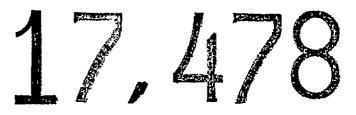
$\bigcirc$		
District Geolo	ogist, Smithers	Off Confidential: 89.03.16
ASSESSMENT RE	PORT 17478 MINING DIVISION: On	nineca
PROPERTY:	Delsanto	
LOCATION:	LAT 54 39 00 LONG 126 42 00 UTM 09 6058059 648397 NTS 093L10E	
CLAIM(S):		
	Can. United Min.	
AUTHOR(S):		
REPORT YEAR:	1988, 52 Pages	
COMMODITIES	Silver Ting Conner	
GEOLOGICAL	Silver,Zinc,Copper	
SUMMARY:	Hazelton Group tuffs and related ca	alcareous sedimentary rocks
	intruded by diorite, resulting in de	
	related stratabound pyrite-pyrrhotit	
	eralization.	
WORK		
	logical,Geochemical	
	L 25.0 ha	
	K 37 sample(s) ;CU,PB,ZN,AG,AS	
SOI	L 140 sample(s) ;CU,PB,ZN,AG,AS	
$\frown$	Map(s) - 1; Scale(s) - 1:5000	
() TREI		
MINFILE:	093L 025	

LOG NU. 1.108 RD. 2 ACTION: Date received reports back from amendments	LOG NO: 0617 ACTION:	RD.
FILE NG.	FILE NO:	

GEOLOGICAL BRANCH ASSESSMENT REPORT

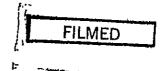


Geological, Geochemical and Trenching

Report on the

Delsanto Claim Group

for



Canadian-United Minerals, Inc. 325 - 1130 West Pender Street Vancouver, B.C.

NTS 93L/10E

Omineca Mining Division

Longitude 126° 41'W

Latitude 54° 44'N

Robert Holland B.Sc. F.G.A.C. CUN Management Group Inc.

June 15, 1988

# TABLE OF CONTENTS

Summary	1
Introduction	1
Location, Access and Physiography	2
Claim Status	2
History	3
General Geology	5
Property Geology	7
Delsanto Showing	7
Trenching	9
Mineralization	9
Diamond Drilling	10
Follow up Soil Geochemistry	11
Anomaly 1	12
Anomaly 2	14
Anomaly 3	14
Anomaly 4	16
Conclusions and Recommendations	16
References	18
Statement of Costs	19
Qualifications	20

ŕ

Appendix 1 Detailed Trench Maps Fig 5 - 10

 $\left( \right)$ 

Appendix 2 Follow-up Soil Geochemistry Fig. 12 - 21, 23 - 32

# LIST OF FIGURES

<u>Page</u>

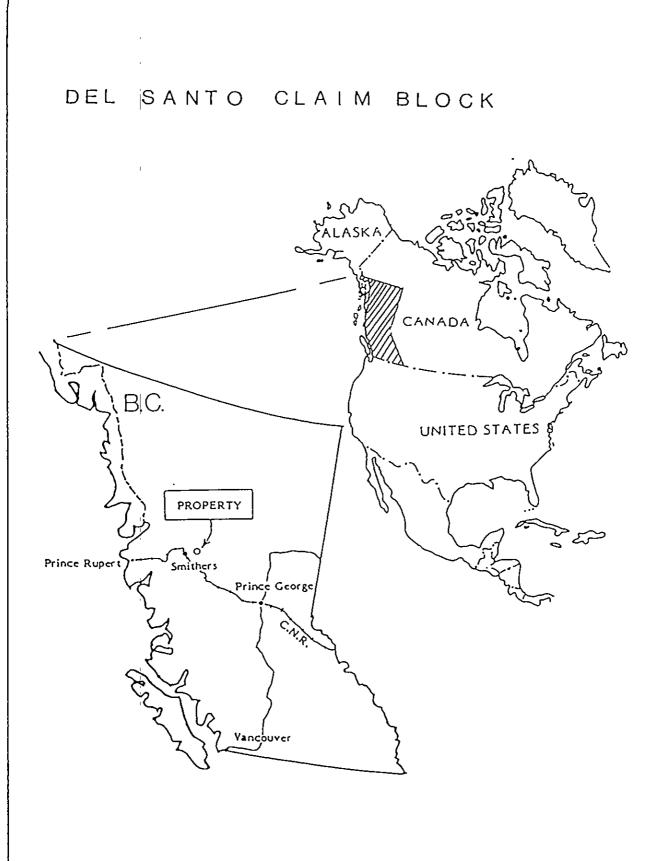
2

.

Figure	1	Delsanto Claim Bloc	k	Frontispiece
	2 3	Claim Map		4
	3	Regional Geology		6
	4	Trenches DST 87 - 1	. to 10	8
	5	Trench DST 87 - 1		Appendix 1
	6		2, 2A	Appendix 1
	7	Trenches DST 87 - 3	, 3A	Appendix 1
	8	Trench DST 87 - 4		Appendix 1
	9	Trenches DST 87 - 5	, 6	Appendix 1
	10,	Trenches DST 87 - 7	' to 10	Appendix 1
Figure		L18+005, L20+00S	Geology	13
	12	L18+005, L20+00S	Copper	Appendix 2
	13	L18+005, L20+00S	Lead	Appendix 2
	14	L18+005, L20+00S	Zinc	Appendix 2
	15	L18+005, L20+00S	Silver	Appendix 2
	16	L18+005, L20+00S	Arsenic	Appendix 2
	17	L4+00N	Copper	Appendix 2
	18	L4+00N	Lead	Appendix 2
	19 <sup>.</sup>	L4+00N	Zinc	Appendix 2
	20	L4+00N	Silver	Appendix 2
	21	L4+00N	Arsenic	Appendix 2
Figure	22	L6+00N	Geology	15
5	23	L6+00N	Copper	Appendix 2
	24	L6+00N	Lead	Appendix 2
	25	L6+00N	Zinc	Appendix 2
	26	L6+00N	Silver	Appendix 2
	27	L6+00N	Arsenic	Appendix 2
	28 <sup>]</sup>	L14+00N	Copper	Appendix 2
	<b>29</b>	L14+00N	Lead	Appendix 2
	30	L14+00N	Zinc	Appendix 2
	31	L14+00N	Silver	Appendix 2
	32	L14+00N	Arsenic	Appendix 2
	33	Grid Location		In Pocket
				III POCKEL

 $\bigcirc$ 

 $\left( \right)$ 



 $\bigcirc$ 

•

FIGURE 1

#### SUMMARY

The Delsanto claim group, located near Deep Creek in the Smithers, B.C. area, is held under option by Canadian-United Minerals, Inc. Work in 1987 included backhoe trenching and sampling of the Delsanto showing, and geochemical follow up and evaluation of previously obtained soil anomalies.

Geological mapping of the Delsanto showing indicates that mineralization is strata bound within sheared, calcareous sediments intruded by an altered diorite or granite sill. The presence of strong manganese alteration and abundant hornfels and skarn mineralogy suggest that mineralization is skarn related. The mineralized horizon was traced on surface for 170 meters but grades were low overall with scattered higher grade sections concentrated in the central portion. The best intersection obtained was 1.4 meters grading approximately 2.9% copper, 3.3% zinc and 307g/ton silver. Previous diamond drilling underneath this zone, however, failed to intersected significant economic sulfides. No further work is recommended on the Delsanto showing at this time, however, some prospecting is suggested to locate a second reported zone nearby.

Follow up soil sampling of previous soil anomalies outlined at least two significant, untested soil anomalies with values to 6252 ppm copper, 4378 ppm zinc, 9.0 ppm silver and 170 ppm lead. One of these was also associated with pyritic and sericitic alteration. A third anomaly was not adequately tested by follow up work. Future work should include expanding the grid soil coverage on all of these zones plus hand and backhoe trenching on at least the first two.

#### INTRODUCTION

In 1987, Canadian-United Minerals, Inc., optioned from Silver Tusk Mines Ltd., claims in the Deep Creek area totalling 144 units. The western 72 units of these claims are referred to in

this report as the Delsanto claim group. Work on the Delsanto group in 1987 included backhoe trenching and sampling of the main Delsanto showing, re-evaluation and logging of previously undocumented drill core, and follow up soil geochemistry and prospecting of previously outlined peripheral 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 Delsanto 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° 44'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 Delsanto 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 1000 to 1460 meters. Forest cover is thick, consisting mainly of balsam fir, spruce and lesser pine. Alder, willow and buck brush are also common in wetter area.

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.

#### CLAIM STATUS

The Delsanto claim group is comprised of the following contiguous claims located within the Omineca Mining Division.

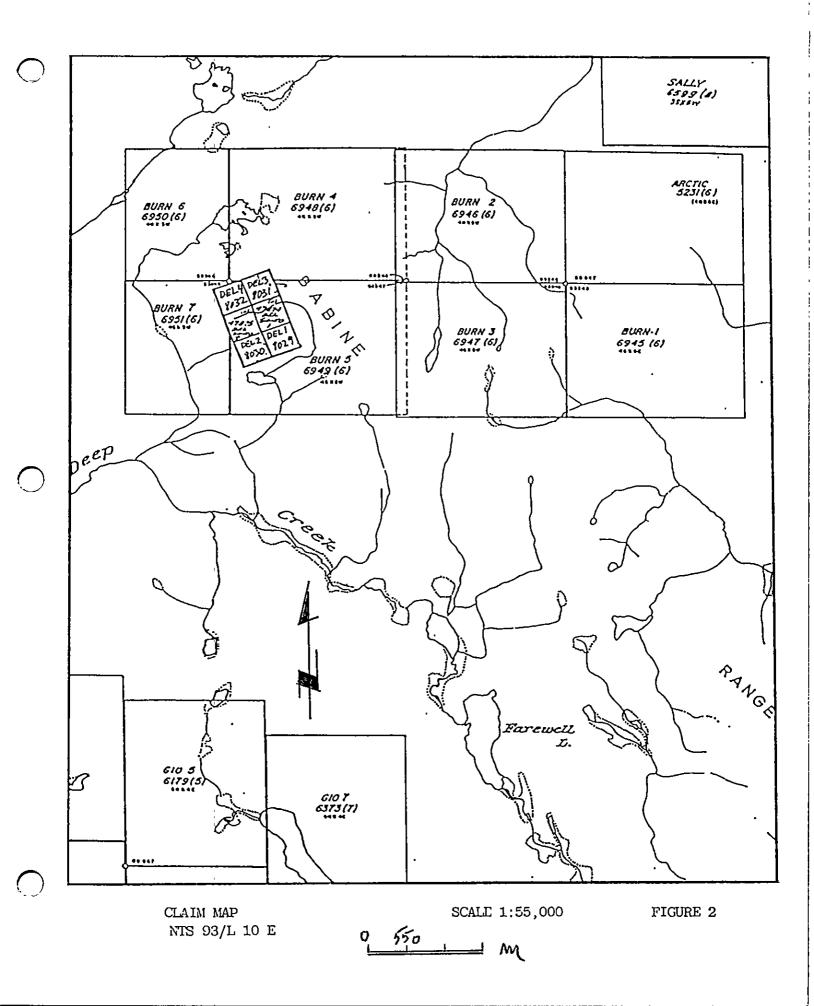
<u>Claim</u>	<u>Record #</u>	<u>Units</u>	<u>Expiry Date</u>
Burn 4	6948	20	April 3, 1989
Burn 5	6949	20	April 3, 1989
Burn 6	6950	12	April 3, 1989
Burn 7	6951	12	April 3, 1989
Del 1-4	8029-32	4	Oct, 21 1989
Delsanto	1-2 47874-5	2	Mar, 20 1989

#### HISTORY

The first recorded activity in the Delsanto 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 (Delsanto 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 porphyry copper prospects. 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 not are 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. This latter work is undocumented and was unknown to Canadian-United Minerals, Inc. prior to commencement of the 1987 program.



#### GENERAL GEOLOGY

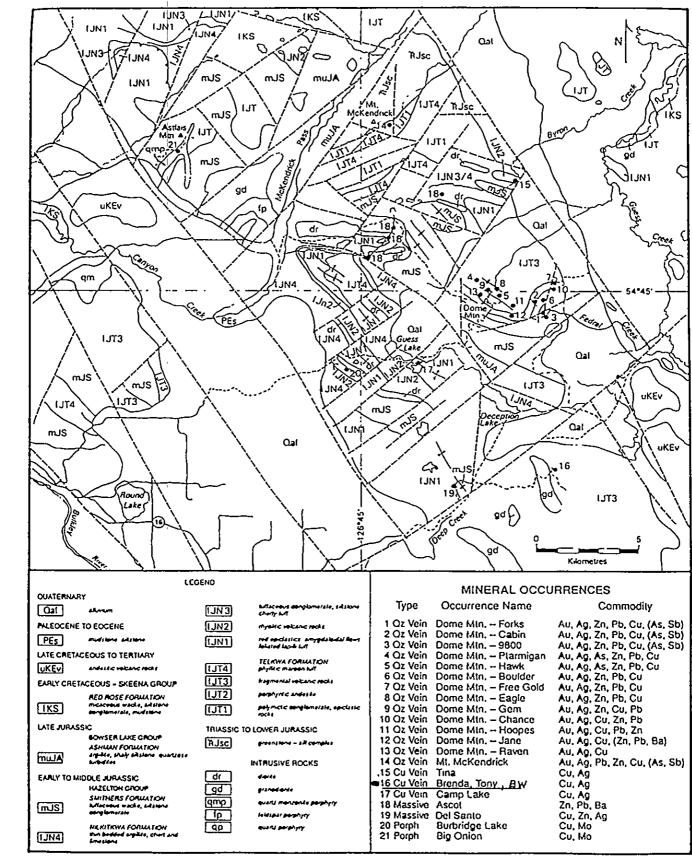
The claims area is underlain by subaerial to submarine volcanic, volcaniclastic and sedimentary rocks of the Hazelton Group. MacIntyre (1985) states that the Hazelton Group is an island-arc assemblage deposited in the northwest trending Hazelton Trough between Early to Middle Jurassic time. Tipper and 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 Formation.

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 Delsanto, 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 amygduloidal, 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 Delsanto 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.



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

#### 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.

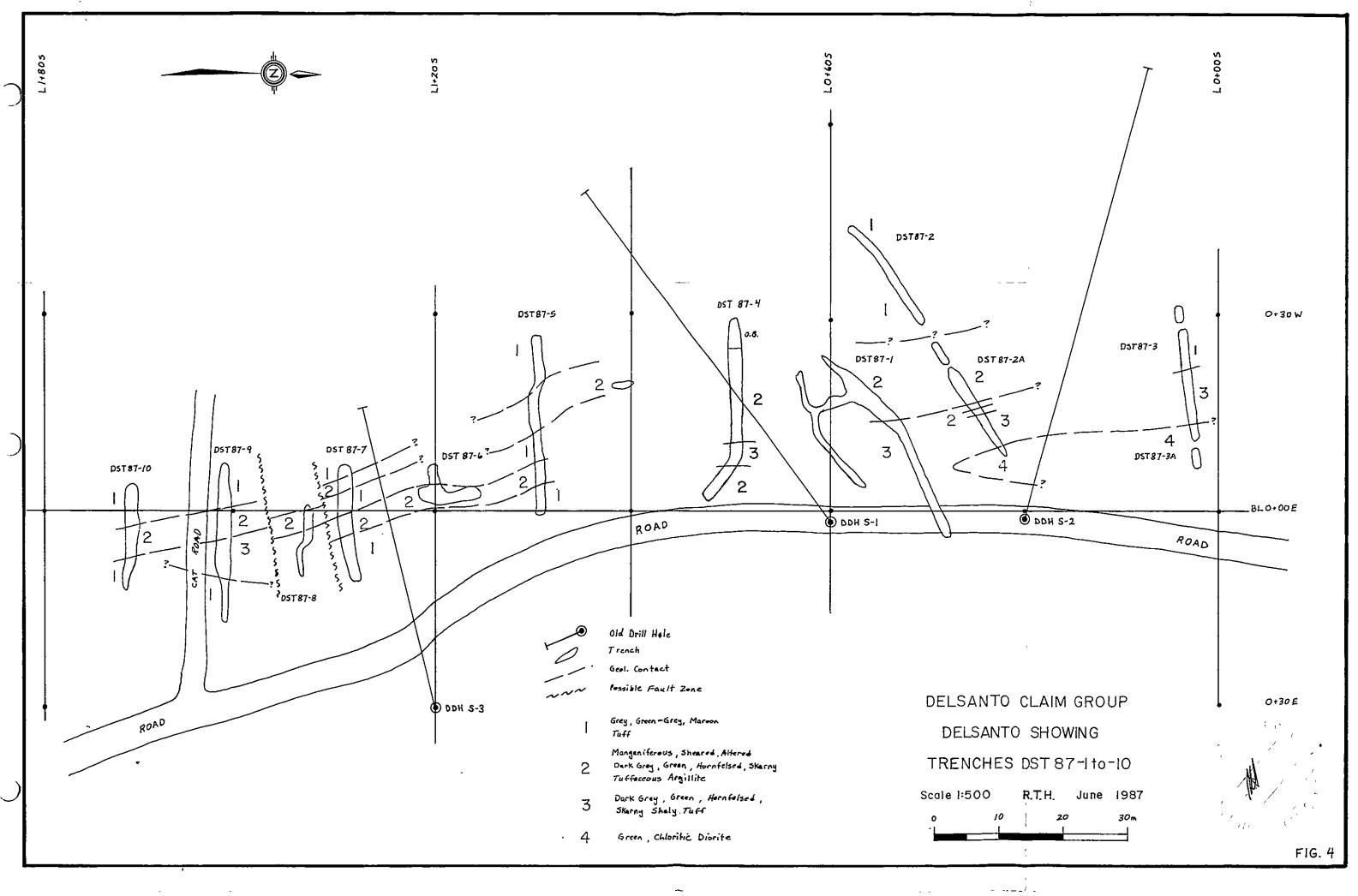
The Nilkitkwa rocks are intruded by several biotite-feldspar porphyry dykes and by a stock of similar composition which is exposed southeast of the main showing. Strong hornfelsing and skarnification are common in the sediments adjacent to these intrusive rocks.

#### Delsanto Showing

Geological investigations in 1987 were largely restricted to the Delsanto showing trench area and the interpretation of this work is shown in figure 4. Four lithological units were recognized in this area as summarized below. These rock types are labelled 1 to 4 in the accompanying trench sketches and no attempt has been made to relate these to previous geological studies.

a) Unit 1	Fine grained, massive, green to green-grey to maroon, andesitic tuff.
b) Unit 2	Rusty, manganiferous, dark grey to black to green, often strongly sheared, variably calcareous, hornsfelsed and skarny, tuffaceous argillite.
c) Unit 3	Dark grey to green, massive to bedded, variably calcareous, hornsfelsed and skarny argillaceous tuff.
d) Unit 4	Fine grained, massive, green, chlorite altered diorite.

As shown in figure 4, the showing area is underlain mainly by unit 1 tuffs with a predominant central interbed of unit 2 and 3 sediments. Bedding and shear planes are commonly at 160 - 180° dipping 70 - 90°E with local small folds. The sedimentary sequence narrows to the south and appears to be interfingered



-

with the tuff in this area. To the south and north, the sediments are strongly sheared and recessive weathering suggesting a possible major fault zone. In the north, the sediments widen sharply and are intruded by sill of strong propylitically altered intrusive (unit 4). This body has been termed diorite based largely on the high mafic content, but may also be an altered form of the granite.

Unit 2 and 3 rocks are similar in nature and are distinguished primarily by the higher skarn content of unit 3 and the strong limonite-manganese alteration, and increased shearing of unit 2. Unit 2 is also the primary host of sulfide mineralization in this area. Hornsfelsing and skarn alteration are related to the diorite and decrease noticeably to the south. As can be expected, unit 3 rocks are most common in the north, adjacent to this diorite.

#### TRENCHING

In June 1987, a program of backhoe trenching was initiated to further evaluate mineralization exposed at the main Delsanto showing. Several existing trenches were cleared out and extended, and seven new trenches were excavated to test the zone over some 170 meters of strike length. Work was conducted using a John Deere skidder with a backhoe, owned and operated by Joe Hidber of Telkwa, B.C. The trenches were mapped in detail at a scale of 1:100 and sampled where appropriate. Detailed trench maps (figures 5 - 10) are included in Appendix 1 of this report. Sample results are discussed under Mineralization.

#### MINERALIZATION

Mineralization is largely stratabound and contained within conformable beds or seams of unit 2 rocks. It consists of strong manganese and limonite flooding, with disseminations and lesser stringers and massive bands of pyrite, pyrrhotite and locally important sphalerite and chalcopyrite. The strongest mineralization occurs in the central part of the showing area, primarily in trenches DST87-1,4,5, and 6. Previous chip sampling reported grades up to 7% copper, 2.5% zinc and 15 oz/ton silver across mineralized bands 1 to 2 meters wide. This mineralization was reported over a length of some 100 meters and a section width of up to 15 meters.

Sampling and mapping in 1987 showed some good grade mineralization, however, results were discontinuous and erratic. The best results were from trench DST87-4 where a 1.4 meter chip sample ran 28,850 ppm copper ( $^{2}.9\%$ ), 33,000 ppm zinc ( $^{3}.3\%$ ) and 307.3 ppm silver ( $^{9}.0$  oz./ton). A separate 1.0 meter sample from the same trench ran 31,200 ppm copper ( $^{3}.1\%$ ), 8,625 ppm zinc ( $^{0}.9\%$ ) and 146.0 ppm silver ( $^{4}.3$  oz./ton). Only weak mineralization and lower grades were encountered outside the central zone, along strike to the north and south. However, the alteration and host horizon do appear to be quite strong in these areas. In addition, testing to the north (trenches DST87-2, 2A, 3, 3A) was severely hampered by deepening overburden.

Old reports indicate a second zone lies in a nearby creek and was previously tested in 1928 by a series of open cuts and a short adit. No further record of this zone was found and preliminary prospecting failed to find any trace.

#### DIAMOND DRILLING

Subsequent to trenching, it was learned that four diamond drill holes had been drilled under the trenches by a previous operator. No documentation or results of this work were found and the work was never filed for assessment. However, we did manage to locate the core and hole locations as summarized below and a brief examination of this core was made.

<u>Hole #</u>	Depth	Direction	Dip	Location
S-1	107.3m	234°	N/A	0+60S 0+02E
S-2	108.5m	285°	N/A	0+30S 0+02E
S-3	78.0m	255°	N/A	1+20S 0+30E
S-4	74.7m	255°	N/A	1+80S 0+78E

This drilling intersected similar tuffs, sediments and diorite as exposed in the trenches but lacked the strong manganese alteration and sulfide content. Only hole S-1 intersected significant sulfides, this being 46 cm of 5-20% pyrite and pyrrhotite/magnetite. No economic sulfides were noted.

#### FOLLOW UP SOIL GEOCHEMISTRY

Previous work by Falconbridge in 1969 included a detailed soil grid covering an area of approximately 1,200 meters by 1800 meters. Samples were analyzed for copper, zinc and silver. A number of significant weak to moderate anomalies were generated in areas peripheral to the main showing area. Follow up of these anomalies in 1987 showed that many had been tested by cat trenching. However, several of the more distal anomalies had not been sufficiently evaluated and required further investigation.

As a result, follow up mini grids were established and sampled over four of the anomalies. Samples were collected mainly at 15 meter (50 foot) intervals along 15 - 30 meter (50 - 100 foot) spaced lines over the anomalous sites using the original non metric grid coordinates. Where the anomalous site could not be relocated, a grid was set up in the approximate vicinity.

Samples were collected as nearly as possible from the 'B' soil horizon using a prospector's mattock. Each sample was stored in a labelled kraft soil bag, air dried and shipped to Acme Analytical Labs in Vancouver for analysis. Standard aqua regia digestion was utilized and analysis was performed by normal I.C.P. techniques for copper, lead, zinc, silver and arsenic. Results are summarized below and are plotted and contoured by element in figures 12 to 32 in Appendix 2.

For the purposes of this follow up, soil results were evaluated using the following parameters to determine anomalous values. These parameters were selected based on visual inspection of the data, and on results from other work in the same area.

Element	Background	<u>Anomalous</u>	Strongly Anomalous
Copper Lead Zinc Silver Arsenic	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$56 - 100 \\ 31 - 60 \\ 251 - 500 \\ 1.1 - 2.0 \\ 26 - 50$	>100 ppm > 60 ppm >500 ppm >2.0 ppm > 50 ppm

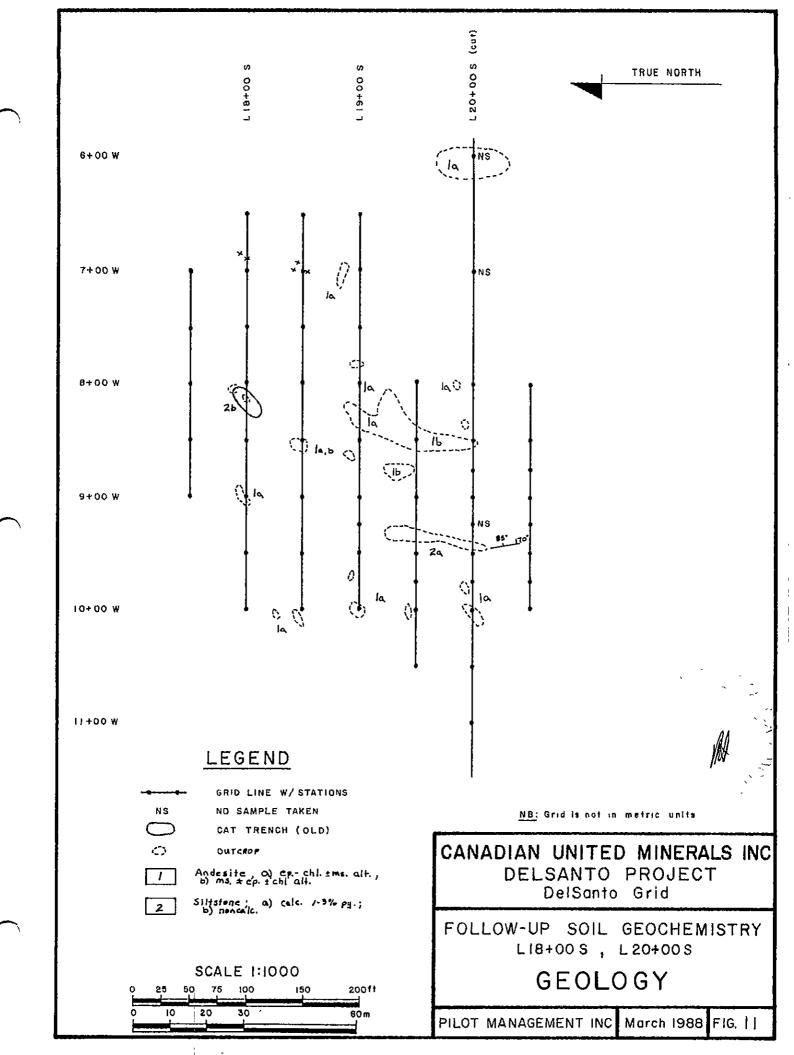
## a) Anomaly 1 L18+00S - L20+00S, 9+00W

Previous results in this area showed a moderate zinc response associated with weak copper and silver highs in an area of outcrop on a moderately steep side hill. A total of 55 follow up samples on seven lines were collected using a 7.5 meter sample spacing over the anomalous site. Results are shown in figures 12 to 16.

A small, strong, sharply defined, coincidental copper - zinc - silver - lead response, with weak associated arsenic, was outlined in the southern portion of the mini grid. This zone is open downhill to the south. Values to 6,252 ppm copper, 4,378 ppm zinc, 9.0 ppm silver, and 170 ppm lead were obtained.

Mapping and prospecting show the area to be underlain largely by green, locally amygduliodal andesites, with lesser variable calcareous, light grey siltstones interbeds or lenses. This geology is summarized in figure 11. The andesites are mainly propylitically altered to chloriteepidote <u>+</u> sericite, with local areas of rusty quartzcarbonate flooding and stringers. The siltstone exposures are generally thin bedded with a well developed planer cleavage parallel to bedding. Only one cleavage measurement was possible and this indicated a north-south vertical orientation.

The core of the soil anomaly is associated with an outcrop of strongly calcareous siltstone with 1-3% very fine grained, disseminated pyrite. Just east of this, across a slight linear depression, are andesites which show increased sericitic alteration and light green bleaching.



## b) <u>Anomaly 2</u> L4+00N, 27+00W

The original grid showed a moderate zinc response with associated weak copper and silver in this vicinity. Previous grid lines could not be relocated, however, the current grid appears to cover a portion of this old anomaly. A total of 33 samples were collected with results shown on figures 17 to 21.

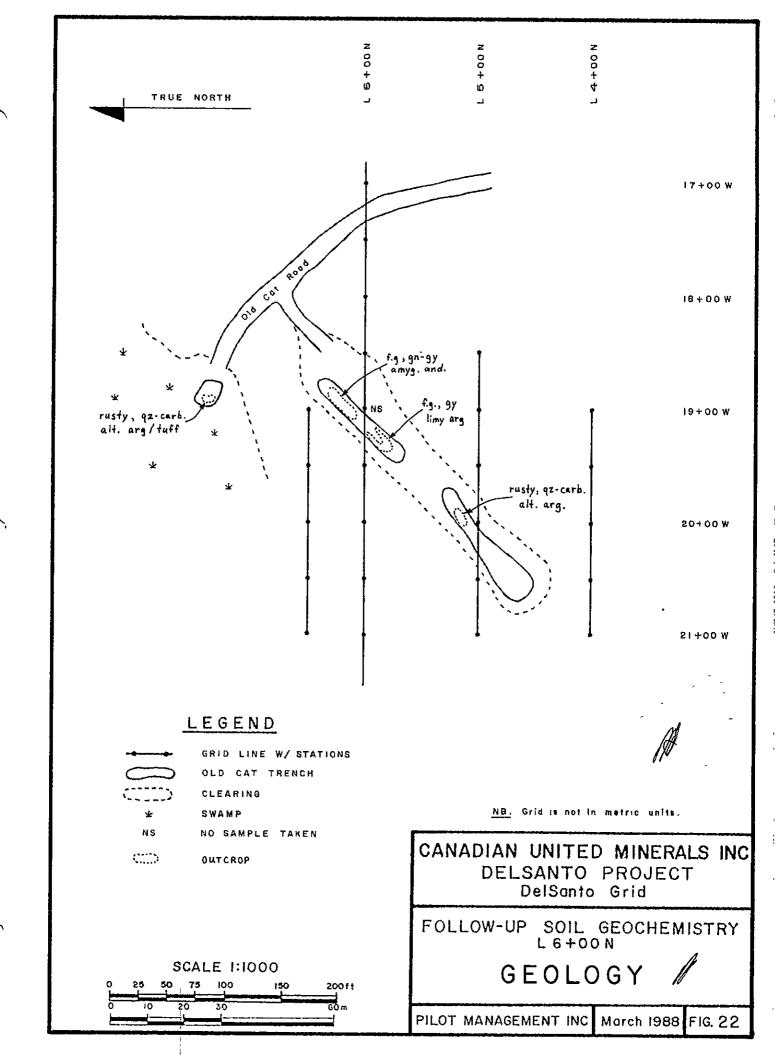
Sampling outlined a strong zinc response, with associated weakly anomalous copper - silver - lead, over a large area of the grid. Values to 3,815 ppm zinc, 77 ppm copper, 1.8 ppm silver, and 48 ppm lead were obtained.

No rock exposure was found and part of the grid area is swampy, however, anomalous sample sites were reexamined and found to contain good quality rusty orange soil. The anomalous zone appears to be diminished by the swamp to the east and the south, however, some of the previous anomalous sites appear to be south of this swamp suggesting continuity in that direction.

c) A

Anomaly 3 L6+00N 20+00W

This area showed a previous weak silver response and follow up found three old cat trenches. Two of these trenches uncovered strongly rusty, quartz - carbonated flooded and veined argillites but no significant sulfides. Twenty-five follow up samples were collected and results are shown in figures 23 to 27. Results show a weak silver response, with slight enrichment in zinc and arsenic in the area just west of the trenches. Values to 1.9 ppm silver, 248 ppm zinc and 28 ppm arsenic were obtained. This response is not associated with any outcrop exposures and no significant values were obtained in the vicinity of known rusty outcrops.



# d) <u>Anomaly 4</u> L14+00N 30+00W

Zinc values to 720 ppm were obtained in the past from this vicinity however, the grid lines could not be relocated. Prospecting revealed numerous debris and suboutcrop of fine grained green to green-gray andesitic tuff in the area and outcroppings of similar rock occur just uphill. No significant alteration was noted with the exception of local barren quartz stockworks and epidote-chlorite fractures. Two very small rusty patches were noted further uphill one of which contained some sphalerite, however, neither showed any width or continuity.

Twenty-seven soil samples were collected from three lines along the side of the hill. Results as shown in figures 28 to 32, outline several small scattered copper - zinc - arsenic responses with values up to 487 ppm zinc, 141 ppm copper and 73 ppm arsenic. No follow up of these values has been done. It appears, however that the original zinc anomalies may have been located further downhill and thus remain untested.

#### CONCLUSIONS AND RECOMMENDATIONS

The lack of continuity of grade and mineralization at the Delsanto showing, both along strike and to depth is discouraging. In addition, only the highest grades hold economic potential and these are restricted to a relatively small central zone. What onstrike potential there is appears to be to the north where heavy overburden and the recessive weathering nature have obscured the trace of the mineralized horizon. This area is also more proximal to the intrusive source and is relatively untested. Based on results obtained to date, however it is felt that the Delsanto showing overall has low economic potential and no further work is recommended at this time.

Previous reports of a second similar zone to the Delsanto showing and of gold bearing pyrite-arsenopyrite mineralization have not been confirmed. However, it is probably worthwhile spending a few days trying to locate these in the event that they may prove important.

Of the four soil anomalies tested by mini grids, two were confirmed as having strongly anomalous responses. Anomaly 1 had the highest responses in copper, zinc, silver and lead and is closely associated with pyritic and sericitic alteration. The small size of the anomaly is of concern but further work is still warranted. Anomaly 2 contains high zinc values over a relatively large area and is open to the south. There is no rock exposure in the area but the anomaly appears to be valid and should also be further tested. The remaining two areas tested produced weaker results and are of lesser priority. Anomaly 4 sampling may have missed the intended target and should be re-evaluated.

Future work on the above anomalies should include expanding the mini grids of anomalies 1, 2, and 4 to the south to close off or test for responses in this direction. In addition, hand trenching of anomaly 1 and backhoe trenching of anomaly 2 are recommended as the next stage of investigation.

#### REFERENCES

- B.C. Dept of Mines Annual Reports of the Minister of Miners, 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.
- MacIntyre, D.G., (1985), Geology of the Dome Mountain Gold Camp, BCMEMPR Paper 1985-1.
- Plecash, D.C., (1982), Delsanto Property, Deep Creek Area, for D. Groot Logging Ltd.
- Price, B.C., (1979), Geological and Geophysical 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; Geol. Survey of Canada Bull 270.

## STATEMENT OF COSTS

The following costs were incurred on behalf of Canadian-United Minerals, Inc., for work related to exploration on the Delsanto claim group during the period May 12, 1987 to June 15, 1988.

Secretaria	4	
Secretarial	Ş	75
- field 3 days @ \$175/day	\$	525
M. Allen - Field assistant		
- field 4 days @ \$350/day	Ş 1	L,400
R. Helgason - Project geologist		
- report 7 days @ \$350/day	Ş 2	2,450
- field 13,5 days @ \$350/day	\$ 4	1,725
R. Holland - Senior geologist		
Wages:		
Truck Rental 8 days @ \$50/day	Ş	400
Transportation (gas, airfare, freight)	\$ \$	
Room & Board 20.5 days @ \$50/day		,025 600
Printing & copying		
	Ş	32
Geochemical Analysis 1770 \$5.42/sample	\$	959
Drafting 4 days @ \$280/day	•	,120
Backhoe Trenching 45 hr. @ \$55	-	2,475

#### QUALIFICATIONS

I, Robert Holland, of 13451 - 112 A Avenue, Surrey, British Columbia, hereby certify that:

- I am a graduate of the University of British Columbia and hold a B.Sc degree in Geology (1976).
- 2. I have worked in mining exploration for various companies continuously since 1976.
- 3. I am currently employed as Senior Geologist with CUN Management Group Inc., of 325 - 1130 West Pender Street, Vancouver, British Columbia.
- 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 Group Inc., under my direction and supervision.

Robert Holland, B.Sc., F.G.A.C Senior Geologist

June 14, 1988

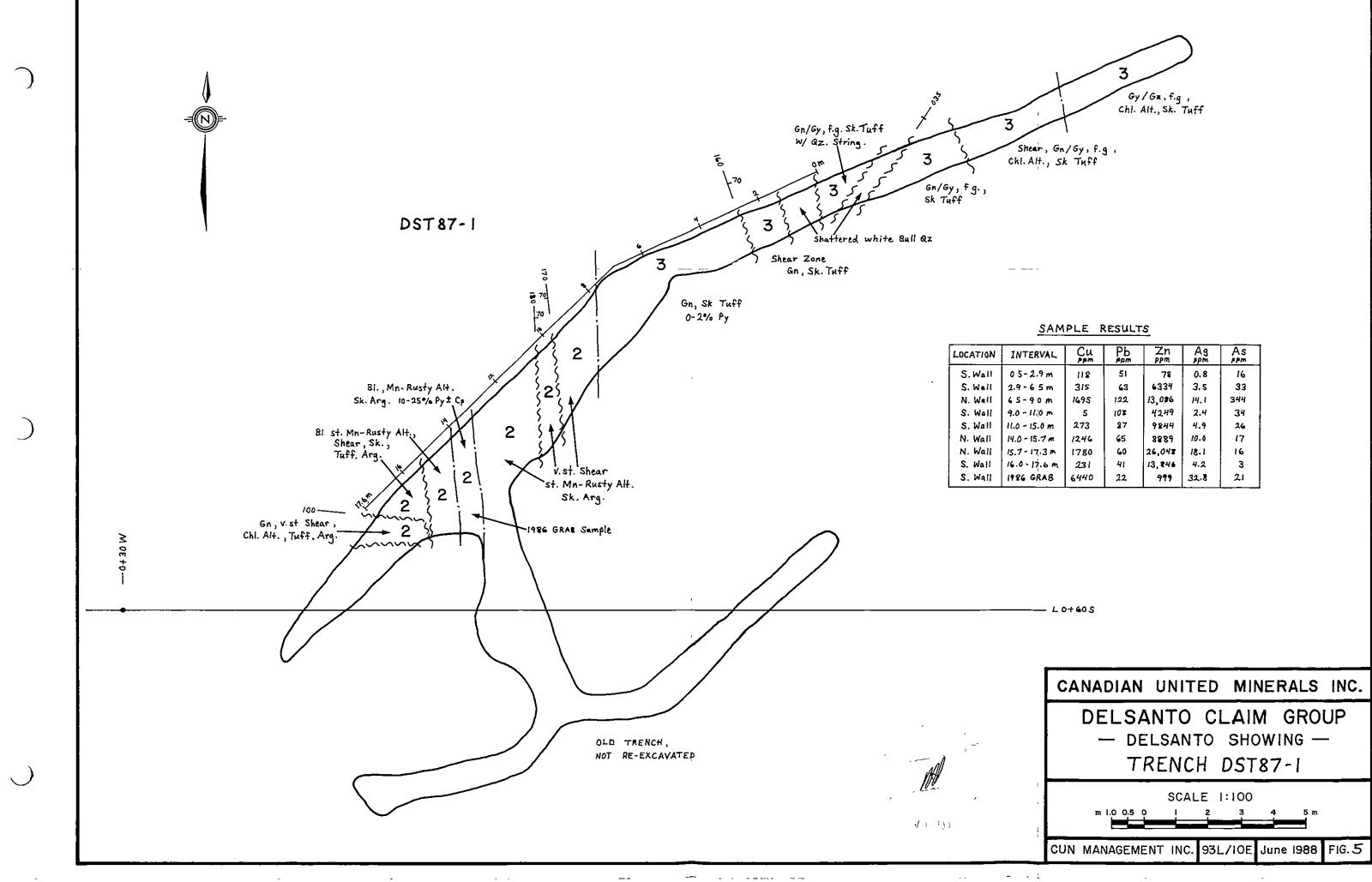
APPENDIX 1

# Detailed Trench Maps

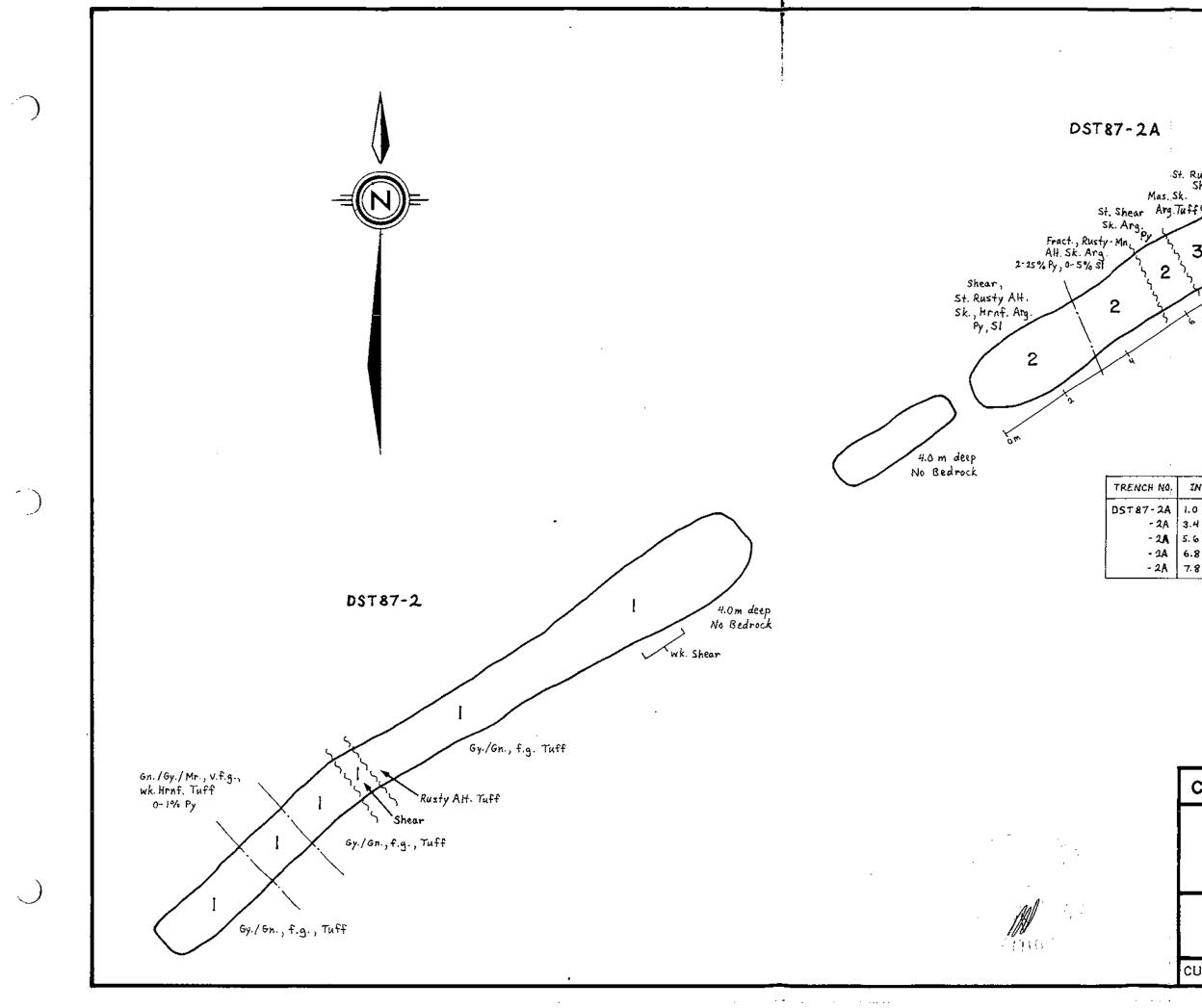
Fig 5 - 10

•

 $\mathbf{C}$ 



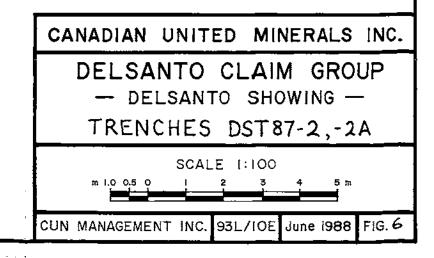
NTERVAL	Cu	Pb	Zn	Ag	As
5-2.9 m	118	51	78	0.8	16
9-65m	315	63	6334	3.5	33
5-90 m	1495	122	13,016	14.1	344
0 - 11,0 m	5	10¥	4249	2.4	34
0 - 15.0 m	273	27	9844	4.9	26
.0-15.7 m	1246	65	8889	10.0	17
7-17,3 m	1780	60	26,048	18.1	16
.0 - 17.6 m	231	41	13,246	4.2	3
26 GRAB	6440	22	999	32.8	21

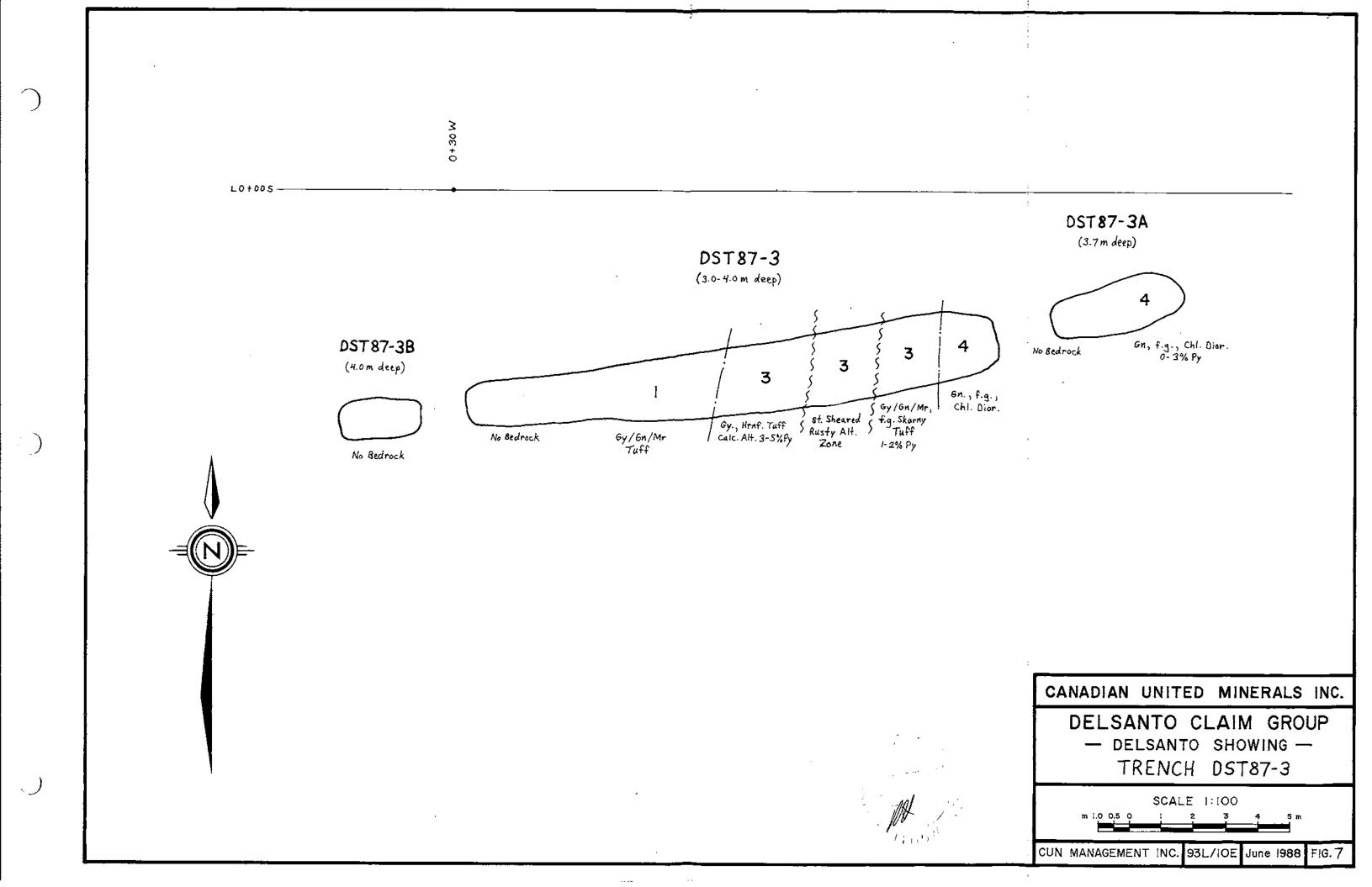


Gn, f.g. Bior. Hard, Mas., Dk Gn., Sk/Hrnf. Arg. Tuff 0-1% Py 3 St. Rusty Alt. shear Mas. Sk. 3 2

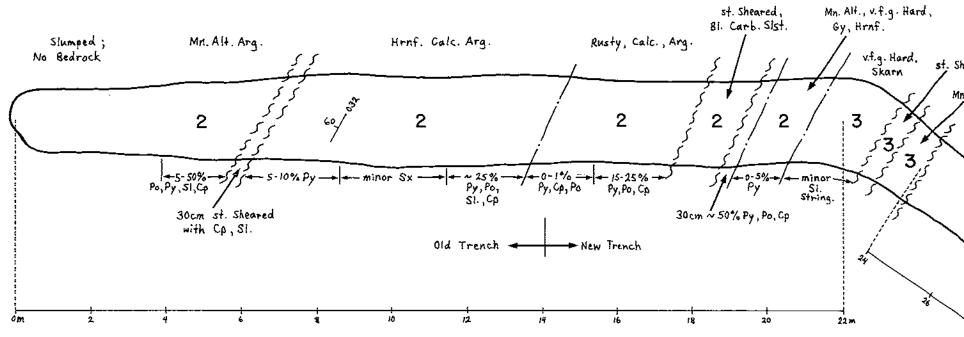
SAMPLE RESULTS

CH NO.	INTERVAL	Cu	Pb PPm	Zn ppm	Ag	As ppm
7-2A	1.0 - 3.4 m	88	77	12,900	3.4	10
- 2A 🗄	3.4 - 5.6 m	625	66	13,999	7.3	29
- 2A	5.6 - 6.8 m	120	44	7792	3.2	13
- 2A	6.8 - 7.8 m	75	73	6355	2.8	8
- 2A	7.8-9.0 m	349	53	6431	3.4	22





DST 87-4



 $\bigcirc$ 

÷),

.

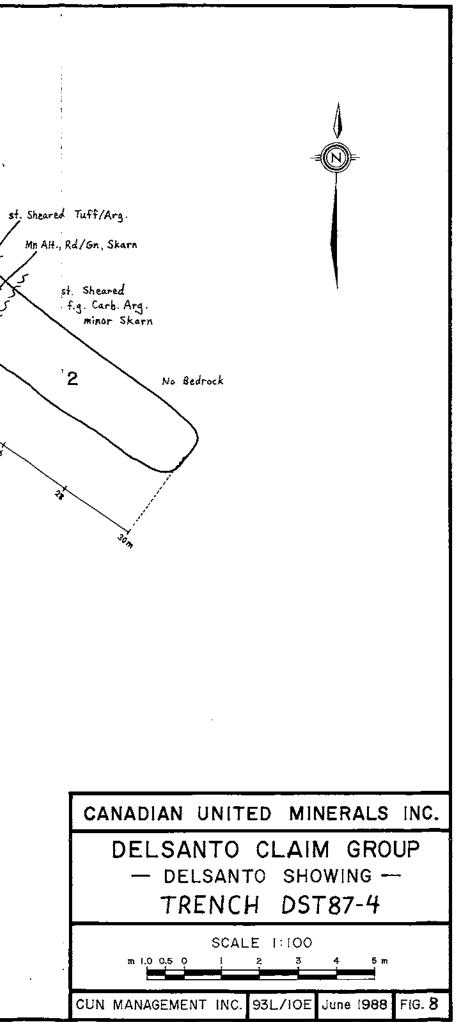
 $\sim$ 

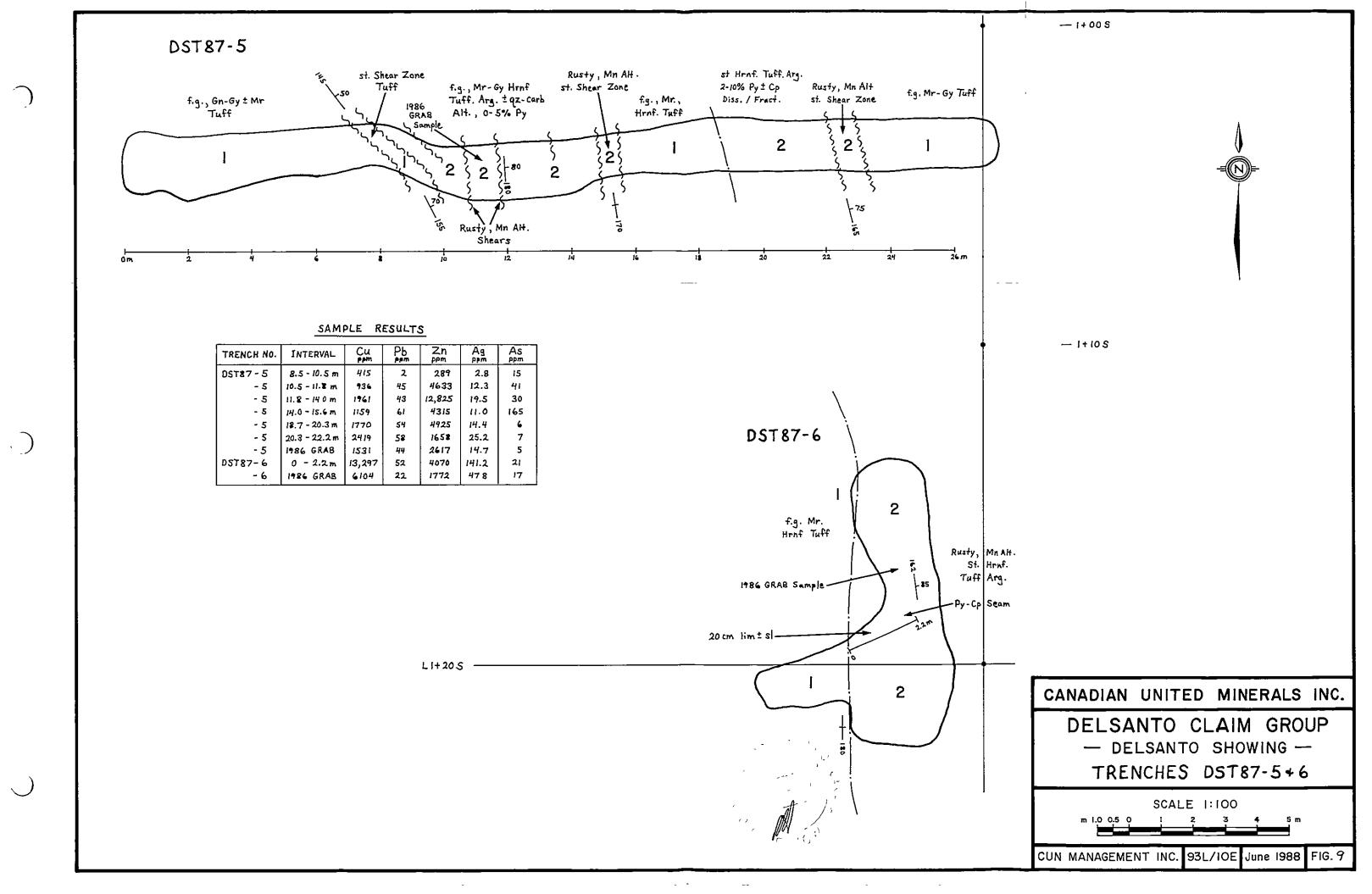
SAMPLE RESULTS

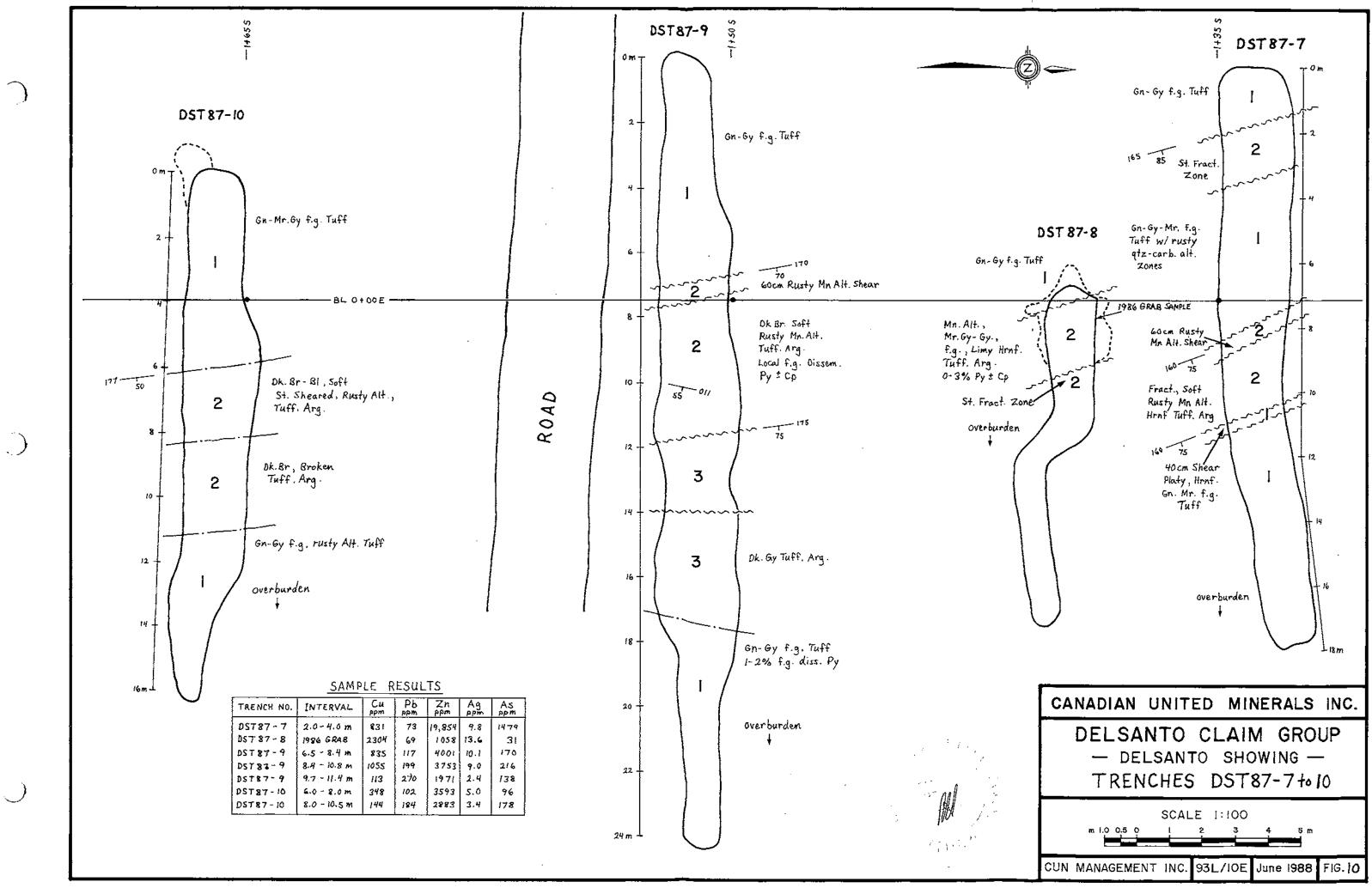
INTERVAL	Cu	Pb	Zn	Ag	As
5.0 - 6.4 m	28,850	725	33,004	307.3	21
3.2 - 9.2 m	1541	40	6033	4.5	12
9.2 - 10.2 m	1091	57	23,507	10.5	11
10.2 - 12.0 m	884	35	16,259	8.7	7
12.0 - 14.0m	2023	29	2303	18.6	8
14.0 - 16.0 m	295	37	4820	10.0	5
16.0 - 18.0m	2413	34	4416	15.1	5
19.0 - 20.0 m	31,200	47	8625	146.0	5
21.0 - 22.0 m	300	19	20,221	3.8	13
23.0 - 24.0 m	1468	52	4573	13.5	23
1986 GRAB	18,402	230	867	114.4	24

.

Stra.







\_\_\_\_

APPENDIX 2

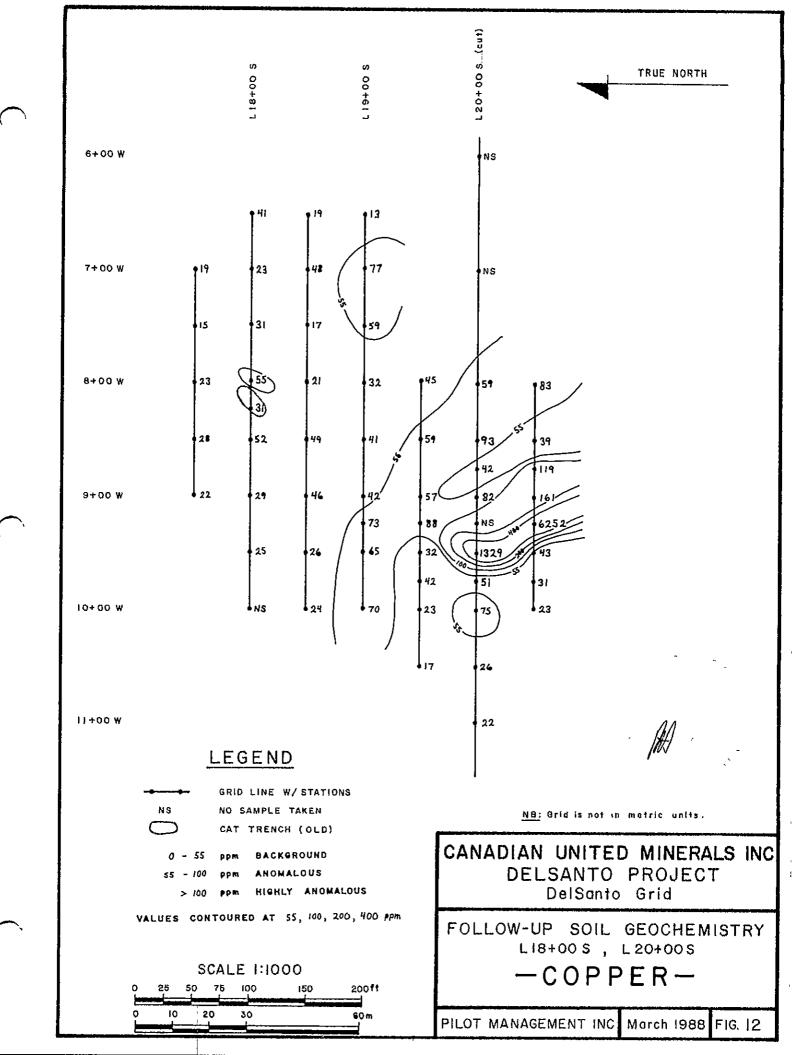
 $\bigcirc$ 

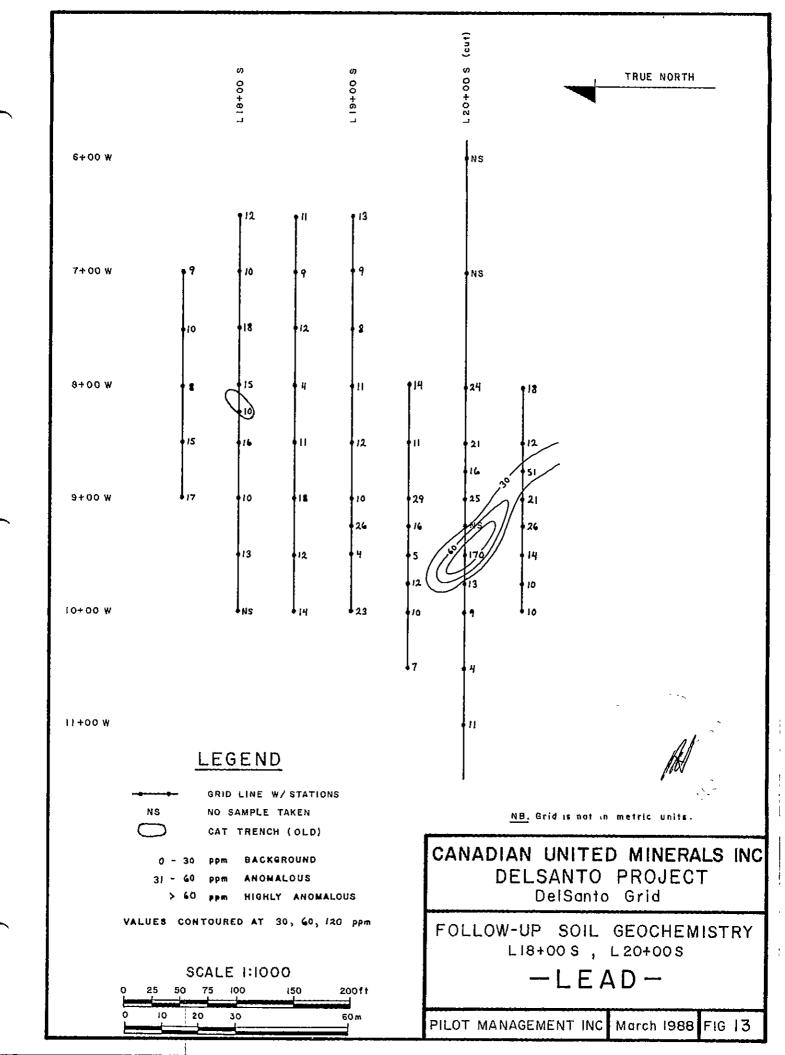
 $\square$ 

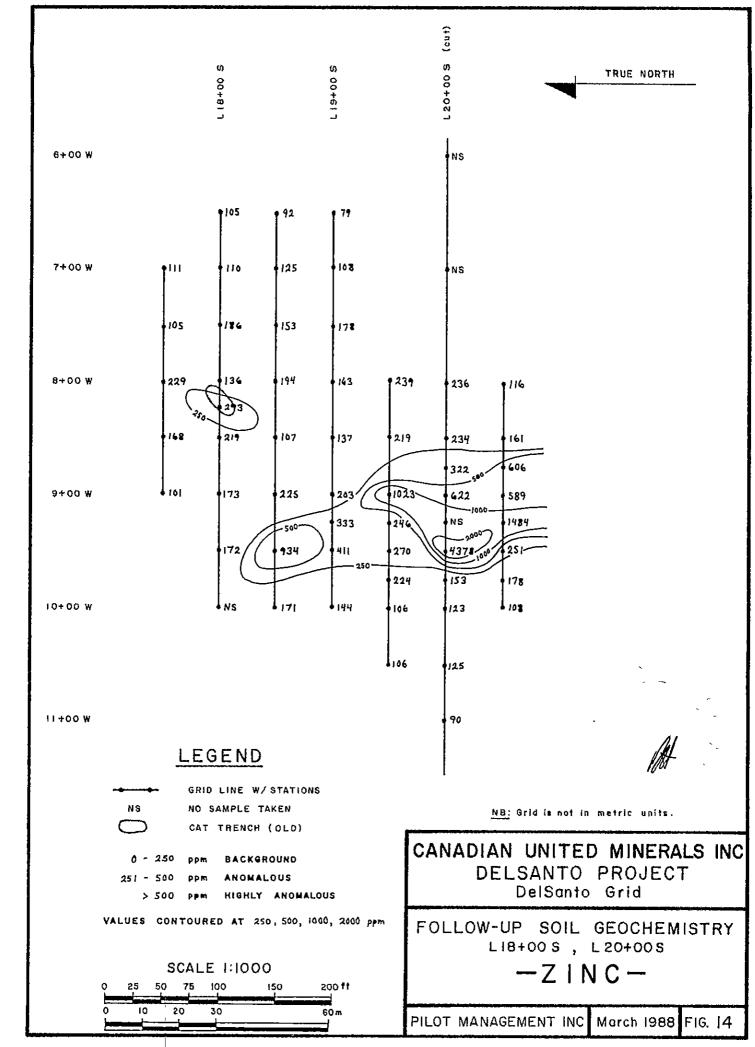
 $\Box$ 

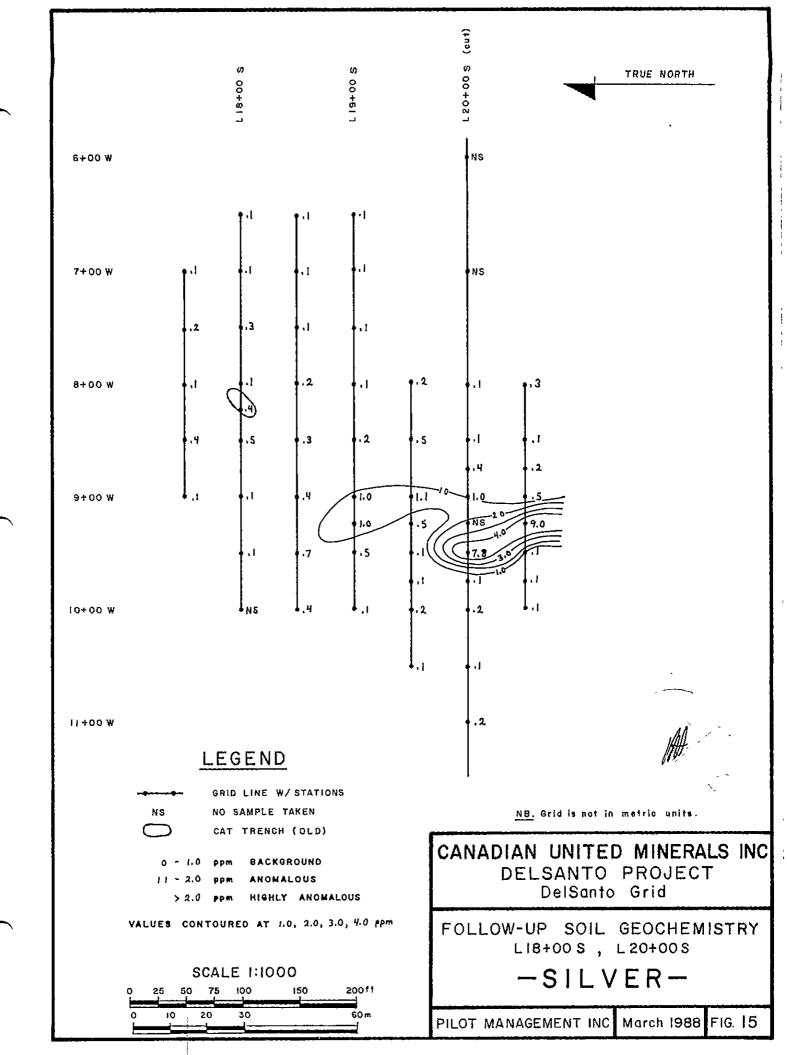
Follow-up Soil Geochemistry

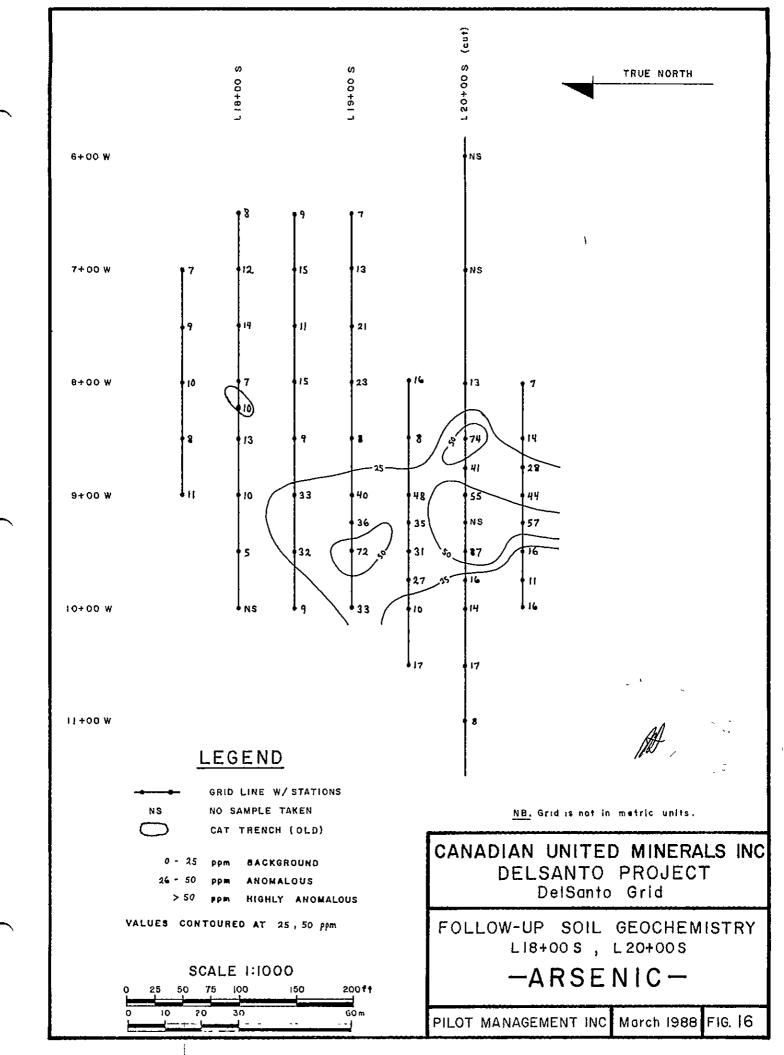
Fig. 12 - 21, 23 - 32

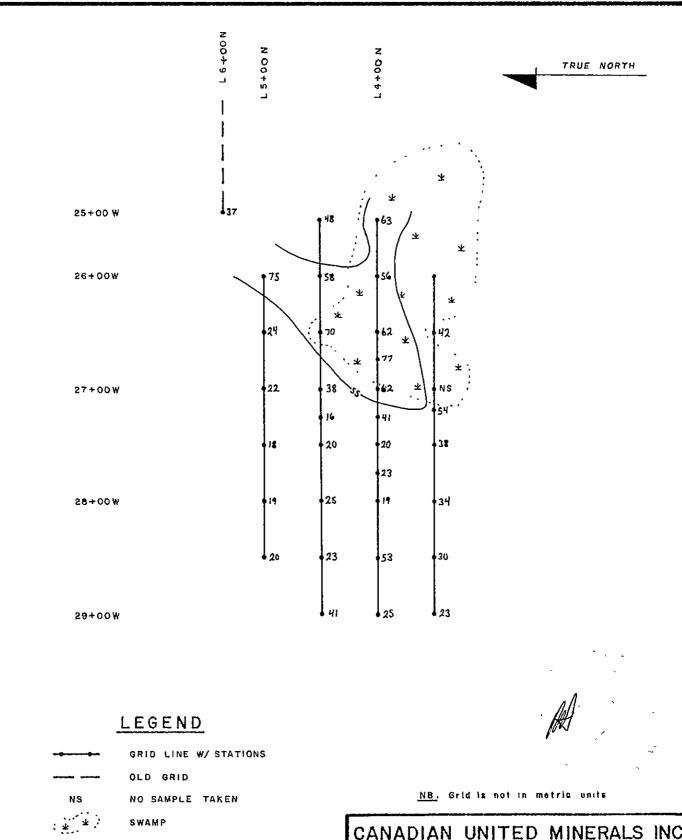












0 - 55 ppm BACKGROUND 56 - 100 ppm Anomalous > 100 ppm Highly Anomalous

VALUES CONTOURED AT 55 ppm

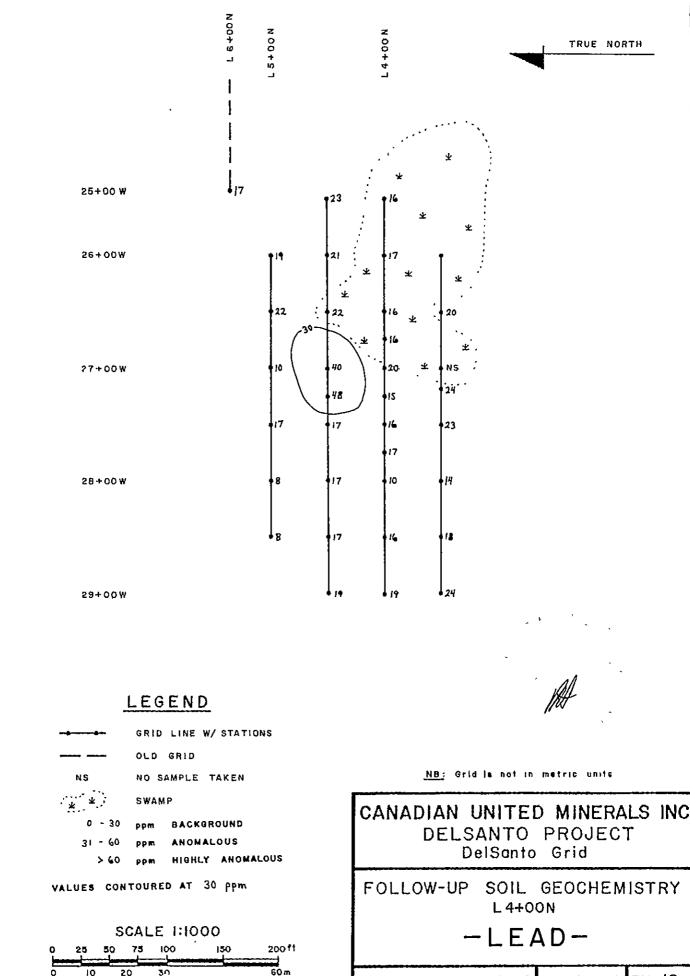
## SCALE HIOOO

 25
 50
 75
 100
 150
 200 ft

 0
 10
 20
 31
 60 m

CANADIAN UNITED MINERALS INC DELSANTO PROJECT DelSanto Grid FOLLOW-UP SOIL GEOCHEMISTRY L4+00N -COPPER- Ł

PILOT MANAGEMENT INC Morch 1988 FIG. 17



PILOT MANAGEMENT INC Morch 1988 FIG. 18

