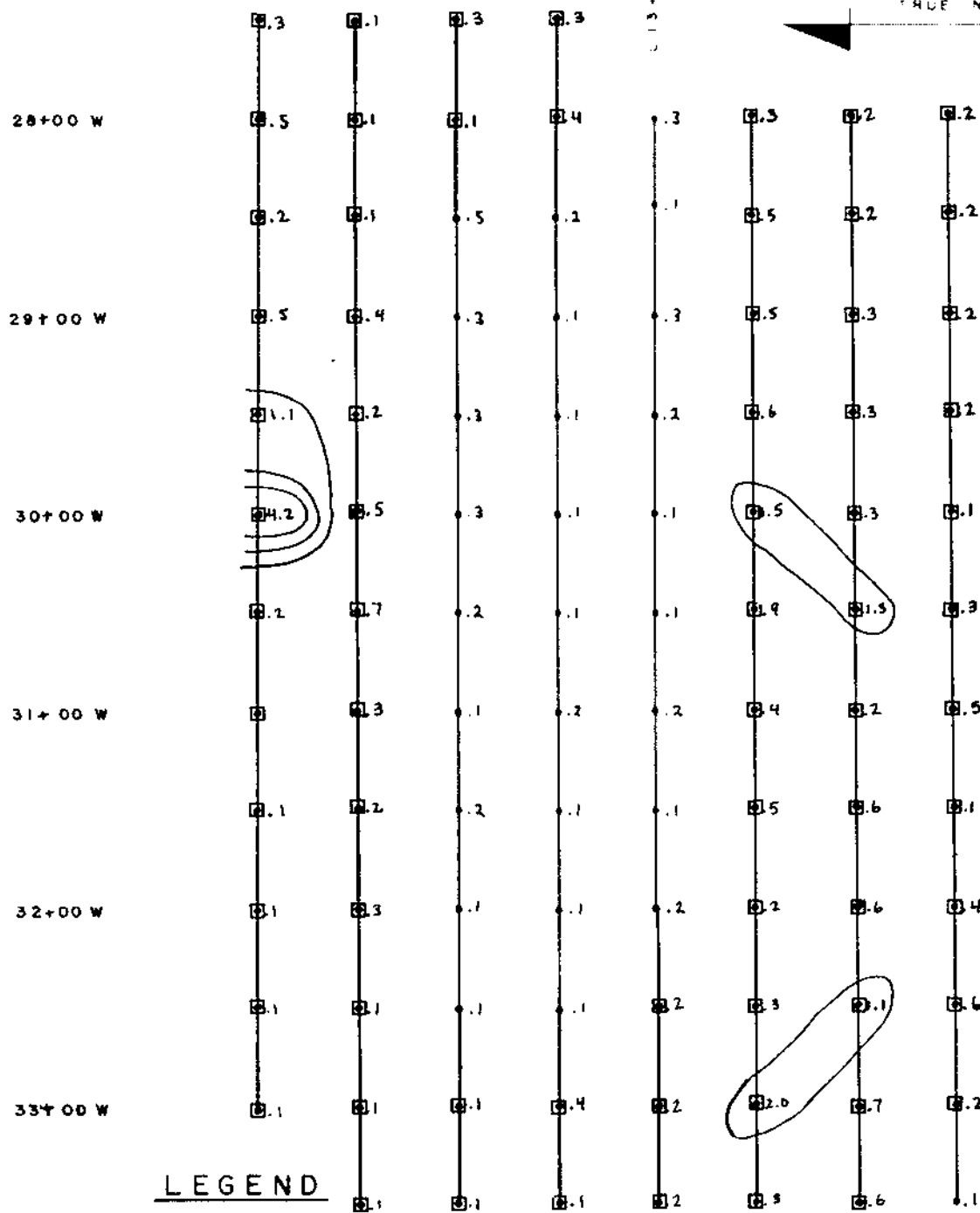
NB. Grid is not in metric units

CANADIAN UNITED MINERALS INC  
 DELSANTO PROJECT  
 DelSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
 L 14+00 N

— ZINC —





**LEGEND**

- GRID LINE W/ STATIONS 1987
  - GRID LINE W/ STATIONS 1988
  - 0 - 1.0 ppm BACKGROUND
  - 1.1 - 2.0 ppm ANOMALOUS
  - > 2.0 ppm HIGHLY ANOMALOUS
- VALUES CONTOURED AT 1.0, 2.0, >2.0 ppm

NB Grid is not in metric units



CANADIAN UNITED MINERALS INC  
DELSANTO PROJECT  
DeSanto Grid

FOLLOW-UP SOIL GEOCHEMISTRY  
L 14+00 N  
—SILVER—



APPENDIX 2

ACME ANALYTICAL LABORATORIES LTD.  
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
 PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: JULY 11 1988

*July 14/88*

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 PB SR CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1-P5 SOIL P6 SILT P7 ROCK

ASSAYER: *C. Leong* D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

CUN MANAGEMENT INC. PROJECT-DEL SANTO File # 88-2570 Page 1

*ANALYSIS*  
*3*

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
1550N 3350W	18	11	141	.1	13
1550N 3300W	17	13	156	.1	18
1550N 3250W	18	14	184	.1	13
1550N 3200W	28	12	161	.1	21
1550N 3150W	22	13	221	.1	18
1550N 3050W	20	13	129	.2	17
1550N 3000W	31	16	357	4.2	25
1550N 2950W	60	39	820	1.1	251
1550N 2900W	32	96	399	.5	158
1550N 2850W	46	11	123	.2	18
1550N 2800W	36	13	157	.5	17
1550N 2750W	39	10	140	.3	7
1500N 3350W	19	13	120	.1	24
1500N 3300W	20	11	142	.1	16
1500N 3250W	36	17	159	.1	7
1500N 3200W	27	11	142	.3	8
1500N 3150W	25	10	148	.2	19
1500N 3100W	51	13	133	.3	13
1500N 3050W	37	57	337	.7	102
1500N 3000W	32	16	683	.5	216
1500N 2950W	20	10	132	.2	17
1500N 2900W	60	12	158	.4	17
1500N 2850W	26	12	129	.1	13
1500N 2800W	65	12	103	.1	13
1500N 2750W	21	11	107	.1	7
1450N 3350W	17	12	138	.1	8
1450N 3300W	24	17	143	.1	17
1450N 2800W	47	15	168	.1	21
1450N 2750W	82	11	144	.3	13
L1400N 3350W	21	8	112	.1	11
L1400N 3300W	23	11	144	.4	15
L1400N 2800W	47	17	174	.4	19
L1400N 2750W	88	17	158	.3	13
1350N 3350W	32	13	156	.2	7
1350N 3300W	24	12	113	.2	17
1350N 3250W	20	10	119	.2	8
STD C	58	39	132	6.7	38

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
L13N 3350W	29	13	191	.3	2
L13N 3300W	119	16	208	2.0	6
L13N 3250W	20	14	138	.3	13
L13N 3200W	19	15	130	.2	16
L13N 3150W	27	16	426	.5	20
L13N 3100W	38	24	353	.4	9
L13N 3050W	51	14	186	.9	19
L13N 3000W	59	16	367	1.5	26
L13N 2950W	22	14	146	.6	11
L13N 2900W	21	14	130	.5	16
L13N 2850W	33	17	170	.5	26
L13N 2800W	25	27	182	.3	32
L12+50N 3350W	33	13	169	.6	16
L12+50N 3300W	44	17	215	.7	19
L12+50N 3250W	51	16	1386	1.1	11
L12+50N 3200W	20	12	153	.6	15
L12+50N 3150W	17	14	140	.6	13
L12+50N 3100W	32	15	140	.2	11
L12+50N 3050W	93	14	542	1.3	38
L12+50N 3000W	21	13	121	.3	19
L12+50N 2950W	19	11	118	.3	14
L12+50N 2900W	23	14	127	.3	15
L12+50N 2850W	37	12	130	.2	15
L12+50N 2800W	22	12	132	.2	15
L12N 3350W	23	10	98	.1	16
L12N 3300W	18	15	112	.2	13
L12N 3250W	34	17	748	.6	14
L12N 3200W	21	12	121	.4	13
L12N 3150W	24	13	128	.1	15
L12N 3100W	35	18	187	.5	30
L12N 3050W	22	18	117	.3	27
L12N 3000W	14	11	103	.1	15
L12N 2950W	19	11	93	.2	16
L12N 2900W	23	14	119	.2	16
L12N 2850W	16	15	201	.2	20
L12N 2800W	22	13	139	.2	21
STD C	58	40	132	6.8	41

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
8+00N 2900W	146	23	489	2.1	20
8+00N 2850W	36	17	161	.1	24
8+00N 2800W	21	15	174	.1	16
8+00N 2750W	31	46	707	1.0	46
8+00N 2700W	23	23	615	.9	22
8+00N 2650W	27	20	156	.4	23
8+00N 2600W	44	21	329	.4	36
8+00N 2550W	54	22	417	.6	27
8+00N 2500W	92	19	224	1.3	25
8+00N 2450W	55	17	173	1.1	24
7+00N 2900W	108	22	419	2.1	18
7+00N 2850W	26	17	210	.1	16
7+00N 2800W	14	13	181	.1	15
7+00N 2750W	47	34	781	1.2	56
7+00N 2700W	30	22	248	.4	14
7+00N 2650W	22	18	208	.2	24
7+00N 2600W	37	14	178	.3	21
7+00N 2550W	59	23	473	1.2	22
7+00N 2500W	74	18	237	.6	23
7+00N 2450W	54	18	211	.7	22
6+00N 2900W	74	18	268	1.1	17
6+00N 2850W	16	17	305	.2	19
6+00N 2800W	16	13	137	.2	14
6+00N 2750W	20	34	770	1.3	35
6+00N 2700W	19	19	262	.9	28
6+00N 2675W	18	13	188	.3	19
6+00N 2650W	18	14	136	.1	21
6+00N 2600W	29	20	211	.5	21
6+00N 2550W	35	16	288	.3	20
6+00N 2500W	24	15	143	.1	22
6+00N 2450W	32	14	151	.5	15
5+00N 2550W	93	20	291	1.2	26
5+00N 2450W	136	21	190	2.0	26
L20+50S 10+50W	30	15	118	.2	13
L20+50S 10+25W	10	9	38	.1	4
L20+50S 775W	53	16	193	.3	14
STD C	59	39	132	6.6	42

APPROX  
2

APPROX 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
L20+50S 750W	106	16	335	1.7	9
L20+50S 725W	109	14	192	.7	2
L20+50S 700W	36	10	88	.1	5
L21+00S 10+50W	22	9	106	.2	5
L21+00S 10+25W	28	9	79	.2	4
L21+00S 10+00W	44	13	203	.1	2
L21+00S 9+75W	14	8	89	.1	10
L21+00S 9+50W	31	17	195	.1	16
L21+00S 9+25W	24	14	236	.5	13
L21+00S 9+00W	23	14	235	.3	15
L21+00S 8+75W	20	13	142	.2	13
L21+00S 8+50W	22	11	128	.1	12
L21+00S 8+25W	55	14	120	.2	126
L21+00S 8+00W	146	14	103	.5	5
L21+00S 7+75W	56	9	68	.3	4
L21+00S 7+50W	58	13	95	.3	2
L21+00S 7+25W	40	10	144	.4	4
L21+00S 7+00W	133	15	122	.5	16
L21+50S 1025W	36	11	153	.1	7
L21+50S 1000W	17	14	115	.1	14
L21+50S 975W	17	11	99	.1	16
L21+50S 950W	20	12	100	.1	12
L21+50S 925W	21	15	165	.1	18
L21+50S 900W	19	11	120	.1	14
L21+50S 875W	19	13	133	.2	10
L21+50S 850W	35	15	192	.3	12
L21+50S 825W	63	22	232	1.0	15
L21+50S 750W	38	9	111	.2	2
L21+50S 725W	36	11	112	.1	2
L21+50S 700W	69	13	202	.8	9
L22+00S 10+25W	26	14	141	.2	10
L22+00S 10+00W	20	14	104	.1	12
L22+00S 9+75W	19	11	91	.1	9
L22+00S 9+50W	17	13	121	.2	18
L22+00S 9+25W	16	13	134	.3	12
L22+00S 9+00W	22	17	181	.1	14
STD C	57	38	132	6.6	40



SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
L22+00S 8+75W	28	16	154	.1	12
L22+00S 8+50W	19	15	138	.1	9
L22+00S 8+25W	52	19	173	.5	13
L22+00S 8+00W	30	18	176	.4	11
L22+00S 7+75W	123	18	166	.5	21
L22+00S 7+50W	56	15	193	.2	5
L22+00S 7+25W	36	16	248	.2	5
L22+00S 7+00W	142	19	272	1.2	6
L22+50S 1050W	14	11	77	.1	4
L22+50S 1025W	36	10	128	.1	2
L22+50S 975W	15	13	97	.1	9
L22+50S 950W	42	14	150	.5	7
L22+50S 925W	18	13	116	.2	10
L22+50S 900W	21	14	138	.1	11
L22+50S 875W	18	15	133	.1	8
L22+50S 850W	83	15	128	.7	14
L22+50S 825W	19	12	119	.1	9
L22+50S 800W	19	13	175	.1	8
L22+50S 775W	37	17	180	.5	14
L22+50S 750W	35	16	210	.4	17
L22+50S 725W	41	18	216	.4	8
L22+50S 700W	34	17	213	.2	16
L23+00S 10+50W	13	13	115	.1	10
L23+00S 10+25W	25	14	102	.1	7
L23+00S 10+00W	18	12	106	.1	4
L23+00S 9+75W	20	13	129	.1	11
L23+00S 9+50W	14	12	112	.1	8
L23+00S 9+25W	26	15	179	.4	6
L23+00S 9+00W	38	15	153	.5	5
L23+00S 8+75W	20	15	175	.1	8
L23+00S 8+50W	20	17	148	.1	17
L23+00S 8+25W	29	14	171	.8	5
L23+00S 8+00W	24	19	193	.4	11
L23+00S 7+75W	22	15	189	.4	7
L23+00S 7+50W	22	33	147	.4	20
L23+00S 7+25W	28	14	126	.3	12
L23+00S 7+00W	162	18	192	1.5	15
STD C	57	39	132	6.5	37

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
RR 88-03	19	10	79	.3	12
RR 88-05	20	11	81	.2	12
RR 88-06	24	15	102	.2	17
RR 88-07	50	19	129	.2	14
RR 88-08	40	15	103	.2	13

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
RR 88-09	175	41	192	.8	51
RR 88-10	359	46	391	1.1	52
RR 88-11	600	155	213	3.6	44
RR 88-12	34	76	324	.4	13
RR 88-13	69	1525	2310	.8	23
RR 88-14	10	1222	2494	.7	12
RR 88-15	10	10512	29539	2.7	17
RR 88-16	37	49	400	1.4	23
RR 88-17	45	229	2815	1.4	22
RR 88-18	47	18	266	.7	20
RR 88-19	21	33	1142	1.1	17
RR 88-20	31	28	2470	1.5	19
RR 88-21	38	32	4364	1.9	22
TB 88-23	593	15	2795	1.9	13
TB 88-24	1345	14	595	4.5	21
TB 88-25	100	17	135	.3	18
TB 88-26	86	15	96	.2	13
TB 88-27	113	13	142	.2	7
TB 88-28	84	20	104	.3	21
TB 88-29	42	16	337	.6	26
TB 88-30	500	47	4739	2.0	75
TB 88-31	126	12	136	.5	22
STD C	57	42	132	6.6	39

**GEOCHEMICAL ANALYSIS CERTIFICATE**

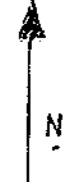
ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR NH FK SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1 SOIL P2 CORE

ASSAYER: *C. Leong*. D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CUN MANAGEMENT INC. FILE # 88-3577 Page 1

*ANOMALY  
2*

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM
L3+00N 28+50W	57	10	176	1.0	15
L3+00N 28+00W	13	8	58	.1	12
L3+00N 27+50W	8	10	81	.1	7
L3+00N 27+00W	12	7	50	.2	5
L3+00N 26+50W	20	7	102	.1	16
L3+00N 26+00W	34	10	251	.5	10
L3+00N 25+50W	25	10	126	.2	10
L3+00N 25+00W	32	8	128	.1	17
L2+50N 29+00W	18	8	77	.1	16
L2+50N 28+50W	14	8	99	.1	10
L2+50N 28+00W	9	6	61	.3	10
L2+50N 27+50W	17	9	106	.1	12
L2+50N 27+00W	20	7	125	.1	15
L2+50N 26+50W	40	10	251	.5	14
L2+50N 26+00W	16	10	92	.1	11
L2+50N 25+50W	22	12	98	.1	15
L2+50N 25+00W	54	11	151	.2	13
L2+00N 29+00W	16	11	110	.2	15
L2+00N 28+50W	13	10	96	.1	18
L2+00N 28+00W	21	12	122	.1	18
L2+00N 27+50W	19	9	143	.1	20
L2+00N 27+00W	19	10	113	.1	15
L2+00N 26+50W	12	9	70	.1	12
L2+00N 26+00W	14	10	109	.2	13
L2+00N 25+50W	30	11	109	.1	13
L2+00N 25+00W	26	11	142	.1	12
L1+50N 29+00W	14	9	104	.1	11
L1+50N 28+50W	18	12	117	.1	14
L1+50N 28+00W	18	10	148	.1	18
L1+50N 27+50W	18	10	110	.1	17
L1+50N 27+00W	53	17	194	.3	15
L1+50N 26+50W	37	13	153	.1	19
L1+50N 26+00W	25	14	106	.1	18
L1+50N 25+50W	50	13	169	.1	14
L1+50N 25+00W	24	13	123	.1	15
TB88-103	42	19	330	.2	59
STD C	58	37	128	7.2	37



BURN 6 BURN 4  
BURN 7 BURN 5

28w 24w 20w 16w 12w 8w 4w BLO

16N

12N

8N

4N

0

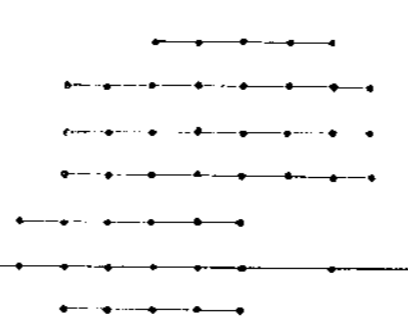
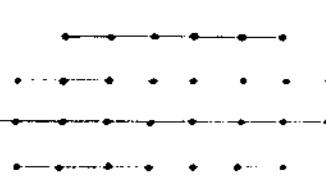
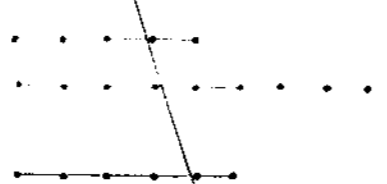
4S

8S

12S

16S

20S



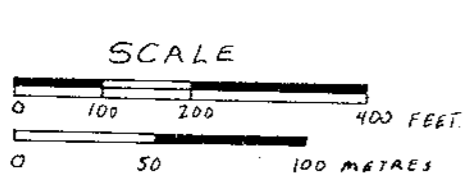
DEL 4 DEL 3

CREEK

AREA OF  
TRENCHING  
(SEE FIG. 4)

DEL SANTO 2 DEL SANTO 1  
DEL 2 DEL 1

ROAD TO HWY 16



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,874

DEL SANTO CLAIMS
GRID LOCATION
93L/10
FIGURE 33