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ANNUAL REPORT - EL 20/96  
ELLIOTT BAY - FIMISTON MINING  
B FEHLBERG

## ELLIOTT BAY E20/96 DATA SUMMARY AND COMPILATION REPORT

Annual Report for EL 20/96

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## 1) Abstract

This report summarises and documents the geology and the exploration results of previous and current activities conducted within exploration licence E20/96. This licence totals an area of 180 square kilometres and is located at Elliott Bay on the west coast of southern Tasmania. (See Figure 1).

The tenement covers the southern end of the Mt Read Volcanics, a highly prospective sequence of rocks that host a number of major high grade base metal and gold deposits which include the Hellyer, Rosebery, Mt Lyell and Que River deposits.

Past exploration within E20/96 has defined numerous gold and base metal prospects, a small number which have been drill tested with some encouraging results.

Fimiston Mining N.L purchased the tenement in early 1998 and since that time has reviewed and compiled a significant proportion of the previous work in digital format. Two diamond holes for a total of 752 metres have been recently drilled with narrow anomalous results returned.

The licence has been explored previously by Geopeko, Cyprus, Aberfoyle and Plutonic Resources, however the source of very high grade massive sulphide clasts, observed in a number of areas within the tenement remains unknown. Scope remains to locate a blind non outcropping VHMS deposit within the tenement.

The extensive and systematic use of a wide variety of geophysical techniques has downgraded the likely hood of locating an economic base metal deposit within the top 200 metres of surface. Additional geological and possibly elemental trace geochemistry techniques will be necessary to narrow down the range of exploration targets to which drill based programmes can be directed. A number of gold occurrences have been discovered to date, although the gold exploration focus has been limited.

This report compiles some of the data including geology, geochemistry, topography and geophysics and presents this data as a series of A4 diagrams. Some digital data compilation has been completed and used for some of this work.

### **Recommended further work within E20/96 includes:**

- 1) **Initial ground based geological evaluation of the Voyager 22 and Voyager 34 geochemical anomalies located on the eastern side of the Osmund Syncline**
- 2) **Initial ground based geological evaluation of the area along strike (to the north-east) from Voyager 12, North Lewis, in the vicinity of the Aberfoyle EB4 EM anomaly.**
- 3) **Initial ground based geological evaluation of the area north and east of Voyager33 adjacent to the contact with the younger Osmund syncline sediments.**
- 4) **Further data compilation and geological evaluation of the Voyager3 to Voyager 2 area, encompassing the Voyager 32 and Voyager 10 prospects.**
- 5) **Ground based evaluation and rock chip sampling of the western contact of the Elliott Bay porphyry and the interpreted Hudson River Pyroclastic.**
- 6) **Aerial photo interpretation to confirm the current understanding of the regional geology.**
- 7) **Review of the IP completed and results obtained.**
- 8) **Consideration of a detailed aeromagnetic and radiometric survey,**
- 9) **Continuation of the digital data compilation.**

## 2) Introduction

Exploration Licence E20/96 is situated approximately 85 kilometres south-south-east of Strahan and 140 kilometres west of Hobart.

Access is difficult with helicopter support necessary for any drill based operations. The terrain is steep to moderate with occasional areas of flat lying country allowing some ground based mechanised transport and access.

Significantly, the area around the most advanced prospect, Voyager 19, consists of open button grass / heathland flats with occasional steeper gully's and creeks.

Figure 2 illustrates the topography of the tenement area.

Previous operators in the area since 1975 has included BHP, Geopeko, Cyprus, Plutonic and more recently Exploration and Management Consultants and Fimiston Mining N.L.

Exploration in the area since 1975 has been extensive and has included geological mapping; geochemical sampling; encompassing stream sediment sampling , soil sampling and C-Horizon sampling; a wide range of geophysics including airborne and ground based EM (and down hole EM) surveys, airborne and ground based magnetic surveys.

IP and gravity surveys have been routinely carried over most of the prospects.

Geological mapping of most prospect areas covered by geochemistry has been completed with trenching of significant soil results also completed. Drilling of a number of the prospects has been carried out with a timetable of the drilling completed and any significant results obtained summarised in Table 1 and Table 2.

The majority of work has been completed in the central portion of the tenement centred on the known positions of the Mt Read Volcanics. See Figure 3 and Figure 4.

The work of Fimiston Mining N.L has included the review of all past exploration, establishment of a digital database, reprocessing of some of the geophysical database, the drilling of two diamond holes for 752 metres and recommendations for further work.

## 3) Geology

E20/96 covers the most southern part of the Mt Read Volcanics, a Cambrian age sequence of mainly felsic volcanics and associated volcanoclastics and intrusives which extend in an arc for about 200 kilometres through north-west and western Tasmania. (See Figure 1).

These rocks host five major VHMS deposits and a number of smaller deposits totalling in excess of 200 million tonnes of polymetallic, relatively gold rich, copper-lead and zinc ores. A detailed litho-stratigraphic correlation with the sub divisions of the Mt Read Volcanics remains obscure, but the Elliott Bay area seems to show lithological similarities to the Eastern quartz phytic sequence extending north from Mt Darwin (Herrmann, 1996).

The Eastern Sequence is not known to host any major economic deposits although there are some porphyry style mineralised occurrences noted (Herrmann, 1996).

The VHMS prospectivity of the Elliott Bay area is however significantly enhanced by the outcrops of high grade lenses of polymetallic sulphide at Wart Hill, wide spread base metal and gold anomalism and extensive zones of hydrothermal alteration (quartz/sericite/chlorite) through out the tenement. (Herrmann 1996).

Figure 3 and Figure 4 illustrates the regional geology of the tenement.

In the vicinity of Wart Hill (Voyager 19) a complex sequence of volcanoclastics (tuff's, breccias, conglomerates, sandstones, siltstones and minor shales) and quartz-phyric rhyolite porphyry are present in contact further to the east with younger Ordovician sediments.

The volcanoclastic breccia and conglomerate units are dominantly matrix supported and contain angular-rounded clasts of various sizes and composition. Clasts of chert, marble, massive sulphide, siltstone, qtz/felds porphyry, rhyolitic tuff's and qtz/felds sandstones have been observed by Cyprus (Poltock, 1988) . The distribution of these various clasts is complex with contacts both gradational and abrupt. The massive sulphide "clasts" intersected in the drilling and observed in outcrop contains a typical VMS zinc to lead ratio very similar to that measured at other volcanogenic massive sulphide deposits in the Mt Read Volcanics (Aberfoyle, 1992).

At the Voyager 29/East Camp prospect located approximately three kilometres south, a similar sequence of volcanoclastic rocks comprising generally poorly sorted tuffaceous sandstones and breccias. Clasts of rhyolitic qtz porphyry, shale, limestone and massive sulphide have been observed in the core and limited surface exposure from costeans.

SDH2 intersected a similar sequence of volcanoclastic rocks (Geoff Illiff, pers communication).

Examination of aerial photography and the C-Horizon surface geochemistry suggests that the quartz-phyric rhyolite lava is geochemically subdued relative to the volcanoclastic sequences of rocks. The rocks of the younger Ordovician sediments comprising the prominent Mt Osmund syncline are also geochemically quiet.

The photography suggests the quartz-phyric massive lavas to largely outcrop, dominantly sedimentary units to be covered by thicker vegetation while the prospective volcanoclastic rocks to be covered by a low button grass/ heathland.

To the south of Wart Hill the Cambrian volcanics, volcanoclastics and sediments have been intruded by a number of Cambrian intrusive rocks, including microgranites, granites and porphyries.

Gold mineralisation shows a loose spatial relationship with these intrusives.

Mapping by the Geol Survey of Tasmania shows some areas to the east and south of Wart Hill to be largely covered by Tertiary gravels.

#### **4) Past Work Completed**

A large amount of exploration has been completed since 1975 including extensive geochemical sampling encompassing stream sediment sampling, soil sampling and C-Horizon sampling. Geophysics including airborne and ground based EM (and down hole EM) surveys, airborne and ground based magnetic surveys. IP and gravity surveys have been routinely carried out over the majority of the prospect areas.

Geological mapping of most prospect areas, covered by geochemistry has been completed with trenching of significant soil results. Drilling of a number of the prospects has been carried out with a timetable of the drilling completed and any significant results obtained summarised in Table 1 and Table 2.

The majority of work has been completed in the central portion of the tenement focussed on the known positions of the Mt Read Volcanics.

A brief summary of the work completed is presented below. A more comprehensive summary is provided in the report by Grant MacDonald, 1997.

#### 4.1) Geopeko, 1977-1985

Geopeko commenced effective exploration in 1976 collecting stream sediment samples, mapping and follow up of regional EM and aeromagnetic targets. This work led to the recognition of a large number of targets which were variously covered by systematic gridding, soil sampling, C-horizon sampling, magnetics and VLF-EM work.

This work highlighted the prospectivity of the Voyager 2 (Lewis River), Voyager 3, Voyager 12 (North Lewis), Voyager 9 and Voyager 24/30 prospects which were drill tested between 1978-1981. Drill holes were targeted on a combination of anomalous surface geochemistry and coincident IP, magnetic and VLF-EM anomalies. Narrow anomalous intersections were returned, in general explaining the anomalies tested. See Table Two.

In 1981 follow up mapping and regional geochemical sampling resulted in the discovery of the Voyager 19/Wart Hill VMS prospect where small zones/clasts of massive sulphide with Rosebery type signatures were discovered. Highly anomalous values of up to several percent lead and zinc from C-horizon sampling was followed up by trenching with significant results of up to 4m @ 10.23% Pb, 17.94% Zn, 138 g/t Ag and 0.6 g/t Au returned. Drilling underneath these zones returned disappointing results with a maximum value of 1m @ 0.53%Pb, 1.0% Zn and 30g/t Ag from 46-47 metres in hole V19-3.

During 1982-83 IP work and infill detailed C-Horizon geochemical sampling around the Mt Osmund syncline followed, on the basis that the prospective stratigraphy may be folded in the same manner as the younger sediments. Subtle IP anomalies were defined, however non were drill tested. See Figures 7,8,,15 and 16 for regional geochemical trends.

The geochemistry highlighted a number of base metal anomalies located within volcaniclastic rocks including V29(East Camp), V33 and around the Mt Osmund syncline the Voyager 22 and Voyager 34 areas.

In 1983-84 additional regional geological mapping over some of the more prominent anomalies was completed and various geophysical surveys ( close spaced dipole-dipole IP, UTEM) over Wart Hill area completed. The geophysical surveys failed to detect any significant anomalies.

Geological mapping in the V22 area over some of the more anomalous area suggested the presence of a volcanic vent and further ground based evaluation of this and adjacent areas should be completed.

Base metal veining and anomalous surface base metal geochemistry at V33 (on strike to the north from V19) was drill tested and was successful at explaining the surface geochemistry. An intersection of 7.6 m @ 1.24% Pb, 0.8% Zn, 56 g/t Ag and 0.06 g/t Au was returned from fault breccia material located on the contact between a medium grained sandstone and interbedded

siltstones and shales. Lead and sulphur isotope studies suggested this mineralisation to be of Devonian age. (See Figures 36-Figure 39)

Due to the rising gold price and some anomalous gold surface geochemistry three additional holes at Voyager 24 were drilled targeted on the best surface geochemistry. (See Figure 28-Figure 34)

Anomalous intersections including 4m @ 2.7 g/t Au and 1m @ 17.5 g/t Au were returned in general the intersections corresponded to narrow veinlets of sphalerite and galena +/- visible gold. The spiky and erratic nature of the surface geochemistry can be explained by the intersections returned from the drilling, although of the total kilometre of gold anomalism, only 100 metres has comprehensively drill tested.

Geopeko completed a wide range of geophysical, geochemical and geological activities during their exploration of E20/96. They reluctantly concluded that the potential to locate an economic deposit within 100 metres of the surface was low and that due to rationalisation of exploration projects and the failure to attract a joint venture partner Geopeko were obliged to relinquish the licence.

Geopeko withdrew from exploration in early 1984 and the ground was dropped in mid 1985.

An excellent summary of Geopekos work documenting activities and results from eight summer field seasons between 1976-1984 is presented as by Herrmann, 1985 (TCR-85-2505).

#### 4.2) Cyprus, 1985-1990

Cyprus picked up the ground in 1985 and completed review of the previous exploration data and strategy of Geopeko. They concluded that a number of prospects and areas required further work and commenced 500 line kilometres of helicopter borne Dighem-magnetic surveys, additional and infill C-Horizon sampling and rockchip sampling and geological mapping.

Anomalous areas were followed up with additional rockchip sampling and mapping, priority work being recommended at V12 (North Lewis), V24 (Sassy Creek), V29 (East Camp) and additional deeper drilling at V19 (Wart Hill).

Five diamond holes for 350 metres were drilled in the North Lewis River (V12) area targeted on chlorite/pyrite alteration and associated gossanous pods. This alteration was found to be associated within coarse grained rhyolitic crystal tuff's, minor interbedded tuffaceous siltstone and shales in contact to the east with a qtz/felds/ bio porphyry (Elliott Point Porphyry).

All drill holes intercepted a wide zone (20 metres) of extensive faulting and brittle deformation. Vein breccia zones were common with quartz-tourmaline veins and breccia matrix material clearly cut by later chlorite-pyrite-arsenopyrite+/-chalcopyrite+/-galena+/-sphalerite+/-quartz. Weak sericite and carbonate alteration was observed.

The gold values obtained in rockchip samples at surface were not reproduced in the drilling however extensive zones of quartz-tourmaline and chlorite-sulphide vein formation, brecciation and fracture were intersected and tested by the drilling. (See Figures 23-Figure 27)

No further work was recommended at this prospect.

Voyager 24 had been tested by Geopeko with four diamond holes drilled returning narrow anomalous intersections associated with base metal sulphide veinlets.

Cyprus completed infill gridding and sampling and resampling of soils at the southern end of the V24 grid and the anomalous Geopeko results could not be repeated, most samples returning <8 ppb. Reverse Circulation drilling was recommended, but not completed. (See Figure 28-Figure 34)

The original hypothesis to explain the presence of gold at V24 was that the gold was stratabound within the 250 metre wide package of felsic volcanics (Large, 81) and this was interpreted to indicate a syngenetic origin of the gold. (See Figure 24)

Further detailed work by Hermann observed that the gold was located within thin veinlets that cross cut the cleavage and that the gold is more likely to be the result of remobilisation and deposition of gold associated with the Cambrian intrusives nearby. A similar spatial relationship between anomalous gold results (stream sediments) and the Low Rocky Point Porphyry and Elliott Point Porphyry is observed.

Voyager 29 (East Camp) was originally highlighted by Geopeko and contained anomalous base metal values of up to 3.2 % Zn. Geophysics defined a chargeability anomaly and gravity anomaly associated with the anomalous surface geochemistry, however no further work by Geopeko was completed. Cyprus completed surface sampling infill and trenching within the main anomalous zones which defined the same zones, but of a lower tenor located .

Three holes were designed to test the best coincidental geochemical and geophysical anomalies, however due to disappointing results only two holes were completed for a total of 409 metres. Drilling difficulties were encountered in a shear zone within EC-2 resulting in a wedge from the original hole being drilled from 51 metres (EC2A).

Outcrop in the area is poor with the drilling encountering a similar sequence to that observed at Wart Hill. Volcanoclastics and pumice tuff were intersected. Possible syn-depositional sulphide mineralisation was drilled in the form of a few centimetres of pyrite, sphalerite and galena in EC1. Best intersection returned from the drilling was 1m @ 0.44%Pb, 0.64% Zn and 9 g/t Ag.

Clasts of rhyolitic quartz porphyry, shale and limestone and rarely chert and massive sulphide was recognised in the core. It was concluded that the mineralisation intersected in the drilling was of the same tenor as in the Cyprus trenches (and the anomaly was consequently explained) and that the chlorite/pyrite alteration was possibly associated with the chargeability high. Further work in the immediate area was not recommended, however review of the surrounding prospect was warranted. (See Figure 21-Figure 22)

The V19, Wart Hill prospect was considered highly prospective, due to the large "clasts" of massive sulphide located by surface trenching and a total of 12 holes for 1962 metres were drilled. Maximum hole depth was 359 metres with the holes targeting at depth the zones located and drilled by Geopeko previously.

A number of anomalous results including 5m @ 3.0 % Pb, 6.0 % Zn, 32 g/t Ag, 1.43 g/t Au and 1.1 m @ 10.4% Pb, 24.7% Zn, 123 g/t Ag and 0.63 g/t Au were returned.

These intersections were more encouraging intersections than that returned by the Geopeko diamond drilling at Wart Hill. Down hole EM was completed on the majority of the Cyprus holes with possible off hole responses observed in WH5 and WH7. (See Figure 18-20)

No further work was carried out by Cyprus and the tenement was joint ventured with Aberfoyle.

Cyprus proposed follow up work at a number of prospects, see Figure 56

#### 4.3) Aberfoyle

No additional work was completed by Cyprus and in 1989-1990 Aberfoyle began farming into the EL. They flew a fixed wing QUESTEM survey covering a large percentage of the

tenement. This work identified nine conductors (EB1-EB9) thought to be worthy of follow up. (See Figure 55)

Ground based evaluation of all identified conductors was completed with further work at the EB1 (adjacent to the Voyager 3 prospect) and EB4 (on strike from Voyager 12, North Lewis) conductors recommended. A single hole was drilled to test the EB1 anomaly, but was abandoned at shallow depth due to difficult drilling conditions. A second hole was also abandoned short of target depth. Down hole EM on this latter hole failed to locate any conductors (MacDonald, 1997).

The EB4 conductor was recognised as a possible more sulphide rich zone of the Voyager 12 structure and further work was proposed. At this stage it is not clear if the work was completed.

Aberfoyle supported a CSIRO project aimed at assisting with the interpretation of the styles of mineralisation observed at Elliott Bay based on lead and sulphur isotope work.

This work suggested that the Pb-Zn massive sulphide lenses in outcrop and core from Voyager 19 originated from a Cambrian sea floor VHMS type deposit. It also suggested that low grade and vein mineralisation associated with sericite/chlorite-carbonate alteration at V19, chlorite-magnetite alteration at V9 and quartz-sericite alteration at V3 (EB1) was possibly caused by slightly younger (Cambrian) hydrothermal fluids and these fluids had the potential to have deposited massive sulphides at a higher level within the volcanics.

It was also concluded that the vein style Pb-Zn-Ag-Au-As mineralisation, most likely *structurally controlled*, such as Voyager 24 and 33 prospects, has the most radiogenic Pb and lightest S isotopes. According to the research this suggested a younger (Devonian?) and magmatically related hydrothermal source.

A model was proposed to explain the findings and is presented as Figure 9. The model supports the concept of a massive sulphide deposit being present within the tenement.

#### 4.4) Plutonic

The tenement was relinquished in 1993 and Plutonic Resources in 1994 successfully tendered for the tenement. Plutonic carried out review of previous geophysical surveys, a new moving loop Sirotem and ground magnetic survey over the Wart Hill (V19) and East Camp (V29) prospects, and 76 C-Horizon samples over the Wart Hill and East Camp prospects.

The twelve Cyprus diamond holes at Wart Hill were relogged with an emphasis on the establishment of volcanic facies and facies relationships hopefully leading to conceptual targets for diamond drill testing.

Results from the work suggested that no significant conductors within favourable geological settings were present within 200 metres of the surface in the Wart Hill/East Camp area. The relogging of the core did not succeed in identifying VHMS footwall alteration and Plutonic concluded that any future drilling on the prospect would be stratigraphic-exploratory in nature.

No attempt was made by Plutonic to assess the various gold targets within the tenement and Plutonic withdrew in 1996.

#### 4.5) Exploration and Management Consultants

Plutonic relinquished the tenement in 1996 and it was picked up by Exploration and Management Consultants (EMC) who conducted a review of past work and made a number of recommendations for further work.

These included compiling data into digital format, the flying of a detailed close spaced aeromagnetic and radiometric survey, additional stream sediment sampling, the drilling of a couple of deeper diamond holes at Wart Hill, additional work at Voyager 24/30 for gold exploration and further work at the Voyager 3-12 prospects.

#### 5) Fimiston Mining N.L Work Completed

Fimiston Mining N.L joint ventured the tenement in 1998 from EMC and conducted a review and reprocessing of geophysical data. The Aberfoyle QUESTEM survey, aerial and ground magnetics, gravity survey and sirotem survey were reprocessed by Bill Peters of Southern Geoscience.

Two diamond drill holes were drilled for a total of 752 metres. SDH1 was drilled to 352 metres under the V19, Wart Hill prospect with a maximum result of 1m @ 1.33% Zn associated with a lithological contact between a quartz-phyric rhyolite and a volcanoclastic lithology. SDH2 was drilled approximately 200 metres to the west of V19/5, 500 metres south from V19, Wart Hill, targeted on anomalous geochemistry and a subtle ground magnetic, EM and gravity anomaly. A similar volcanoclastic unit to that observed at V19 and V29 was described. No anomalous result was returned.

Geoff Illiff reported that in the vicinity of 10500E, 12500N a significant amount of pyrite alteration can be observed. This area should be examined in more detail and checks made to highlight any previous mapping or other exploration activities completed in this area.

The beginning of a digital database has been established which too date comprises topography, creeks and tracks, located stream sediment (231 samples) and rock chips (174 samples, located C-Horizon sampling of Geopeko (Zn and Pb.), gold geochemistry of the V24 prospect (826 samples), drill hole collars (32 holes for 6561 metres) and surveys. A significant percentage of the drilling assay database for all prospects drilled (2636 assays).has been compiled.

The digitising of geology over a significant proportion of the tenement has been completed with boundaries and rock types similar to that published by the Geol Survey of Tasmania, 1:25,000 Elliott Bay map sheet.

Geology at 1:1,000 scale has been digitised for the Wart Hill and V29 (East Camp) and V24 (Sassy Creek) area.

Areas of significant vegetation (often associated with dominantly sedimentary lithologies) have been digitised from the 1:25,000 topographic sheets.

The digital data has been captured using a combination of MapInfo and Micromine software and can be exported and imported in a variety of formats into different software packages.

A combination of AMG grid coordinates and local grid coordinates have been used to reference the different data sets with a scaled two same point grid transformation used for grid

conversions. Errors of +/- 50 metres are possible. Additional field based work should be completed to check and more accurately define a grid conversion.

Current two points being used to control grid conversions are:

AMG	LOCAL
5248370 N	10000 N
379480 E	10000 E
5251360 N	13000 N
380992 E	11500 E

The different data sets can be combined, displayed and plotted at any scale allowing ready synthesis of the data.

A number of plans and sections have been generated and are presented as Figures in this report. Additional plans and sections have been compiled from previous reports and are presented also.

Results of some of the geochemistry, geophysics, geological mapping, and drill based exploration activities are illustrated in the following pages.

## 6) Conclusion

The large quantity of exploration that has been completed within E20/96 has included systematic and comprehensive geological mapping, geophysics and geochemistry.

The geophysics has been reprocessed and overlaid with a variety of geochemical and geological data sets (largely collected by previous workers) and review of the various data compilations completed. Integration of these data sets suggests that except for the drilling recently completed by Fimiston Mining N.L no stand up drill targets exist.

The Lewis and North Lewis area is considered to be under explored and further scope remains for additional work in this area and further along strike to be completed. (See Appendix Three)

A geological model to explain the VHMS mineralisation within E20/96 has been proposed (Gemmell,1992) and is illustrated as Figure 9. The model suggests the possibility of an economic deposit to exist in the tenement area, at an unknown depth and further work is needed test the concept more fully.

The geophysics suggests that the chances of finding such a deposit within the top 200 metres of surface is small.

The discovery of a Hellyer or Rosebery size deposit in E20/96 below 200 metres is possible, but will require a commitment of deeper exploratory type diamond drill holes. Additional techniques need to be used and integrated with past work to reduce the area of search.

Trace element geochemistry and the application of pathfinder elements and ratios coupled with more detailed geological mapping and geological interpretation may assist.

The presence of massive sulphide clasts at Wart Hill suggests that if a VHMS deposit exists it is likely to be within a one-two kilometre radius of Wart Hill and work should be focused in this area. The gold exploration of the tenement can be further assessed by mapping and rock chip sampling, followed up by trenching in areas of no outcrop.

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**Summary of all (known) Drilling in E20/96**

YEAR	PROSPECT								Total Holes Metres	Metres
	V2 Lewis River	V3	V12 Lewis/Nth Lewis	V9	V24/V30 Sassy Creek	V19 Wart Hill	V33	V29 East Camp		
<b>78-79</b> <b>Geopeko</b>	V2/1-->V2/5 207 metres	V3/1-->V3/2 61.2 metres	V12/1-->V12/4 185.4 metres						11 holes	453 metres
<b>79-80</b> <b>Geopeko</b>	V2/6 200 metres		V12/5 163 metres	V9/1 60 metres					3 holes	423 metres
<b>80-81</b> <b>Geopeko</b>		V3/3 201 metres		V9/2 232 metres	V24/1 129 metres				3 holes	562 metres
<b>81-82</b> <b>Geopeko</b>				V9/3 158 metres	V24/1 129-281.5 metres 152.5	V19/1-->V19/5 882 metres			7 holes	1193 metres
<b>82-83</b>										
<b>83-84</b> <b>Geopeko</b>					V24/2-->V24/4 638 metres		V33/1-->V33/2 201.8 metres		5 holes	840 metres
<b>87-88</b> <b>Cyprus</b>			V12/6-->V12/10 349.6 metres			WH1-->WH7 578.1 metres			12 holes	928 metres
<b>88-89</b> <b>Cyprus</b>						WH8-->WH12A 1384.2 metres		EC1-->EC2A 409 metres	8 holes	1793 metres
<b>Total</b>	6 holes for 407 metres	3 holes for 362.2 metres	10 holes for 699 metres	3 holes for 450 metres	5 holes for 919.5 metres	18 holes for 2849 metres	2 holes for 202 metres	3 holes for 409 metres	<b>TOTAL</b>	<b>49 holes for 6192 metres</b>

Significant Intersections returned from Drilling too date (excluding Wart Hill)

PROSPECT	HOLE	TOT DEPTH	TARGET	BEST INTERSECTION	DESCRIPTION
V2	V2/1	33m	coincident IP and Pb geochem anomaly	8-33 metres 25m @ 0.36%Pb	fine galena-pyrite lenses parallel to bedding in seds
V2	V2/2	47m	Cu-Pb geochem		
V2	V2/3	42m	Coincident IP,VLF-EM and PB anomaly	22-34 metres 12m @ 0.29% Pb	fine sericite/clay/galena fractures
V2	V2/4	30.7m	Coincident IP and Cu geochem anomalies		
V2	V2/5	54.8m	Evaluate old workings	8-13 metres 5m @ 0.18% Cu/0.04 g/t Au	massive siderite/sericite and quartz
V2	V2/6	200.4m	Test down dip of V2/1	88-181m 93m @ 0.31% Pb, includ 135-140m,5m @ 2.24%Pb,0.23%Zn, 29 g/t Ag 195-200m,5m@ 0.18% Pb	fine cross cutting veinlets with qtz/siderite and present as fine disseminations in  fg-mg felsic volcanoclastics
V3	V3/1	30.8m	Coincident Cu and Pb geochem anomaly	10-11m 1m @ 0.34%Pb, 0.66% Zn	pyrite,sphalerite,galena veinlets in volcanoclastics/ siltstone
V3	V3/2	30.7m	Coincident Zn and Pb geochem anomaly	22-23m 1m @ 0.11% Pb, 0.11% Zn	narrow fracture in sediments
V3	V3/3	201m	Coincident Cu and Pb geochem anomaly and coincident IP anomaly in acid pyro and seds	87-88m,1m @ 0.12% Pb, 0.62% Zn 103-111m, 8m @ 0.06%Pb, 0.40% Zn including 104-105m, 1m @ 0.17% Pb, 1.25% Zn	chloritic breccia dissem sphalerite and pyrite in laminated chloritic tuff
V24	V24/1	281.5m	gold geochem anomaly stratigraphic hole	44-124m 80m @ 0.067 g/t Au	
V24	V24/2	251.4m	gold geochem anomaly	177-225m, 53m @ 0.15 g/t Au including 202-206m, 4m @ 2.7 g/t Au 216-217m, 1m @ 0.95 g/t Au	visible gold in sphalerite veinlet
V24	V24/3	167.1m	gold geochem anomaly	40-125m, 85m @ 0.052g/t Au 125-128m, 3m @ 17.5 g/t Au 128-167.1m, 39.1m @ 0.055 g/t Au	vuggy sphalerite,galena,qtz pyrite vein(4cm) parallel to core.
V24	V24/4	220m	gold geochem anomaly	110-148m, 38m @ 0.19 g/t Au including, 111-112m, 1m @ 3.5 g/t Au	veinlet of sphalerite/galena
V12	V12/1	30.6m	gossanous pods with rockchips of up to 25g/t Au	4-6m, 2m @ 0.37g/t Au, 5g/t Ag 21-23m, 2m @ 0.16g/t Au, 25g/t Ag	fractures/breccia/veinlets
V12	V12/3	90m	vein breccia zones	53-55m, 2m @ 1.6g/t Au, 4g/t Ag	fractures/breccia/veinlets
V12	V12/4	47.5m	stockwork veins qtz/tourm, later chl/pyr/ chalc +/- galena, sphal, qtz	40-42m, 2m @ 0.12 g/t Au, 8g/t Ag	fractures/breccia/veinlets
V12	V12/5	163.65m	stockwork veins qtz/tourm, later chl/pyr/ chalc +/- galena, sphal, qtz	70-71m, 1m @ 0.4g/t Au, 7g/t Ag	fractures/breccia/veinlets
V12	V12/6	80.2m	vein breccias	26.5-28m, 1.5m @ 0.15g/t Au, 29g/t Ag	fractures/breccia/veinlets
V12	V12/8	69m	anomalous soils/rockchips	28-30m, 4m @ 0.28 g/t Au, 15.2g/t Ag	fractures/breccia/veinlets
V33	V33/1	85.5	geochemical anomaly	7.6m @ 1.24% Pb, 0.9%Zn, 56g/t Ag, 0.06g/t Au	siliceous fault breccia zone
	V33/2	116.3	geochemical anomaly	1m @ 0.76%Pb, 1.6%Zn, 16g/t Ag  8m @ 0.06%Pb, 0.09%Zn, 2g/t Ag	10cm carbonate vein with sphalerite, galena, arsenopyrite, pyrite siliceous fault breccia zone
V29/East Camp	EC1	178.5m	4000ppm Zn, 2250ppm Pb Soil anomaly	164-165m 1m @ 0.44%Pb,0.64%Zn,9g/t Ag	epiclastic sandstone and breccia minor hematite/pyrite clasts 1 cm qtz/sphide vein
V29/East Camp	EC2	90m	4000ppm Zn, 2250ppm Pb Soil anomaly	78-79m 1m @ 0.19%Pb, 0.32% Zn, 2.5 g/t Ag	epiclastic breccia, minor sulphides assoc qtz/carb
V29/East Camp	EC2A	190.5m	4000ppm Zn, 2250ppm Pb Soil anomaly	98-99m 1m @ 0.30%Pb,0.40%Zn,4.5g/t Ag	epiclastic breccia with trace pyrite through out and clasts of galena/sphal and hematite qtz/carbonate

**References**

Various and numerous past open file reports of Geopeko, Cyprus, Aberfoyle and Plutonic.

E.L. 20/96 - Elliott Bay, Western Tasmania. A Review.

Grant MacDonald, January 1997

Consultants report to Exploration and Management Consultants Pty Ltd.

**Keywords**

VMS, Elliott Bay, South West Tasmania, Lead, Zinc, Data Compilation, Geophysics,

Statement of Expenditure for EL 20/96  
12/4/98 to 11/3/99  
Elliott Bay

Acquisition Costs

Cost / Valuation	\$55,000
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General Prospecting

Rock sample Assays	\$171
--------------------	-------

Remote Sensing and Airborne Surveys

Aeromag Survey	\$365
GIS Applications	\$400
Data Processing	\$7,786

Drilling

Cost/Valuation	\$1,879
Diamond Drilling	\$74,781
Other Drilling Expenses	\$2,050

Overheads

Administration Costs	\$2,260
Legal Fees	\$4,136
Office Charges	\$1,866
Report Preparation	\$7,134
Stamp Duty	\$1,465
Telephone Expenses	\$4,057

Other Costs

Airline Charters	\$66,818
Airline Flights	\$1,862
Acquisition Costs	\$18,000
Computing	\$9,407
Consulting	\$73,730
Contract Geologist	\$20,769
Data Acquisition	\$2,961
Drafting	\$4,022
Field Expenses	\$182
Field Vehicle Hire	\$421
Field Vehicle Operating	\$19,376
Land Management / Rent	\$3,232
Metallurgist	\$293
Tenement Management	\$75
Travel and Accomodation	\$8,570

Net Exploration Expenditure

	\$393,068
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145°

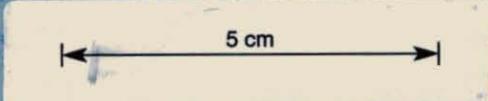
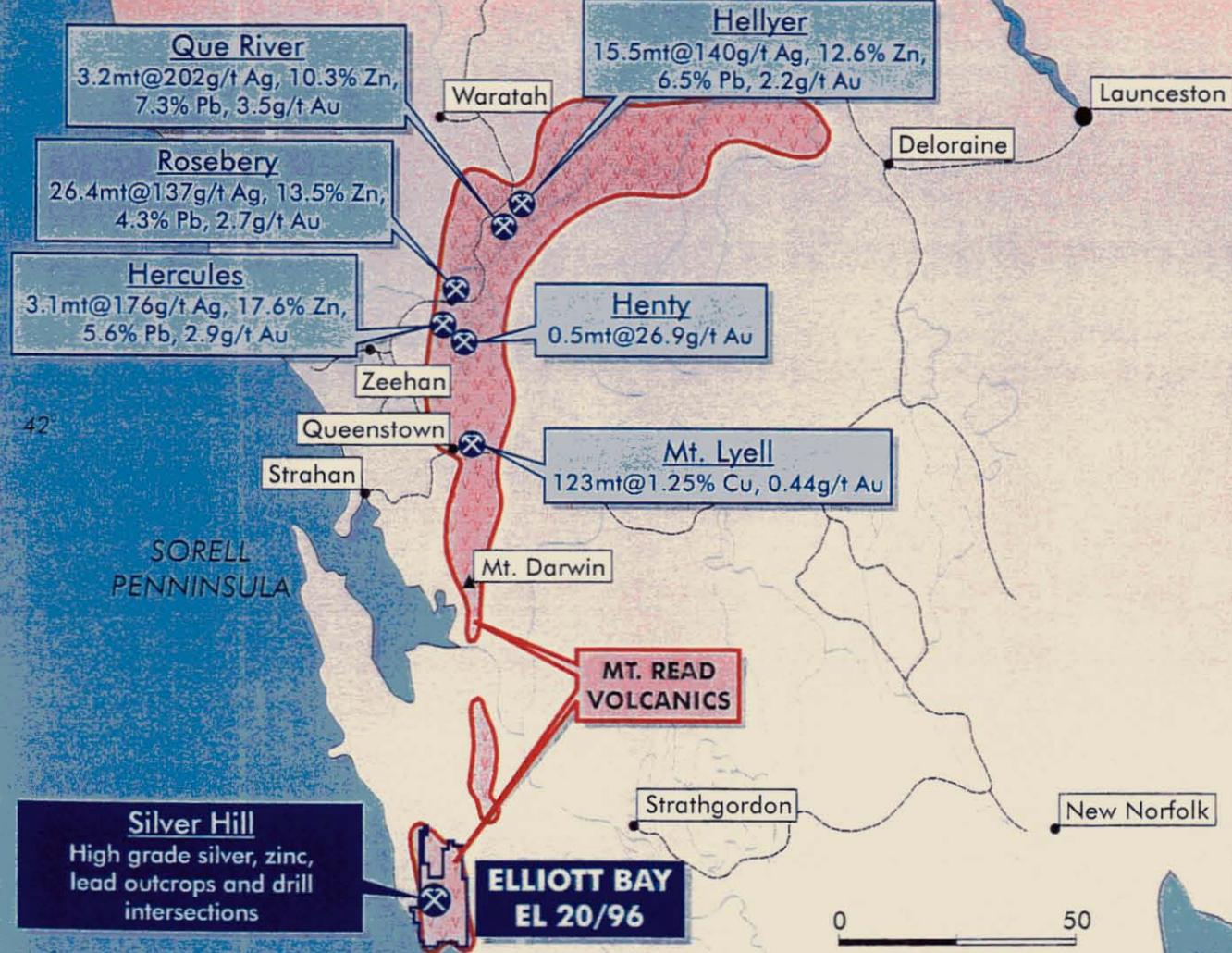
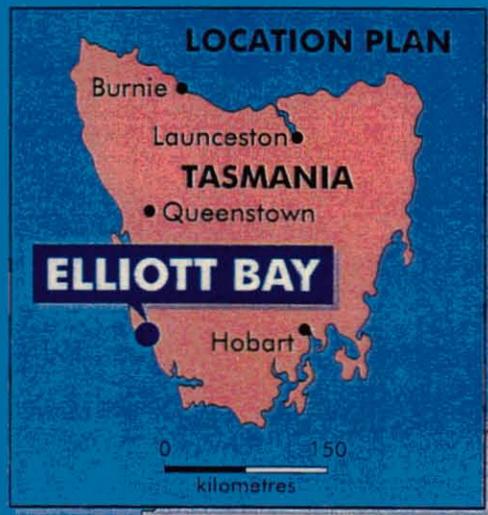
146°

147°

41°

42°

43°



**FIMISTON MINING N.L.**  
**ELLIOTT BAY PROJECT, TASMANIA**  
**LOCATION PLAN**

Figure 1 E20/96 Elliott Bay Project, Tasmania, Location Plan

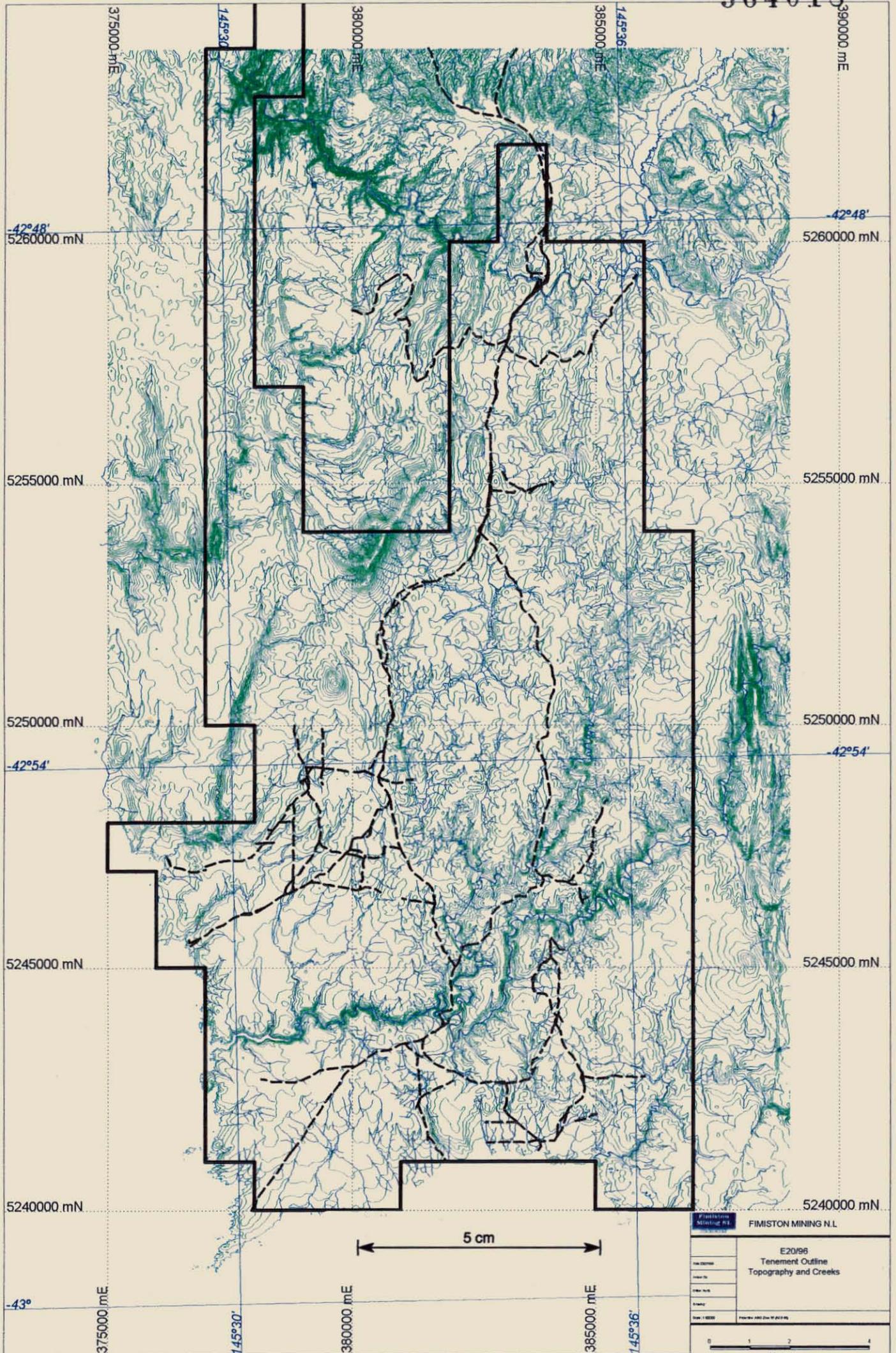


Figure 2 E20/96 1:100,000 Elliott Bay Project, Topography, Creeks

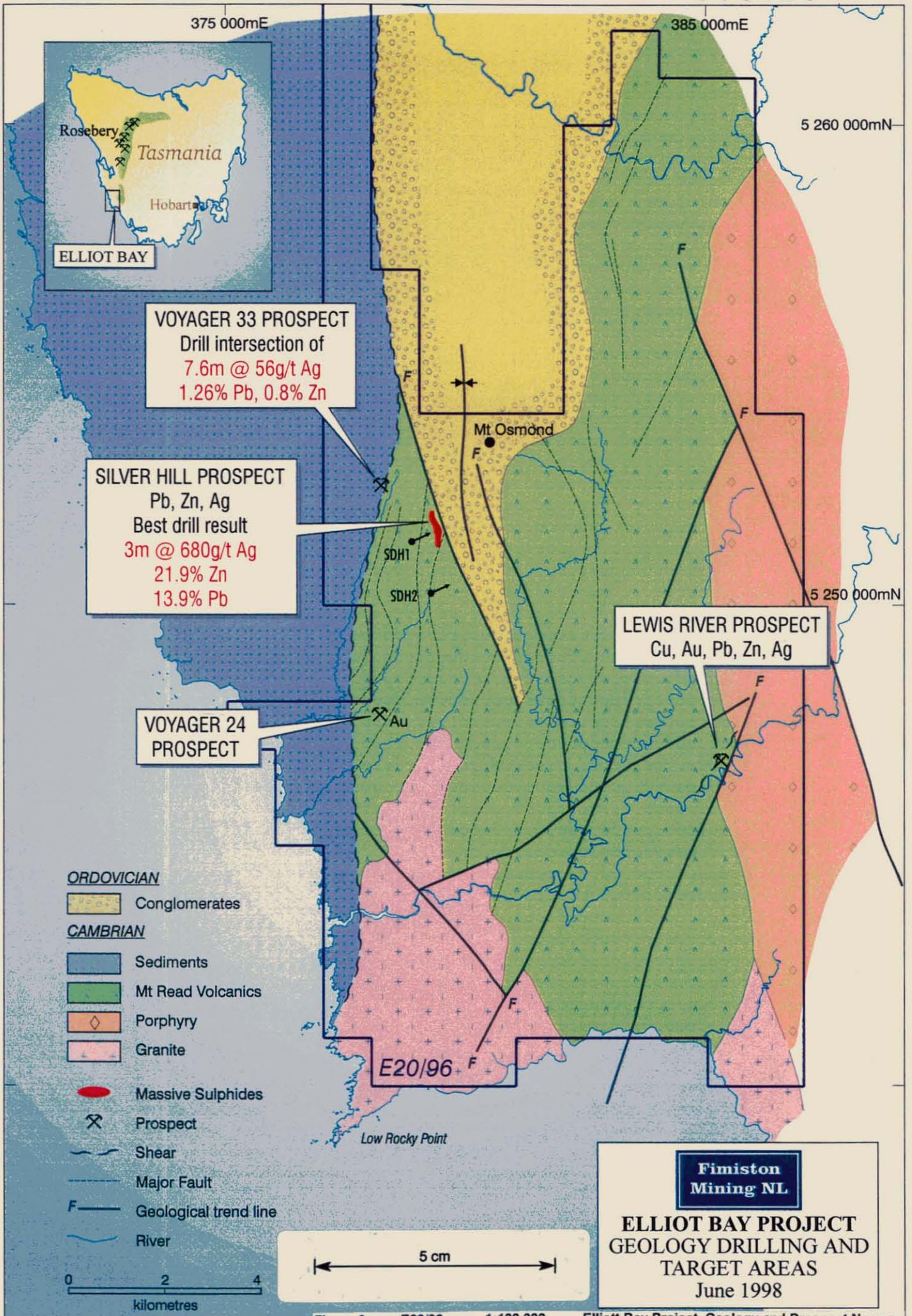


Figure 3 E20/96 1:100,000 Elliott Bay Project, Geology and Prospect Names

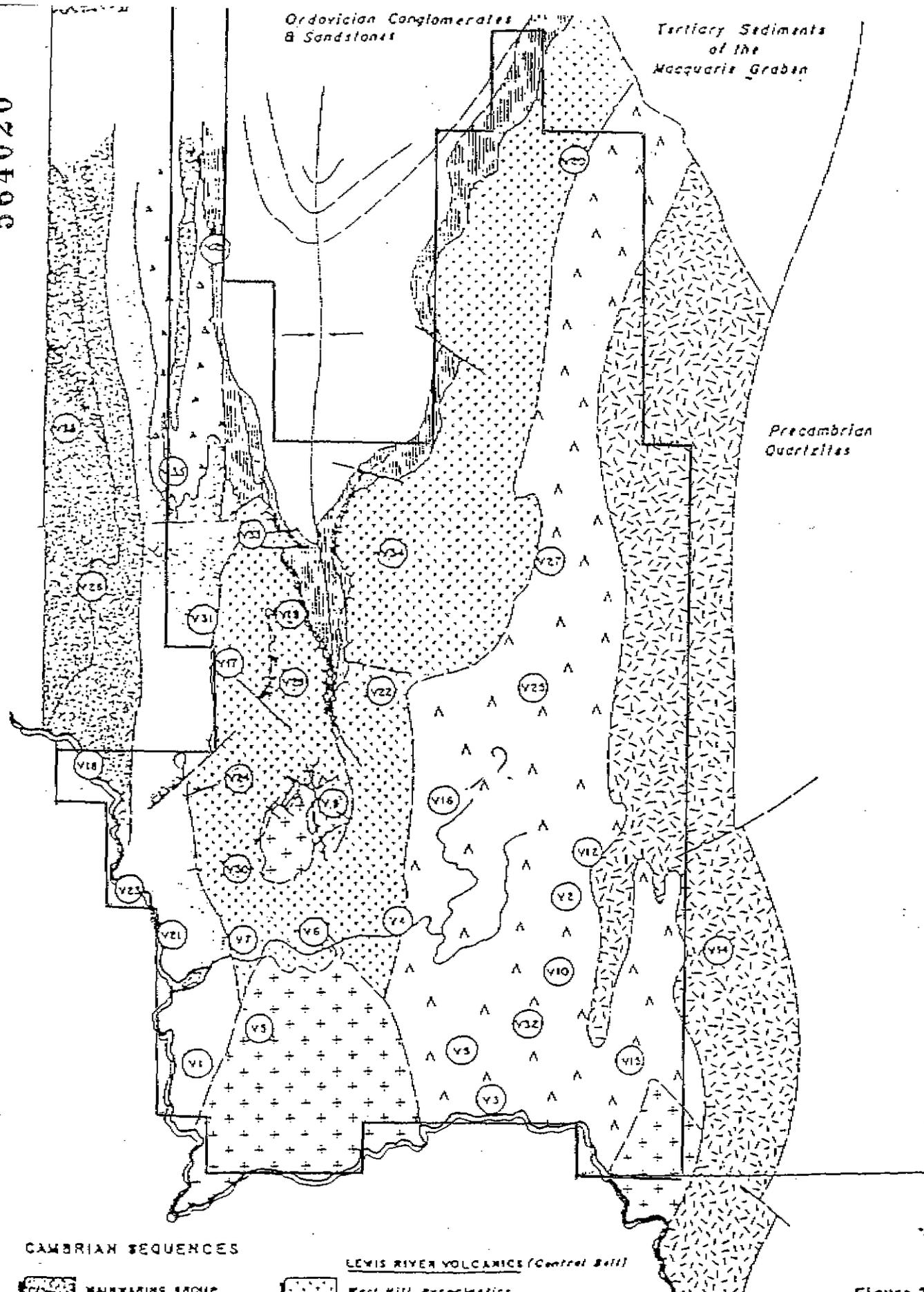
**Fimiston Mining NL**  
**ELLIOT BAY PROJECT**  
GEOLOGY DRILLING AND  
TARGET AREAS  
June 1998

564020

Ordovician Conglomerates  
& Sandstones

Tertiary Sediments  
of the  
Macquarie Graben

Precambrian  
Quartzites



CAMBRIAN SEQUENCES

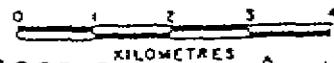
- MAINWARING GROUP
- W.T. READ CORRELATES
- Western Sequence
- Tyndal Group Correlates

LEWIS RIVER VOLCANICS (Central Belt)

- Wart Hill Pyroclastics
- Nelson River Pyroclastics
- Elliott Point Porphyry
- Granite
- Undifferentiated Acid Volcanics

Figure 2

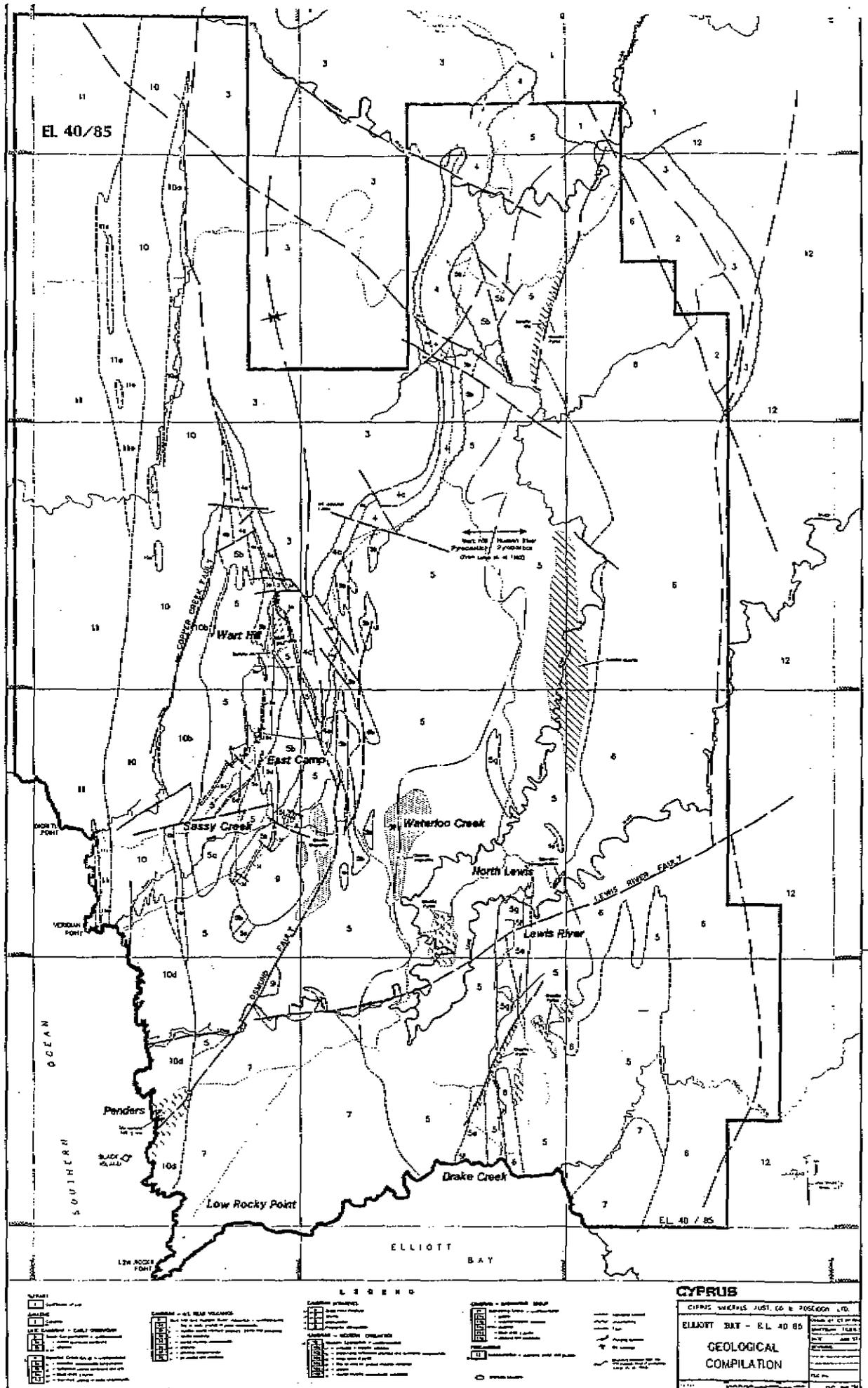
E.L.27/76  
ELLIOTT BAY, TASMANIA  
GEOLOGY & PROSPECT LOCATIONS



GEOPEKO  
PROSPECT LOCATIONS *Fig 4*

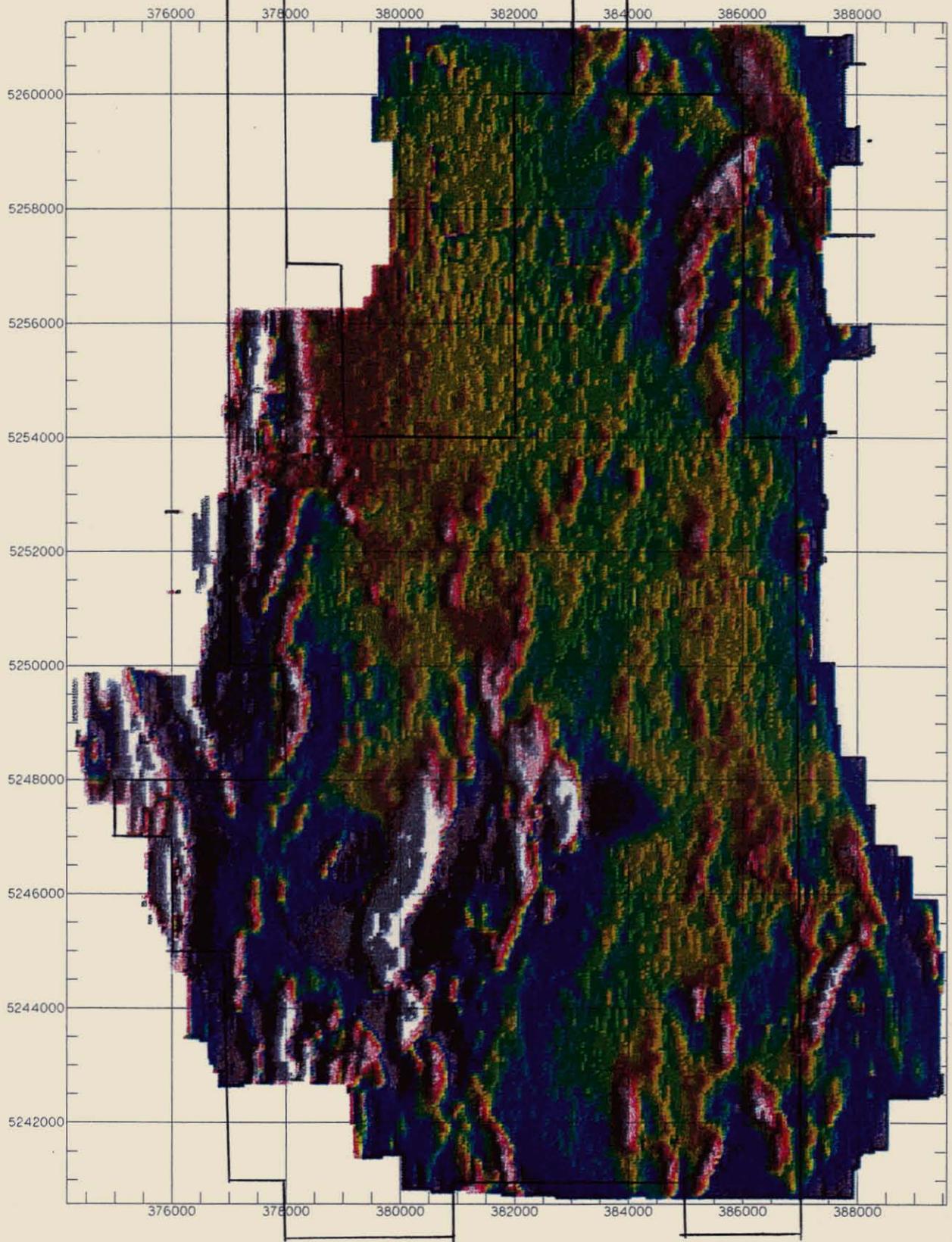
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564021

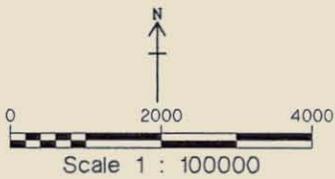


5 cm

Figure 4 E20/96 1:100,000 Elliott Bay Project, Geology



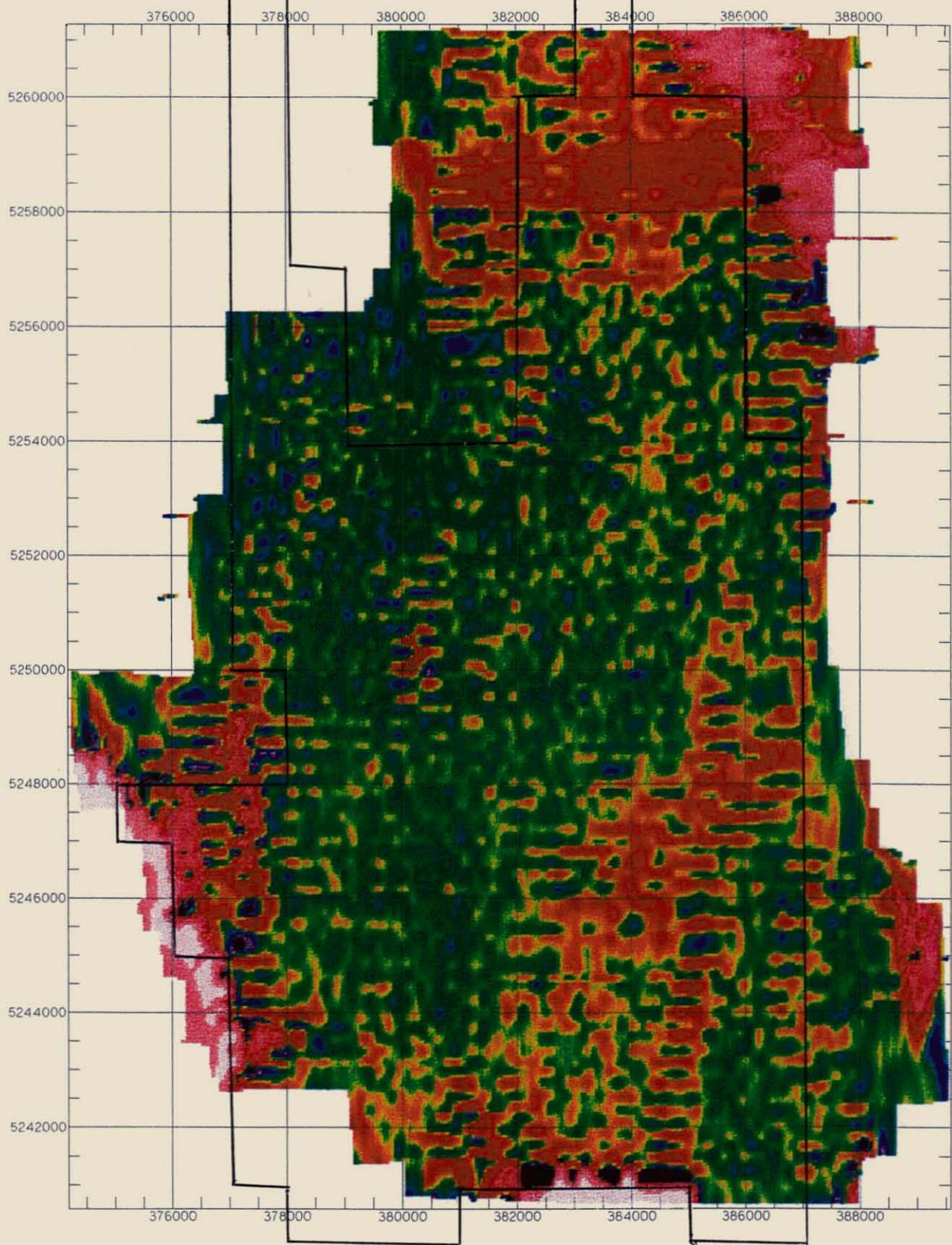
5 cm



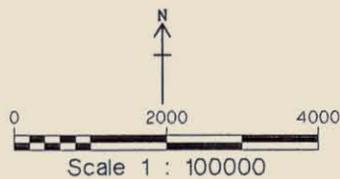
MAP GRID ZONE 55  
 AGD 84 SPHEROID  
 GRID CELL SIZE : 50 Metres

<p><b>SOUTHERN GEOSCIENCE CONSULTANTS</b></p>	
<p><b>FIMISTON MINING NL</b></p>	
<p><b>ELLIOTT BAY, TASMANIA</b></p>	
<p><b>AIRBORNE GEOPHYSICAL SURVEY</b></p>	
<p><b>FIRST VERTICAL DERIVATIVE IMAGE</b></p>	
<p><b>(NL) SHADED WITH 50% EAST GRADIENT</b></p>	
<p>Supervisor : W.S.Peters</p>	<p>DATE : 10-03-1998</p>

**Figure 5 E20/96 1:100,000 Elliott Bay Project, Aeromagnetic Image**



5 cm



MAP GRID ZONE 55  
AGD 84 SPHEROID  
GRID CELL SIZE : 50 Metres

SOUTHERN GEOSCIENCE  
CONSULTANTS

FIMISTON MINING NL  
ELLIOTT BAY, TASMANIA  
AIRBORNE GEOPHYSICAL SURVEY  
QUESTEM IMAGE (NON LINEAR)  
EM CHANNEL 4

Supervisor : W.S.Peters

DATE : 09-03-1998

Figure 6 E20/96 1:100,000 Elliott Bay Project, Questem Image

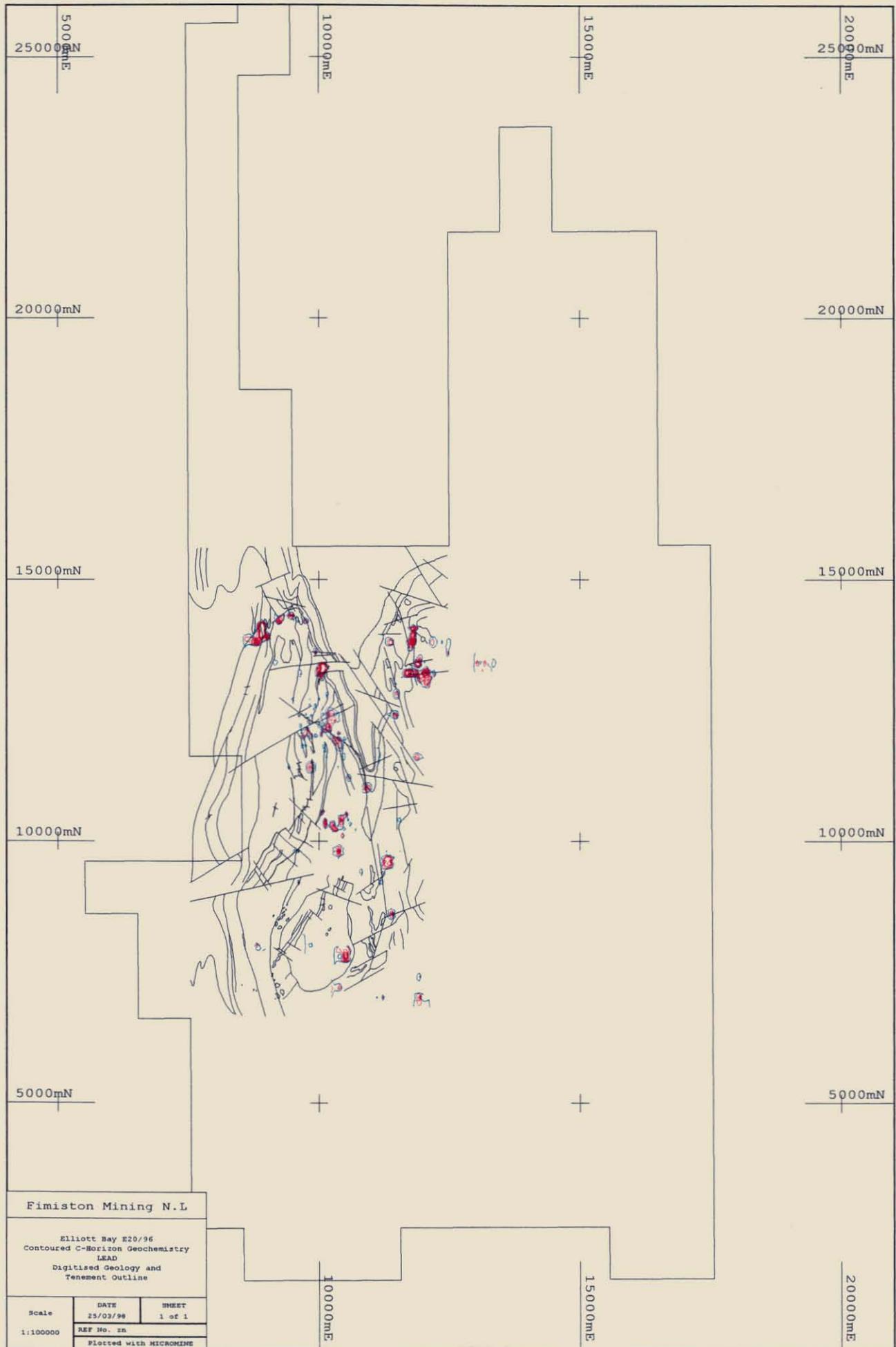


Figure 7 E20/96 1:100,000 Elliott Bay, Contoured Lead Geochemistry and Geology

5 cm

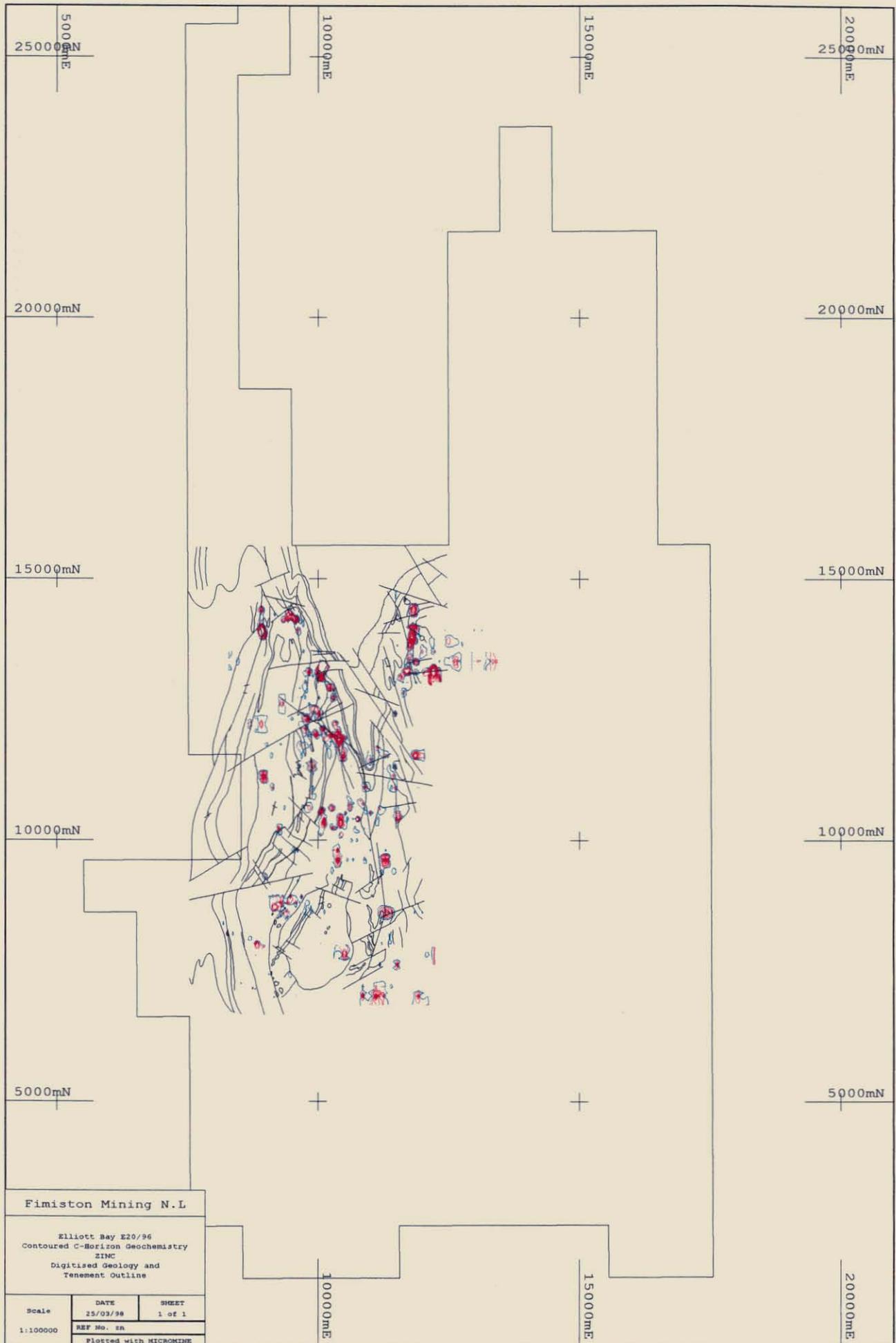


Figure 8 E20/96 1:100,000 Elliott Bay, Contoured Zinc Geochemistry and Geology

5 cm

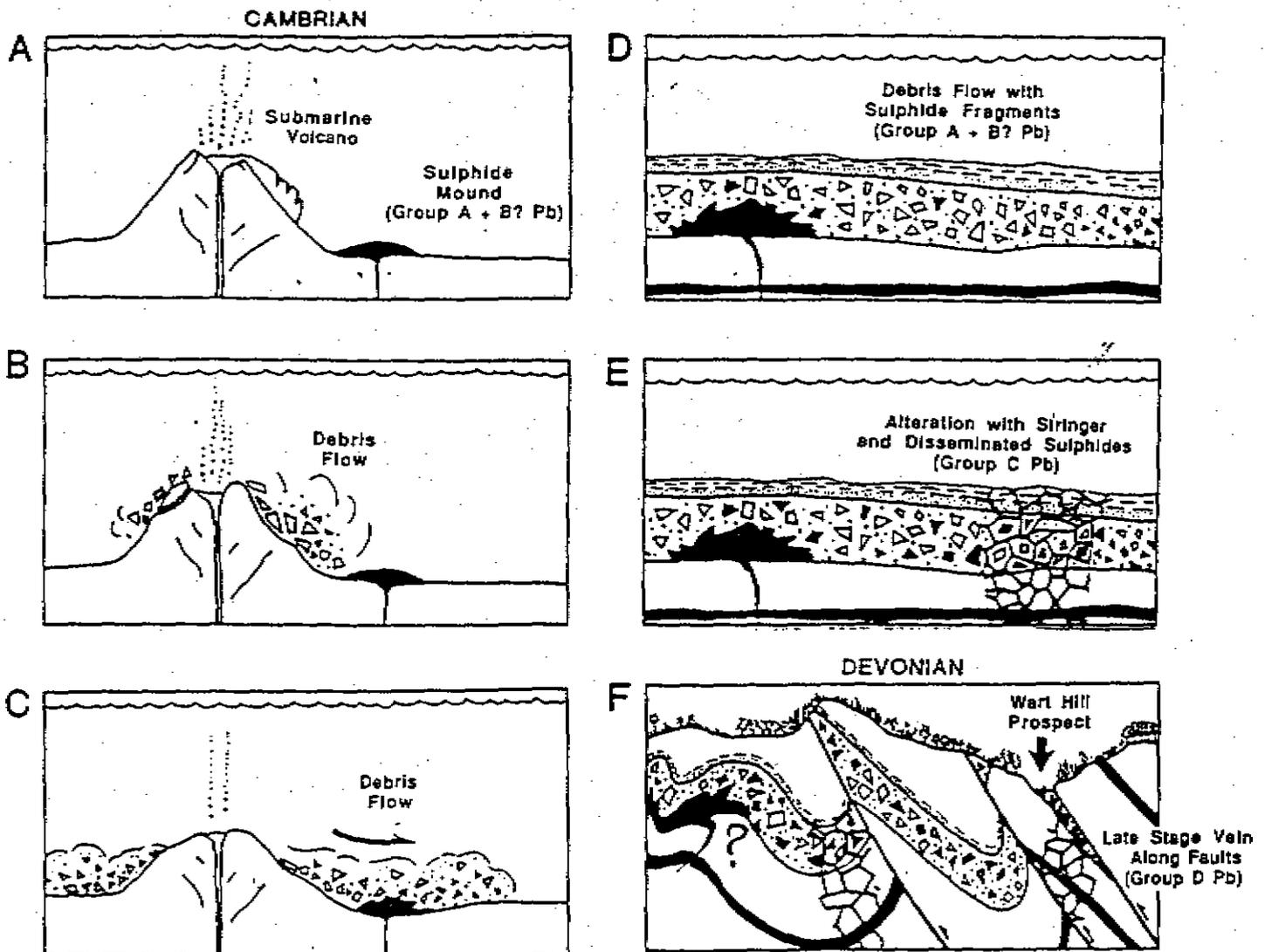


Figure 3 Working model for types of Elliott Bay mineralisation and differing Pb isotope signatures. A. in the Cambrian a volcanogenic massive sulphide deposit (Groups A and B Pb), of unknown size, formed on the seafloor somewhere in the vicinity of the Wart Hill. B. and C. Subaqueous debris flows incorporated fragments of this mineralisation and deposited them at the present day site of War Hill. D. These fragments became one of the clast types in the debris flow deposits. E. Shortly after the deposition of the debris flows a separate generation of hydrothermal fluids passed through these rocks causing alteration (sericite, silica, chlorite, minor carbonate) and precipitation of disseminated and stringer sulphide mineralisation (Group C Pb). F. During, or shortly after, the Devonian deformation another generation of hydrothermal fluids passed through the rocks causing minor alteration and sulphide mineralisation along faults and fractures (Group D Pb).

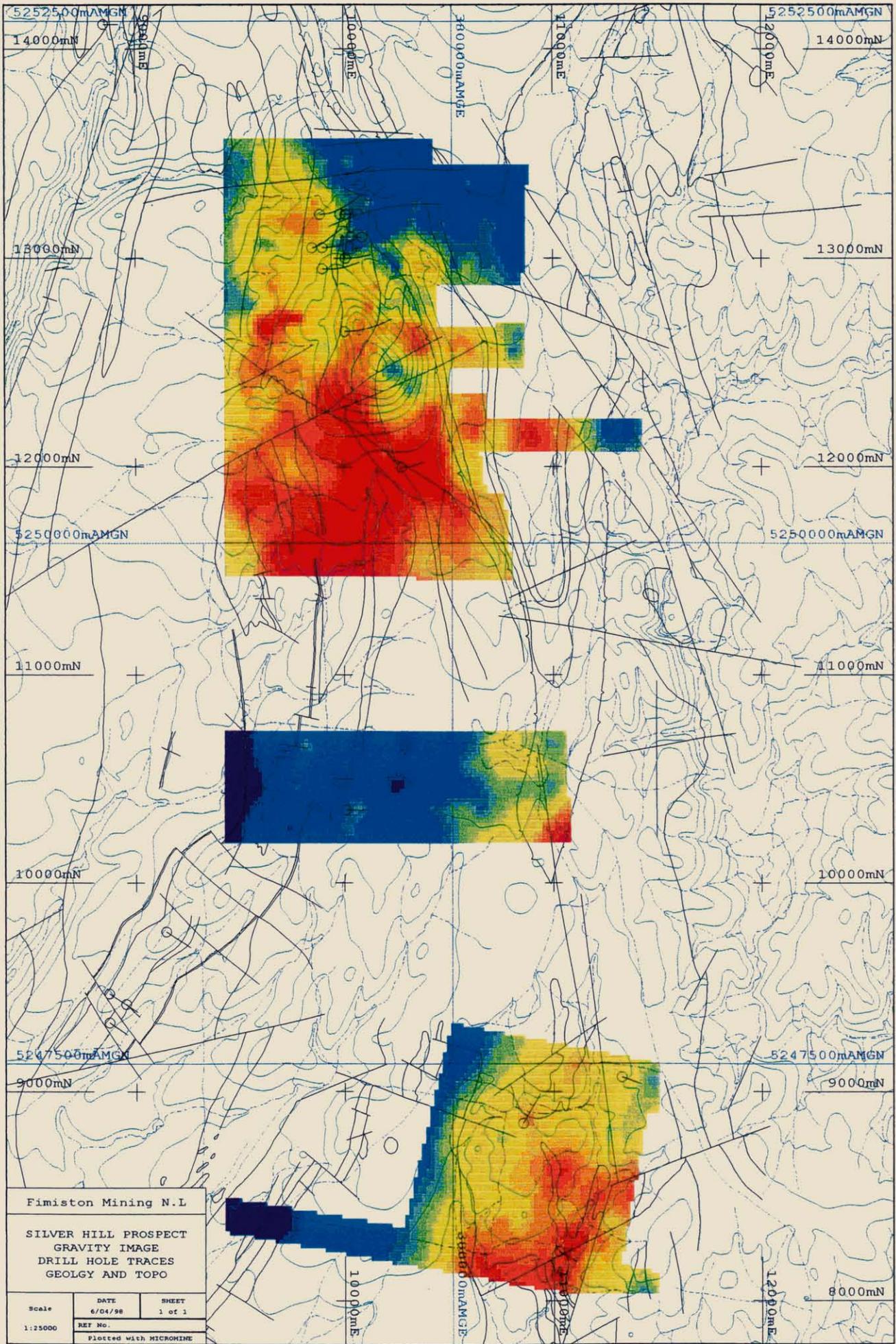


Figure 10 E20/96 1:25,000 Gravity Image, Drillhole traces, Geology and Topography

5 cm

5 cm

64028

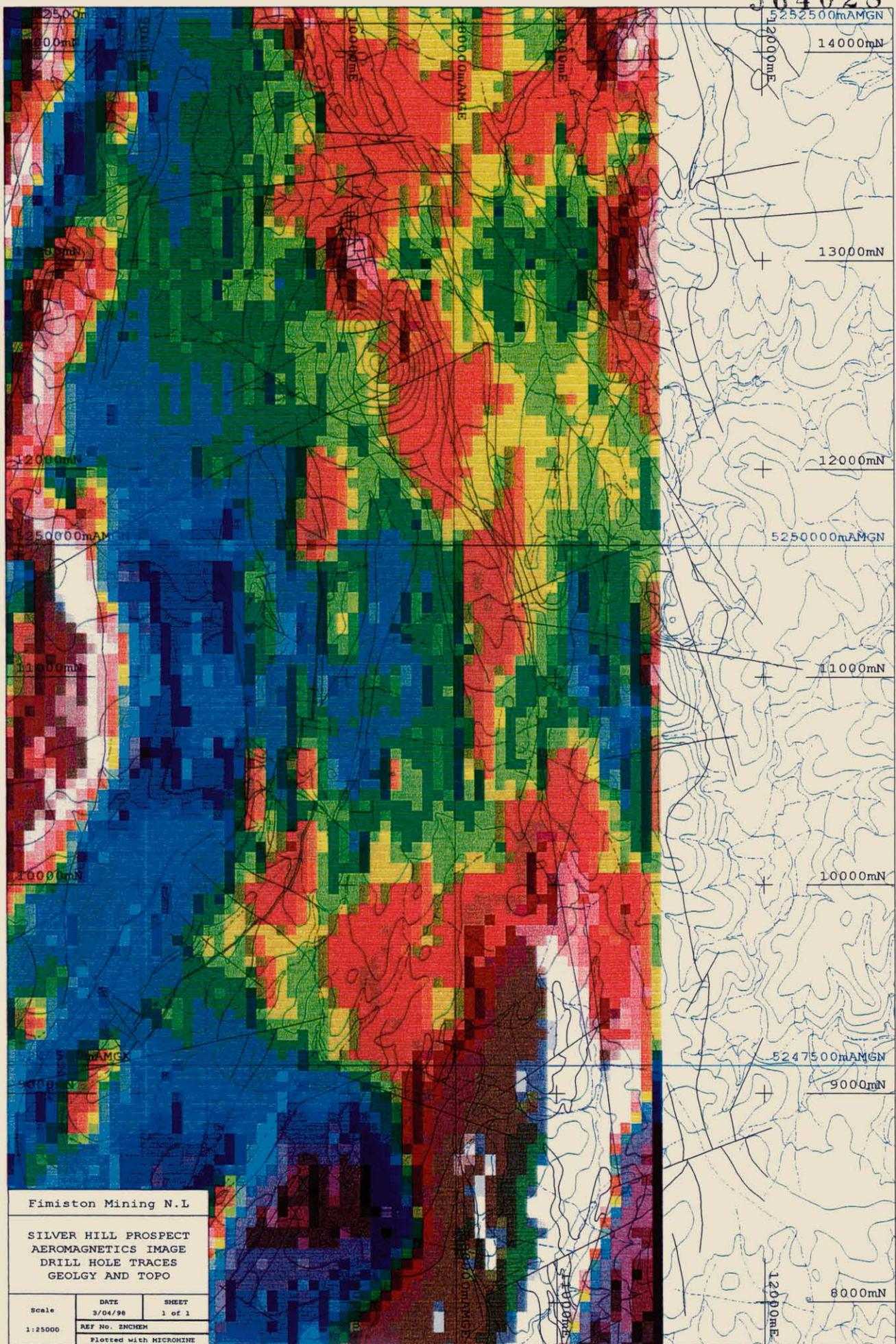


Figure 11 E20/96 1:25,000 Aeromagnetic Image, Drillhole traces, Geology and Topography

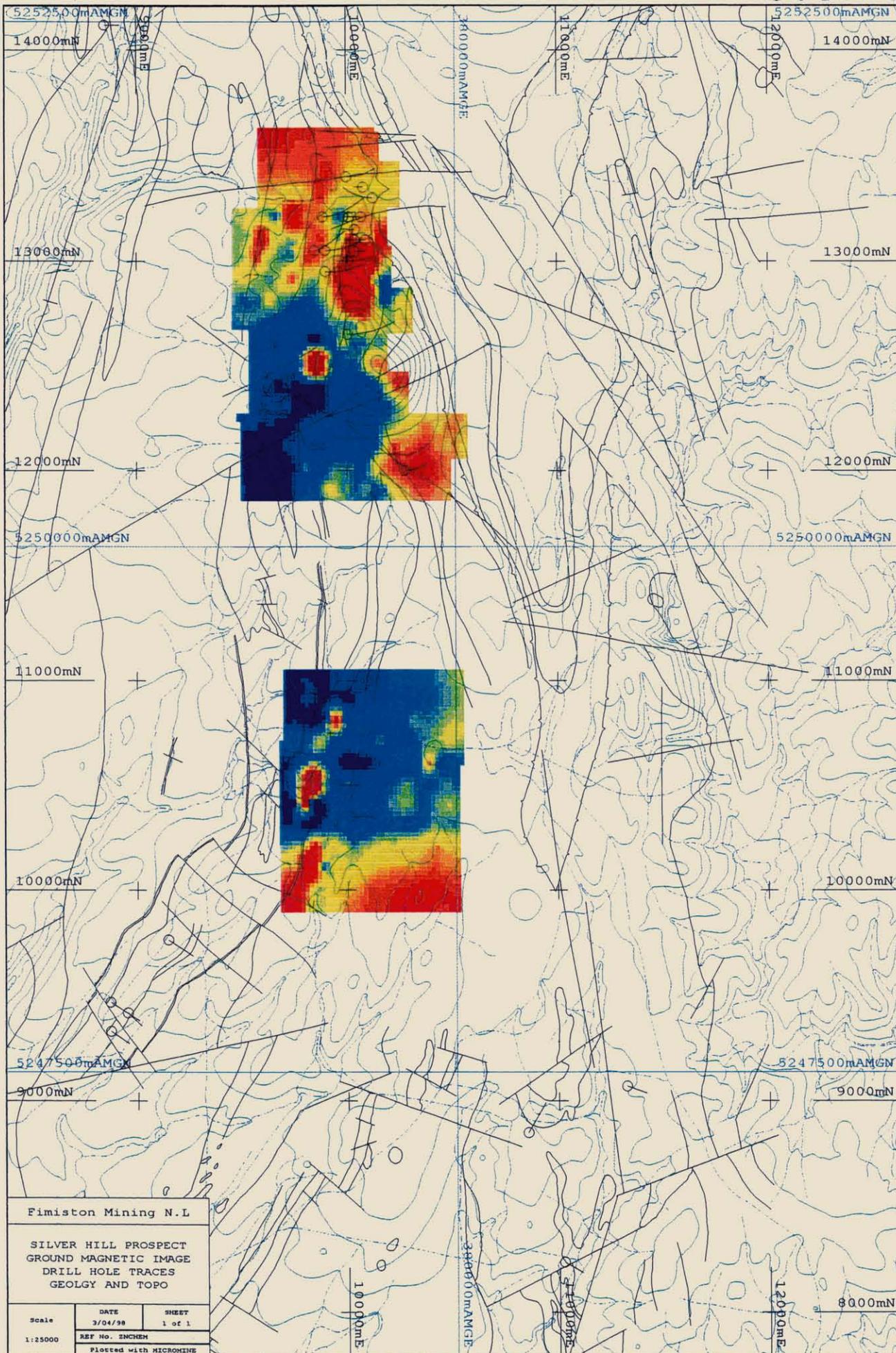


Figure 12 E20/96 1:25,000 Ground magnetic Image, Drillhole traces, Geology and Topography

5 cm

564030

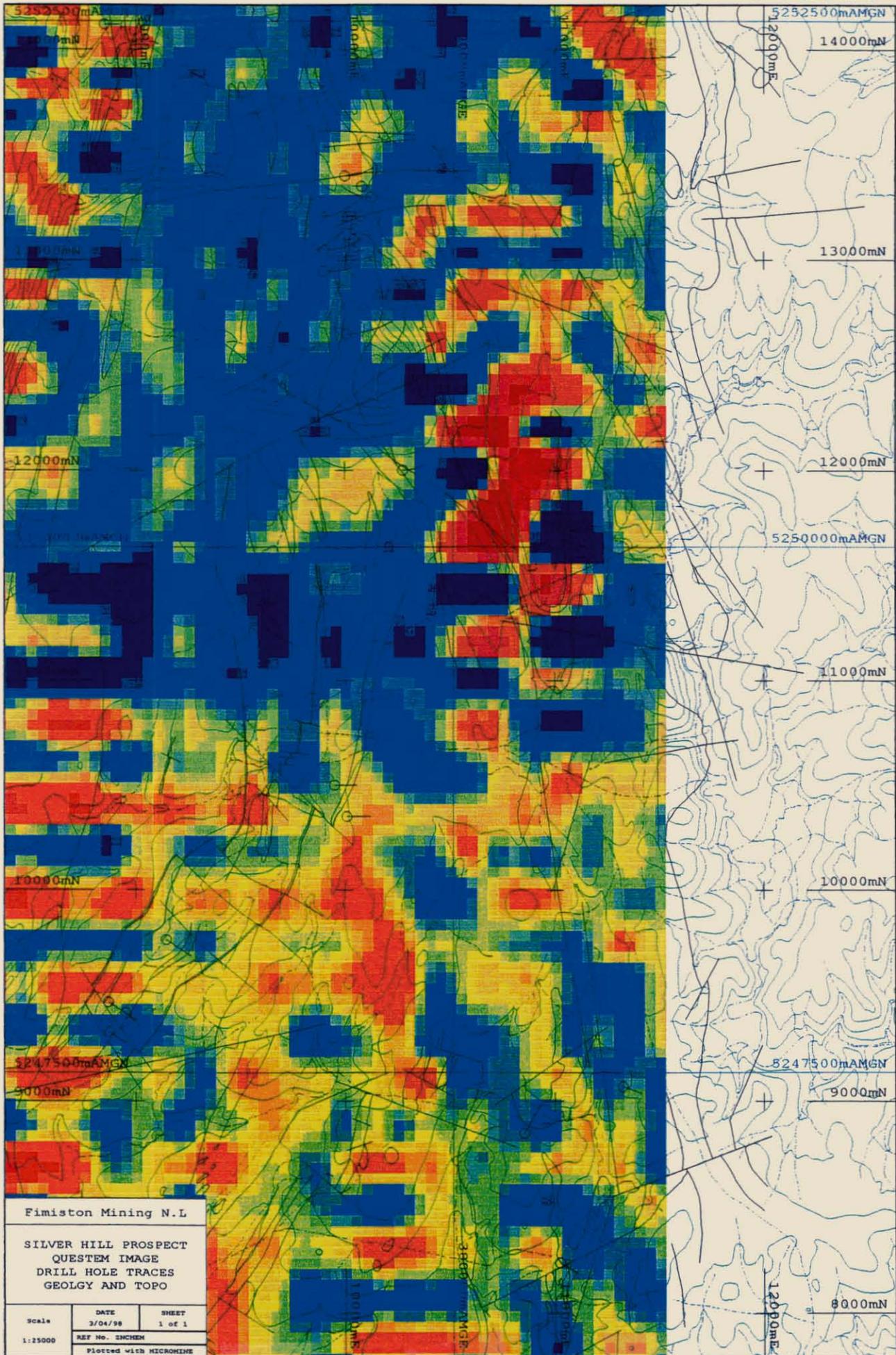


Figure 13 E20/96 1:25,000 Questem Image, Drillhole traces, Geology and Topography

5 cm

2

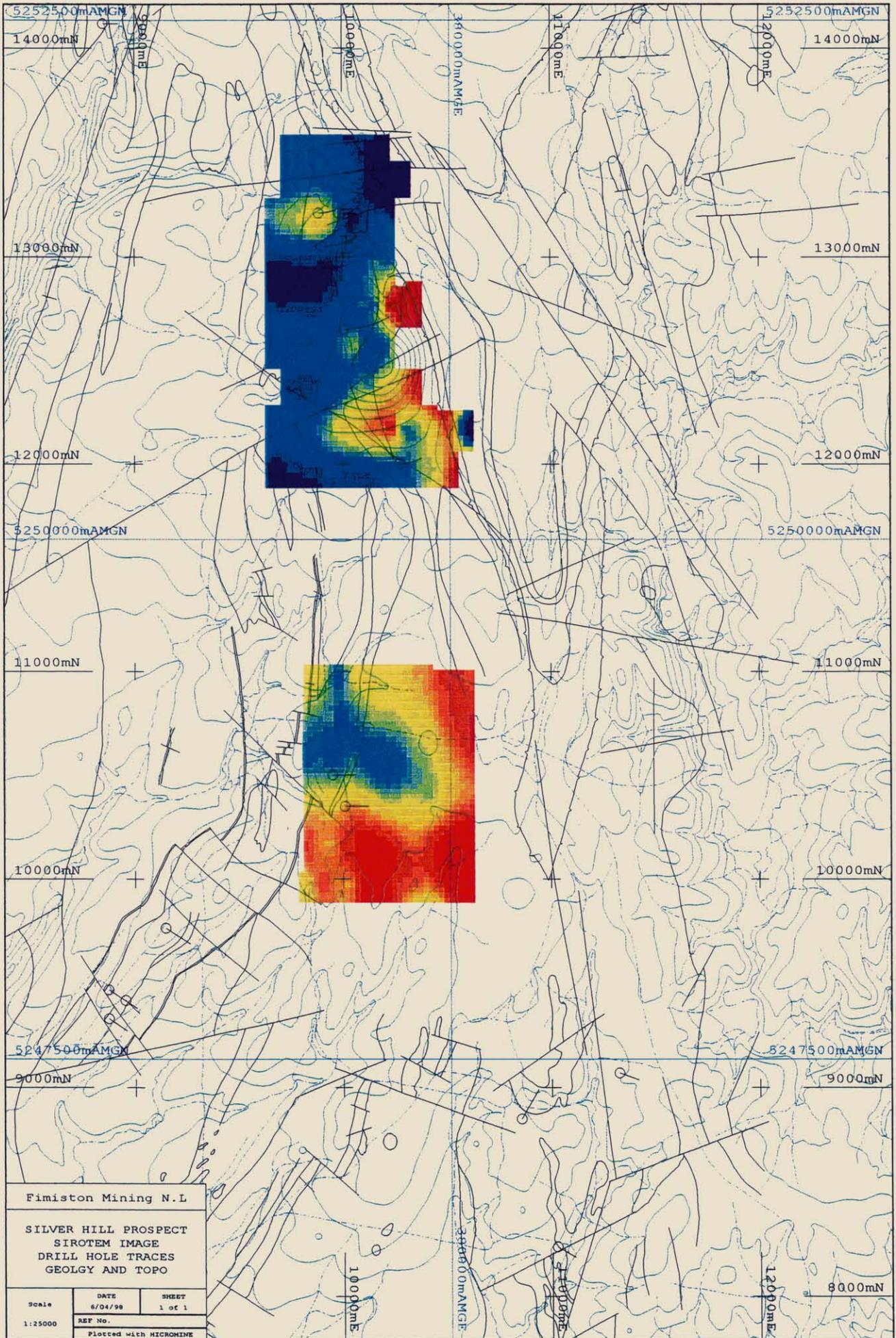


Figure 14 E20/96 1:25,000 SiroteM Image, Drillhole traces, Geology and Topography

5 cm



564033

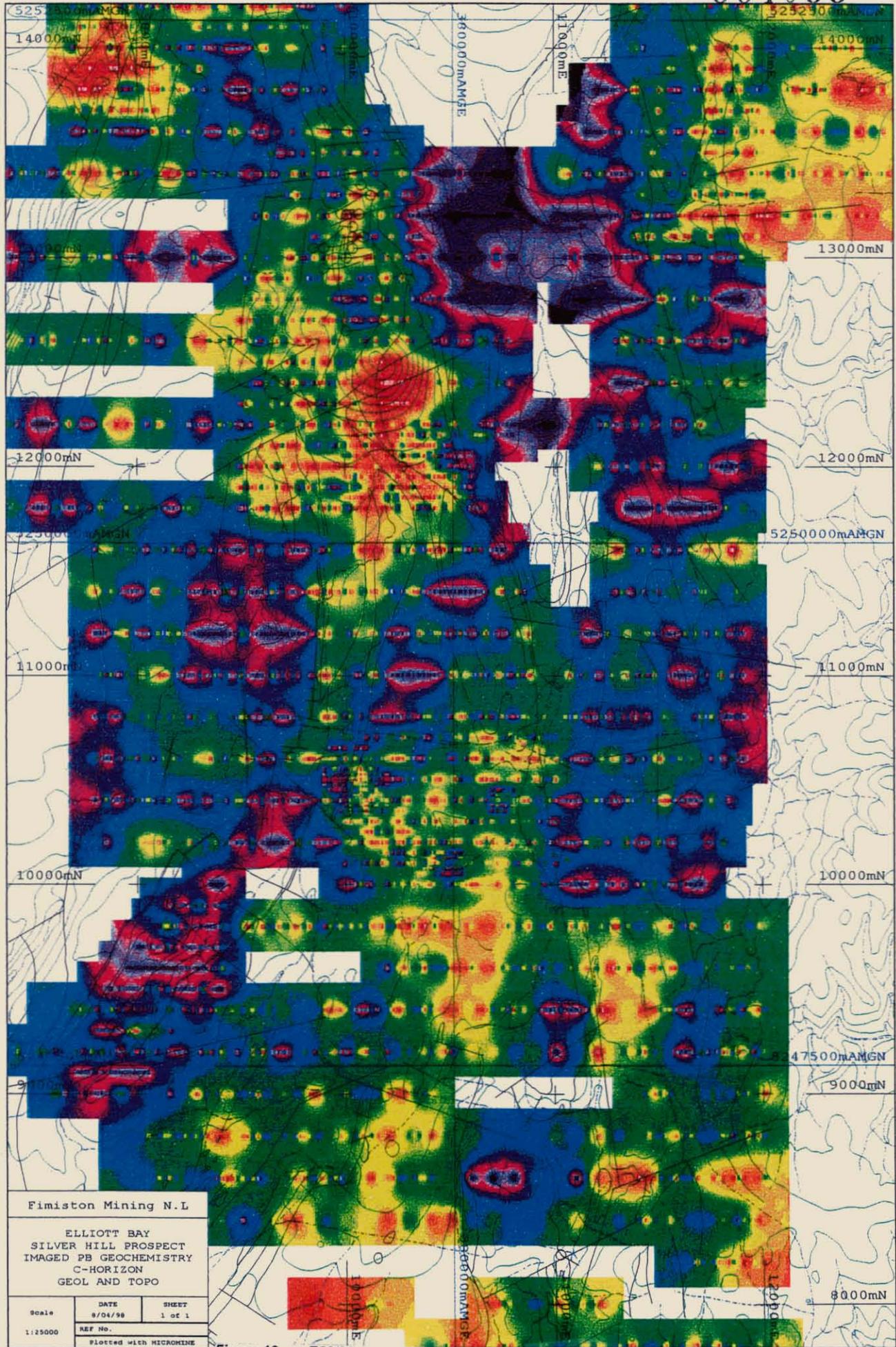


Figure 16

E20/96

1:25,000

Lead Image, Drillhole traces, Geology and Topography

5 cm

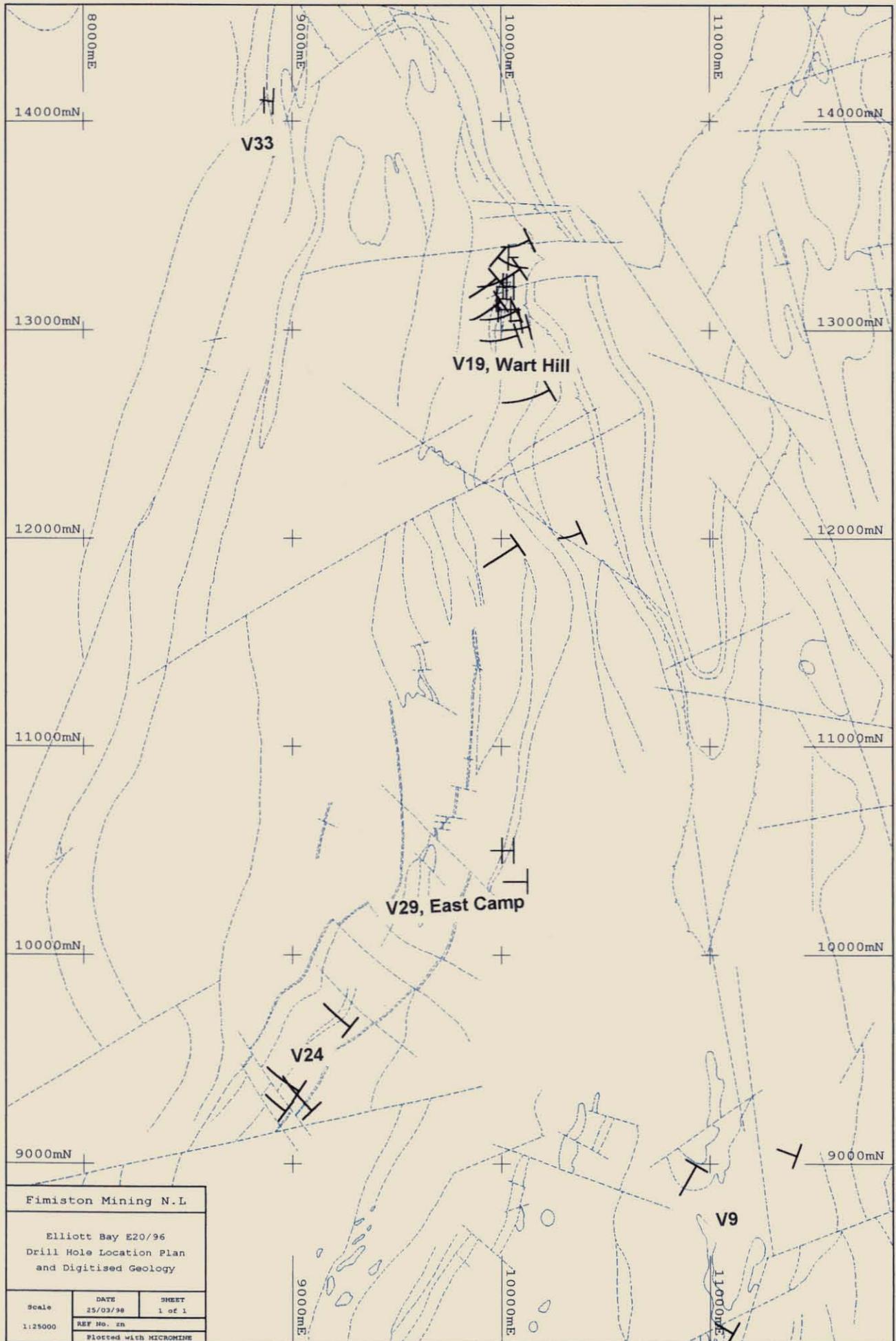


Figure 17 E20/96 1:25,000 Drill Hole Location Plan and Geology

5 cm

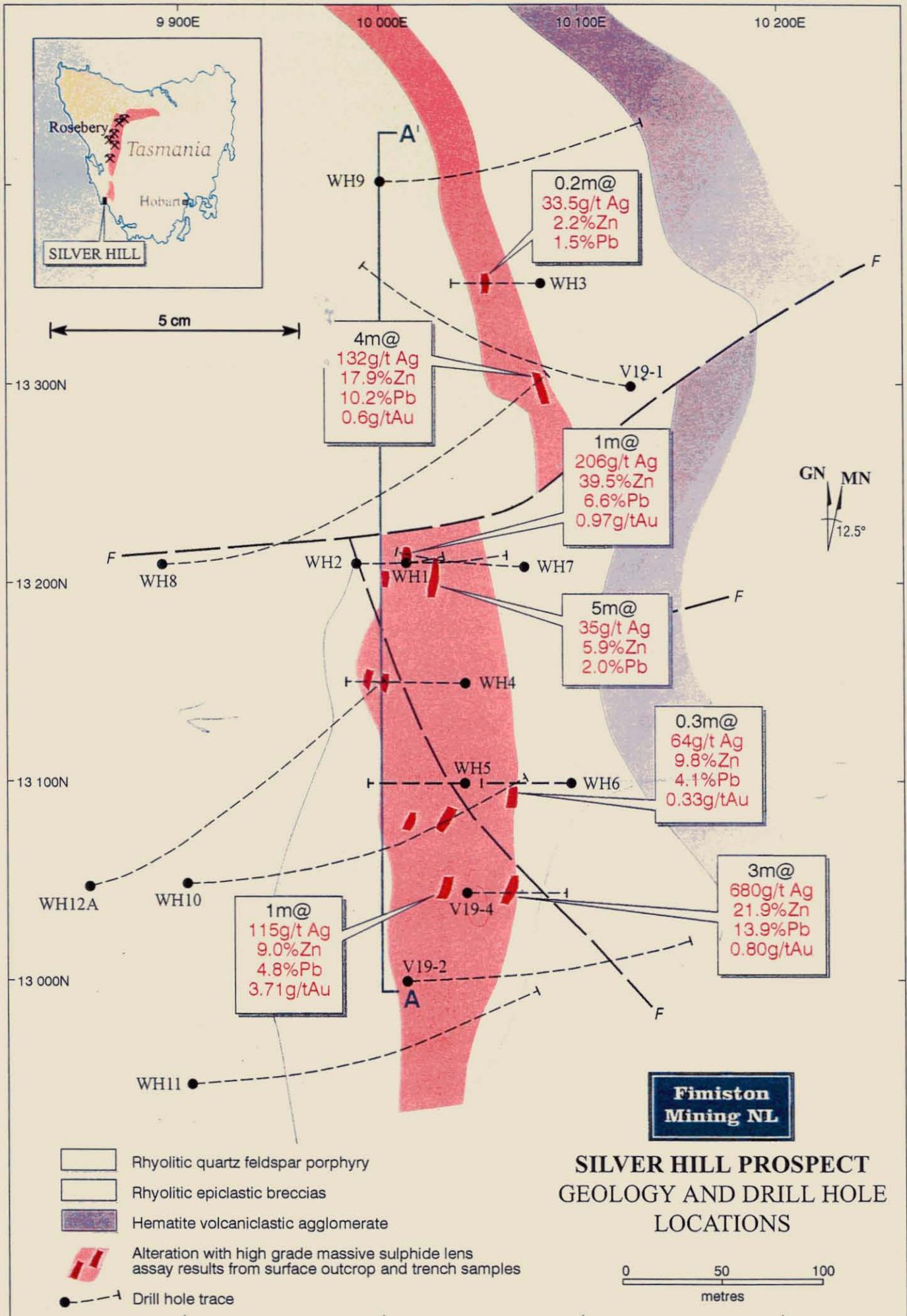


Figure 18 V19

Wart Hill/Silver Hill, Geology and Drill Hole Location Plan

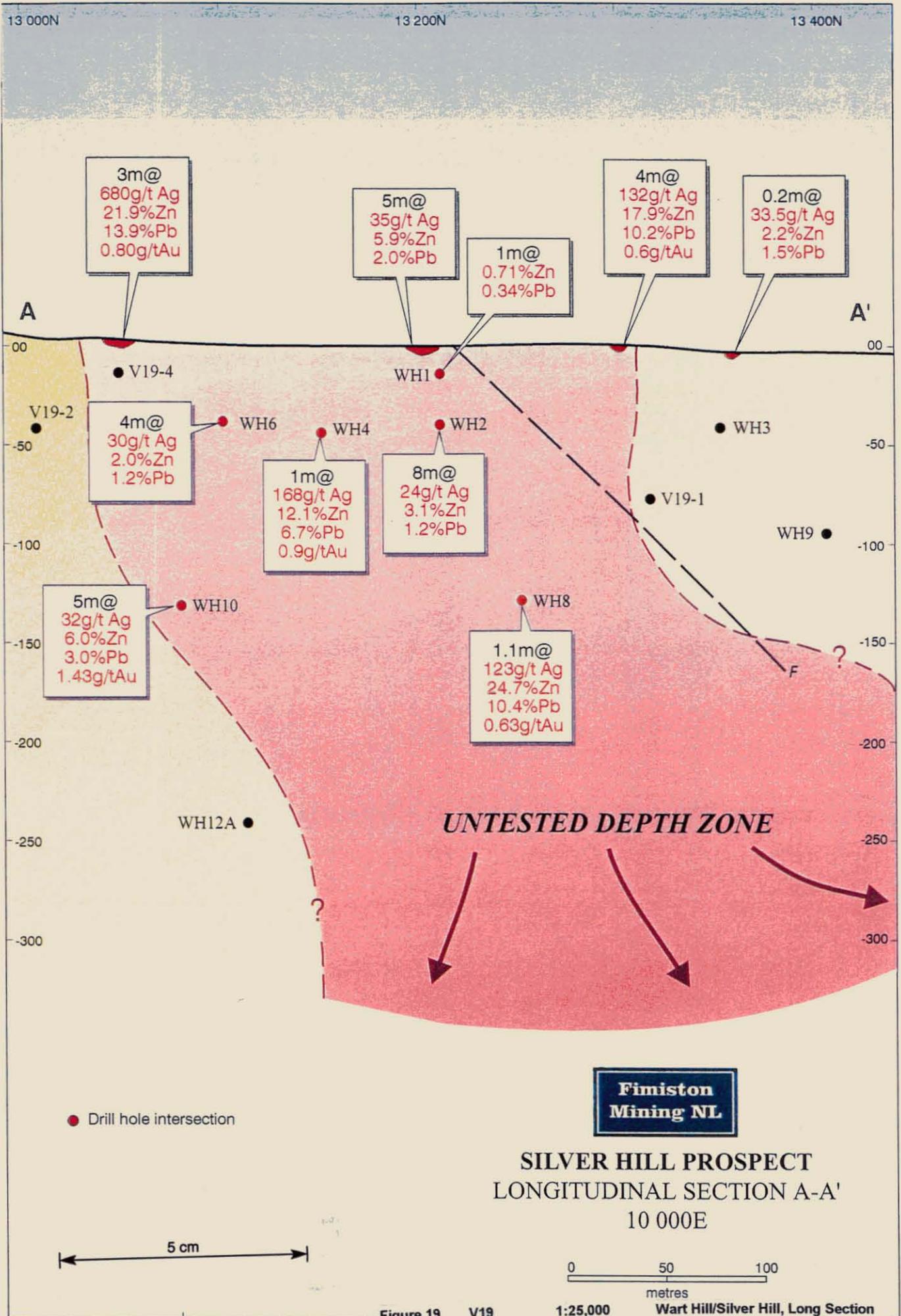


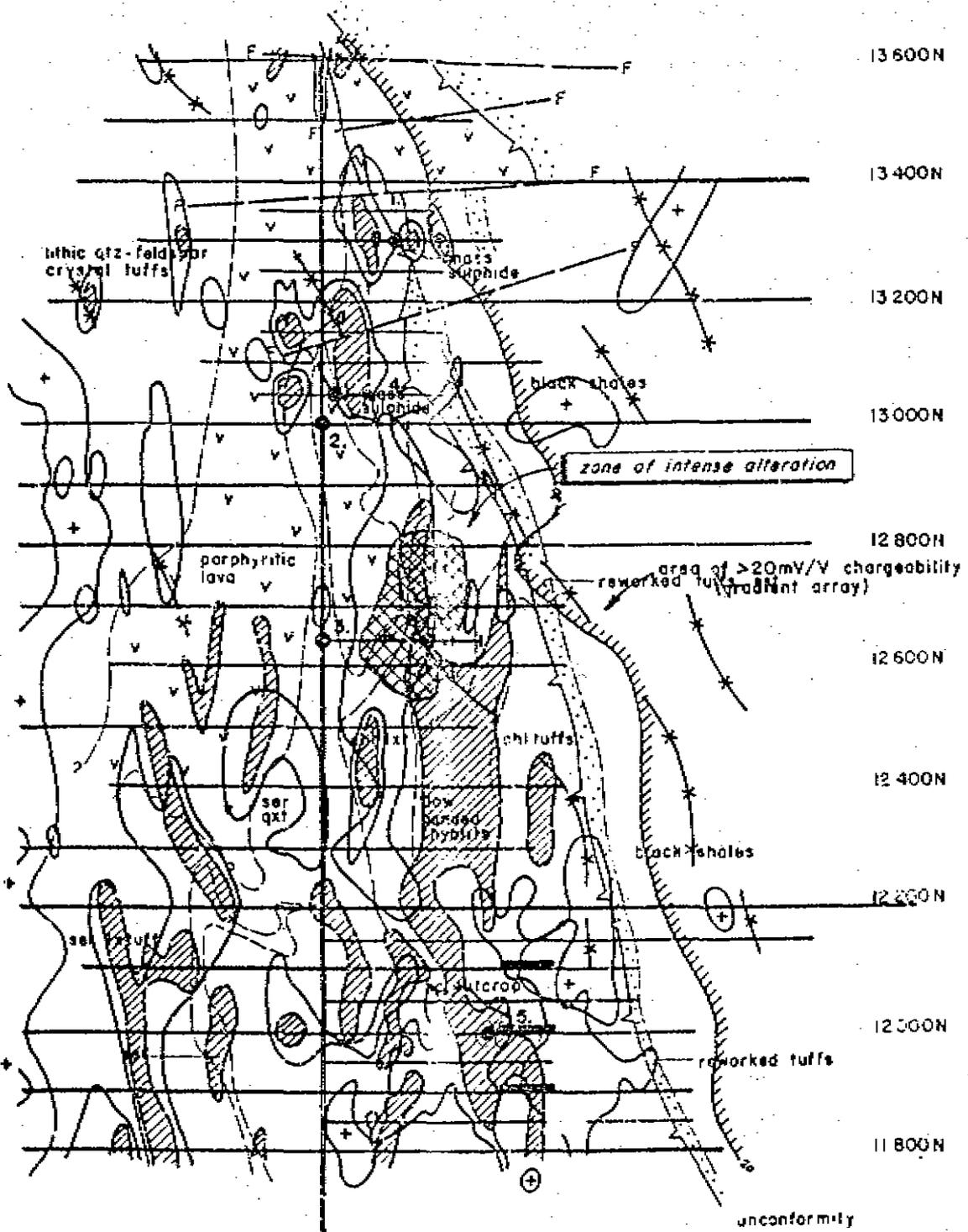
Figure 19 V19

1:25,000

metres

Wart Hill/Silver Hill, Long Section

9 600E 9 800E 10 000E 10 200E 10 400E 10 600E



**LEGEND:**  
 Dipole-Dipole I.P. anomaly centres  
 Bouguer-Gravity zone (gravity unit)  
 V.L.F.-E.M. conductor axis

**SOIL GEOCHEMISTRY**  
 Pb >200 ppm  
 Zn >200 ppm

**COLLAR POSITION**  
 DDH 1-5  
 DDH 1—200.4m  
 DDH 2—160.2m  
 DDH 3—301.2m  
 DDH 4—70.8m  
 DDH 5—150.2m

5 cm

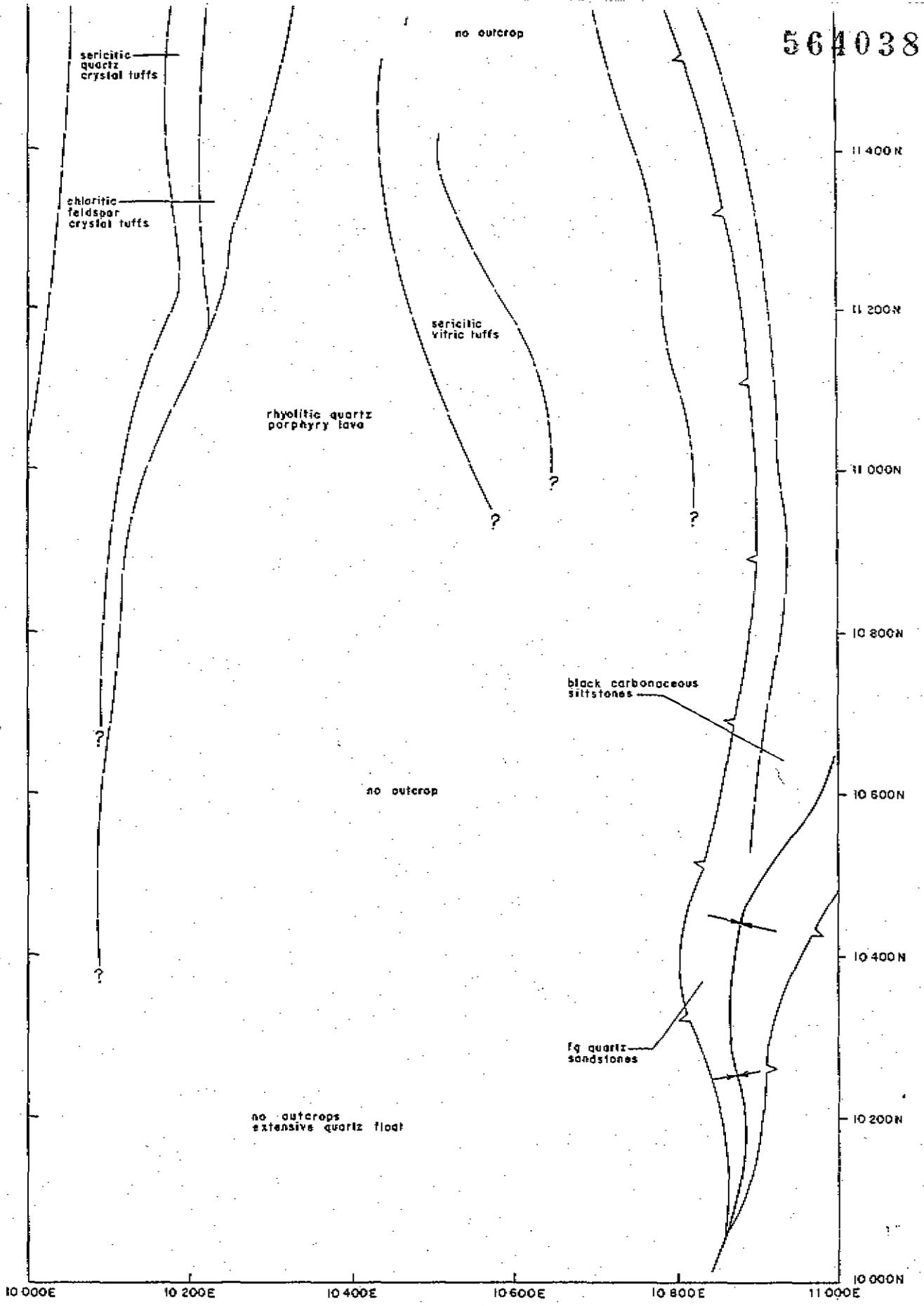
E.L.27/76 ELLIOTT BAY

VOYAGER 19

1:10000

PROSPECT SUMMARY DIAGRAM

564038



DATE 5/8/82
GEOL PAW
DWN R.Tog

**GEOPEKO**  
A DIVISION OF PEKO-WALLEND OPERATIONS LTD

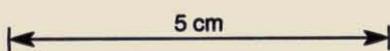
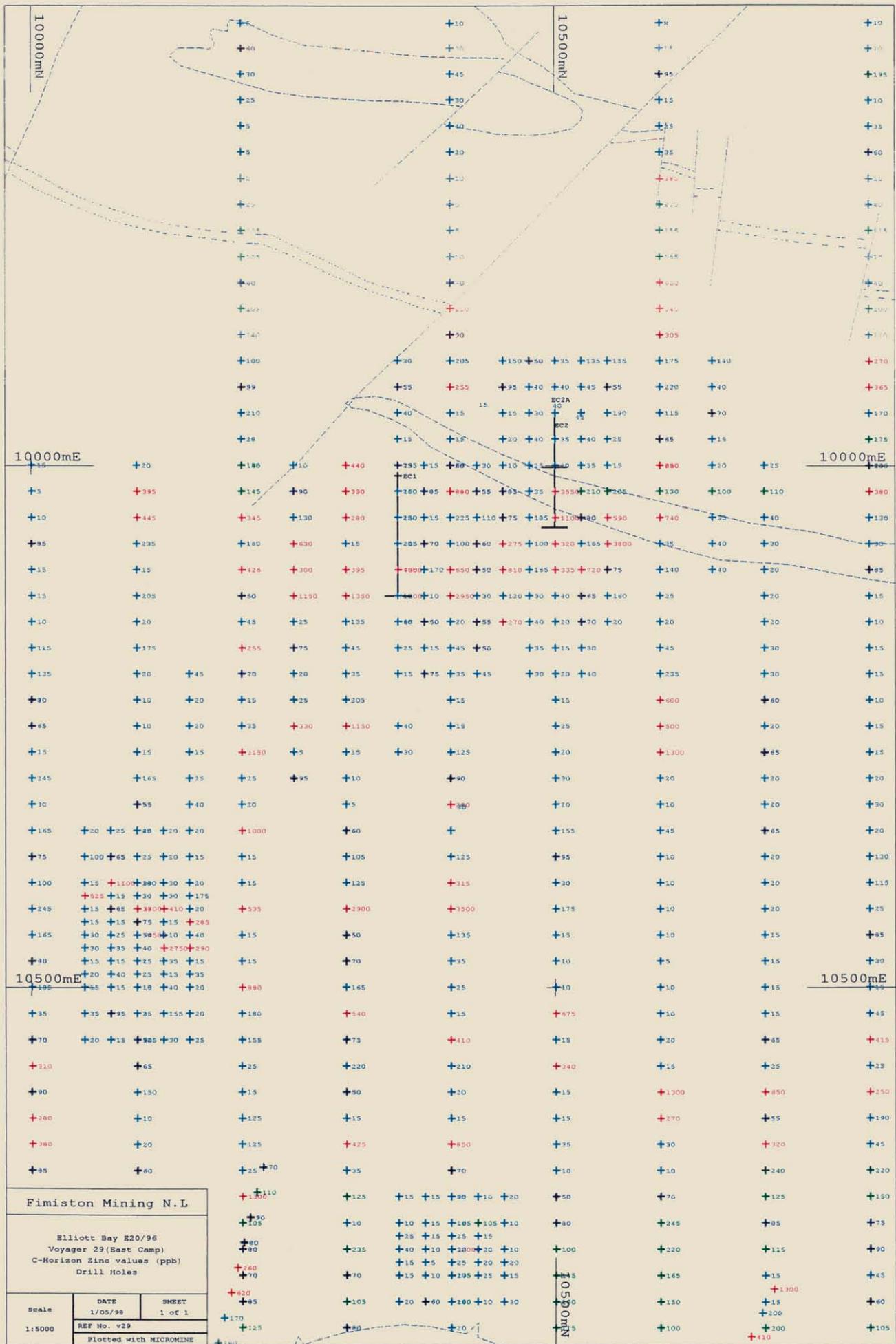
**VOYAGER 29**  
GEOLOGICAL SUMMARY MAP  
1:5,000 Summary Plan, East Camp Prospect

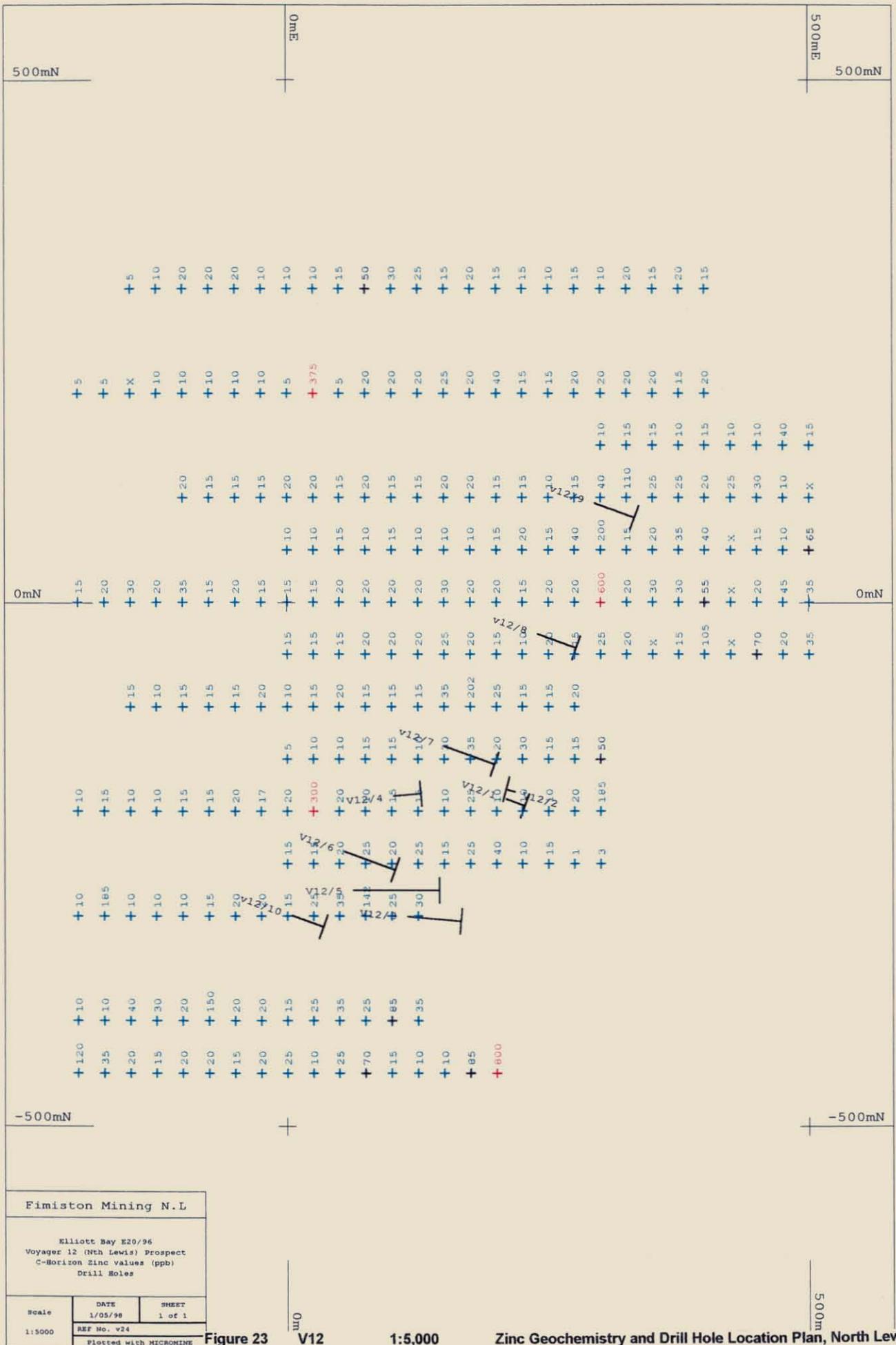
Figure 21

V29

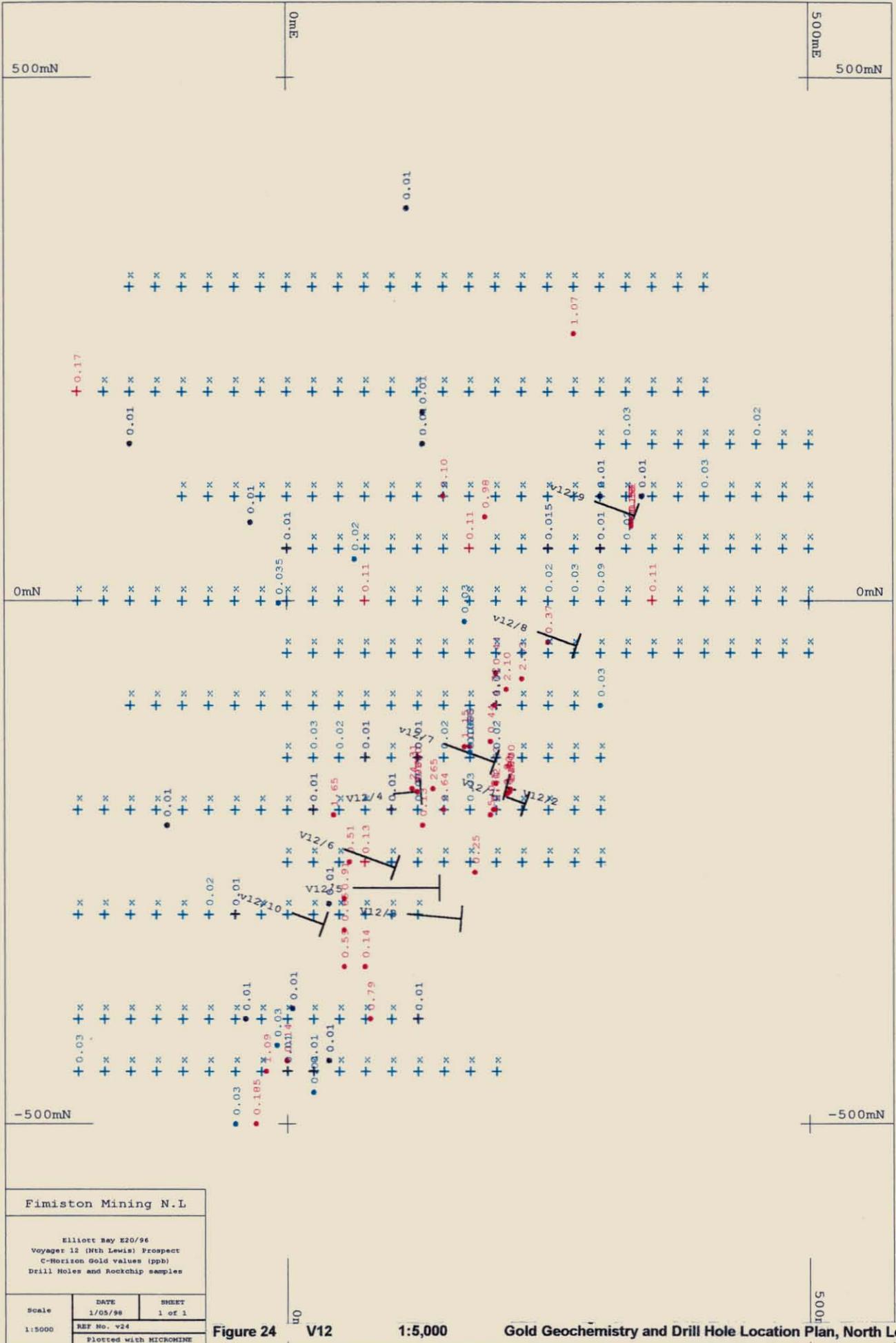
1:5,000

Summary Plan, East Camp Prospect





5 cm



Fimiston Mining N.L.

Elliott Bay E20/96  
 Voyager 12 (Nth Lewis) Prospect  
 C-Horizon Gold values (ppb)  
 Drill Holes and Rockchip samples

Scale	DATE	SHEET
1:5000	1/05/98	1 of 1
REF No. v24		
Plotted with MICROMINE		

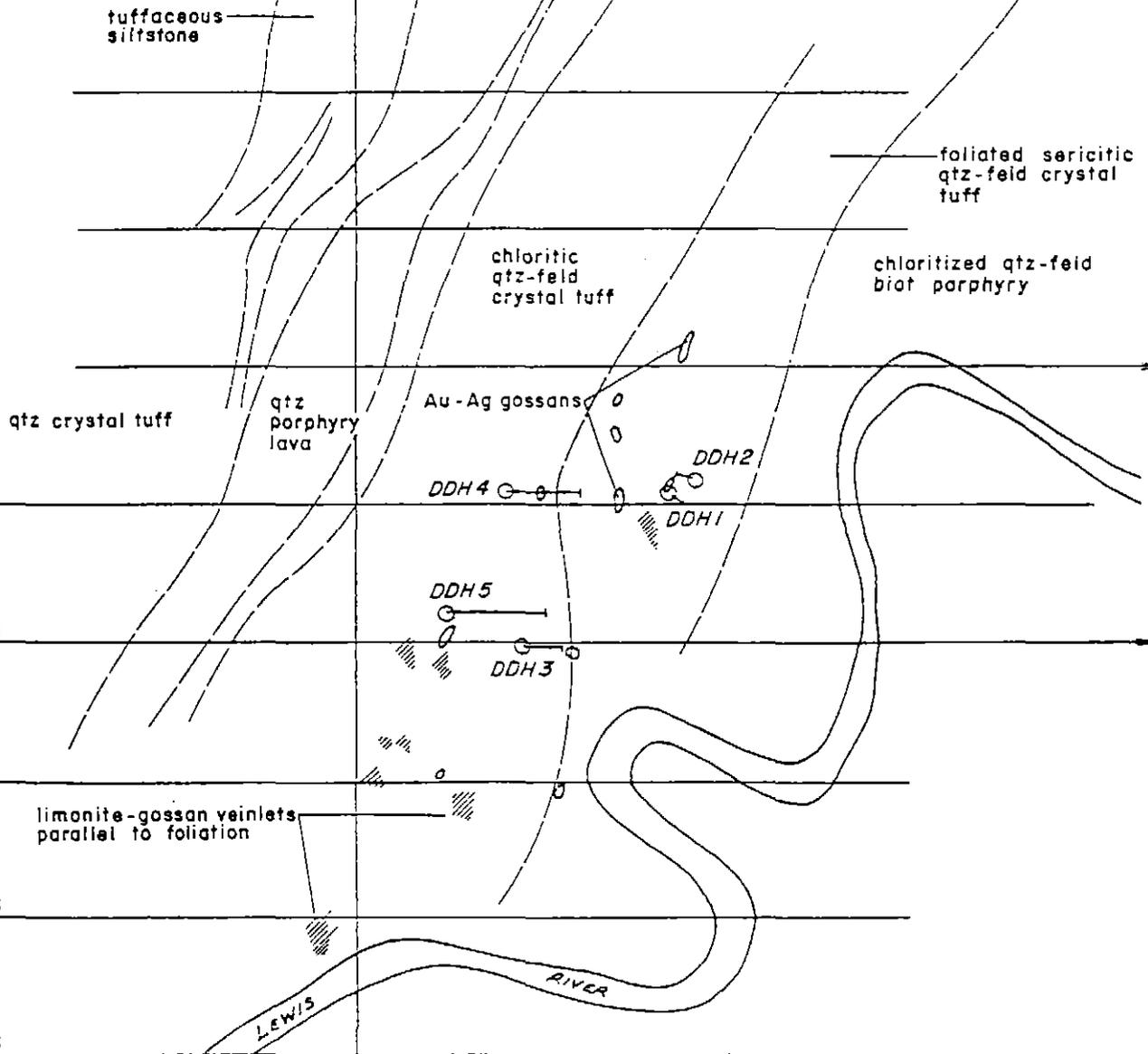
Figure 24 V12 1:5,000 Gold Geochemistry and Drill Hole Location Plan, North Lewis

5 cm

300W 200W 100W 00 100E 200E 300E 400E 500E

400N  
200N  
100N  
00  
100S  
200S  
300S  
400S  
500S  
600S

564042



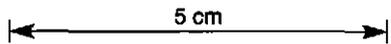
HOLE	DEPTH
DDH 1	30.6m
DDH 2	17.3m
DDH 3	90.0m
DDH 4	47.5m
DDH 5	163.6m

Best result 2m at 1.6ppm Au in DDH3

**E.L.27/76 ELLIOTT BAY**  
**VOYAGER 12**

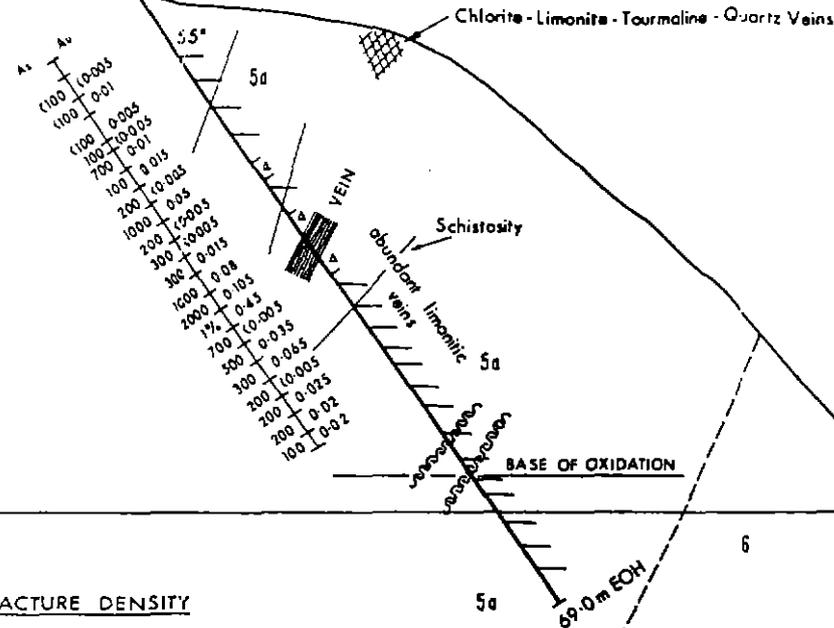
1:5000

PROSPECT SUMMARY DIAGRAM



EBT-88-V12/8

100 m ASL



**LITHOLOGIES**

- Fine to medium grained rhyolitic volcaniclastic (undifferentiated) ... 5a
- Rhyolite, quartz-bearing vitric tuff. ... 5a<sub>1</sub>
- Tuffaceous siltstone..... 5b
- Tuffaceous sandstone/greywacke ... 5g
- Elliott Point Porphyry..... 6
- Inferred geological contact.....

**ALTERATION INTENSITY & FRACTURE DENSITY**

- Vein-Limonitic-hematitic (pyrite-chalcopyrite-arsenopyrite bearing) quartz-tourmaline or quartz-chlorite-pyrite vein. .... [Symbol]
- Intense shatter/breccia zone. Milling and fragment rotation evident. Intense tourmaline-quartz & pyrite (or limonite)-chlorite-quartz matrix infill and repeated fracture. Strong localized sericitization. .... [Symbol]
- Moderate to intense shatter. Breccia zones localized and narrow. Crackle brecciation only. Little or no fragment rotation. Low tourmaline-quartz vein density, moderate-high quartz-chlorite-pyrite (± sphalerite ± arsenopyrite ± chalcopyrite ± galena) veins. Mod-strong localized sericitization. .... [Symbol]
- Shear Zone..... [Symbol]
- Boundary of Shatter Zone..... [Symbol]

Figure 26 V12

V12-8 Diamond Drill Hole Cross Section

5 cm 25 m

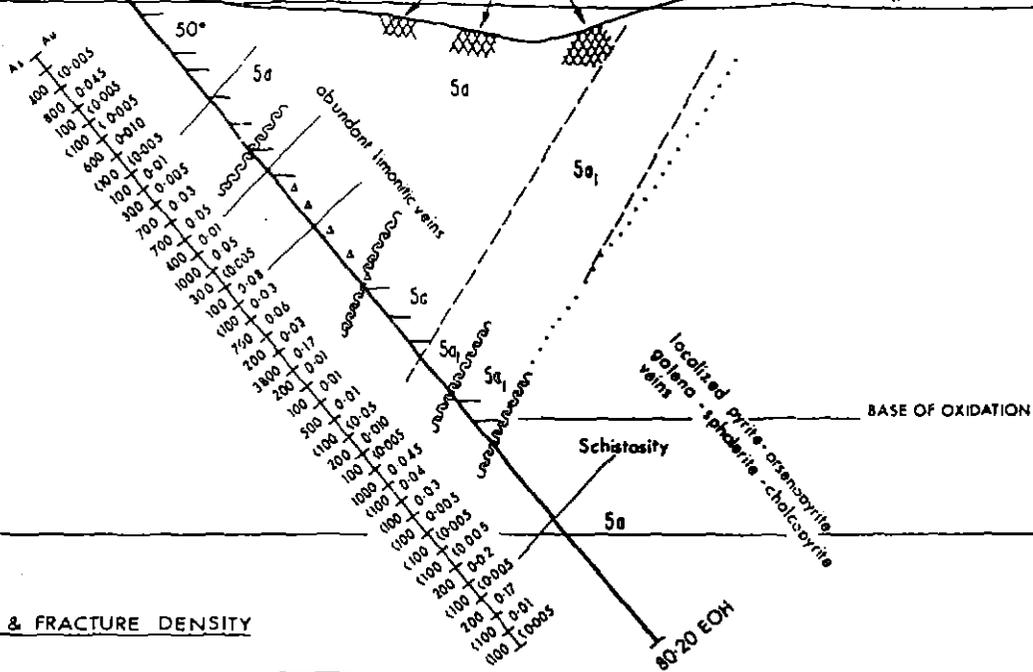
Elliott Bay E.L. 40/85 North Lewis

Diamond Drillhole Section

EBT-88-V12/8

EBT-88-V12/7

75 m AS



25 m AS

**LITHOLOGIES**

Fine to medium grained rhyolitic volcaniclastic (undifferentiated).....	5a
Rhyolite, quartz-bearing vitric tuff.....	5a1
Tuffaceous siltstone.....	5b
Tuffaceous sandstone/greywacke.....	5c
Elliott Point Porphyry.....	6
Inferred geological contact.....	-

**ALTERATION INTENSITY & FRACTURE DENSITY**

Vein - Limonitic-hematitic (pyrite-chalcopyrite-arsenopyrite bearing) quartz-tourmaline or quartz-chlorite-pyrite vein.....	
Intense shatter/breccia zone. Milling and fragment rotation evident. Intense tourmaline-quartz & pyrite (or limonite)-chlorite-quartz matrix infill and repeated fracture. Strong localized sericitization.....	
Moderate to intense shatter. Breccia zones localized and narrow. Crackle brecciation only. Little or no fragment rotation. Low tourmaline-quartz vein density, moderate-high quartz-chlorite-pyrite (± sphalerite ± arsenopyrite ± chalcopyrite ± galena) veins. Mod-strong localized sericitization.....	
Shear Zone.....	
Boundary of Shatter Zone.....	

Figure 27 V12

V12-7 Diamond Drill Hole Cross Section

5 cm

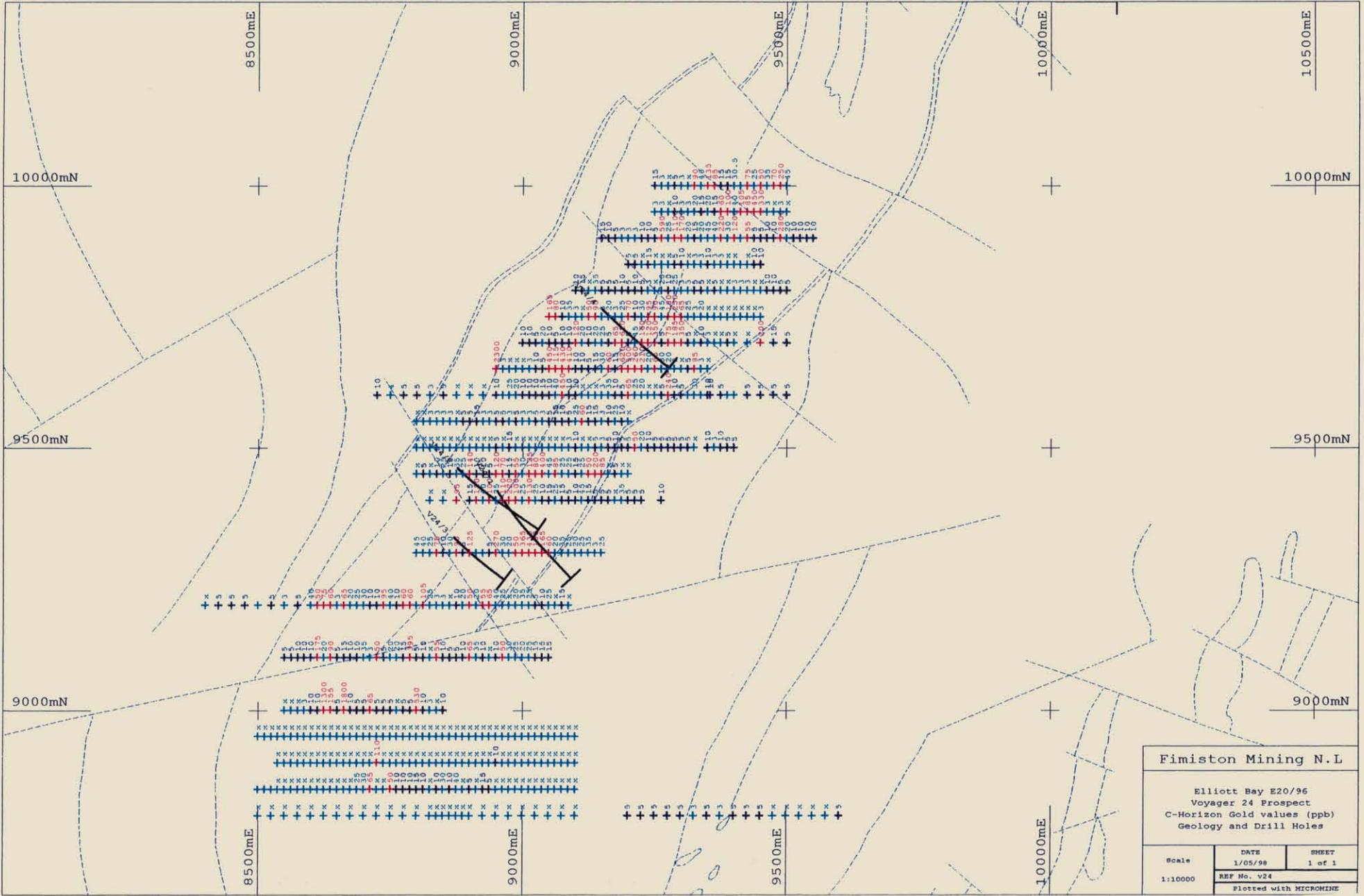
25 m

Elliott Bay E.L. 40/85 North Lewis

Diamond Drillhole Section

**EBT-88-V12/7**

564044



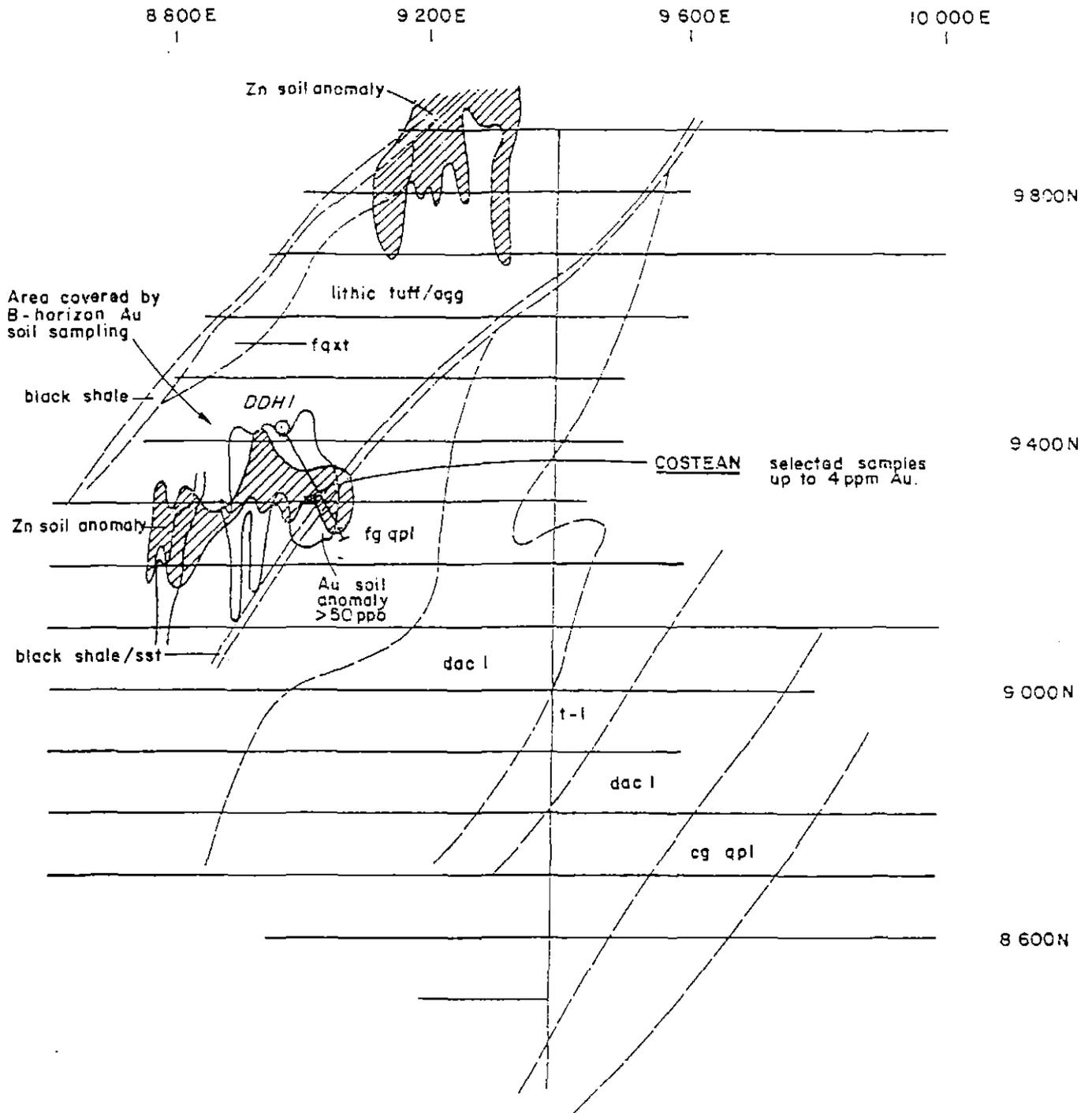
564045

Figure 28 V24 1:10,000 Gold Geochemistry and Drill Hole Location Plan, Sassy Creek

5 cm

Fimiston Mining N.L.		
Elliott Bay E20/96 Voyager 24 Prospect C-Horizon Gold values (ppb) Geology and Drill Holes		
Scale 1:10000	DATE 1/05/99	SHEET 1 of 1
	REF No. V24 Plotted with MICROMINE	





5 cm

E.L.27/76 ELLIOTT BAY  
VOYAGER 24

1:10,000

PROSPECT SUMMARY DIAGRAM

1:10,000

Project Summary Diagram

Figure 30 V24

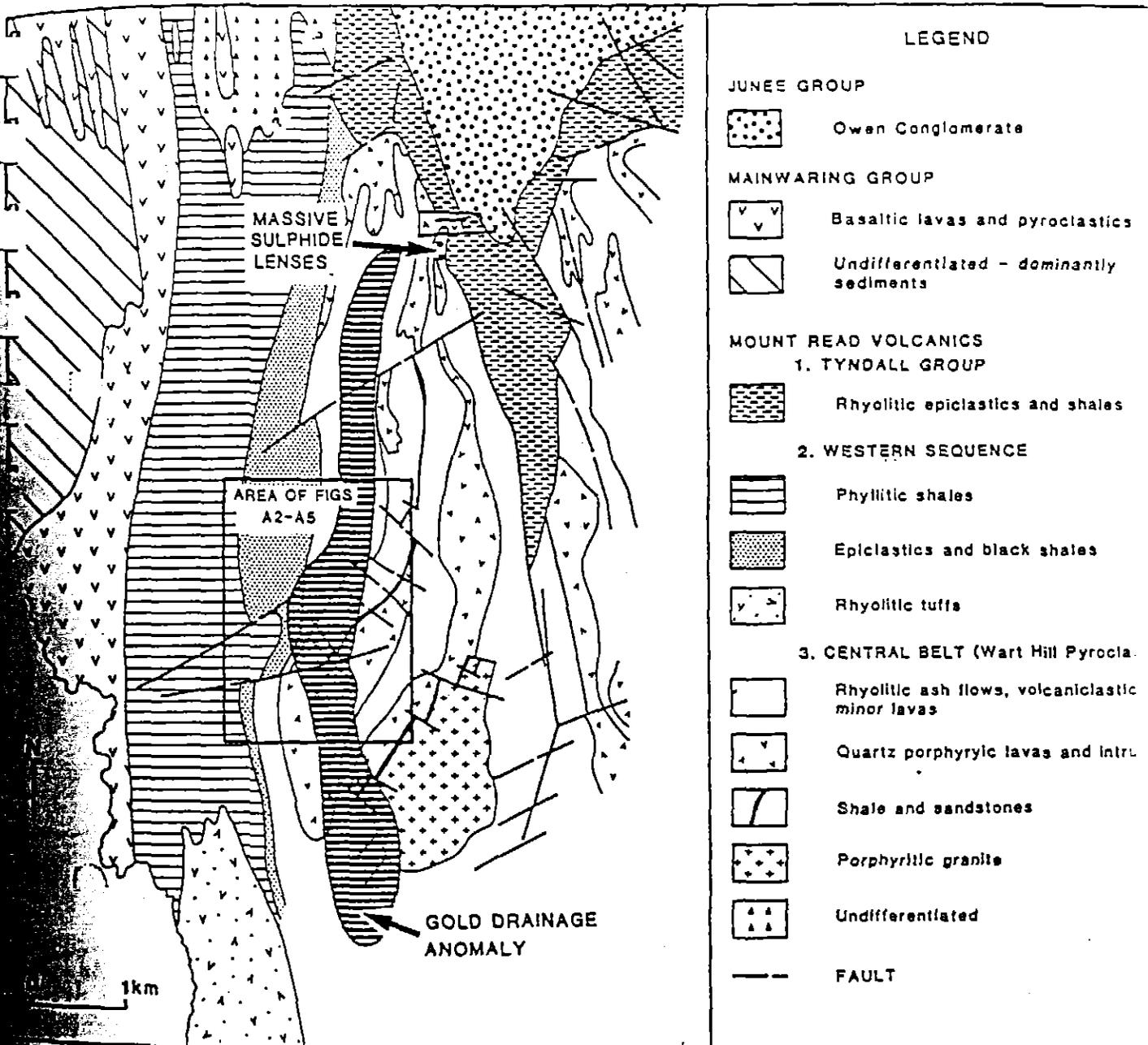


Figure 31 V24

Regional Geology, V24 area, Large, 82

FIGURE A1 - Geology of the Wart Hill area, Elliott Bay, E.L. 27/76.

5 cm





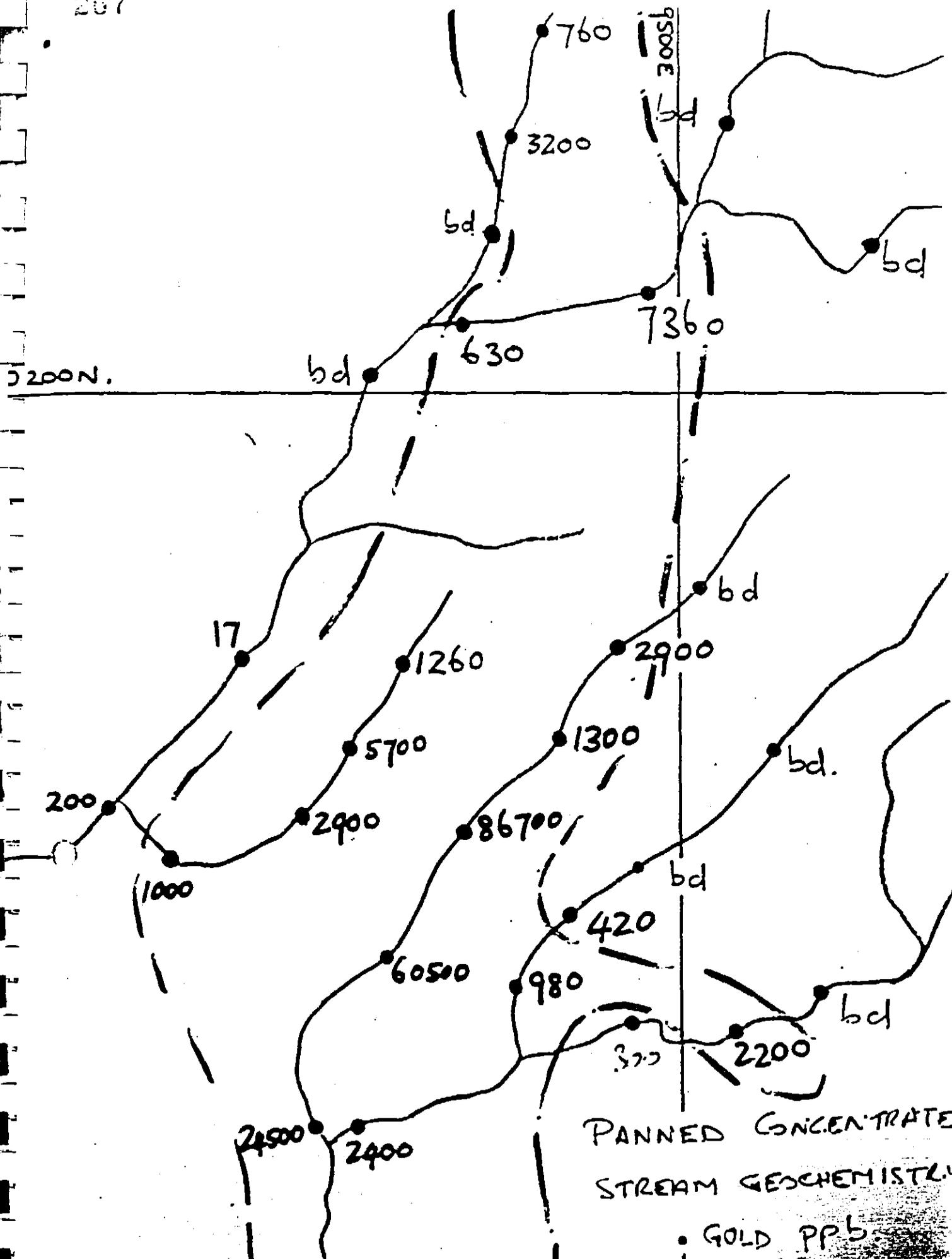


Figure 34 V24

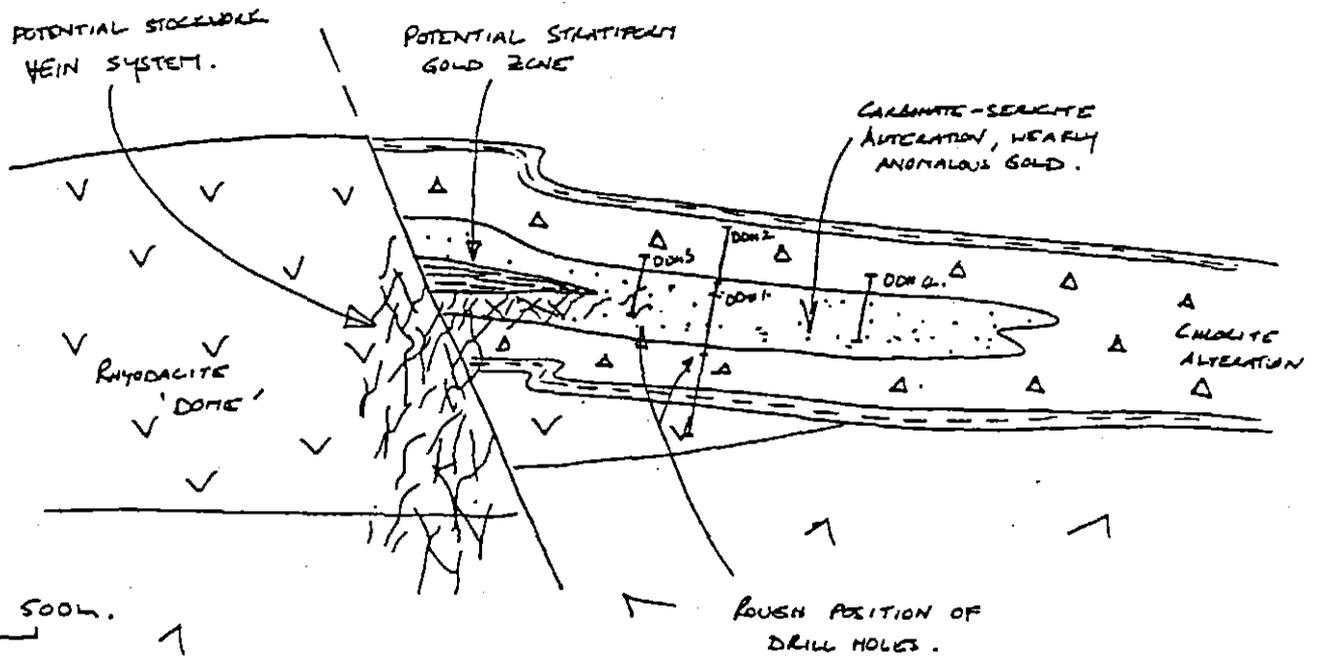
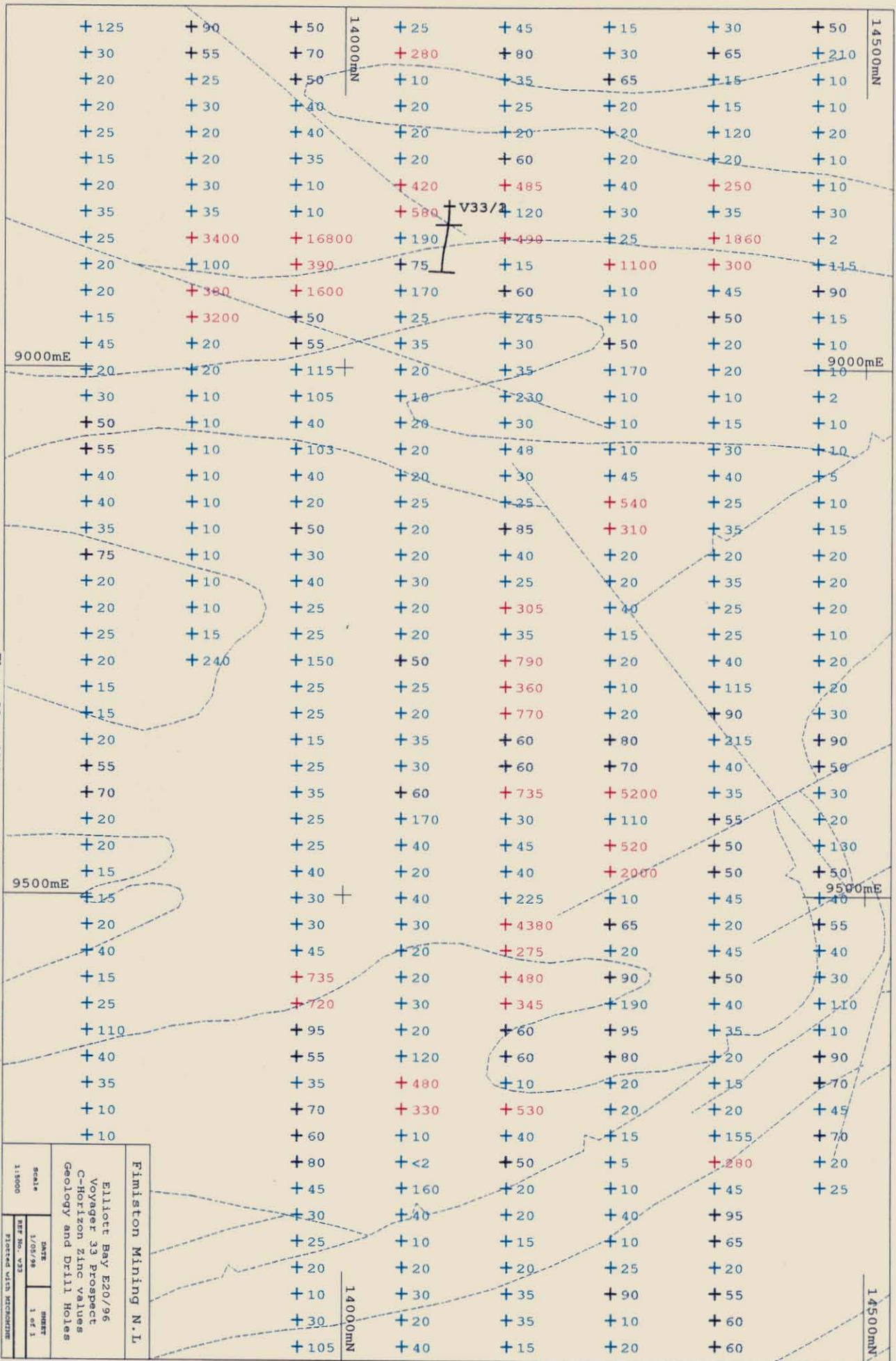


FIGURE A9 : MODEL FOR GOLD MINERALISATION VOYAGER 24.  
 LONG SECTION LOOKING NORTH WEST.

Figure 35 V24

Model for Gold Mineralisation Voyager 24 Prospect, Large 82



564054

3m @ 1.17% Pb, 0.32% Zn, 2.5 g/t Ag

V33-2  
V33-1

14100N

Flume

App

Intensified  
about grey slates

Sericite schistone

Intensified about grey slates

Mafic schistone and Cryst. schist

Intensified mafic schistone and grey slates

medium grained lime sandstone

fine grained grey lime sandstone

76m @ 1.24% Pb, 0.85% Zn, 56 g/t Ag

255m  
V33-1

100m of carbonates vein  
with coarse Sp, Co, Fe, py  
1m @ 0.76% Pb, 1.55% Zn, 16 g/t Ag

Intensely fractured and propylitically  
altered adjacent to shear

5m @ 0.44% Pb, 0.09% Zn, 2 g/t Ag

163m  
V33-2

Figure 37 V33

V33/1-V33/2 Drill Hole Cross Section

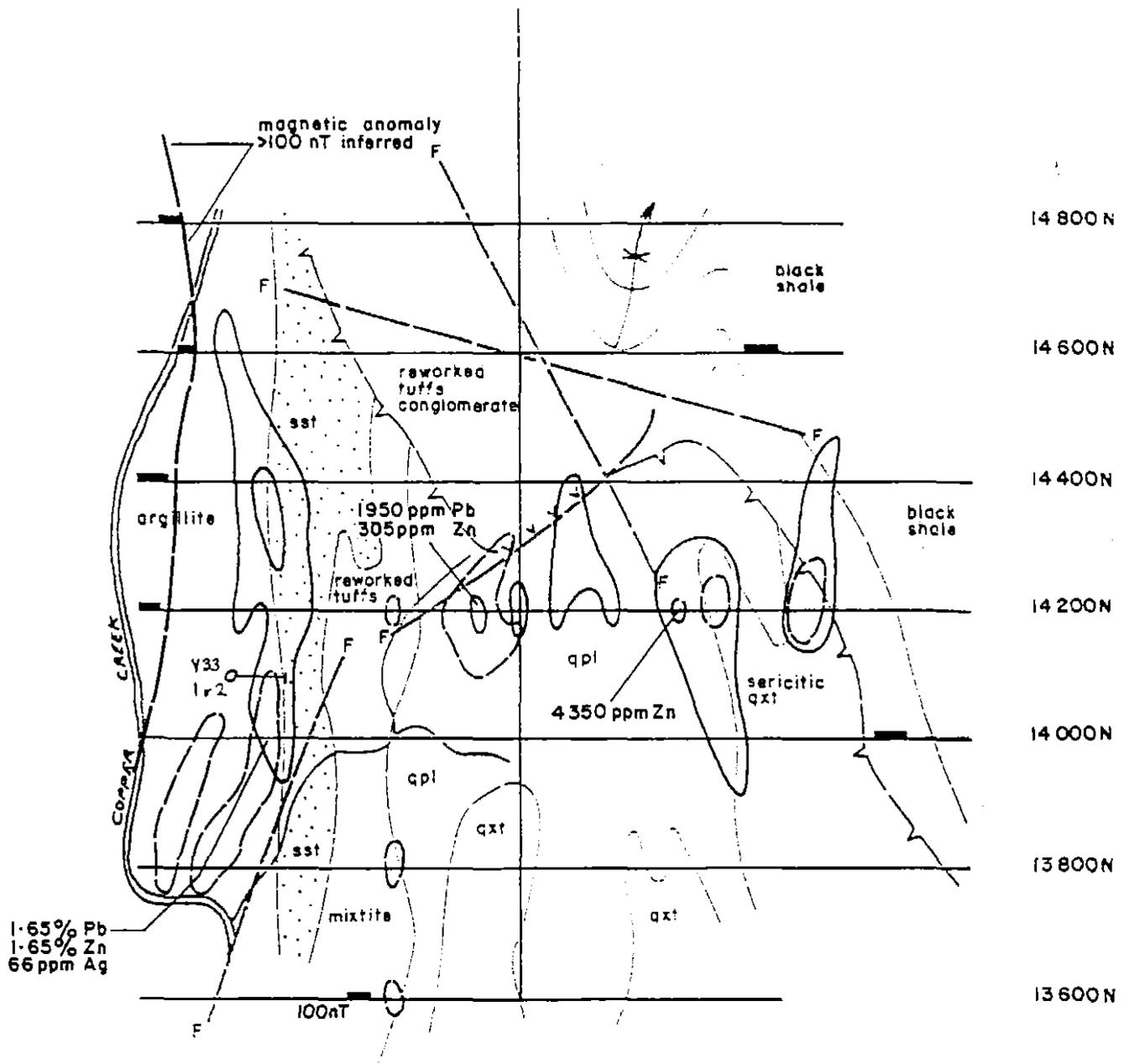
14100N-V33-1

45m

675m

100m

8 800E    9 000E    9 200E    9 400E    9 600E    9 800E    10 000E



**LEGEND:**

- Zinc anomaly soils >200ppm
- Lead anomaly soils >200ppm
- Magnetic anomaly >100 nT

5 cm

Figure 38 V33

EL.27/76 ELLIOTT BAY

VOYAGER 33  
Prospect Summary Diagram

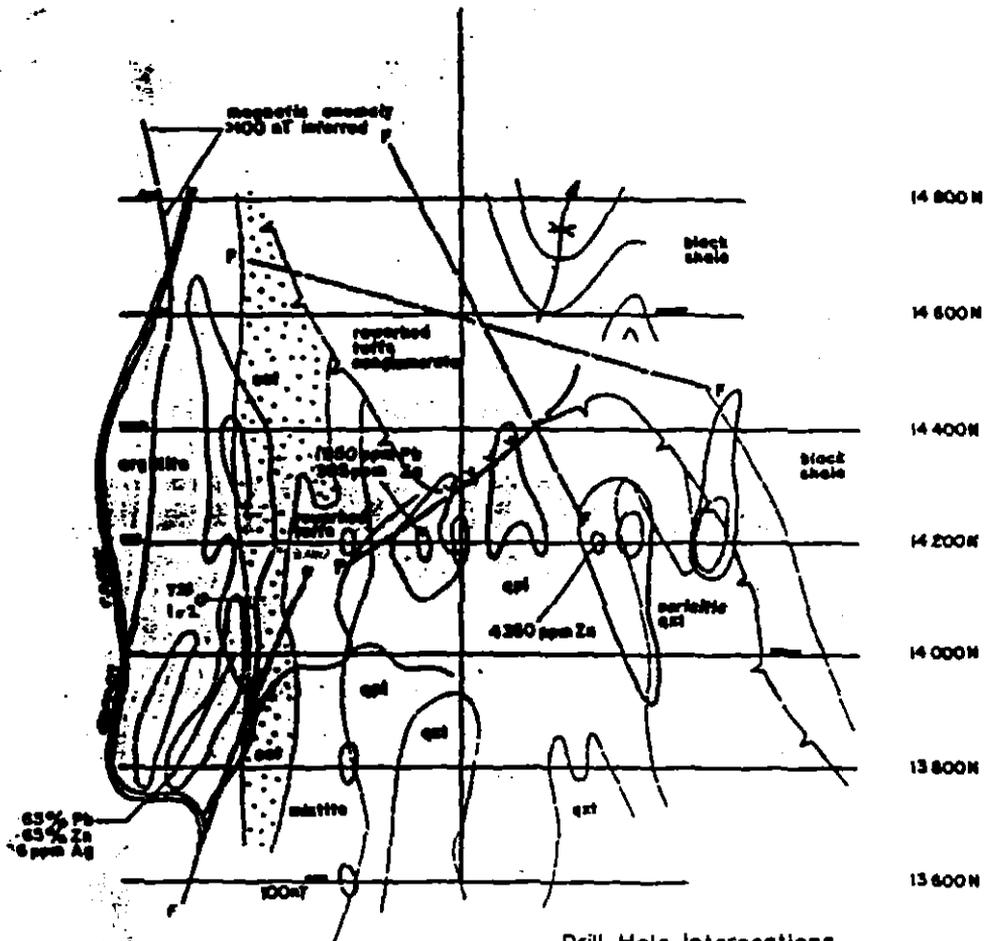
1:10,000

10 000

PROSPECT SUMMARY DIAGRAM

100

8800E 9000E 9200E 9400E 9600E 9800E 10000E



Drill Hole Intersections

7.6m @ 1.24% Pb, 0.8% Zn,  
58g/t Ag, 0.06g/t Au,  
0.10% As  
and 8m @ 0.08% Pb, 0.09% Zn,  
2g/t Ag

**LEGEND:**  
 Zinc anomaly cells >200ppm  
 Lead anomaly cells >200ppm  
 Magnetic anomaly >100 nT

5 cm

EL.27/76 ELLIOTT BAY

VOYAGER 33

1:10,000

PROSPECT SUMMARY DIAGRAM





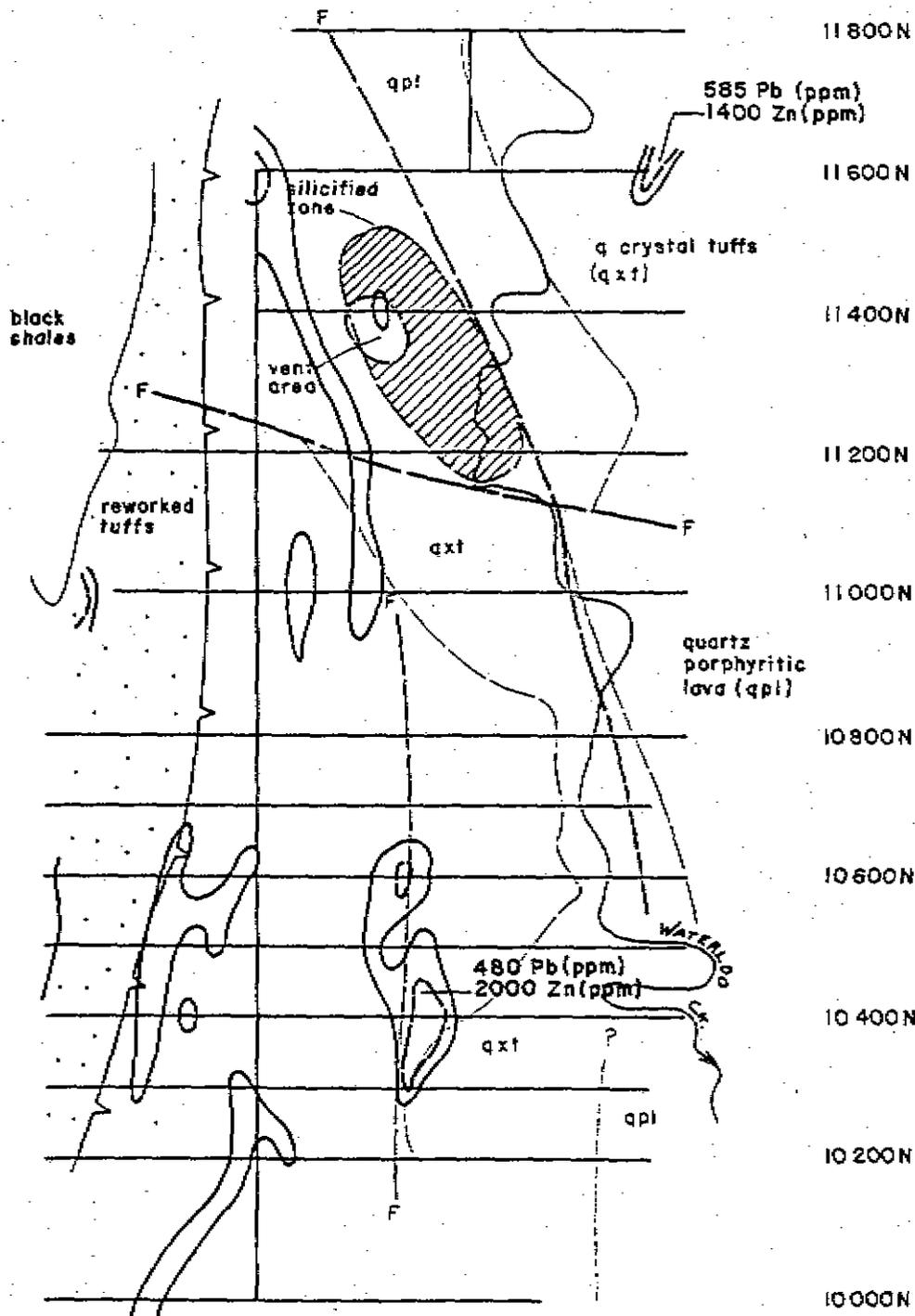
564059

11000E

11300E

11600E

11900E



**LEGEND:**

-  >200 ppm Zn in soils
-  >200 ppm Pb in soils



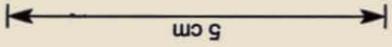
EL.27/76 ELLIOTT BAY

VOYAGER 22

1:10000

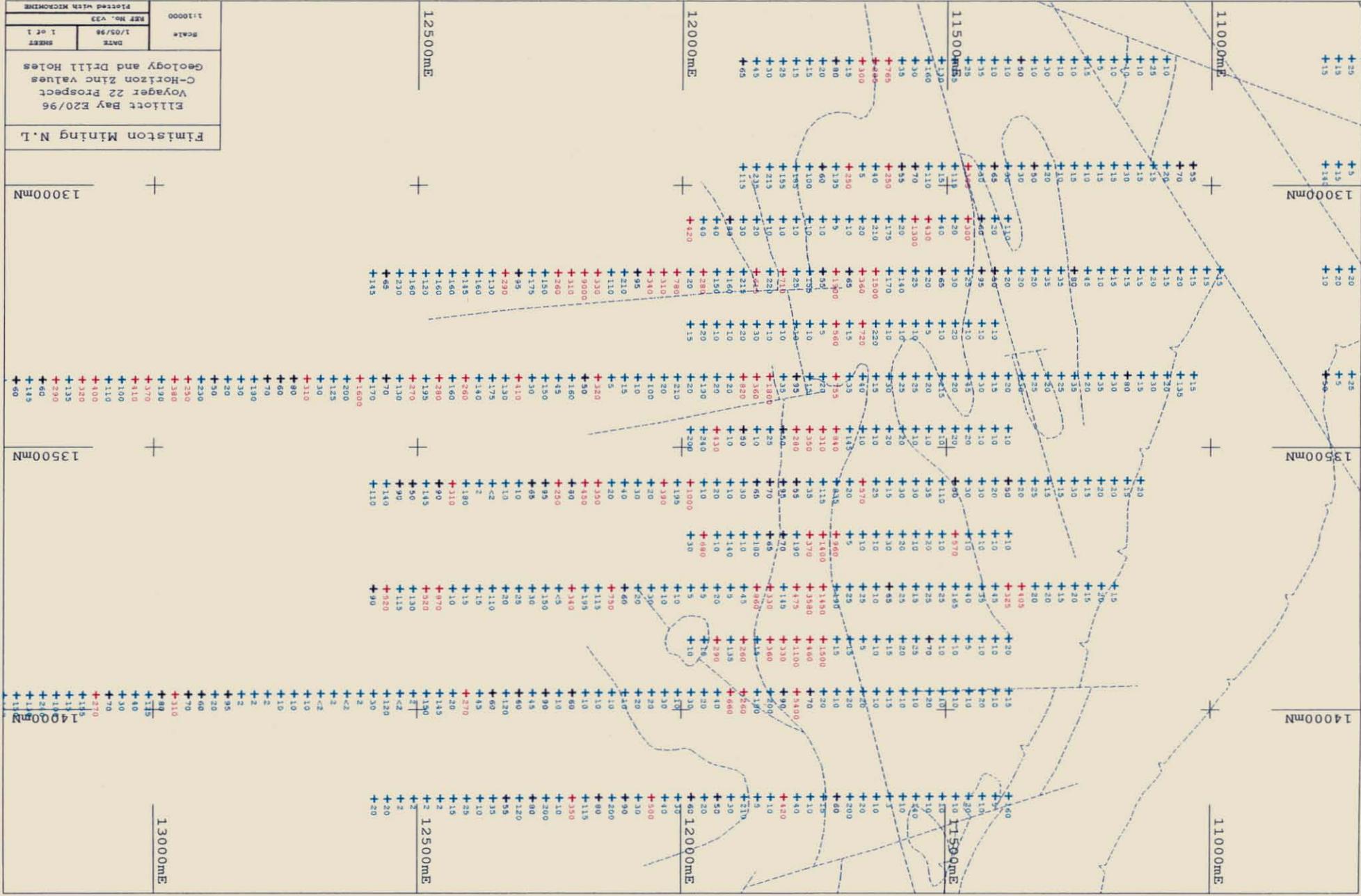
fig 19.

PROSPECT SUMMARY DIAGRAM



Zinc Geochemistry, Drill Hole Location Plan and Geology 1:10,000

Figure 43 V22



564060

564061

LEWIS RIVER

10 400N

10 200N

siderite lode with py, gal, cpy

massive crystal-lithic tuffs & rhyolite lavas

10 000N

9 800N

tuffaceous siltstones with crystal tuff horizons

9 600N

E.L.27/76 ELLIOTT BAY

VOYAGER 2 & 10

1:10000

PROSPECT SUMMARY DIAGRAM

9 400N

sandstone & siltstone

9 200N

F

9 000N

rhyolitic pyroclastics

8 800N

F

I.P. anomaly

8 600N

quartz-feldspar porphyry

8 400N

F

8 200N

rhyolitic pyroclastics

9 800E 10 000E 10 200E 10 400E 10 600E 10 800E 11 000E

5 cm

Figure 44 V2V10 1:10,000 Prospect Summary Diagram

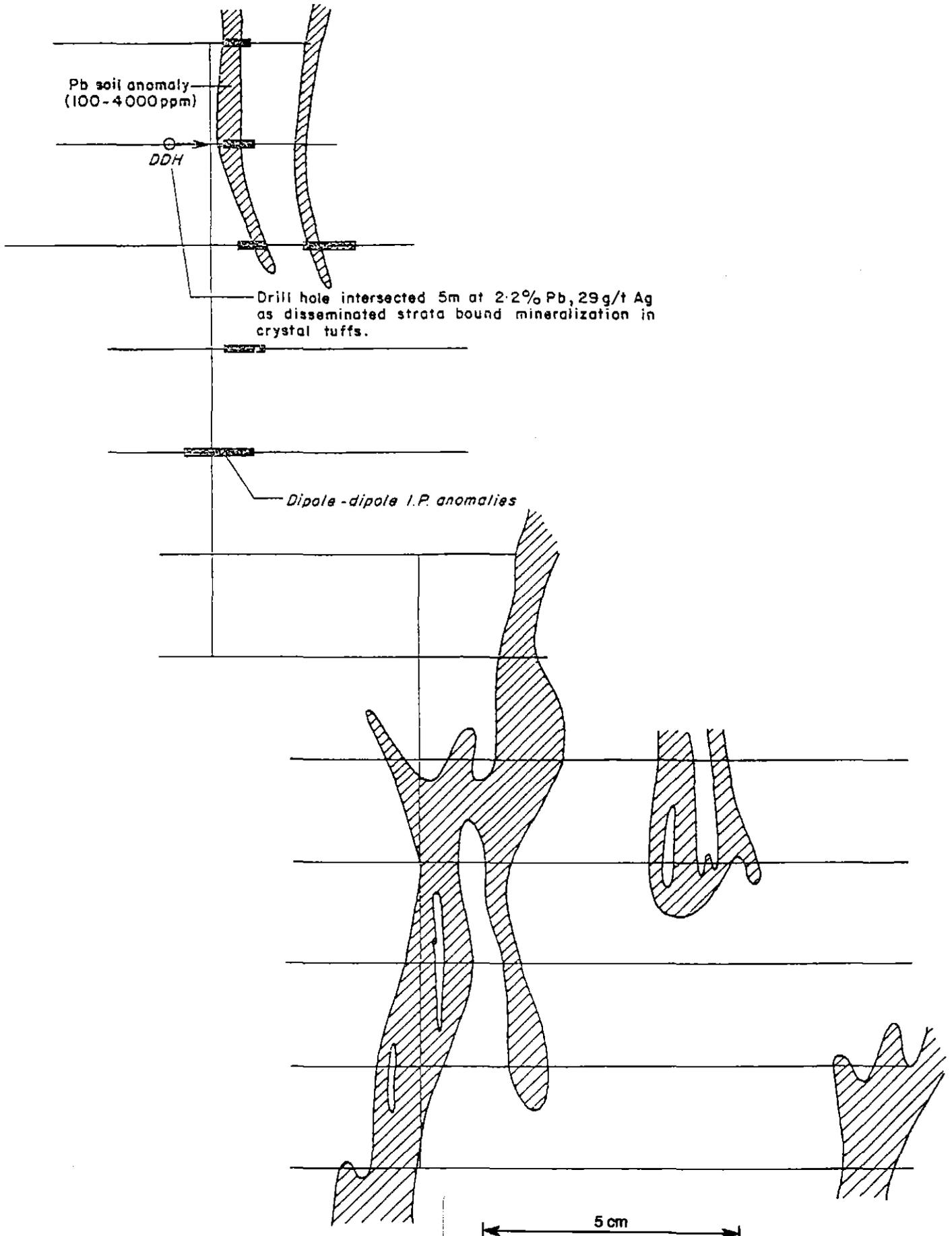
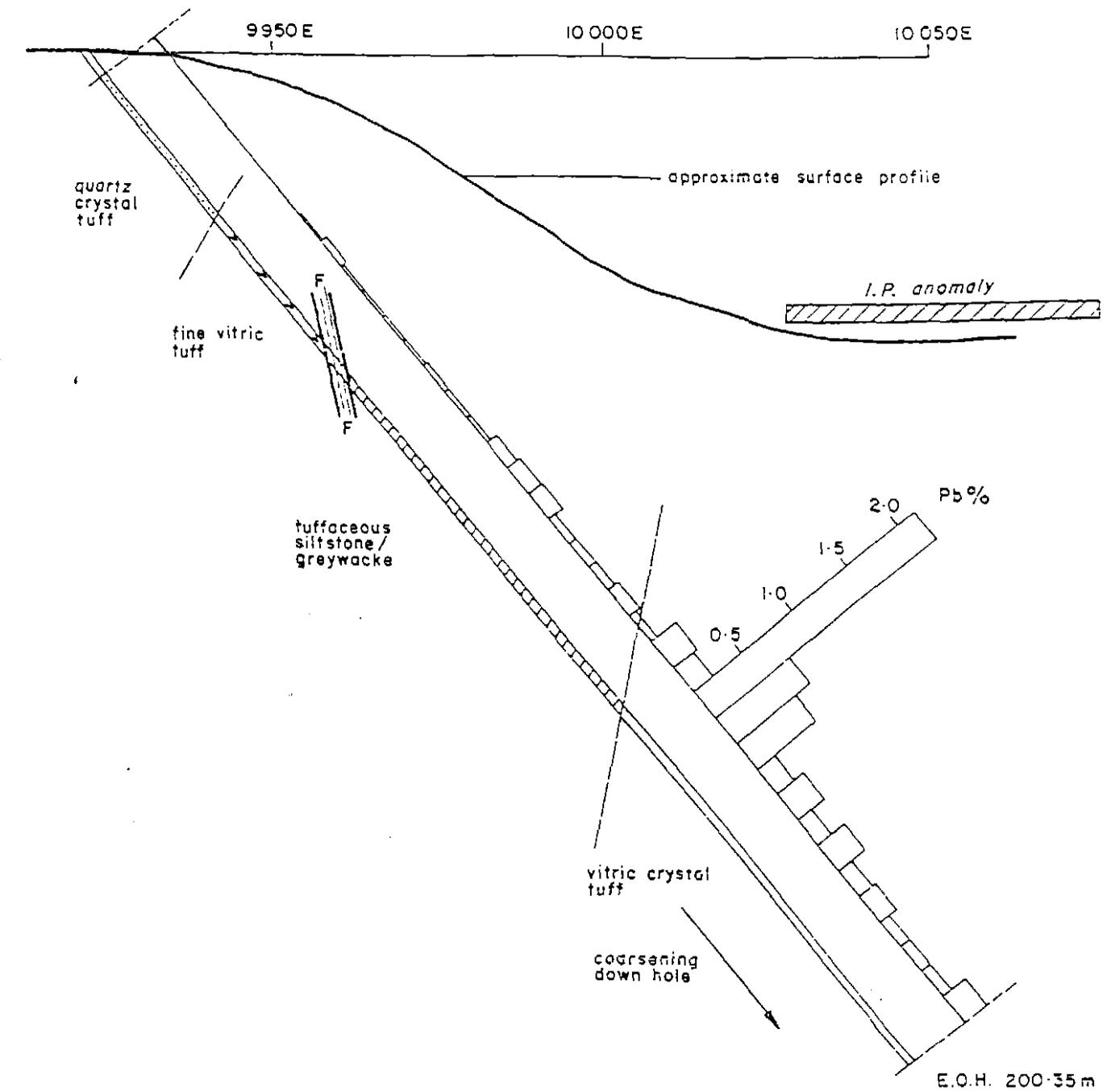


Figure 45 V2/V10 1:10,000

Lead Geochemical Anomalies

Fig 45

564063



E.L.27/76 ELLIOTT BAY

VOYAGER 2

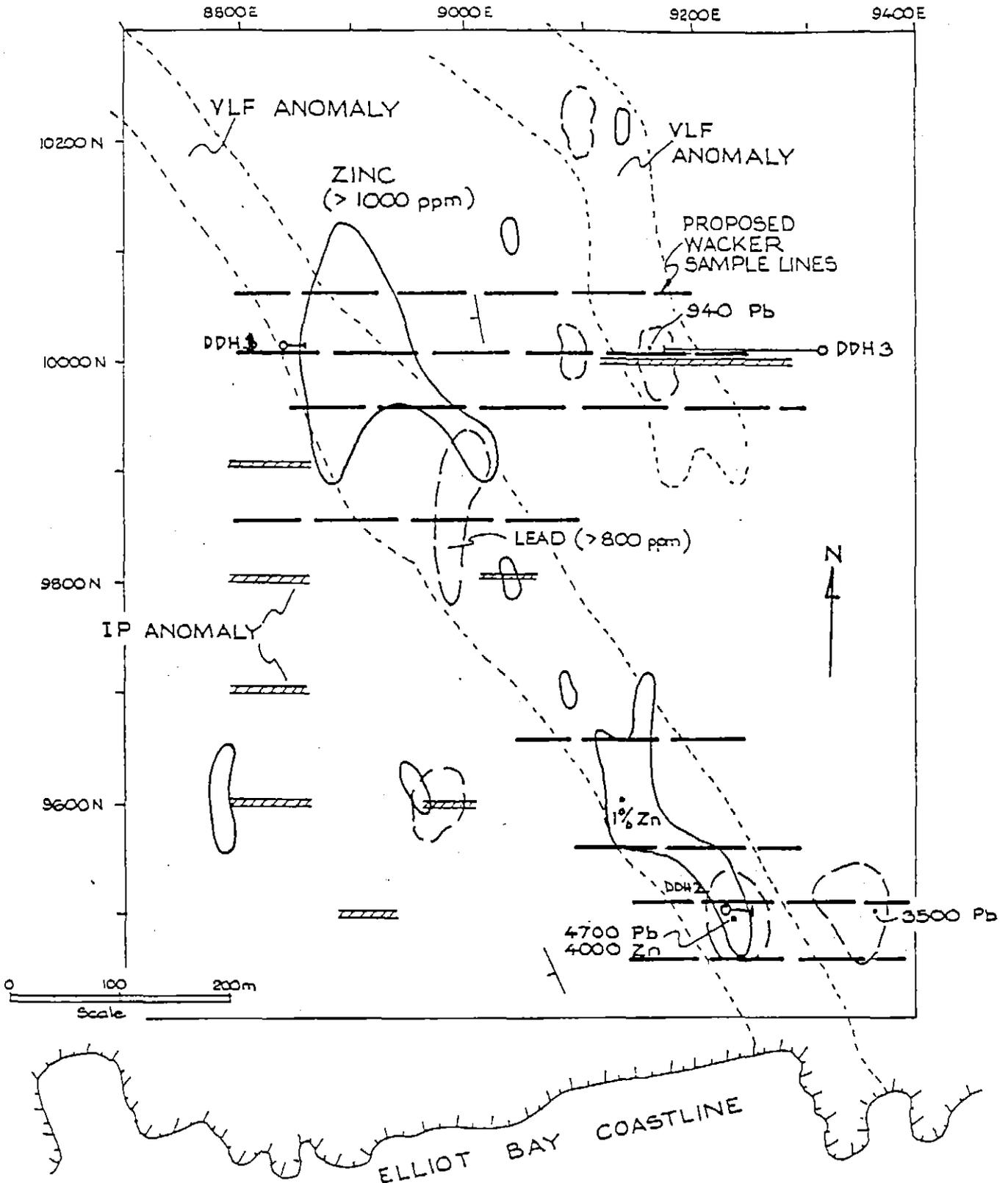
1:1000

Drill Hole Cross Section V2/6 (10200N)

DRILLSECTION 10200N

5 cm

Figure 46 V2



5 cm

### VOYAGER 3 ANOMALIES

32

Figure 47 V3

Anomalies

564090

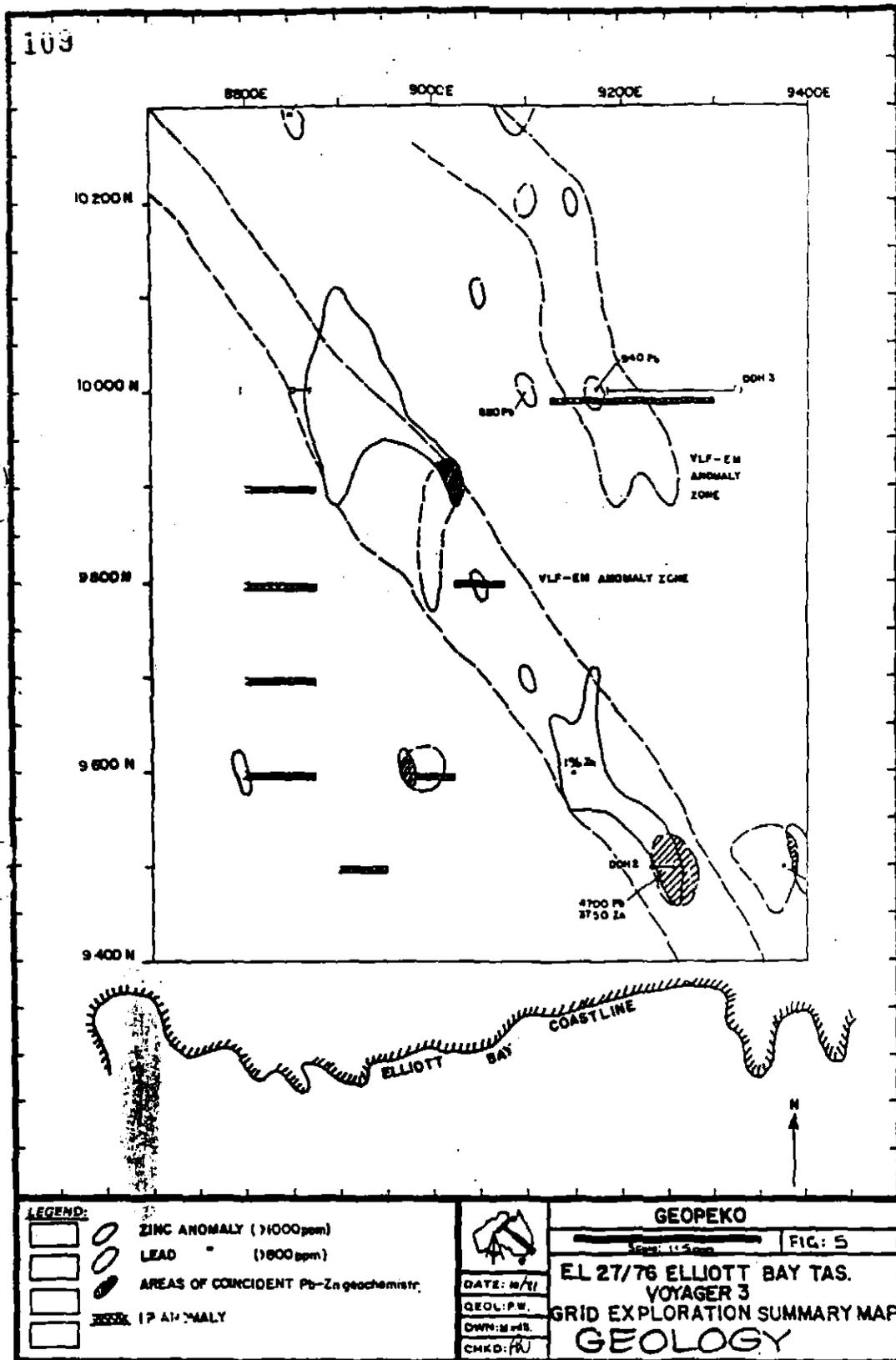
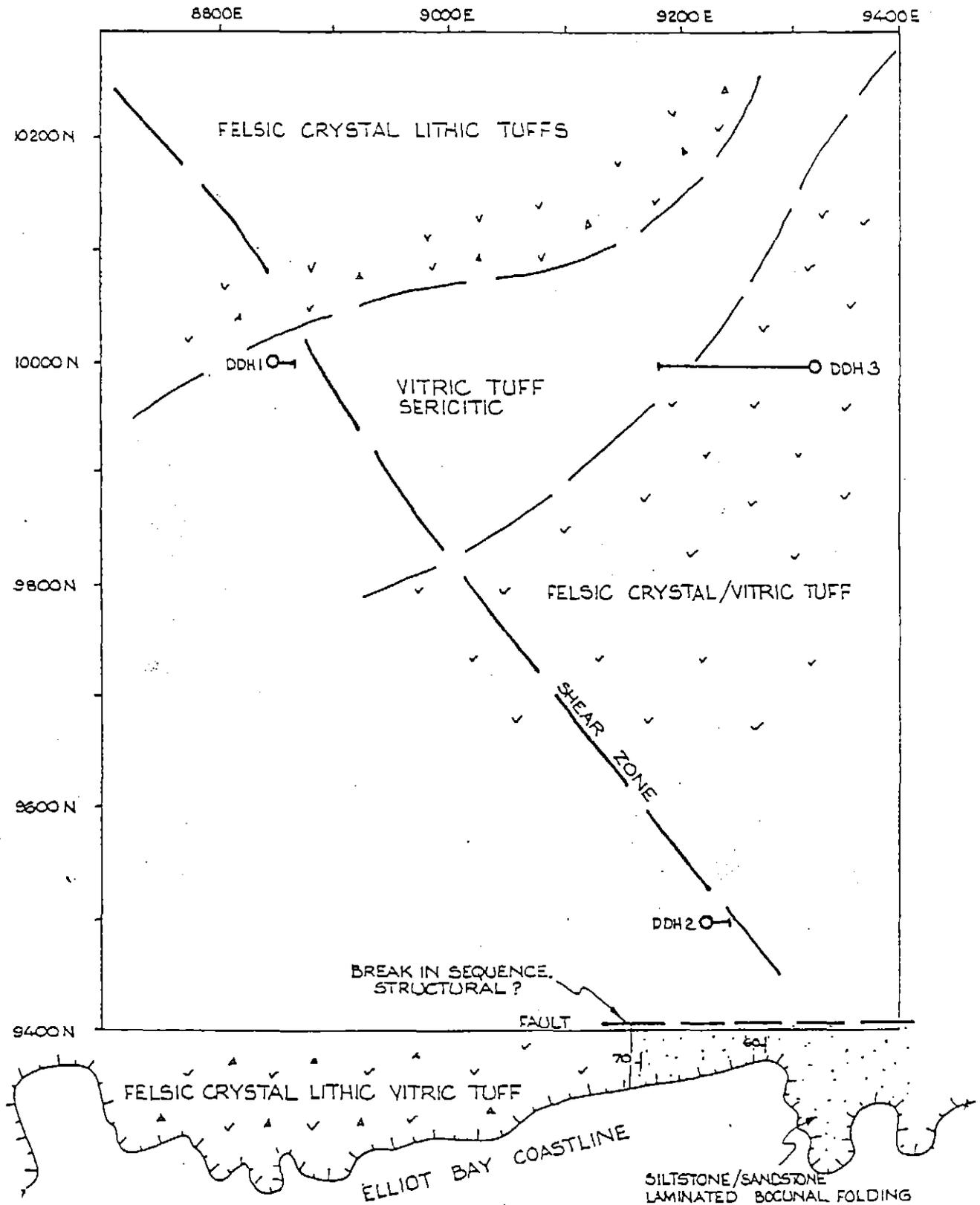


Figure 48 V3

Grid exploration Summary Plan

5 cm

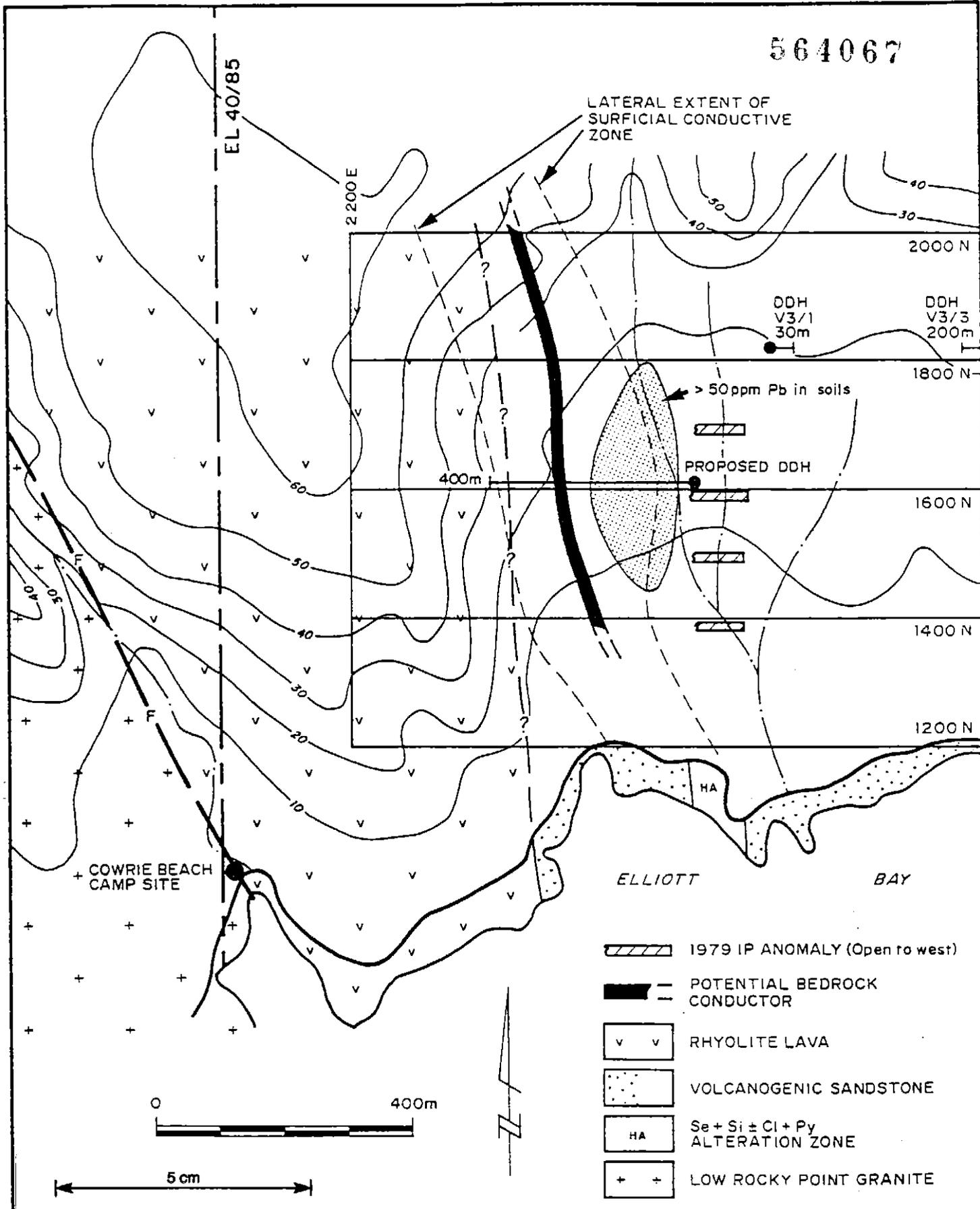


# VOYAGER 3 INTERPRETIVE GEOLOGY

Figure 49 V3

Interpretive Geology

564067



# Aberfoyle Resources Limited

Figure 50 V3 ANOMALY PLAN EB-1, ABERFOYLE, 92

REVISIONS			
Init.	Date	Init.	Date
SR/jms	10-2-93		

TASMANIA  
 ELLIOTT BAY E.L. 40/85  
**EB-1 PROSPECT**  
**PROPOSED**  
**DRILL HOLE LOCATION**

Compiled :	SR
Drawn :	SR
Traced :	MAR
Checked :	SR

Location Code : K55/7

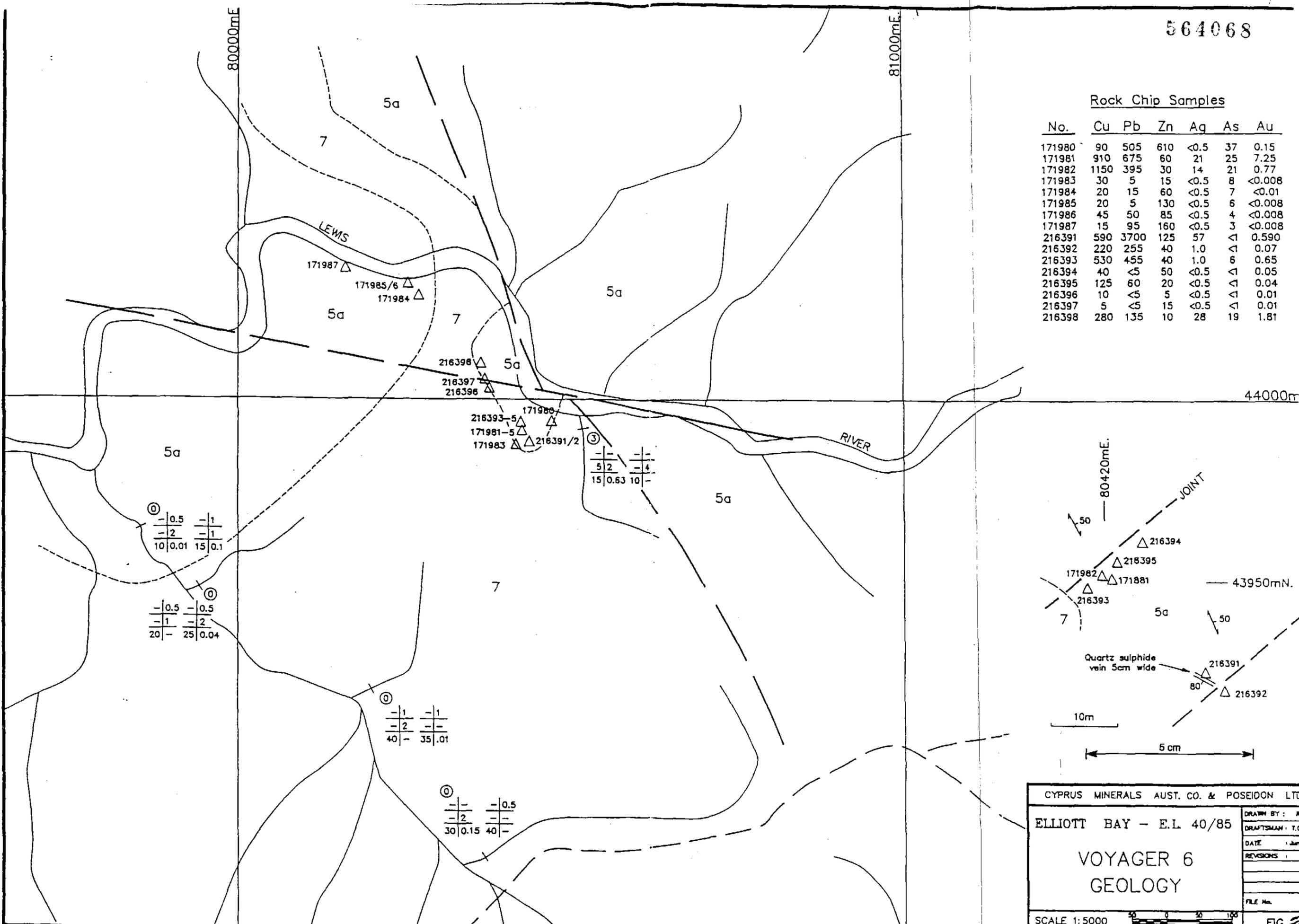
Scale : As Shown

Date : December 1992

Plate No. : ~~EB-22~~

Rock Chip Samples

No.	Cu	Pb	Zn	Ag	As	Au
171980	90	505	610	<0.5	37	0.15
171981	910	675	60	21	25	7.25
171982	1150	395	30	14	21	0.77
171983	30	5	15	<0.5	8	<0.008
171984	20	15	60	<0.5	7	<0.01
171985	20	5	130	<0.5	6	<0.008
171986	45	50	85	<0.5	4	<0.008
171987	15	95	160	<0.5	3	<0.008
216391	590	3700	125	57	<1	0.590
216392	220	255	40	1.0	<1	0.07
216393	530	455	40	1.0	6	0.65
216394	40	<5	50	<0.5	<1	0.05
216395	125	60	20	<0.5	<1	0.04
216396	10	<5	5	<0.5	<1	0.01
216397	5	<5	15	<0.5	<1	0.01
216398	280	135	10	28	19	1.81



CYPRUS MINERALS AUST. CO. & POSEIDON LTD.

ELLIOTT BAY - E.L. 40/85

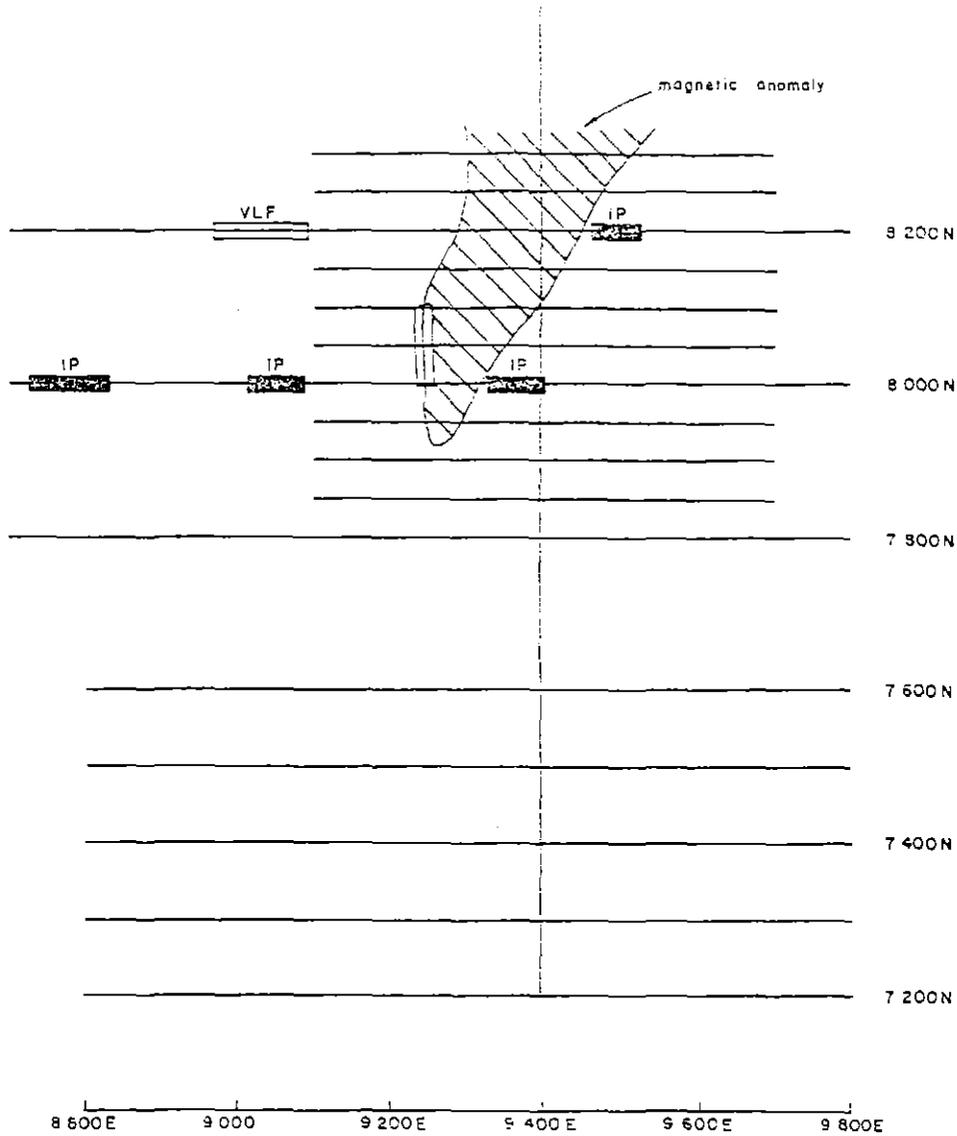
VOYAGER 6 GEOLOGY

SCALE 1:5000

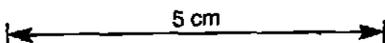
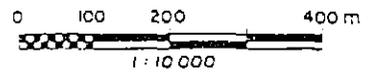
Figure 51 V6 1:5,000 Voyager 6 Geology

DRAWN BY:	R.P.
DRAFTSMAN:	T.G.C.
DATE:	
REVISIONS:	
FILE No.:	
FIG. No.:	

564069



Magnetometer	All lines, station spacing 12.5 m
VLF-EM	All lines, station spacing 25 m
Dipole-dipole IP	8 200N, 9 050E - 9 550E 8 000N, 8 700E - 9 600E
Self Potential	8 000N, 8 650E - 9 600E
Gravity	7 400N, 8 800E - 10 100E, station spacing 50m



	<p><b>GEOPEKO</b> A DIVISION OF PEKO-WALLSEND OPERATIONS LTD</p>
	<p>DATE 17/8/82</p>
	<p>GEOL R.J.P CWN R.Tog</p>

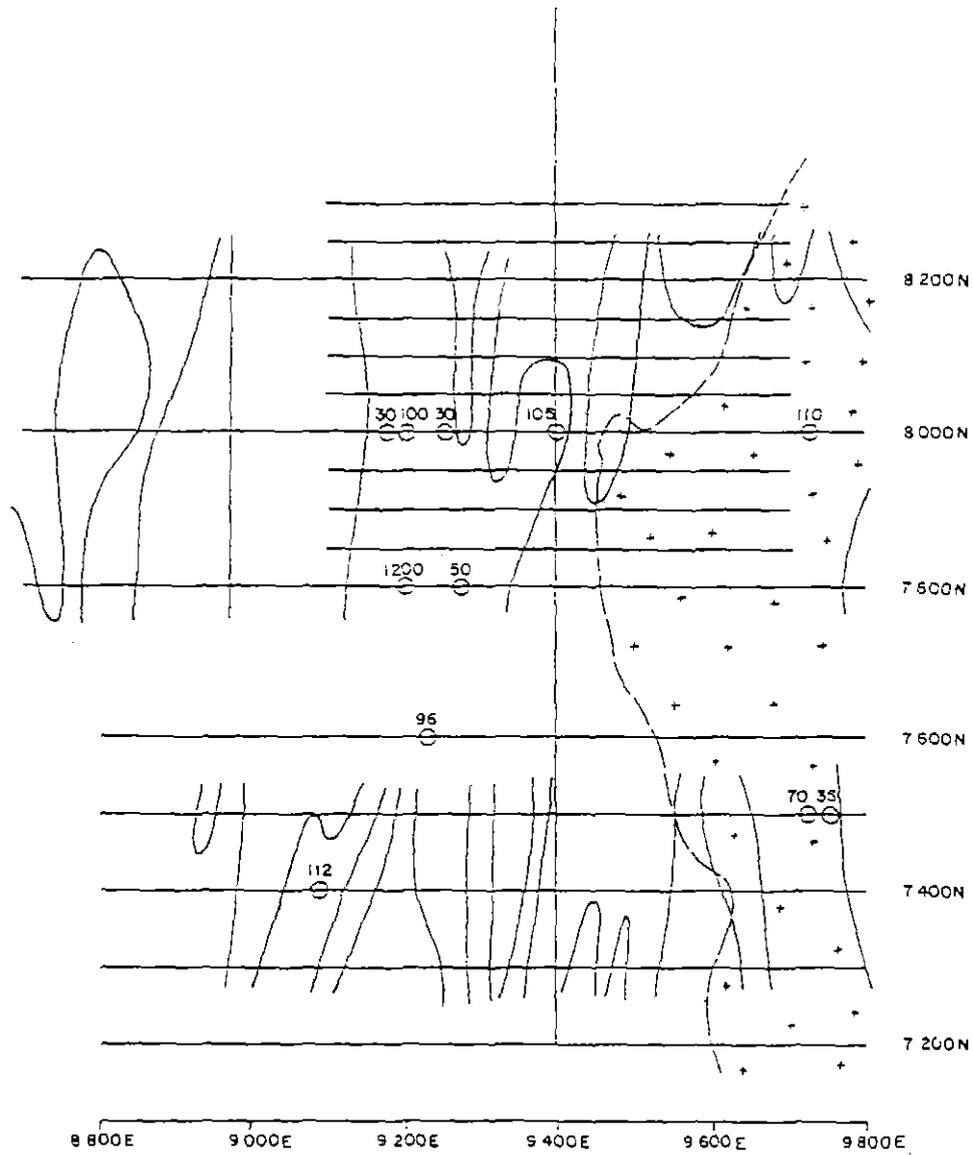
**VOYAGER 30**  
SUMMARY OF GEOPHYSICAL PROSPECTING  
& ANOMALIES GENERATED

Figure 52 V30

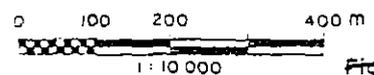
1:10,000

Summary of Geophysical Prospecting and Anomalies Generated

564070



-  volcanics
-  granite
-  96 gold > 25 ppb in C-horizon soil samples
-  Fe > 1% in C-horizon soil samples



5 cm


DATE 16/8/82
GEOLOGIST R.J.P.
DRAWN R.Tog

**GEOPEKO**  
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD

**VOYAGER 30**

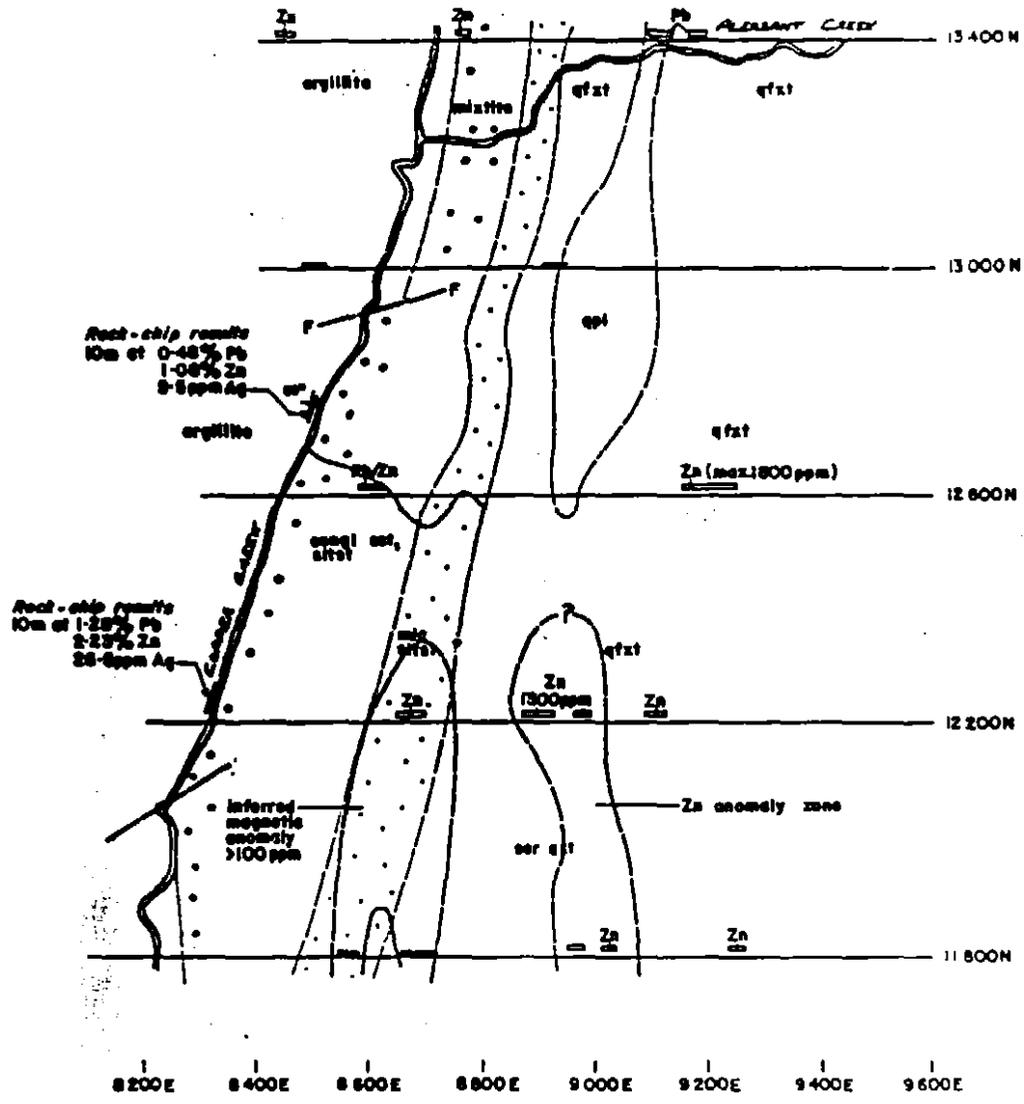
SUMMARY OF Au & Fe C-HORIZON

Summary of Au and Fe C-Horizon Geochemistry

Figure 53 V30

1:10,000

110

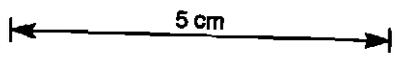


**LEGEND:**  
 - Soil geochemistry >200ppm Pb/Zn  
 - Magnetic anomaly >100nT  
 ○ Inferred anomaly boundary

**EL 27/76 ELLIOTT BAY  
 VOYAGER 31**

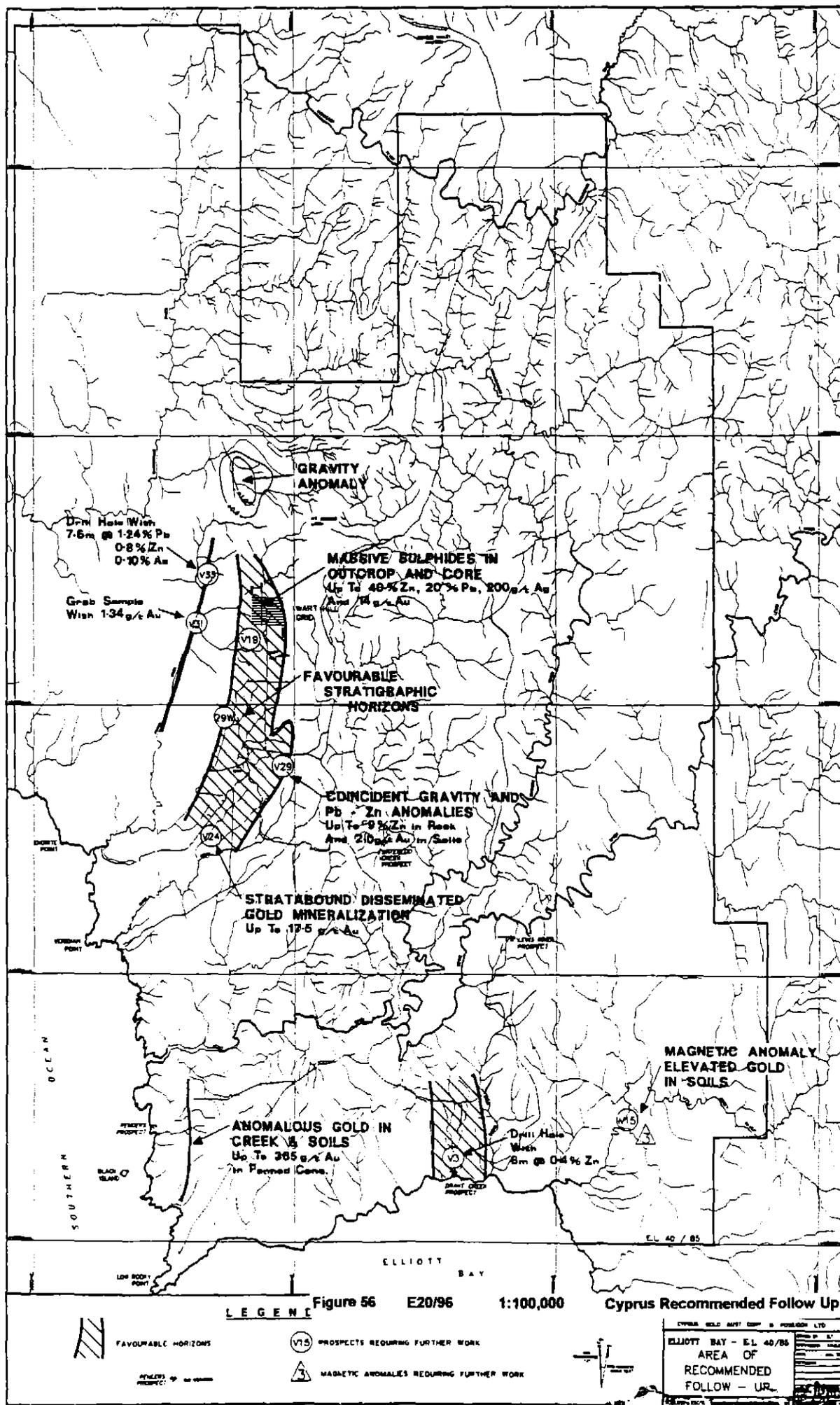
1:10,000  
 PROSPECT SUMMARY DIAGRAM

V-31 Geochemistry, Geophysics Figure 54 V31 1:10,000 Prospect Summary Diagram





5 cm



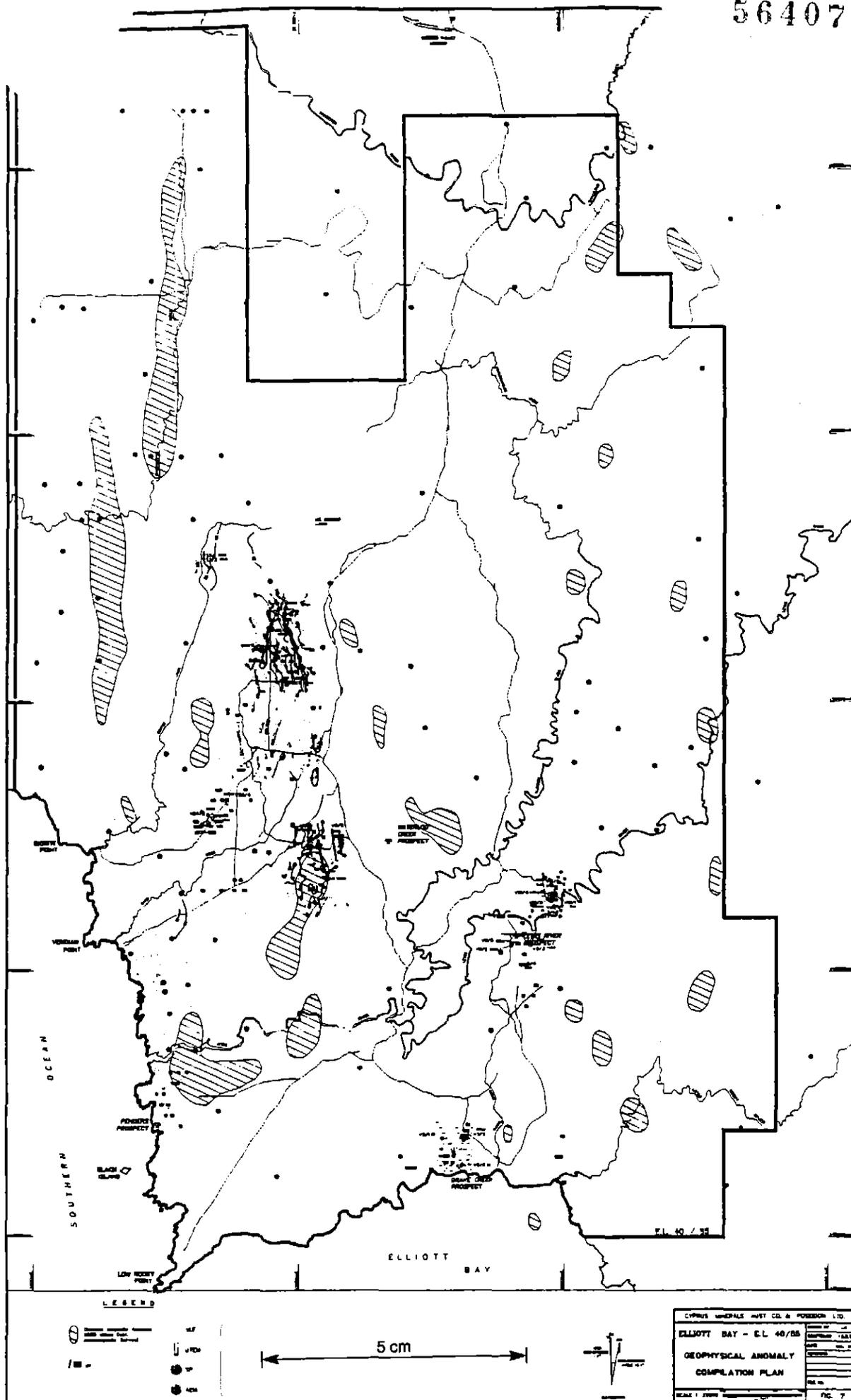


FIG 77

564075

Appendix One  
Report of Diamond Drilling  
April 1998

Geoff Illiff and Associates  
July 98

564076

**FIMISTON MINING NL**  
**ACN 003 010 580**

**EXPLORATION LICENCE 20/96**

**SILVER HILL,**

**ELLIOTT BAY, S.W. TASMANIA**

**REPORT OF DIAMOND DRILLING**

**APRIL 1998**

**Fimiston Mining NL**  
**Level 2, 47 Colin Street**  
**West Perth**  
**WA 6005**  
**PO box 714**  
**West Perth 6872**

**Prepared by Geoff Iloff & Associates**  
**Binalong Bay, Tasmania, 7216.**  
**9<sup>th</sup> July 1998**

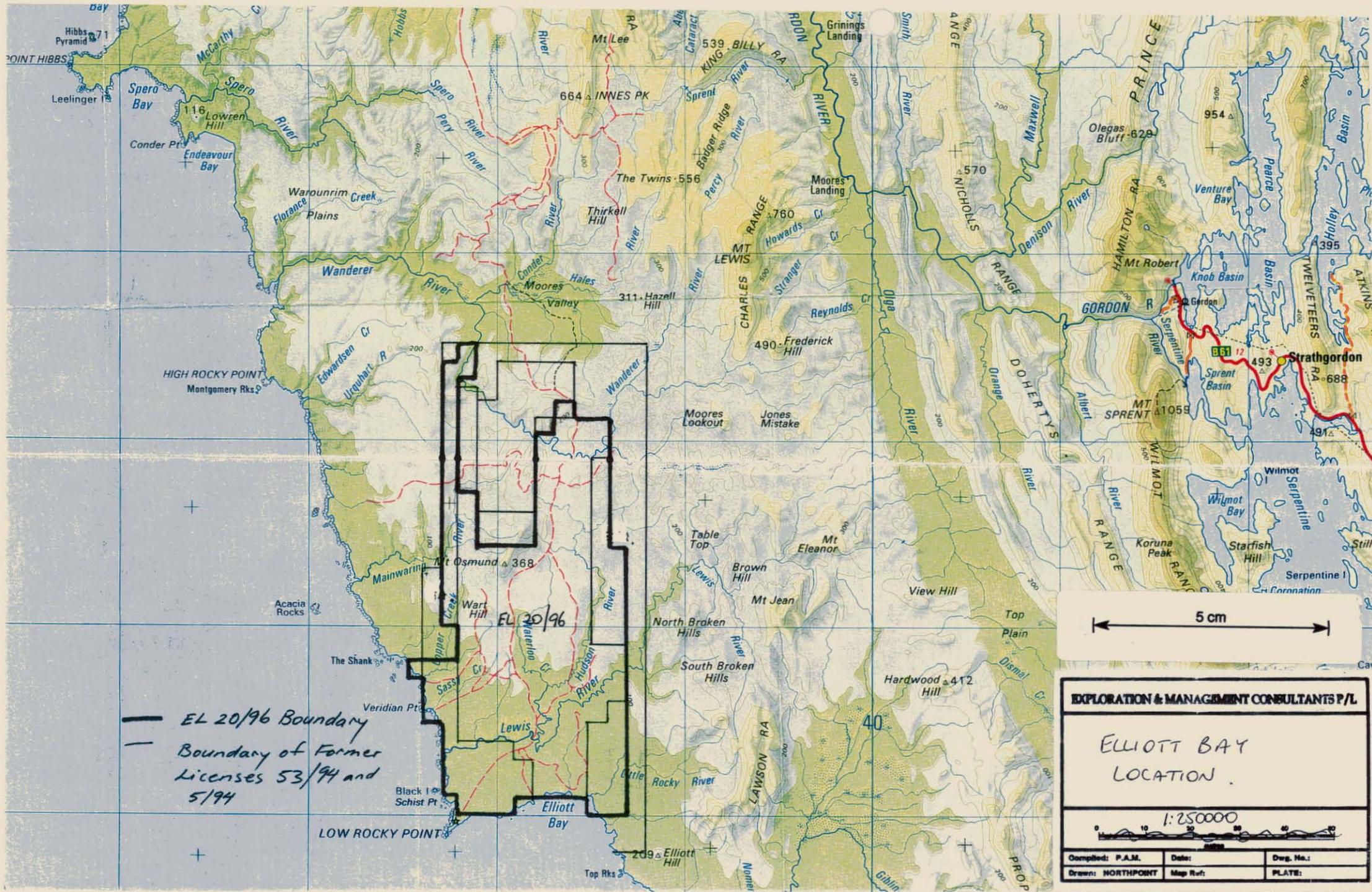
## Summary

During April 1998, Fimiston Mining NL completed two diamond drillholes in the vicinity of Silver Hill, on the map as Wart Hill, north of Elliott Bay, Southwest Tasmania, of 352 metres and 400 metres respectively, spaced about 1,300 metres apart along a north-south strike. The northernmost first hole, SDH1, was designed to test down dip of a metre wide intersection of high grade massive sulphide in an earlier hole, WH8. The southernmost second hole, SDH2, tested coinciding gravity, ground magnetic and electromagnetic anomalies.

Both holes passed through practically unaltered and generally unmineralised quartz-phyric chloritic siliceous volcanoclastics and sericitic quartz porphyry rhyolite lavas. Occasional clasts of massive pyrite and minor zones of detrital disseminated pyrite occurred in the volcanoclastics. Base metal sulphides occurred rarely in quartz-carbonate veins as coarsely recrystallised remobilised galena, sphalerite and chalcopyrite.

It is thought the remobilised vein mineralisation is the source of the surface geochemical anomalies in the area, though undoubtedly some of the anomalies are associated with massive sulphide boulders within the volcanic sequence, seen at the surface (up to car-size) and in previous workers' drill core, and, perhaps, with some disseminated, mainly pyritic mineralisation.

Further drilling is curtailed until Summer, in the presumption that access to drill sites is made easier by less water-logged ground.



564078

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4. Conclusions	5
4.1 Drilling Results	5
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4.3 Evidence of alteration	6
5. Recommendations	6
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## 1. INTRODUCTION

Fimiston Mining's target of exploration in the Silver/Wart Hill area is Rosebery-style high grade polymetallic base metal massive sulphide mineralisation within the Cambrian Mt Read Volcanics, which host five known major VMS deposits on the West Coast of Tasmania. A presence of high grade massive sulphide boulders, assaying up to 33% Zn and 11%Pb, outcropping car-sized and in drill core, within the felsic volcanics in the Silver/Wart Hill area indicates there was probably another major deposit in Cambrian times, of which, presumably, the boulders were once part, and the depositional environment was right for formation of massive sulphide deposits.

The area has been explored previously by several companies, including BHP, Geopeko, Cyprus Gold, Aberfoyle Resources and, most recently, Plutonic Operations Ltd in 1995, which between them drilled many holes in various localities, and conducted geophysical, geochemical and geological surveys.

Fimiston Mining NL purchased the Exploration Licence in April 1998. Its primary exploration objective is identical to that of Plutonic, to discover a "stand alone" (10-20 million tonne) high grade polymetallic, volcanic hosted massive sulphide deposit (Herrmann and Close 1996). The extreme isolation of the area, in Tasmanian terms, necessitates discovery of very significant deposit to warrant a mining operation.

## 2. DRILLING PROGRAMME

Fimiston Mining drilled two holes in April 1998.

SDH1 was to test the depth extension of the Cyprus drillhole WH8 one metre wide intersection of massive sulphide with chert clasts (as observed by the writer) in silica-carbonate gangue at 185m, assaying 10.4% Pb, 24.7% Zn, 0.26% Cu, 123g/t Ag, 0.63g/t Au (Herrmann and Close 1996). A lack of alteration associated with this massive sulphide intersection tended to indicate it was a boulder rather than being in situ, thus the intention of the follow-up hole was to test for signs of a mineralising system that produced the massive sulphide source of the boulder.

SDH2 was designed to test coincidental anomalies of gravity, ground magnetics, electro-magnetics and surface geochemistry in the volcanic sequence.

The drilling itself was easy, with good ground conditions, despite the presence of many small faults and occasional zones of heavy quartz-carbonate veining. Forty metres a shift was the normal performance of the Longyear 38 rig for the programme, on a two shift basis.

It is intended the drilling programme will be continued at the onset of Summer, when mobility across the terrain should be easier over less sodden ground.

## 3. THE DRILLHOLES

### 3.1 SDH1

SDH1 was drilled northwest of Silver/Wart Hill, on local grid coordinates 13,157N, 9,848E (grid orientation coinciding with AMG), dip -70°, azimuth 053° AMG. The hole stayed fairly close to azimuth, but lifted quite quickly to -50.8° at its end of 352m. It passed about 180m beneath the old hole WH8.

#### 3.1.1 SDH1: Geology

0 - 179m	Light grey sericitic quartz-phyric rhyolite porphyry, foliated at 30°. Grey-green basaltic intrusive at 46 - 52.8m.
179 - 191.2m	Mottled grey, coarsely fragmented or brecciated sericitic chloritic mass-flow unit, foliated 40 - 45°. Local semi-massive pyrite: complete zone about 5% pyrite (by Fe assay). Highlight: 179 - 180m: 1.2% Pb, 1.4% Zn, 0.01% Cu, 16g/t Ag, 0.06g/t Au, 2.7% Fe: coarse remobilised galena and sphalerite in quartz-carbonate vein at 179.8 - 179.9m.
191.3 - 207m	Khaki sericitic quartz-phyric rhyolite porphyry, foliated at 35 - 40°.
207 - 306.3m	Mottled grey, medium to coarse grained chloritic sericitic andesitic volcanoclastic. Fragments aligned about 50°. Seven faults between 216 and 287m.
306.3 - 310.5m	Massive cherty siliceous bands/lumps of white, pink and green up to 30cm in a rounded conglomeratic breccia of smaller siliceous fragments in a sericitic chloritic siliceous clast

	volcanoclastic matrix. Local disseminated pyrite and siliceous semi-massive pyrite clasts. A fractured lump of dark red jasper at 309.7 - 309.8m with quartz-carbonate fracture fill.
310.5 - 339m	Buff sericitic quartz porphyry rhyolite. Disseminated pyrite, up to 0.14% Zn.
339 - 352m	Carbonate fragmental with quartz and feldspars, either a volcanoclastic or auto-brecciated lava.

### 3.2 SDH2

SDH2 is sited southwest of Silver/Wart Hill on grid coordinates 11,863N, 9,920E, collar dip -70°, azimuth 068°. The azimuth appeared to swing quite strongly in both directions as the hole progressed. Such compass swings could not be accounted for by magnetite in the core. The hole lifted at a slower rate than SDH1, finishing -56.5° at 400m.

#### 3.2.1 SDH 2: Geology

0 - 30m	Mottled green and khaki massive coarse grained quartz-phyric volcanoclastic with wispy chlorite fragments in a sericitic matrix.
30 - 122m	Mottled green-grey massive coarse grained chloritic sericitic volcanoclastic with irregular cherty clasts and euhedral quartz crystals, foliated 40°. Four faults in the unit.
122 - 207m	Mottled green-grey massive coarse grained quartz-phyric, chert fragmental chloritic volcanoclastic, characterised by irregular quartz-phyric chloritic fragments up to 5 x 2cm oriented about 40°. Khaki sericitised zone with occasional quartz-carbonate veins, including one with coarse recrystallised galena at 152.7 - 152.8m.
207 - 398.5m	Grey-green massive fine to medium grained quartz-phyric chloritic volcanoclastic/quartz crystal tuff, foliated 45 - 50°, with occasional quartz-carbonate veins. Its quartz-phyric nature makes it comparable with the lower porphyritic lava of SDH 1. It is intruded at 229 - 230.3m by a khaki massive fine grained quartz-flecked acid intrusive at 45°. The unit contains six faults and a pale massive medium grained quartz-phyric sericitic volcanoclastic, a sericitic version of the 122 - 207m unit above, at 359.8 - 369.3m.
398.5 - 400m	An altered chloritic volcanoclastic unit with less distinct quartz crystals, foliation stronger at 50°, containing up to 5% detrital and disseminated pyrite. Small quartz-carbonate veins, some containing remobilised galena, sphalerite and chalcocopyrite. 398.5 - 399m assayed 0.04% Pb, 0.1% Zn, 0.01% Cu, <5g/t Ag, <0.01g/t Au, 3.1% Fe.

## 4. CONCLUSIONS

### 4.1 Drilling Results

Neither hole intersected massive sulphides, but both had examples of remobilised, coarsely recrystallised galena, sphalerite, chalcocopyrite and pyrite in quartz-carbonate veins.

The quartz-carbonate veins, which in Tasmanian West Coast stratigraphy tend to be seen as a feature of Devonian tectonic imprint on the Cambrian rocks, often carry remobilised base metals when they are in the vicinity of base metal deposits. This is encouraging evidence of metals in the system, at least indicating the proximity of primary massive sulphide mineralisation, from which the metals were remobilised. Such remobilised mineralisation is a feature, for instance, of the environs of Rosebery and Hercules orebodies.

A relative lack of distinct, strong alteration other than of pervasive regional style, suggests the volcanics traversed by the two drillholes are not close to primary massive mineralisation, certainly not in the altered footwall expected of such mineralisation. This puts the rocks drilled either well away from a mineralising conduit, if they are part of a footwall suite, or in the hangingwall of a mineralised sequence. Thus the holes did nothing to illuminate the position of the rocks in the stratigraphy, relative to the mineralising activity which must have formed the body which provided the massive base metal sulphide clasts exposed on the surface north of Silver/Wart Hill and seen in the core of WH8.

It is presumed the exposed sulphide clasts, such as Lenses A and B north of Silver/Wart Hill, were already solidified into rock before they were transported to their positions in the mass-flow units, rather than still being part of a plastic sea-floor deposit which was stretched apart by a slumping mass of volcano-side sea slope debris. In this interpretation, it is envisaged an already formed, digenised, covered orebody was blown to smithereens by a subsequent volcanic eruption occurring millions of years later. Or it was exposed by erosion, broken up by weathering and transported by gravity down a slope, in either submarine or subaerial conditions, and subsequently covered by volcanic debris. It has

not yet been established the massive sulphide boulders all occur in the same stratigraphic unit. If they do, is it the same unit that contains the remnant of the primary deposit, or are they reworked into a younger unit?

As stated by Herrmann in the 1996 Plutonic report, it is impossible to make hole to hole correlations of individual units or sequences of units amongst the polymict breccia sandstone package (Herrmann and Close 1996 p 21), or in the volcanoclastics and lavas of the two new drillholes, between them, and between them and earlier holes (except the basic intrusive in SDH1 could correlate with one of those logged by Herrmann in WH8). Nor is it possible from the sequences in the recent holes to decide positively on a facing of the overall sequence. This writer's gut feeling is the Silver/Wart Hill sequence is facing east, in agreement with Callaghan (1989), referred to in Herrmann and Close (op. cit p 10).

#### **4.2 Relationship of drilling results and surface geochemistry**

Surface geochemistry by Geopeko and Plutonic showed anomalous values, with some concentration to the south east of Silver/Wart Hill, west of the roughly north-south scarp break, where are sparse signs of oxidised pyrite. But in general, the anomalous values tend to be fairly random. These latter anomalies could be reflecting the remobilised mineralisation seen in some of the quartz-carbonate veins seen in the drill core, as well as haloes around scattered exposed massive sulphide clasts, of which others could be lurking beneath the button grass.

#### **4.3 Evidence of alteration**

In brief walks over the sequence, both north and south of Silver/Wart Hill and between the camp and drill sites, it appeared an important factor, significant alteration, was an important feature missing in a sequence which could contain a massive sulphide orebody.

Pervasive regional sericitic and chloritic alteration are evident in core and outcrop, but silica alteration, which tends to be related to footwalls of massive sulphide mineralisation, is only in evidence in the sulphide clasts themselves. This writer would feel more comfort in observing more silica alteration in the area, as a clue to the whereabouts of the primary deposit, at least its footwall, that supplied the clasts of massive sulphide.

### **5. RECOMMENDATIONS**

The resources of an extensive database in Fimiston's computer system should give guidance in planning the next phase of drilling, with overlays of geological, geochemical and geophysical data highlighting more coincidental anomalies.

Highlighted areas should be geologically mapped, with particular emphasis on alteration and determination of facing.

Perhaps it is worth entertaining the notion of pattern drilling geologically promising areas with RAB or reverse circulation. Such an approach was used by Esso Minerals in the late seventies in the discovery of Scuddles deposit. Since unweathered bedrock in this area is generally closer to the surface than at Scuddles, the holes should be mainly quite shallow, in the nature of deep soil sampling. A light self-propelled track rig would be essential for such work. Much information would be gained relatively quickly over large areas with this method.

#### **Reference**

Herrmann, W. and Close, R. J. 1996. Exploration Licence 53/94, Elliott Bay, Tasmania. Annual Report February 1995 to January 1996. Plutonic Operations Limited. MRT Report No 96-3841.

Appendix:

Core logs of drillholes SDH 1 and SDH2

FIMISTON MINING NL ACN 003 019 580

DIAMOND DRILL LOG: SDH 1

OBJECTIVE : Testing down dip of intersection in earlier hole WH8.

Hole depth: 352m

RESULT : Remobilised sphalerite and galena in a quartz-carbonate vein at 179.8-179.9m in inter-flow fragmentation/recciation zone at 179-191.2m containing local semi-massive pyrite.

Hole size: HQ 2 - 86.7m  
 NG 86.7 - 352m.  
 Started: 8.4.1998  
 Finished: 15.4.1998

Surveys, local grid (AMG).

Depth	Direction	Dip	Depth	Direction	Dip
0.0	53.0	-70.0	241.0	54.0	-60.0
80.0	58.0	-68.2	270.0	51.0	-57.0
90.0	58.5	-66.6	301.0	51.0	-54.5
120.0	56.0	-65.3	331.0	52.5	-52.0
151.0	56.0	-85.0	352.0	49.0	-50.8
181.0	56.5	-64.0			
210.0	55.0	-62.5			

COLLAR DIP : -70

DIRECTION : 053

NORTHING : 13,157N

EASTING : 9,848E

AMG ~~87,111,111,111,111,111~~  
 379,327 E 5,251,516 N based on  
 conversion in p11 of report  
 RAB

HOLE No. : SDH 1

LOCATION : Silver Hill, SW Tasmania.  
 (Wart Hill, Elliott Bay)

LOGGED BY : G. Iltis, 19.4.1998

COLLAR RL : About 220m.

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION	SAMPLE NO.	FROM	TO	Length	Pb ppm	Zn ppm	Cu ppm	Ag g/t	Au g/t	Fe %	\$	To	ROD%
0.0	2.0	No core, drilled by tricone.					SDH1-1	178.00	179.00	1.0	20	240	12	<5	<0.01	3.69			
2.0	179.0	Light grey massive quartz-phyric sericitic rhyolite porphyry. Foliated at 30 degrees. 2-10.7m Yellow carbonate (siderite) flecks and irregular carbonate veins <7mm about parallel to cleavage. 10.7-11.7m Coarser zone with minor chlorite flecks. 11.5-25.7m Carbonate (siderite) veins with rare later quartz veins <1cm, transgressing foliation. 25.7-46m Irregular quartz-carbonate veins <1.5cm stress fractures, some containing brecciated lava. 46-52.8 m Grey-green massive fine grained basaltic intrusive. Upper contact a light green chilled margin at 45 deg. Two longues <2cm intruded into lava within 10cm of contact, one lined with and including qz-cb veins <3mm. Intrusive has frequent crenulated and folded irregular qz-cb veins, one regular <2cm. Xenolith of brecciated lava with qz-cb fill at 48.1-48.3m. 49-54 m zone of bent, fractured and folded very irregular qz-cb veins. Lower contact 30 deg. 55.3-88.4m Strong qz-cb veining. 40% of the zone, with some coarse grained remobilised galena and minor sphalerite in the qz-cb veins. 70-70.8m Breccia zone with qz-cb fill. 96.7-106m Frequent quartz veins with semi-brecciation 106-107.3m Broken zone: fault? 136.3-138.4m Zone of frequent qz-cb veins and semi-breccia. 138.4-141.5m Breccia with cherty silica-carbonate and qz-cb veins fill. Tails off with qz-cb veins to 143m. 148.5-165m Much qz-cb veining and brecciation. Massive silica-carbonate opaque cherty zone at 152.8-153.8m.	mod	se	qz porph		SDH1-2	179.00	180.00	1.0	12200	13500	32	16	0.06	2.74			
							SDH1-3	180.00	181.00	1.0	160	897	42	<5	<0.01	2.44			
							SDH1-4	181.00	182.00	1.0	1185	1936	35	5	0.01	3.22			
							SDH1-5	182.00	183.00	1.0	945	1576	32	<5	<0.01	2.64			
							SDH1-6	182.00	184.00	1.0	250	608	29	<5	<0.01	3.49			
							SDH1-7	184.00	185.00	1.0	285	1002	29	<5	<0.01	3.55			
							SDH1-8	185.00	188.00	1.0	165	702	17	<5	0.01	3.54			
							SDH1-9	186.00	187.00	1.0	55	552	11	<5	<0.01	3.86			
			strg	ch	basalt		SDH1-10	187.00	188.00	1.0	180	489	12	<5	<0.01	3.05			
							SDH1-11	188.00	189.00	1.0	165	426	19	<5	<0.01	2.65			
							SDH1-12	189.00	190.00	1.0	880	561	28	<5	<0.01	2.73			
							SDH1-13	190.00	191.00	1.0	160	147	21	<5	<0.01	1.94			
						Remobilised galena and minor sphalerite	SDH1-14	306.50	307.50	1.0	230	231	22	<5	<0.01	1.86			
							SDH1-15	307.50	308.50	1.0	205	270	14	<5	<0.01	1.49			
							SDH1-16	308.50	309.50	1.0	145	270	19	<5	<0.01	1.97			
							SDH1-17	309.50	310.50	1.0	380	535	20	<5	<0.01	3.62			
							SDH1-18	310.50	311.50	1.0	225	362	72	<5	<0.01	2.15			
							SDH1-19	311.50	312.50	1.0	660	1361	48	8	<0.01	2.05			
							SDH1-20	312.50	313.50	1.0	495	537	22	5	<0.01	1.56			
							Average	179.00	183.00	4.0	3523	4478	35	5	0.02	2.76			
179.0	191.2	Mottled grey inter-flow zone of coarse fragmentation/brecciation or mass-flow unit, with sericite and chlorite. Foliation 40-45 degrees. Local semi-massive pyrite: complete zone 3-5% py. 179.5m Fault 30 degrees, <2cm pug.	mod	se ch	frag/breccia	Minor local semi-massive pyrite.													
191.2	207.0	179.8-179.9m Coarse remobilised galena and sphalerite in qz-cb. Khaki quartz porphyry rhyolite lava. Foliation 35-40 degrees. 196.3m Fault, 35 degrees, 1cm pug. 197.8m Fault, 30 degrees, 1cm pug.	mod	se	qz porph	179.8-179.9m Remob ga & sp in qz-cb vn.													
207.0	306.3	Mottled grey, medium to coarse grained chloritic sericitic andesitic volcanoclastic. Fragments aligned about 50 degrees. Partly mass-flow breccia. Quartz-phyric: could be described as a crystal luff. Rare pyrite clasts. 216.1m Fault, 30 degrees, <1cm pug. 226.2m Remobilised and disseminated pyrite in chert in 8cm zone. 248.5-249m Flow breccia, mixed dark and pale grey. 256.7-256.8m Broken ground. 256.9m Fault, 40 degrees, 1cm pug. 259-260.5m Broken and faulted, 20 & 45 degrees. 268.1-268.2m Breccia with qz-cb fill. 262.7-263.9m Zone of round and lenticular quartz clasts <10cm, largest at 262.7-262.8m, with a pink component. 266.8-267.3m Broken zone, two faults, at 30 and 60 degrees. 269.7m Fault, 60 degrees, <2cm pug. 272.3m Fault, 85 degrees, <1cm pug. 272.6-272.8m Two faults, <5cm pug, 40 and 50 degrees. 287-287.1m Fault, 50 degrees, mainly pug, with fractured rock. Zone of massive cherty siliceous bands/lumps of white, pink and green <30cm in a rounded breccia of smaller siliceous fragments in a sericitic-chloritic siliceous cleft volcanoclastic matrix. Local disseminated pyrite and silica-pyrite clasts. Practically a conglomerate. 306.5-306.7m Semi-massive pyrite matrix. 308.9m Fault, 70 degrees, <2cm pug. 309.7-309.8m massive dark red jasper, fractured, filled with qz-cb, 60 degrees. Band of massive chlorite at lower end, with minor remobilised pyrite.	mod	ch se	volc/clastic														
306.3	310.5	310.5m Rounded elongate pyrite-silica clast <1cm by > core width. Buff, sericitic quartz porphyry rhyolite. 310.5-314.5m Mainly grey bands with <1% disseminated pyrite. 338.2-338.8m Broken zone, fault at 338.2m, 50 degrees <1cm pug. Carbonate fragmental with quartz and feldspar crystals: volcano-clastic or auto-brecciated lava.	strg	si	chert breccia	Minor semi-massive pyrite, disseminated py, sil-py clasts.													
310.5	339.0	Buff, sericitic quartz porphyry rhyolite. 310.5-314.5m Mainly grey bands with <1% disseminated pyrite. 338.2-338.8m Broken zone, fault at 338.2m, 50 degrees <1cm pug.	mod	se	qz porph	<1% disseminated pyrite.													
339.0	352.0	Carbonate fragmental with quartz and feldspar crystals: volcano-clastic or auto-brecciated lava.	mod	ch	carb frag'l														

564084

OBJECTIVE : Testing down dip of intersection in earlier hole WH8.

RESULT : Remobilised sphalerite and galena in a quartz-carbonate vein at 179.8-179.9m in inter-flow fragmentation/brecciation zone at 179-191.2m containing local semi-massive pyrite.

Hole depth: 352m  
 Hole size: HQ 2 - 86.7m  
 NQ 86.7 - 352m.  
 Started: 8.4.1998  
 Finished: 15.4.1998

Surveys, local grid (AMG).

Depth	Direction	Dip
0.0	53.0	-70.0
60.0	59.0	-68.2
90.0	58.5	-66.6
120.0	56.0	-65.3
151.0	56.0	-65.0
181.0	56.5	-64.0
210.0	55.0	-62.5

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION
0.0	2.0	No core: drilled by tricone.				
2.0	179.0	Light grey massive quartz-phyric sericitic rhyolite porphyry. Foliated at 30 degrees. 2-10.7m Yellow carbonate (siderite) flecks and irregular carbonate veins <7mm about parallel to cleavage. 10.7-11.7m Coarser zone with minor chlorite flecks. 11.5-25.7m Carbonate (siderite) veins with rare later quartz veins <1cm, transgressing foliation. 25.7-46m Irregular quartz-carbonate veins <1.5cm: stress fractures some containing brecciated lava. 46-52.8 m Grey-green massive fine grained basaltic intrusive. Upper contact a light green chilled margin at 45 deg. Two tongues <2cm intruded into lava within 10cm of contact, one lined with and including qz-cb veins <3mm. Intrusive has frequent crenulated and folded irregular qz-cb veins, one regular <2cm. Xenolith of brecciated lava with qz-cb fill at 48.1-48.3m. 49-54 m zone of bent, fractured and folded very irregular qz-cb veins. Lower contact 30 deg. 65.3-68.4m Strong qz-cb veining: 40% of the zone, with some coarse grained remobilised galena and minor sphalerite in the qz-cb veins. 70-70.8m Breccia zone with qz-cb fill. 96.7-106m Frequent quartz veins with semi-brecciation. 106-107.3m Broken zone: fault? 136.3-138.4m Zone of frequent qz-cb veins and semi-breccia. 138.4-141.5m Breccia with cherty silica-carbonate and qz-cb veins fill. Tails off with qz-cb veins to 143m. 148.5-165m Much qz-cb veining and brecciation. Massive silica-carbonate opaque cherty zone at 152.8-153.6m.	mod	se	qz porph	
			strg	ch	basalt	Remobilised galena and minor sphalerite.

179.0	191.2	Mottled grey inter-flow zone of coarse fragmentation/brecciation or mass-flow unit, with sericite and chlorite. Foliation 40-45 degrees. Local semi-massive pyrite: complete zone 3-5% py. 179.5m Fault 30 degrees, <2cm pug. 179.8-179.9m Coarse remobilised galena and sphalerite in qz-cb.	mod	se ch	frag'l/breccia	Minor local semi-massive pyrite.
191.2	207.0	Khaki quartz porphyry rhyolite lava. Foliation 35-40 degrees. 196.3m Fault, 35 degrees, 1cm pug. 197.8m Fault, 30 degrees, 1cm pug.	mod	se	qz porph	179.8-179.9m Remob ga & sp in qz-cb vn.
207.0	306.3	Mottled grey, medium to coarse grained chloritic sericitic andesitic volcanoclastic. Fragments aligned about 50 degrees. Partly mass-flow breccia. Quartz-phyric: could be described as a crystal tuff. Rare pyrite clasts. 216.1m Fault, 30 degrees, <1cm pug. 226.2m Remobilised and disseminated pyrite in chert in 8cm zone. 248.5-249m Flow breccia, mixed dark and pale grey. 256.7-256.8m Broken ground. 256.9m Fault, 40 degrees, 1cm pug. 259-259.5m Broken and faulted, 20 & 45 degrees. 266.1-266.2m Breccia with qz-cb fill. 262.7-263.9m Zone of round and lenticular quartz clasts <10cm, largest at 262.7-262.8m, with a pink component. 266.8-267.3m Broken zone: two faults, at 30 and 60 degrees. 269.7m Fault, 60 degrees, <2cm pug. 272.3m Fault, 65 degrees, <1cm pug. 272.6-272.8m Two faults, <5cm pug, 40 and 50 degrees. 287-287.1m Fault, 50 degrees, mainly pug, with fractured rock.	mod	ch se	volc'clastic	
306.3	310.5	Zone of massive cherty siliceous bands/lumps of white, pink and green <30cm in a rounded breccia of smaller siliceous fragments in a sericitic-chloritic siliceous clast volcanoclastic matrix. Local disseminated pyrite and silica-pyrite clasts. Practically a conglomerate. 306.6-306.7m Semi-massive pyrite matrix. 308.9m Fault, 70 degrees, <2cm pug. 309.7-309.8m massive dark red jasper, fractured, filled with qz-cb, 60 degrees. Band of massive chlorite at lower end, with minor remobilised pyrite. 310.5m Rounded elongate pyrite-silica clast <1cm by > core width.	strg	si	chert	8cm remobilised and disseminated pyrite.
310.5	339.0	Buff, sericitic quartz porphyry rhyolite. 310.5-314.5m Mainly grey bands with <1% disseminated pyrite. 338.2-338.8m Broken zone: fault at 338.2m, 50 degrees, <1cm pug.	strg	si	chert breccia	Minor semi-massive pyrite, disseminated py, sil-py clasts.
339.0	352.0 EOH	Carbonate fragmental with quartz and feldspar crystals: volcanoclastic or auto-brecciated lava.	mod	se	qz porph	<1% disseminated pyrite.
			mod	ch	carb frag'l	

564086

AM6 379,327 E 5,251,516 N based on conversion on p11 of report. DJJ.

Depth	Direction	Dip
241.0	54.0	-60.0
270.0	51.0	-57.0
301.0	51.0	-54.5
331.0	52.5	-52.0
352.0	49.0	-50.8

COLLAR DIP : -70  
 DIRECTION : 053  
 NORTHING : 13,157N  
 (Local Grid)  
 EASTING : 9,848E

HOLE No. : SDH 1  
 LOCATION : Silver Hill, SW Tasmania.  
 (Wart Hill, Elliott Bay)  
 LOGGED BY : G. Iliff, 19.4.1998  
 COLLAR RL : About 220m.

SAMPLE NO.	FROM	TO	Length	Pb ppm	Zn ppm	Cu ppm	Ag g/t	Au g/t	Fe %	\$	To	RQD%
SDH1-1	178.00	179.00	1.0	20	240	12	<5	<0.01	3.69			
SDH1-2	179.00	180.00	1.0	12200	13500	32	16	0.06	2.74			
SDH1-3	180.00	181.00	1.0	160	897	42	<5	<0.01	2.44			
SDH1-4	181.00	182.00	1.0	1185	1936	35	5	0.01	3.22			
SDH1-5	182.00	183.00	1.0	945	1578	32	<5	<0.01	2.64			
SDH1-6	182.00	184.00	1.0	250	608	29	<5	<0.01	3.49			
SDH1-7	184.00	185.00	1.0	295	1002	29	<5	<0.01	3.55			
SDH1-8	185.00	186.00	1.0	165	702	17	<5	0.01	3.54			
SDH1-9	186.00	187.00	1.0	55	552	11	<5	<0.01	3.86			
SDH1-10	187.00	188.00	1.0	180	489	12	<5	<0.01	3.05			
SDH1-11	188.00	189.00	1.0	165	426	19	<5	<0.01	2.65			
SDH1-12	189.00	190.00	1.0	880	561	28	<5	<0.01	2.73			
SDH1-13	190.00	191.00	1.0	160	147	21	<5	<0.01	1.94			
SDH1-14	306.50	307.50	1.0	230	231	22	<5	<0.01	1.86			
SDH1-15	307.50	308.50	1.0	205	270	14	<5	<0.01	1.49			
SDH1-16	308.50	309.50	1.0	145	270	19	<5	<0.01	1.97			
SDH1-17	309.50	310.50	1.0	380	535	20	<5	<0.01	3.62			
SDH1-18	310.50	311.50	1.0	225	362	72	<5	<0.01	2.15			
SDH1-19	311.50	312.50	1.0	660	1361	48	8	<0.01	2.05			
SDH1-20	312.50	313.50	1.0	495	537	22	5	<0.01	1.55			
Average	179.00	183.00	4.0	3623	4478	35	5	0.02	2.76			

564087

EMMSTON MINING NL ACN 009 010 580

DIAMOND DRILL LOG SDH2

OBJECTIVE : Testing coincidental gravity, EM and ground magnetic anomalies.  
 RESULT : Remobilised galena in a quartz-carbonate vein at 152.7m.  
 Altered chloritic-sericitic zone with detrital and disseminated pyrite (2-5%) at 398.5-400m.

Hole depth 400m  
 Hole size: HQ 1.5 - 84m,  
 NO 84 - 400m.  
 Started: 27.4.1998  
 Finished: 27.4.1998

Surveys, local grid (AMG)

Depth	Direction	Dip	Depth	Direction	Dip
0.0	88.0	-70.0	210.0	89.5	-82.7
30.0	76.0	-70.5	240.0	81.5	-81.0
60.0	73.0	-69.8	271.0	81.5	-89.7
90.0	72.0	-68.9	301.0	86.0	-89.0
120.0	71.5	-68.0	330.0	85.0	-88.1
150.0	69.0	-65.3	360.0	87.5	-87.2
180.0	65.0	-63.8	400.0	83.0	-86.5

COLLAR DIP : -70  
 DIRECTION : 068  
 NORTHING : 11,863N  
 EASTING : 9,920E  
 HOLE No. : SDH2  
 LOCATION : Silver Hill, SW Tasmania.  
 LOGGED BY : G. Iltf, 30.4.1998  
 COLLAR RL : About 220m.

AMG 379, 399 E 5, 250, 227 N based on conversion on p11 of report 980

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION	SAMPLE NO	FROM	TO	Length	Pb ppm	Zn ppm	Cu ppm	Ag gt	Au gt	Fe %	g	To	ROD%
0.0	1.5	No core drilled by tricone.					SDH2-1	395.00	396.00	1.0	85	273	<10	<5	<0.01	2.66			
1.5	30.0	Mottled green and khaki massive coarse grained quartz-phyric volcanoclastic, with wispy chlorite fragments in a generally sericitic matrix. Foliation about 40 degrees. Brown weathered joints. 14.8-15.5m Vein quartz, broken with brown weathering. 23-24m Puggy zone, probably a fault at 40 degrees. 23-28m A series of big broken quartz veins, some with massive chlorite cavity fill, others with brown weathering.	mod	h se	qz-phyric vol/clastic		SDH2-2	396.00	398.00	1.0	85	347	42	<5	<0.01	2.76			
		30m 2 faults about 10cm apart, 40 degrees, each <1.5cm pug. 42.3m Fault, 80 degrees, <1.5cm pug. 87.5-93.3m Sericitic broken zone with quartz-carbonate veins <0.2m. 93.8-94.1m Fault, pug at 70 degrees. 120-120.9m Broken zone.					SDH2-3	398.60	397.50	1.0	25	168	27	<5	<0.01	2.68			
30.0	122.0	Mottled green-grey massive coarse chloritic sericitic volcanoclastic irregular cherty clasts and euhedral quartz crystals. Foliated 40 deg. 30m 2 faults about 10cm apart, 40 degrees, each <1.5cm pug. 42.3m Fault, 80 degrees, <1.5cm pug. 87.5-93.3m Sericitic broken zone with quartz-carbonate veins <0.2m. 93.8-94.1m Fault, pug at 70 degrees. 120-120.9m Broken zone.	mod	h se	vol/clastic		SDH2-4	397.50	398.50	1.0	125	47	<10	<5	<0.01	1.87			
		120-120.9m Broken zone.					SDH2-5	398.50	399.00	1.0	440	1458	92	<5	<0.01	3.09			
122.0	207.0	Mottled green-grey massive coarse grained quartz-phyric, chert fragmental chloritic volcanoclastic, characterised by irregular quartz-phyric chlorite fragments <5x2cm oriented about 40 degrees. 130-132m, 140-153m and 192-202m Occasional quartz-carbonate veins with massive chlorite cavity fill. 152-167m Khaki sericitised zone with occasional quartz-carbonate veins. Coarse remobilised galena in qz-cb vein 152.7-152.8m. 160-181.2m Broken ground.	mod	ch	qz-phyric vol/clastic	Coarse remobilised galena at 152.7m.	SDH2-6	399.00	400.00	1.0	150	359	<10	<5	<0.01	2.86			
207.0	398.5	Grey-green massive fine to medium grained quartz-phyric chloritic volcanoclastic/quartz crystal luff, foliated 45-50-70 degrees, with occasional quartz-carbonate veins. Unit's quartz crystal habit is reminiscent of the porphyritic lava of SDH1: this unit might also be a porphyritic lava, equivalent to the lower lava in SDH1. 228-230.3m Khaki massive fine grained, quartz-flecked acid intrusive at 45 degrees. Upper contact fingering, lower contact clear cut. 226.5-226.7m About 1% pyrite. 226.7m Chlorite band <5mm with semi-massive pyrite. 243.6-243.8m 3 faults at 70 degrees, each < 2cm pug. 281m Fault, 45 degrees, <1cm pug and fractured quartz. 282.4m Fault, 40 degrees, 2cm pug and breccia. 282.8m Fault, 40 degrees, <1cm pug. 359.8-369.3m Buff-khaki massive medium grained sericitic quartz-phyric volcanoclastic with sericite bands/veils equivalent to the chloritic ones in the clastic unit at 122-207m. 386-371m Much qz-cb veining in brecciated zone. Some chlorite fracture fill. 371-400m Zone with irregular siderite veins <1cm and rare qz-cb veins <2cm. 395-396.8m <1% disseminated pyrite.	mod	ch	qz-phyric vol/clastic	226.5-226.7m <1% disseminated pyrite. 226.7m Semi-massive pyrite in narrow chlorite band.													
		398.5-399m Smaller, <1cm, qz-cb veins with minor remobilised sphalerite, galena and chalcopyrite.																	
398.5	400.0 EOH	Altered chloritic-sericitic zone with quartz crystals less distinct. Stronger foliation about 50 degrees. Irregular qz-cb veins, distorted and fragmented. 2-3% detrital and disseminated pyrite. 398.5-399m Minor remobilised sp, ga & cp.	strg	h se	alt vol/clastic	2.3% detrital and disseminated pyrite.													

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**FIMISTON MINING NL ACN 003 010 580**

**DIAMOND DRILL LOG: SDH 2**

**OBJECTIVE :** Testing coincidental gravity, EM and ground magnetic anomalies.

**RESULT :** Remobilised galena in a quartz-carbonate vein at 152.7m.  
Altered chloritic-sericitic zone with detrital and disseminated pyrite (2-5%) at 398.5-400m.

Hole depth 400m  
Hole size: HQ 1.5 - 84m.  
NQ 84 - 400m.  
Started: 22.4.1998  
Finished: 27.4.1998

Surveys, local grid (AMG).

Depth	Direction	Dip
0.0	68.0	-70.0
30.0	76.0	-70.5
60.0	73.0	-68.8
90.0	72.0	-66.9
120.0	71.5	-66.0
150.0	69.0	-65.3
180.0	65.0	-63.8

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION
0.0	1.5	No core: drilled by tricone.				
1.5	30.0	Mottled green and khaki massive coarse grained quartz-phyric volcanoclastic, with wispy chlorite fragments in a generally sericitic matrix. Foliation about 40 degrees. Brown weathered joints. 14.8-15.5m Vein quartz, broken with brown weathering. 23-24m Puggy zone, probably a fault at 40 degrees. 23-26m A series of big broken quartz veins, some with massive chlorite cavity fill, others with brown weathering.	mod	ca se	qz phyric vol'clastic	
30.0	122.0	Mottled green-grey massive coarse chloritic-sericitic volcanoclastic irregular cherty clasts and euhedral quartz crystals. Foliated 40 deg. 30m 2 faults about 10cm apart, 40 degrees, each <1.5cm pug. 42.3m Fault, 80 degrees, <1.5cm pug. 87.5-93.3m Sericitic broken zone with quartz-carbonate veins <0.2m. 93.8-94.1m Fault, pug at 70 degrees. 120-120.9m Broken zone.	mod	ch se	vol'clastic	
122.0	207.0	Mottled green-grey massive coarse grained quartz-phyric, chert fragmental chloritic volcanoclastic, characterised by irregular quartz-phyric chlorite fragments <5x2cm oriented about 40 degrees. 130-132m, 140-153m and 192-202m Occasional quartz-carbonate veins with massive chlorite cavity fill. 152-167m Khaki sericitised zone with occasional quartz-carbonate veins. Coarse remobilised galena in qz-cb vein 152.7-152.8m. 160-161.2m Broken ground.	mod	ch	qz phyric vol'clastic	Coarse remobilised galena at 152.7m.

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207.0	398.5	<p>Grey-green massive fine to medium grained quartz-phyric chloritic volcanoclastic/quartz-crystal tuff, foliated 45-50-70 degrees, with occasional quartz-carbonate veins. Unit's quartz crystal habit is reminiscent of the porphyritic lava of SDH1: this unit might also be a porphyritic lava, equivalent to the lower lava in SDH1.</p> <p>229-230.3m Khaki massive fine grained, quartz-flecked acid intrusive at 45 degrees. Upper contact fingering, lower contact clear cut.</p> <p>226.5-226.7m About 1% pyrite.</p> <p>226.7m Chlorite band &lt;5mm with semi-massive pyrite.</p> <p>243.6-243.8m 3 faults at 70 degrees, each &lt; 2cm pug.</p> <p>281m Fault, 45 degrees, &lt;1cm pug and fractured quartz.</p> <p>282.4m Fault, 40 degrees, 2cm pug and breccia.</p> <p>282.8m Fault, 40 degrees, &lt;1cm pug.</p> <p>359.8-369.3m Buff-khaki massive medium grained sericitic quartz-phyric volcanoclastic with sericite bands/wisps equivalent to the chloritic ones in the clastic unit at 122-207m.</p> <p>366-371m Much qz-cb veining in brecciated zone. Some chlorite fracture fill.</p> <p>371-400m Zone with irregular siderite veins &lt;1cm and rare qz-cb veins &lt;2cm.</p> <p>395-396.8m &lt;1% disseminated pyrite.</p>	mod	ch	qz-phyric vol'clastic	<p>226.5-226.7m &lt;1% disseminated pyrite.</p> <p>226.7m Semi-massive pyrite in narrow chlorite band.</p>
		<p>398.5-400.0m EOH</p> <p>Altered chloritic-sericitic zone with quartz crystals less distinct. Stronger foliation about 50 degrees. Irregular qz-cb veins, distorted and fragmented. 2-3% detrital and disseminated pyrite.</p> <p>398.5-399m Smaller, &lt;1cm, qz-cb veins with minor remobilised sphalerite, galena and chalcopyrite.</p>	strg	se	ser'd vol'clastic	
398.5	400.0 EOH		strg	ch se	alt'd vol'clastic	<p>2-3% detrital and disseminated pyrite.</p> <p>398.5-399m Minor remobilised sp, ga &amp; cp.</p>

AMB 379,399 E 5,250,227 N based on conversion  
on p11 of report *ABJ*

Depth	Direction	Dip
210.0	69.5	-62.7
240.0	61.5	-61.0
271.0	61.5	-59.7
301.0	66.0	-59.0
330.0	55.0	-58.1
360.0	57.5	-57.2
400.0	63.0	-56.5

COLLAR DIP : -70  
 DIRECTION : 068  
 NORTHING : 11,863N  
 (Local Grid)  
 EASTING : 9,920E

HOLE No. : SDH 2  
 LOCATION : Silver Hill, SW Tasmania.  
 (Wart Hill, Elliott Bay)  
 LOGGED BY : G. Iliff, 30.4.1998  
 COLLAR RL : About 220m.

SAMPLE NO.	FROM	TO	Length	Pb ppm	Zn ppm	Cu ppm	Ag g/t	Au g/t	Fe %	\$	To	RQD%
SDH2-1	395.00	396.00	1.0	95	273	<10	<5	<0.01	2.86			
SDH2-2	396.00	396.80	1.0	95	347	42	<5	<0.01	2.76			
SDH2-3	396.80	397.50	1.0	25	166	27	<5	<0.01	2.66			
SDH2-4	397.50	398.50	1.0	125	47	<10	<5	<0.01	1.87			
SDH2-5	398.50	399.00	1.0	440	1458	92	<5	<0.01	3.09			
SDH2-6	399.00	400.00	1.0	150	359	<10	<5	<0.01	2.86			

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PHOTOGRAPHS



Platform being layed for rig (Longyear 38): awaiting arrival of the next helicopter load, 4.4.1998.



SDH1: 2 - 10.7m (0 - 2m collar drilled by tricone). Sericitic quartz-phyric rhyolite porphyry, foliated 30°, with yellow siderite flecks and irregular fine carbonate veins parallel to cleavage.



SDH1: core 10.7 - 19.8m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins.



SDH1: 19.8 - 28.2m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins.



SDH1: 28.2 - 36.7m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins. Stress fractures, some with brecciated lava in quartz carbonate veins.



SDH1: 36.7 - 41m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins.



SDH1: 41 - 49.8m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins. Stress fractures, some with brecciated lava. Basaltic intrusive starts at 46m; also with quartz-carbonate veins. Xenolith of brecciated lava at 48.1 - 48.3m.



SDH1: 49.8 - 57.5m. Sericitic quartz-phyric rhyolite porphyry with fine quartz-carbonate veins. Stress fractures, some with brecciated lava. Basaltic intrusive ends at 52.8m; also with quartz-carbonate veins and breccia.



SDH1: 57.5 - 62m. Sericitic quartz-phyric rhyolite porphyry with quartz-carbonate veins.



SDH1: 62 - 71m. Sericitic quartz-phyric rhyolite porphyry with heavy quartz-carbonate veining. Breccia with quartz-carbonate fill at 70 - 70.8m.



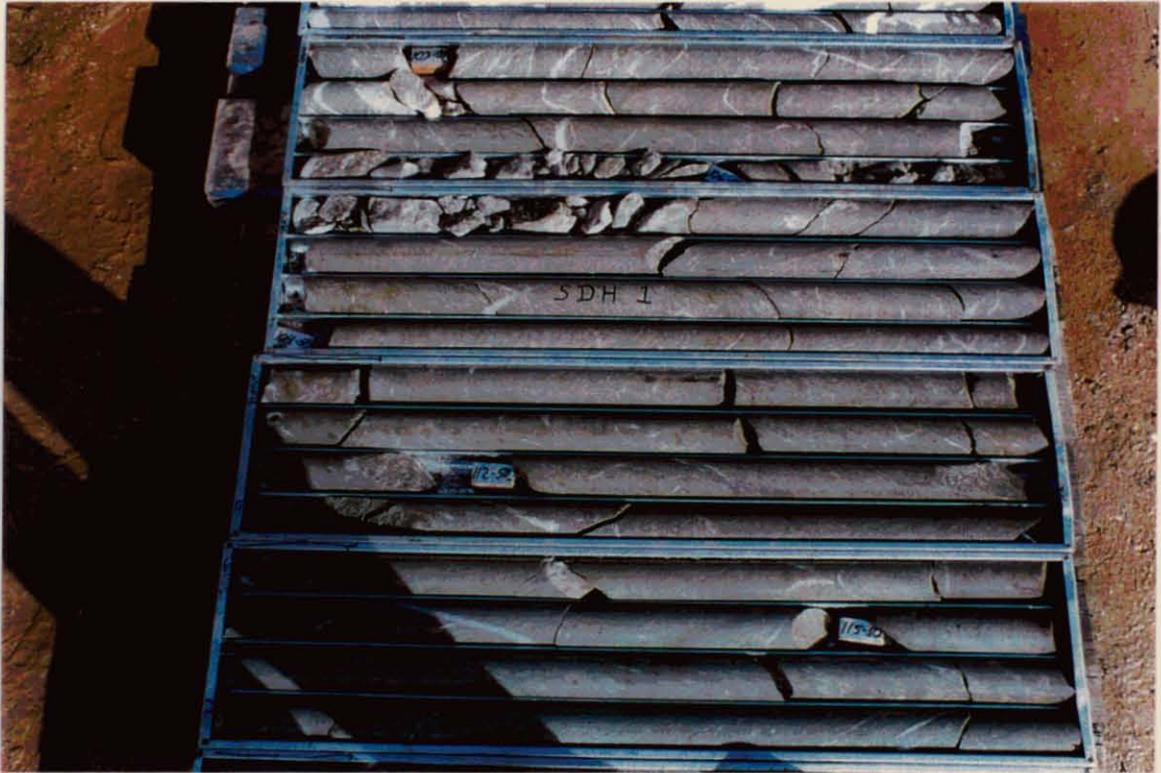
SDH1: 71 - 75.4m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins sub-parallel to cleavage.



SDH1: 79.9 - 84.4m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins.



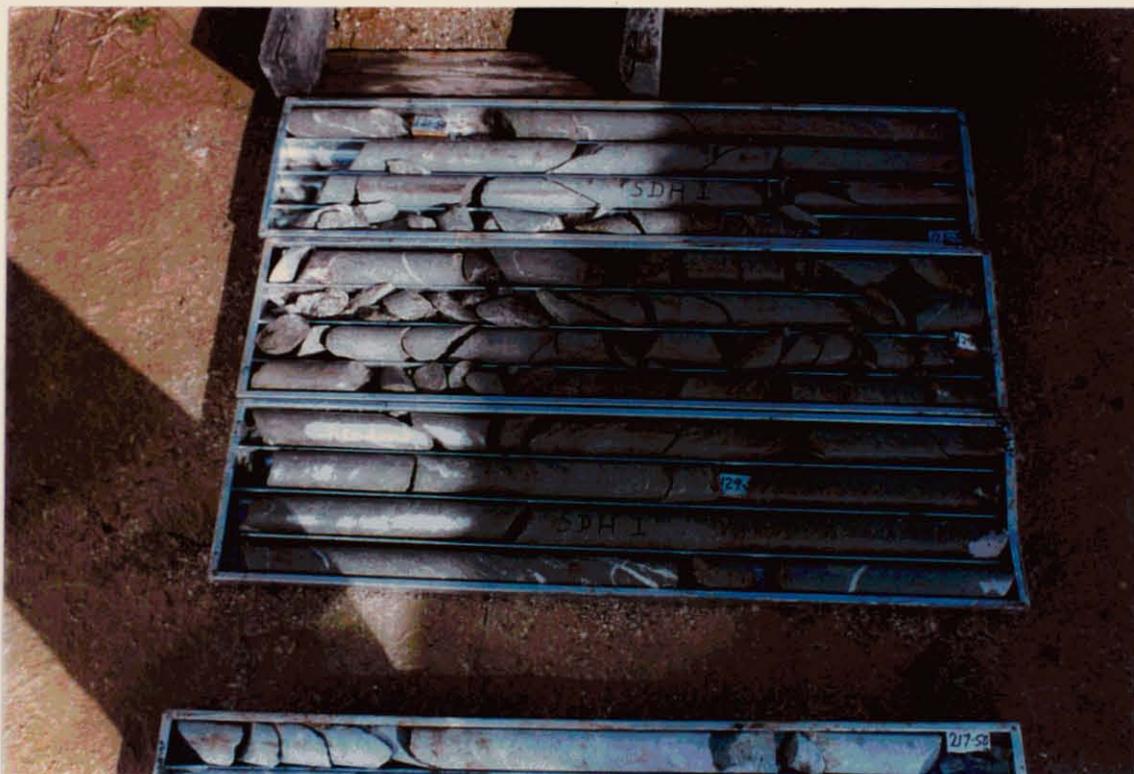
SDH1: 88.5 - 103.4m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins.



SDH1: 103.4 - 117.5m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins. 106 - 107.3m Broken zone: fault?



SDH1: 117.5 - 128m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins.



SDH1: 121.4 - 131.6m. Sericitic quartz-phyric rhyolite porphyry with yellow siderite flecks and irregular fine carbonate veins.



SDH1: 131.6 - 146.4m. Sericitic quartz-phyric rhyolite porphyry with irregular fine carbonate veins. Almost completely quartz-carbonate vein from 138.4 - 141.5m.



SDH1: 146.4 - 160.4m. Sericitic quartz-phyric rhyolite porphyry with irregular fine carbonate veins. Massive silica-carbonate opaque cherty zone from 152.8 - 153.6m.



SDH1: 160.4 - 174.2m. Sericitic quartz-phyric rhyolite porphyry with irregular fine carbonate veins, some with rhyolite breccia, 161 to 163m.



SDH1: 174.2 - 187.7m. Sericitic quartz-phyric rhyolite porphyry with irregular fine carbonate veins to 179m, then inter-flow unit of coarse fragmental/breccia or mass flow. Local semi-massive pyrite. Fault at 179.5m. Coarse remobilised galena and sphalerite at 179.8 - 179.9m, left end, last row of second tray.



SDH1: 187.7 - 201.7m. Inter-flow unit of coarse fragmental/breccia or mass flow to 191.2, then quartz-phyric sericitic rhyolite porphyry with irregular fine carbonate veins. Faults at 196.3 and 197.8m.



SDH1: 201.7 - 216.9m. Khaki quartz porphyry rhyolite lava to 207m, then mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic, clasts aligned 50°. Some quartz-carbonate veins. Fault at 216.1m.



SDH1: 216.9 - 231.2m. Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic. Remobilised and disseminated pyrite in chert in 8cm zone at 226.2m.



SDH1: 231.2 - 245.4m. Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic.



SDH1: 245.4 - 259.5m. Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic. Faults at 256.9m and 259 to 259.5m.



SDH1: 259.5 - 273.6m. Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic. 262.7 - 263.9m: zone of round and lenticular quartz clasts, with pink component, <10cm, largest at 262.7 - 262.8m. Faults at 266.8 - 267.3m, 269.7m, 272.3m and two between 272.6 and 272.8m.



SDH1: 273.6 - 288.2m Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic. Fault at 287 - 287.1m.



SDH1: 286.3 - 295.4m. Mottled grey medium to coarse grained chloritic sericitic andesitic volcanoclastic.



SDH1: 295.4 - 310.2m. Same volcanoclastic to 306.3m, then unit of massive cherty siliceous bands/lumps of white, pink and green <30cm in a rounded breccia of smaller siliceous fragments in sericitic chloritic siliceous clast volcanoclastic matrix. Local disseminated pyrite and silica-pyrite clasts. Fractured jasper with quartz-carbonate veins and chlorite fill at 309.7 - 309.8m.



SDH1: 310.2 - 324.2m. Siliceous bands/lumps to 310.5m. Rest is buff sericitic quartz porphyry rhyolite, starting with grey bands to 314.5m.



SDH1: 324.2 - 338.3m. Buff sericitic quartz porphyry rhyolite. Fault at 338.2m



SDH1: 338.3 - 348.4m. Buff sericitic quartz porphyry rhyolite to 339m. Rest is coarse carbonate fragmental with quartz and feldspars: volcanoclastic or autobrecciated lava?



SDH1: 348.4 - 352m, end of hole. Coarse carbonate fragmental with quartz and feldspar crystals: volcanoclastic or autobrecciated lava?



SDH2: 1.5 - 10.3m (tricone drilled 0 - 1.5m). Mottled green and khaki, massive coarse grained quartz-phyric volcanoclastic. Brown weathered joints.



SDH2: 10.3 - 19.9m. Mottled green and khaki, massive coarse grained quartz-phyric volcanoclastic. Broken and brown weathered quartz at 14.8 - 15.5m.



SDH2: 19.9 - 30.1m. Mottled green and khaki, massive coarse grained quartz-phyric volcanoclastic to 30m. Fault zone at 23 - 24m and a series of broken quartz veins with massive chlorite fill at 23 - 26m.



SDH2: 29.2 - 38m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals. Some vuggy quartz-carbonate veins. 2 faults, at 30m and 30.1m.



SDH2: 38 - 47.8m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals. Fault at 42.3m.



SDH2: 47.8 - 55.1m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 55.1 - 64.2m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 64.2 - 73.2m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 73.2 - 82.3m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 77.7 - 87.8m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals. Change from HQ to NQ at 84m.



SDH2: 87.8 - 98m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals. Fault at 93.8 - 94.1m.



SDH2: 98 - 109.9m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 109 - 120.7m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic; irregular chert clasts and euhedral quartz crystals.



SDH2: 120 - 131.1m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic as above to 122m, then a similar volcanoclastic characterised by irregular quartz-phyric chlorite clasts.



SDH2: 130 - 141.2m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic with irregular quartz-phyric chlorite clasts. Irregular quartz-carbonate veins in the first tray.



SDH2: 141.2 - 153m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic with irregular quartz-phyric chlorite clasts. Quite frequent quartz-carbonate veins. Remobilised galena at 152.7m.



SDH2: 152 - 162.9m. Khaki zone of massive coarse sericitic volcanoclastic with irregular quartz-phyric chlorite clasts. Remobilised galena in a quartz-carbonate vein at 152.7m, first row right.



SDH2: 162.9 - 174m. Khaki zone of massive coarse sericitic volcanoclastic with irregular quartz-phyric chlorite clasts to 167m. Returns to the chloritic main volcanoclastic unit.



SDH2: 174 - 185m. Mottled green-grey massive coarse chloritic-sericitic volcanoclastic with irregular quartz-phyric chlorite clasts.



SDH2: 185 - 197m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic with irregular quartz-phyric chlorite clasts. Occasional quartz-carbonate veins.



SDH2: 192.4 - 203.2m. Mottled green-grey massive coarse chloritic sericitic volcanoclastic with irregular quartz-phyric chlorite clasts. Occasional quartz-carbonate veins.



SDH2: 203.2-215m. Mottled green-grey massive coarse volcanoclastic to 207m. Then grey-green massive fine to medium grained quartz-phyric chloritic volcanoclastic/quartz-crystal tuff.



SDH2: 214 - 225.6m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff.



SDH2: 224.7 - 236.6m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with a khaki massive fine grained acid intrusive at 229 - 230.3m.



SDH2: 236.6 - 246.5m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional fine quartz-carbonate veins. 3 faults in 243.6 - 243.8m.



SDH2: 246.5 - 258.5m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional fine quartz-carbonate veins.



SDH2: 257.6 - 268.9m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional fine quartz-carbonate veins.



SDH2: 268.9 - 280.4m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional fine quartz-carbonate veins.



SDH2: 279.6 - 291.3m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with quartz-carbonate veins. Faults 281m, 282.4m and 282.8m.



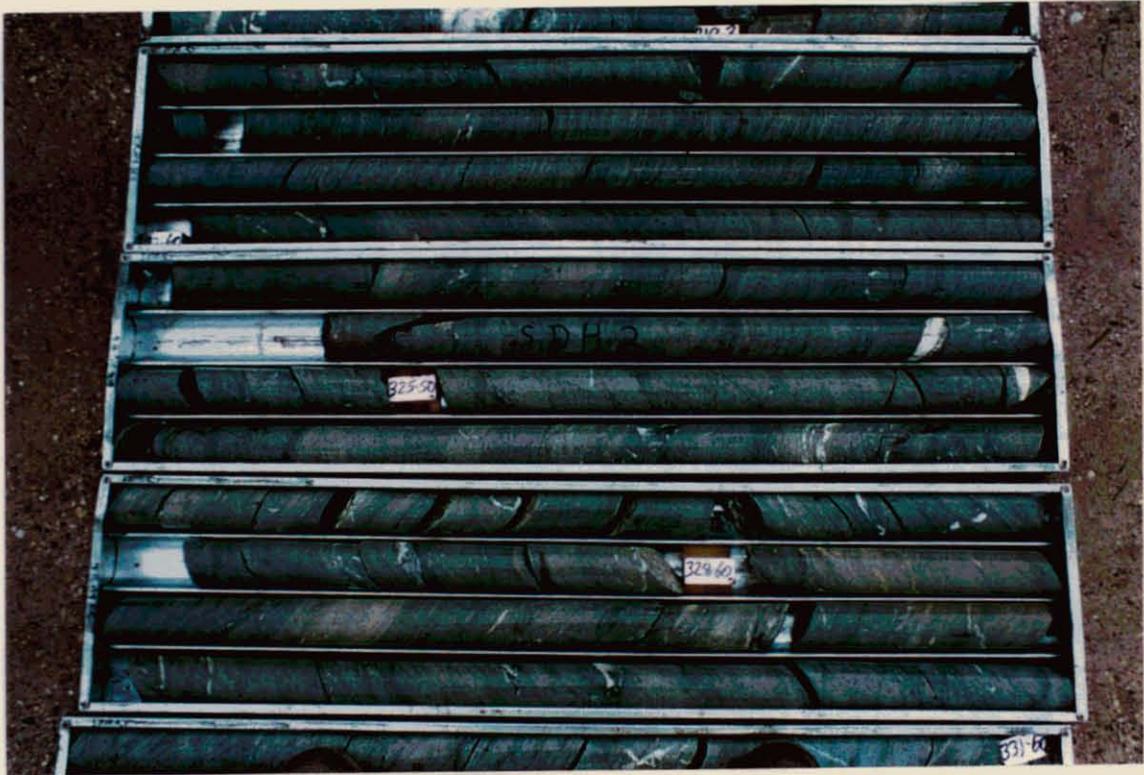
SDH2: 290.4 - 302.3m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



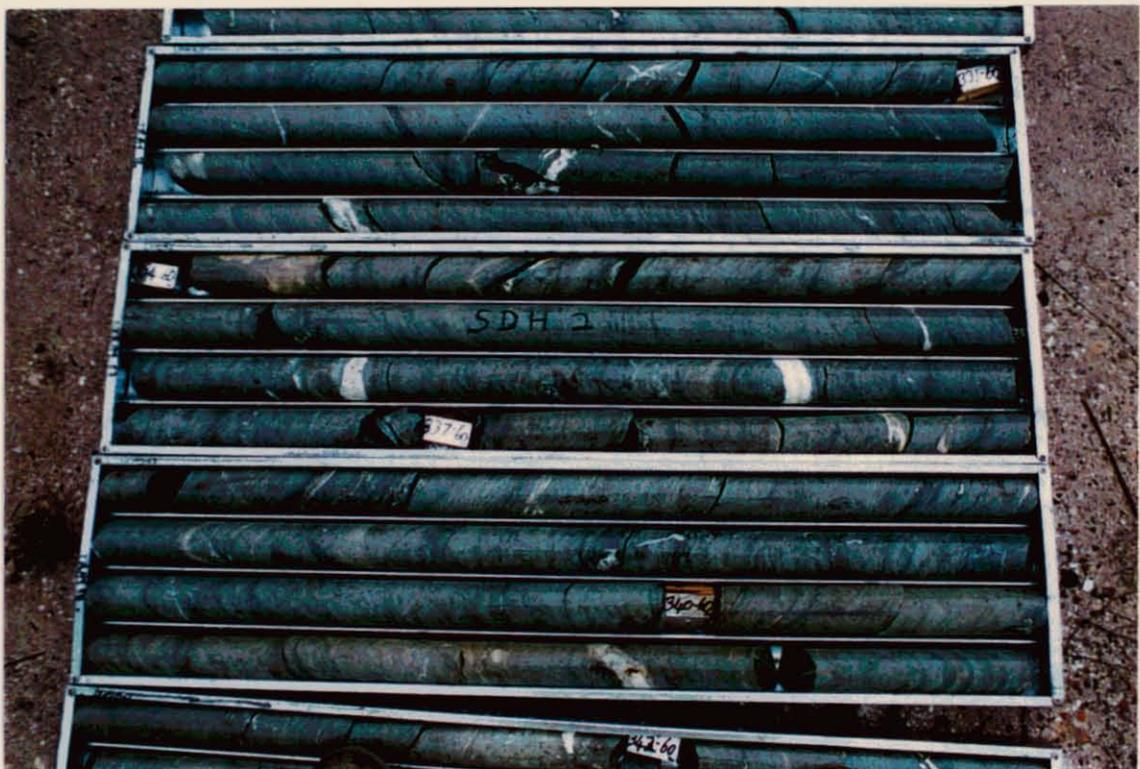
SDH2: 297.6 - 308.5m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



SDH2: 308.6 - 319.6m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



SDH2: 319.6 - 330.6m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



SDH2: 330.6 - 342m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



SDH2: 342 - 353m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins.



SDH2: 353 - 364.3m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins to 359.8m. Mottled fawn sericitic equivalent follows.



SDH2: 364.3 - 374.2m. Fawn massive fine to medium grained euhedral quartz-phyric sericitic volcanoclastic/quartz-crystal tuff to 369.3m. Mostly quartz-carbonate veins from 366m. Returns to main chloritic unit.



SDH2: 374.2 - 385.2m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins. Many fine siderite veins in the last tray.



SDH2: 385.2 - 396.3m. Grey-green massive fine to medium grained chloritic euhedral quartz-phyric volcanoclastic/quartz-crystal tuff with occasional quartz-carbonate veins and local fine siderite veins.



SDH2: 392.6 - 400m EOH. Same unit to 398.5m, then altered chlorite-sericite zone with quartz crystals less distinct and stronger foliation at about 50°. Irregular quartz-carbonate veins distorted and disjointed. Minor remobilised sphalerite, galena and chalcopyrite in small quartz-carbonate veins at 398.5 - 399m.



SDH2: 392.6 - 400m. As above, viewed from opposite side. Heavy quartz-carbonate veining in penultimate tray, not carrying remobilised sulphides. SDH2: 392.6 - 400m. As above, viewed from opposite side. Heavy quartz-carbonate veining in penultimate tray, not carrying remobilised sulphides.

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Appendix Two

Summary Drill Logs

V2/6, V9/2, V9/3, WD8, V12/6, V12/7  
V24/2, V24/3, V33/1, V33/2

Barry Fehlberg  
May 98

## LEWIS RIVER PROSPECT / ELLIOTT BAY

NOTES FROM BRIEF CORE INSPECTION  
AT MRT CORE LIBRARY, HOBARTB FEHLBERG  
20.5.98 - 22.5.98

## HOLE V12/6

- 0 - Hole consists of foliated, laminated rhyolite with abundant quartz eye phenocrysts to 1cm, dominant 1-5 mm
- 0 - 77m Whole section is fractured with limonite hematite -goethite stainings along the fractures.
- 77-80m Fairly fresh rhyolite  
Many of the veins are clearly after sulphide casts with limonite boxworks.

Strong limonite veinings with quartz infill at  
2-5m

11-13m

22-24m

26-30m

40-44m

55 - 56m

60 - 62m

## HOLE V12/7

- 0 - 79.20m Strong limonite staining and quartz veining in fractured quartz eye rhyolite from surface - 50m
- 50 - 77m Sheared quartz eye rhyolite with dark brown black colouration possibly after manganiferous carbonate.
- 77 - 79.2m Green grey fresh rhyolite some browning orangy carbonate staining.
- Quartz limonite fracture zones
- 0 - 6m
- 24 - 30m
- 34 - 36m
- From 36 - 56m Discontinuous but notable copper carbonate staining.  
Malachite - chrysocolla in shear zones that are at times chloritic (reducing).  
Core in these zones is very broken and fractured (enabling secondary fluid movement / enrichment)

---

**HOLE V2/6**

4.5 - 200.35m	Whole has intersected a thick quartz eye rhyolite pile, with much of the core being significantly broken and fractured.
4.5 - 33m	Dark brown staining quartz eye rhyolite
33 - 120m	Fissile, schistose f.g. shales and silicious rhyolite? Core very broken.
120 - 160m	Broken quartz eye rhyolite.
160 - 200m	Fairly coherent QER with Qtz eyes to 1m.
<b>Mineralisation</b>	
At 141m	1cm vein with fresh sulphides Quartz - carbonate - sphalerite - galena (pyrite)
At 158.2m	2cm vein with massive arsenopyrite.
At 195.65m	1m vein with Qtz galena

Comment: Mineralisation occurs in thin veins in largely unaltered rhyolite.

VOYAGER 24 PROSPECT

564133

**HOLE V24/3**

3 - 167.1m

Thick continuous sequence of foliated very prominent qtz eye volcanoclastic with 5% euhedral felspar crystals, up to 20% sericitic matrix.

Quartz eye 5 - 10mm

Felspar laths 1 - 2 mm

Sericite weathers dark brown

Erratic clasts up to 20cm, sparsely distributed

1-2% pyrite throughout

98 - 101m

Quartz vein stockwork at high angle to schistosity

107 - 131m

Zone of irregular quartz vein stockworking

126 - 128m

Zone of quartz veins with 20-30 cm sections of quartz galena, sphalerite galena up to 40%, sphalerite up to 10% + py (trace)

Comment: Little sense of pervasive alteration / mineralisation associated with quartz vein remobilisation.

**HOLE V24/2**

120.84 - 2329.38m

Same material as in V24/3

Little quartz veining. No obvious source of the gold values as outlined.

## SILVER HILL PROSPECT

**HOLE V19/5**      Spotty chlorite - quartz tuff with fine ground foliated matrix.  
Virtually no quartz veining except

133 - 136m      qtz - cbn - breccia?  
143 - 145m      qtz - cbn - breccia

---

**WD8**      Large massive sulphide clast  
No alteration around it.

---

**HOLE V9/2**

0 - 37m      Polymictic volcanoclastic Carbonate rich, cherty-silicious clasts 0.5 -  
3cm

37 - 46.5m      Light coloured f.g. quartz crystal sericitic sheared av  
Fault

46.5 - 55m      Quartz chlorite f.g. volcanic with large chlorite 'dolops' with 5 -  
50% pyrite crystals. Dolops up to 10cm long.

55 - 167m      F.g. sericitic quartz - carbonate silicious cherty rock, few obvious  
quartz phenocysts.  
Possible silicious alteration at 109m

167 - 232m E of H      Quartz physio volcanoclastic, dark brown carbonate staining in cut  
surface. 0.5 - 1cm clasts.

184 - 185m      Quartz vein in fault

Comment: Quartz - chlorite sulphide clotting is presumed equivalent to surface gossan  
material seen in surface outcrop.

---

**HOLE V9/3**

16 - 27m      Deformed volcanoclastic rock chert clasts to 20cm, silicified quartz  
phyric. Some carbonate alteration.

27 - 28.5m      Silicious, pyrite black shale

28.5 - 33.0m      Light coloured f.g. sheared sericitic foliated a/v.

33.0 - 68.5m      Deformed volcanoclastic quartz crystals with chlorite / sericite  
matrix. Minor quartz carbonate veining.

68.5 - 77.35m	Quartz - carbonate - chlorite veining fill zone with pseudo breccia fixtures. Some relief volcanoclastic textures. No sulphides.
77.35 - 87.5m	Deformed quartz - chlorite vein fill zone.
87.5 - 91.5m	Quartz carbonate - chlorite vein fill zone.
91.5 - 134.5m	Mixed volcanoclastes and fine grained 'cherty silicious a/v, also some coarse grained volcanoclastics 127 - 130m. Carbonate alteration 131-134.5.
134.5 - 142m	Quartz-carbonate chlorite vein fill pseudo-breccia zone within quartz phyric volcanoclastics.
142 - 158.55m	Quartz-felspar crystal tuff / volcanoclastic with chloritic matrix.

Comment: Quartz carbonate-chlorite pseudo breccia zones are equivalent to these seen at Silver Hill.

## VOYAGER 33 PROSPECT

564136

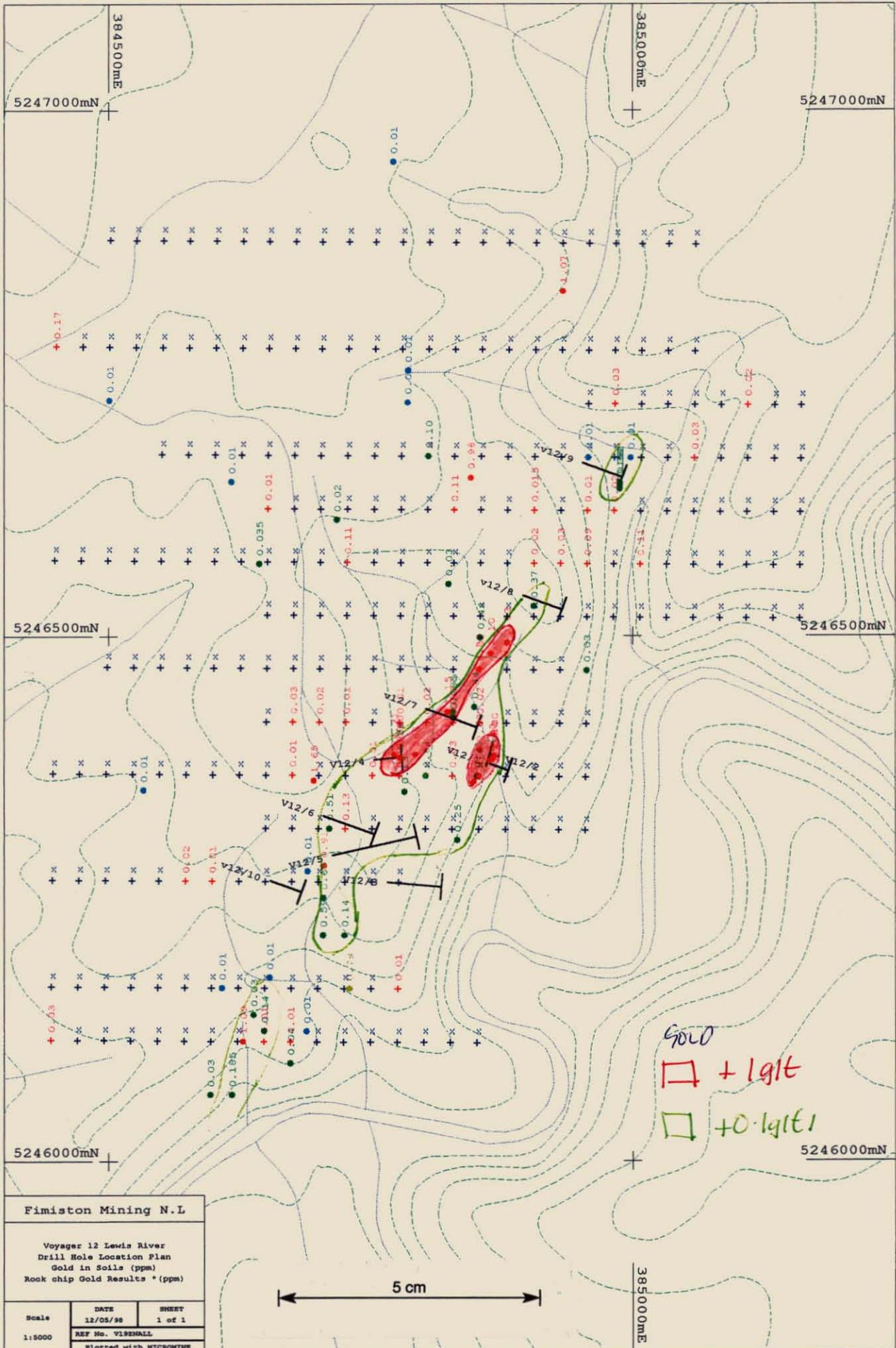
**DDH V33-1**

- 0 - 38.5                      Black slates. Crenulated and laminated, 1-2% py, probably graphitic
- 38.5 - 49m                    Shear zone, variably silicified mylonite. Finely laminated 1-2mm quartz laminations carry pyrite and trace galena, sphalerite.
- 49 - 58m                      Quartz-carbonate 'crackle' zone beneath shear  
1-5mm thin orange quartz - carb veins in brown arkosic sediment.
- 58 - 69m                      Orange brown arkose, f.g.
- 69 - 79m                      F.g. lithic s's
- 79 - 85.6                      V f.g. lithic s's, arkose.

**DDH V33-2**

- 0 - 77m                        Black slates and shales  
0 - 33m lamination parallel to core.
- 77 - 86m                      Quartz - tuffs orange weathering
- 86 - 93m                      Mylonite shear zone with thin quartz vein laminations
- 93 - 95m                      Quartz grit s/s - tuff
- 95 - 105m                     Crackle zone with thin quartz - carbonate veinlets in mg qtz arkose.
- 105 - 116.3                    Orangy brown arkose with minor qtz veining

Appendix Three  
Lewis River Data Presentation



Fimiston Mining N.L

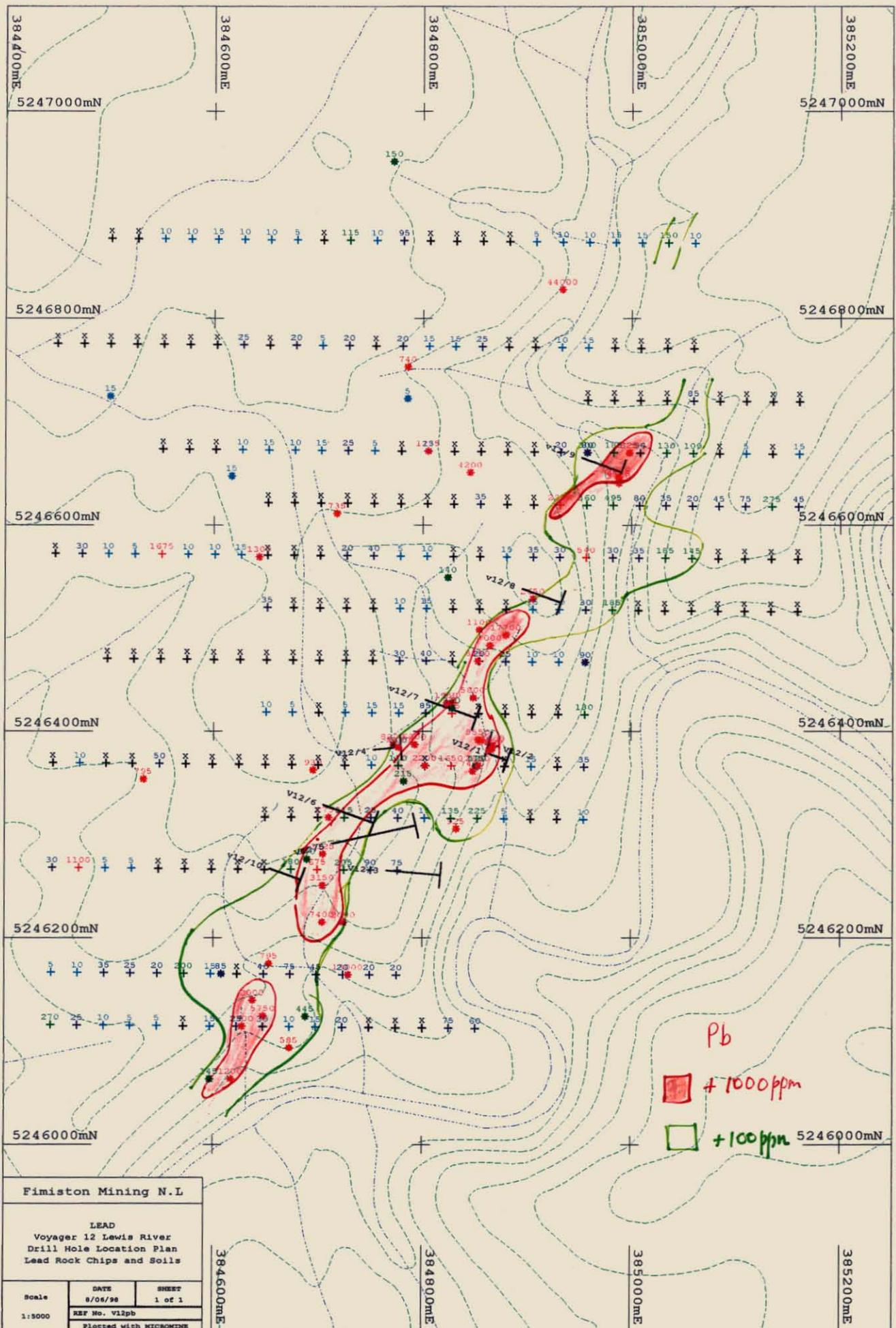
Voyager 12 Lewis River  
Drill Hole Location Plan  
Gold in Soils (ppm)  
Rock chip Gold Results \* (ppm)

Scale	DATE	SHEET
1:5000	12/05/98	1 of 1
REF No. V15HALL		
Plotted with MICROMINE		

Gold  
+ + 1g/t  
+ + 0.1g/t

5 cm



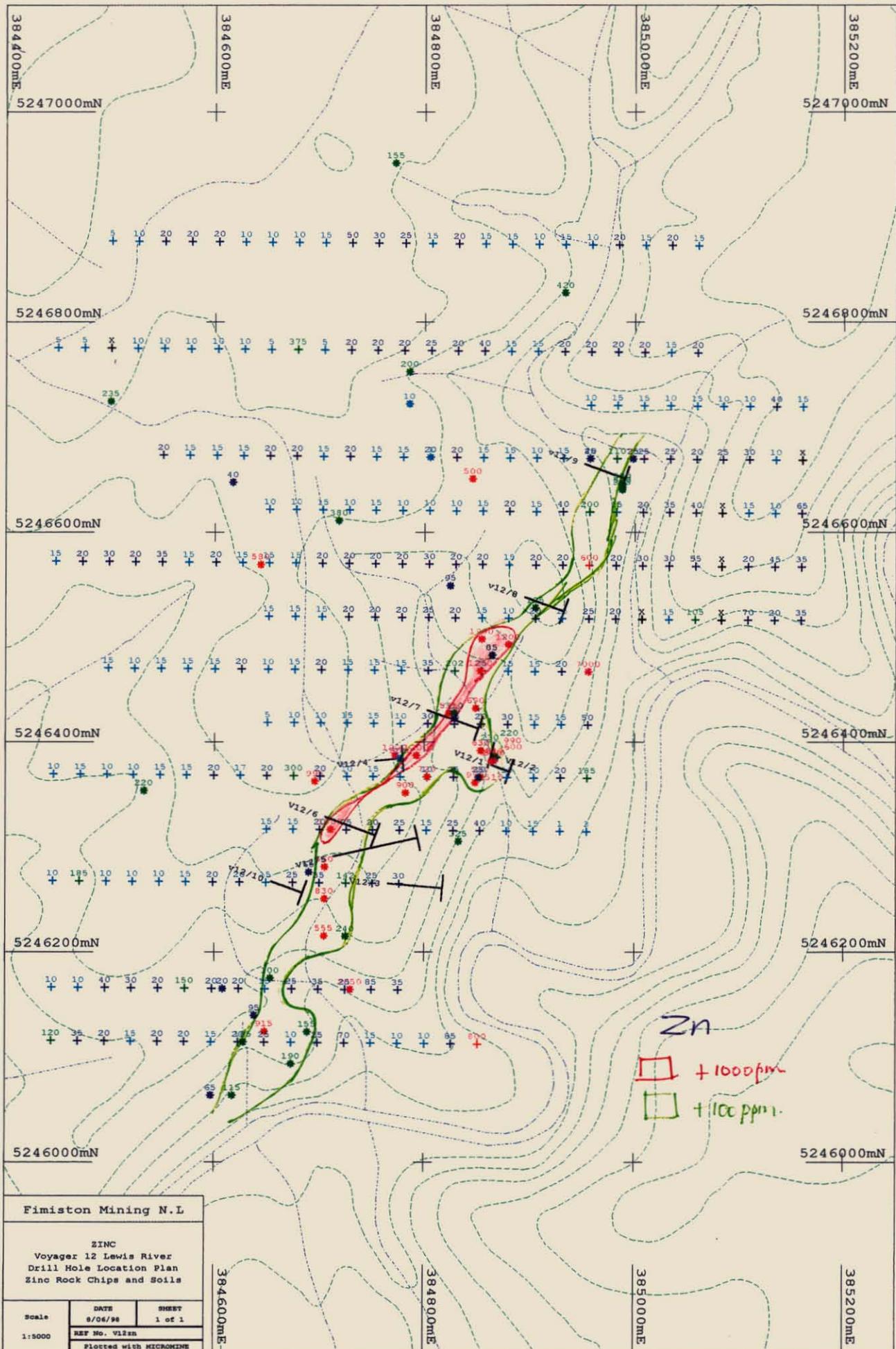


Fimiston Mining N.L.

LEAD  
 Voyager 12 Lewis River  
 Drill Hole Location Plan  
 Lead Rock Chips and Soils

Scale	DATE	SHEET
1:5000	8/06/98	1 of 1
	REF No. V12pb	
	Plotted with MICROMINE	

5 cm

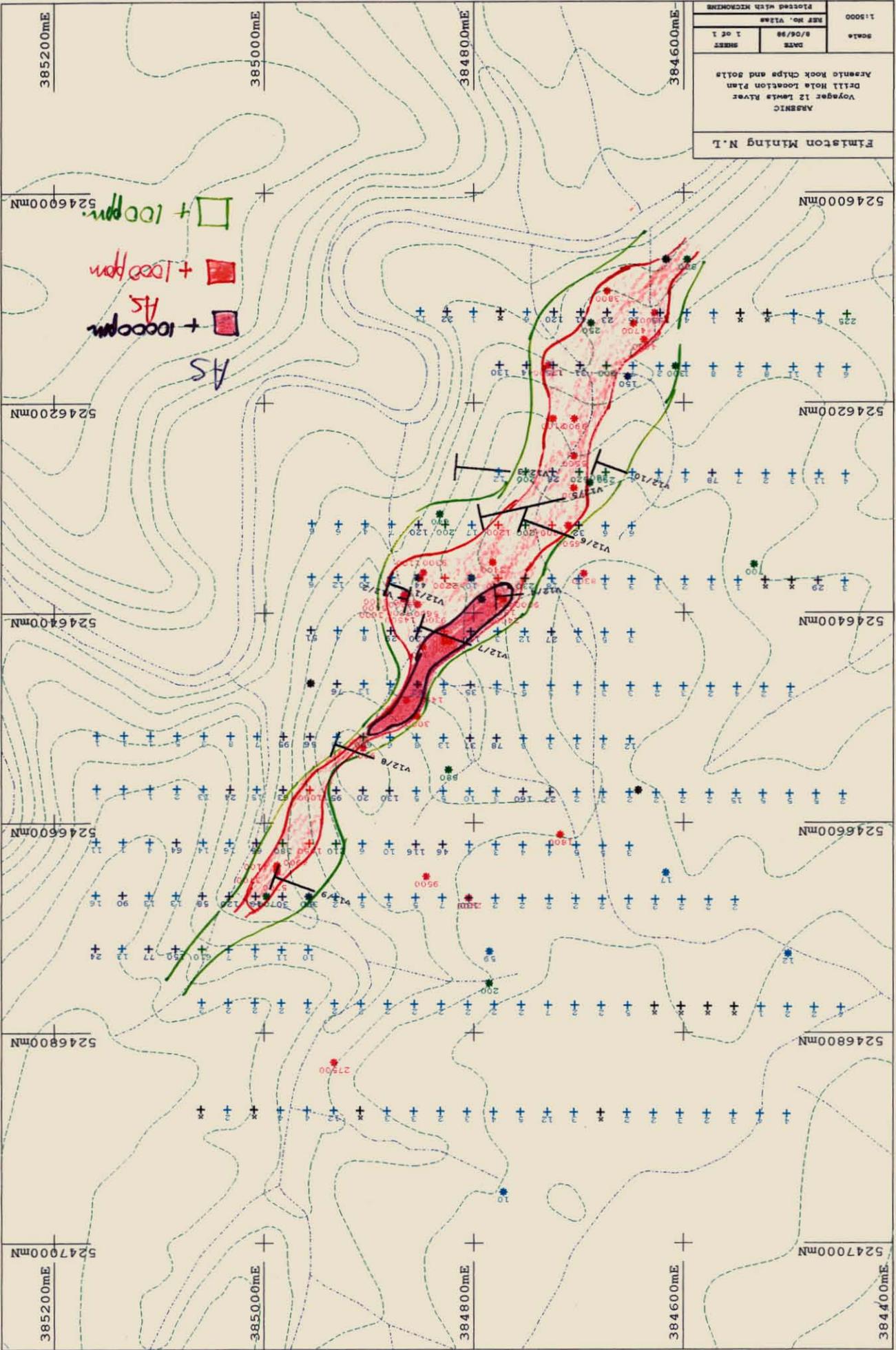


Fimiston Mining N.L.		
ZINC Voyager 12 Lewis River Drill Hole Location Plan Zinc Rock Chips and Soils		
Scale	DATE	SHEET
1:5000	8/06/98	1 of 1
REF No. V12zn		
Plotted with MICROMINE		

5 cm

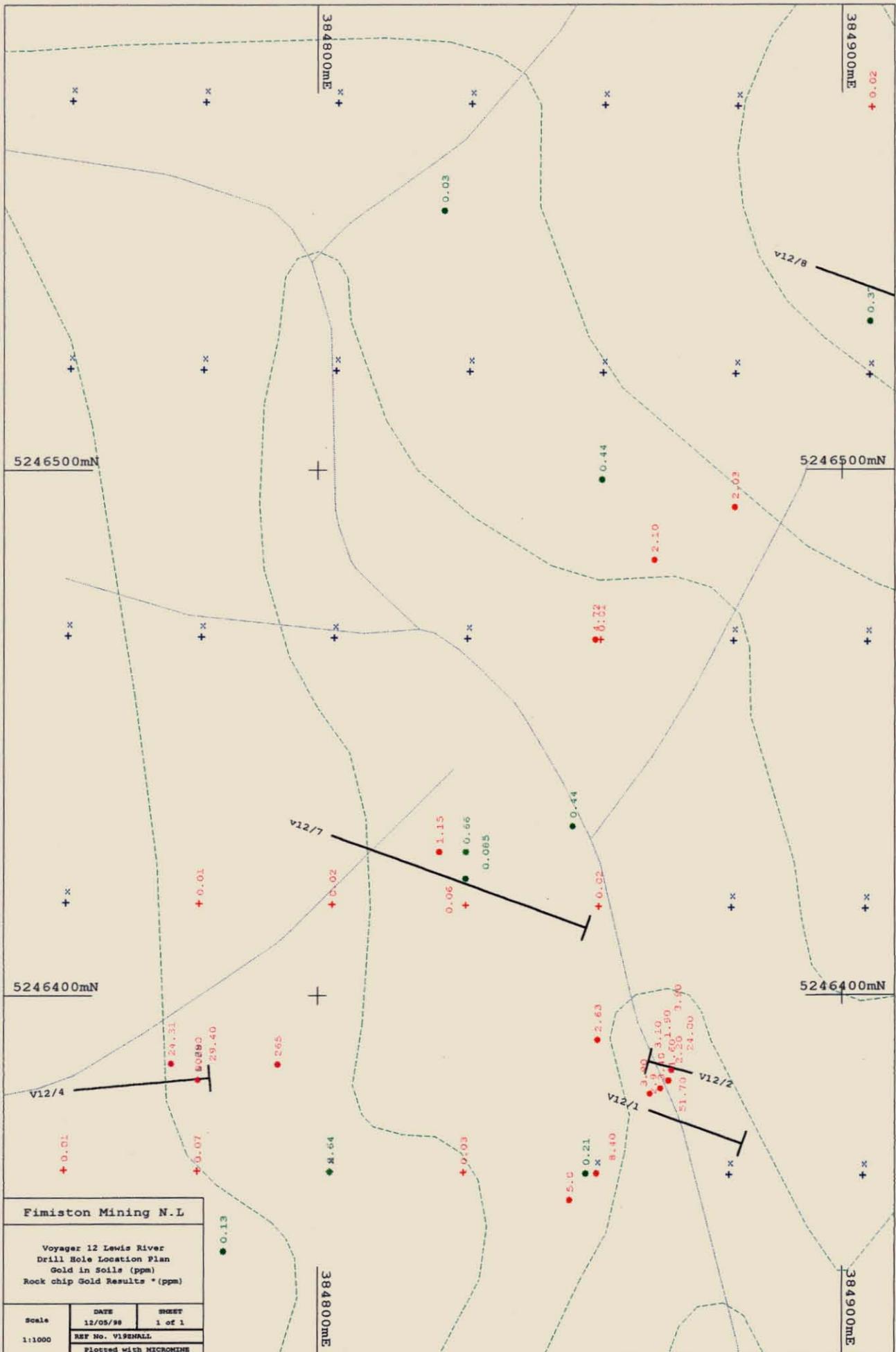
5 CM

Scale		1:5000
Date		8/06/98
Sheet		1 of 1
ASBANC Voyager 12 Lewis River Drill Hole Location Plan Asenitic Rock Chips and Galls		
Elmiston Mining N.L. Plotted with MICROMARKS		



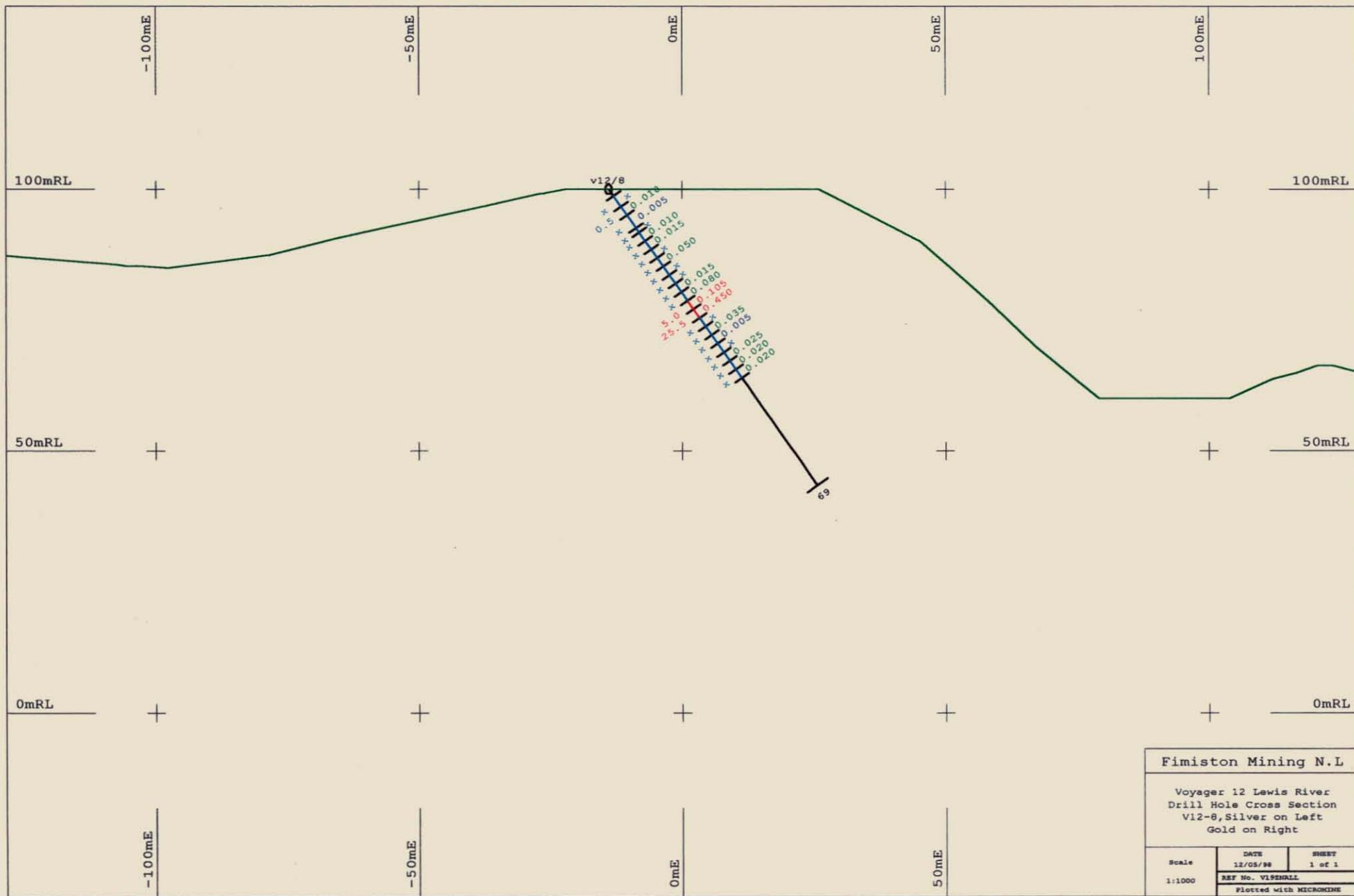
564142





5 cm



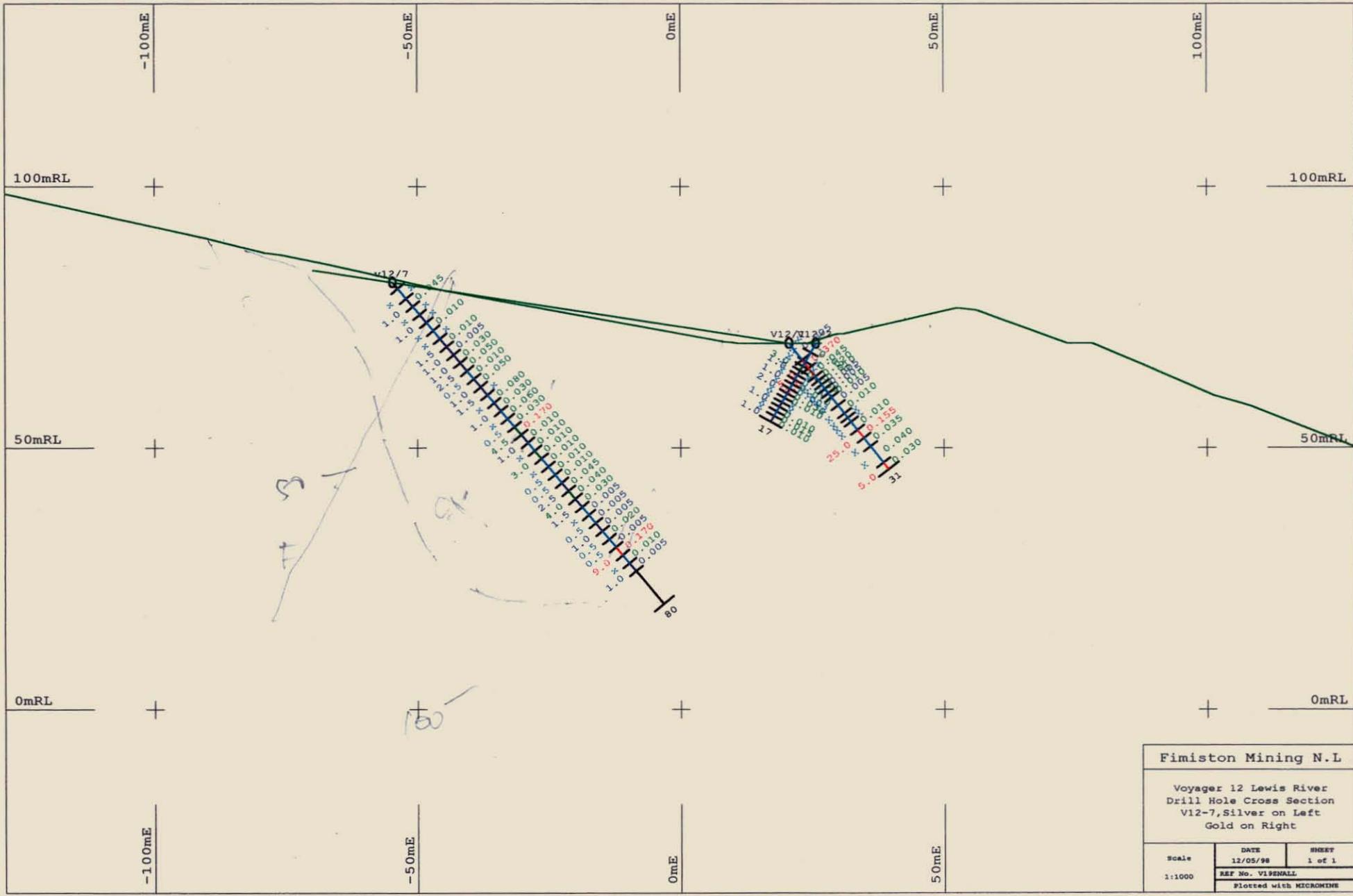


Fimiston Mining N.L.		
Voyager 12 Lewis River Drill Hole Cross Section V12-8, Silver on Left Gold on Right		
Scale 1:1000	DATE 12/05/98	SHEET 1 of 1
	REF No. V12ENHALL	
Plotted with MICROMINE		

564146

5 cm





564148

5 cm



## LEWIS ROCK CHIP RESULTS

SAMPLE	NORTH	EAST	CU	PB	ZN	AG	AS	AU
KR4951	7998	3992	2600	1300	580	4		0.035
KR4954	7800	4200	2600	2600	520	18		8.4
KR4955	7500	3970	1300	1200	115	10		0.185
KR4959	7815	4210	3600	6400	990	440		2.9
KR4961	7900	4300	20	90	7000	4		0.03
KR4963	7820	4140	520	6800	1200	166		265
KR4965	7800	4150	3200	2200	720	35		0.64
KR5001	7816	4212	4800	9200	530	80	9200	3.9
KR5002	7816	4212	3200	4800	890	290	6300	3.1
KR5003	7816	4212	4000	8800	1700	370	8700	3.9
KR5004	7816	4212	4000	6600	600	340	9300	3.4
KR5005	7818	4214	1900	4000	510	125	3600	2.2
KR5006	7818	4214	3400	8200	510	70	7200	1.9
KR5007	7818	4214	1800	8800	640	195	5600	1.6
KR5008	7820	4214	2300	4000	230	100	5000	24
KR5009	7820	4214	3800	3400	220	120	5400	51.7
KR5010	7817	4125	13300	8000	1200	140	13200	29.4
KR5011	7817	4125	760	4200	1100	17	9000	10.8
KR5012	7817	4125	280	300	10	1	2100	0.39
KR5013	7817	4125	1300	3800	870	80	8900	9.6
KR5074	7855	4175	900	360	90	2	1000	0.085
KR5075	7860	4175	1300	520	310	3	4300	0.66
KR5076	7865	4195	3200	5800	690	10	4900	0.44
KR5077	7915	4210	3000	7000	85	25	11700	2.1
KR5078	7795	4195	1700	7400	990	20	9300	5
171663	7560	4040	180	445	155	4.5	250	0.01
171664	7530	4025	310	585	190	2.5	3800	0.04
171665	7560	4000	1250	5750	915	31.5	4700	0.14
171666	7500	3950	395	145	65	2	800	0.03
171667	7550	3980	475	1300	105	15	15500	1.09
171668	7600	3960	20	85	20	1	300	0.01
171669	7575	3990	253	2000	95	19	4900	0.03
171670	7610	4005	325	795	100	3.5	150	0.01
171671	7600	4080	2480	13000	2050	53.5	12500	0.79
171672	7650	4075	505	2000	240	5.5	2100	0.14
171673	7650	4055	780	7400	555	7.5	8900	0.59
171674	7685	4055	655	3150	830	4.5	5500	0.65
171675	7710	4040	230	340	65	1	380	0.01
171676	7785	3885	275	795	220	1.5	700	0.01
171677	7795	4045	1650	930	995	31	8300	1.65
171678	7785	4130	560	215	900	3.5	3400	0.13
171679	7800	4198	160	175	25	48.5	1100	0.21
171680	7825	4200	4550	8550	630	232	14500	2.63
171681	7900	4199	2650	8150	1200	16.5	14500	4.72
171682	7960	4250	495	2650	125	3	9900	0.37
171683	7980	4170	1510	140	95	3	880	0.03
171684	8100	4150	475	1275	1	201	2400	0.1
171685	8080	4190	900	4200	500	2	9500	0.98
171686	8180	4130	80	740	200	2	200	0.01
171687	8150	4130	20	5	10	1	59	0.01
171688	8150	3700	5	1	10	1	12	0.01
171689	8150	3850	5	15	235	1	12	0.01
171690	8075	3965	10	15	40	11	17	0.01
171691	8375	4115	145	150	155	1	10	0.01
171692	8075	4330	7800	2475	205	93	3700	0.33
171693	8073	4330	2000	4175	300	13	4100	0.38
171694	8071	4330	28500	3000	335	34	4900	0.19
171695	7750	4060	1900	2750	1800	20	6500	0.51
171696	7715	4055	535	2125	560	16	4700	0.91
171697	7820	4120	46500	8800	1900	161	24000	24.31
171698	7860	4170	3600	1950	595	1	10500	1.15
171277	8255	4275	2750	44000	420	133	27500	1.07
171278	8100	4340	200	525	25	11	700	0.01
171279	8100	4300	80	80	25	0.5	320	0.01
171280	8077	4330	11500	4200	380	69	5700	0.52
180544	8040	4065	1750	735	380	1	1800	0.02
180545	7925	4225	6025	17700	1200	383	30500	2.03
180546	7740	4180	8875	925	325	15	640	0.25
202999	7930	4200	510	1100	1900	39	3000	0.44

Appendix Four  
Digital Data Compilation

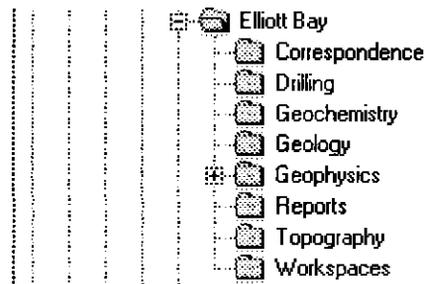
## Elliott Bay Digital DataBase

A combination of AGD 66 and AGD 84 projection has been used for the digital data , using AMG Zone 55.

The data has been captured using a combination of MapInfo for digitising and Micromine for data entry.

Files are located in individual directories according to the origin of the data.

The directory is broken into different sub directories according to the information stored, as illustrated below.



Correspondence contains no data and was an inhouse directory.

### DRILLING

The drilling database contains the digital data which relates to all the drilling which has been digitally captured. It includes the two holes which Fimiston Mining drilled. The data is in comma delimited format (csv) and can be readily imported into most other packages. A header and description of individual columns is contained in the file.

### GEOCHEMISTRY

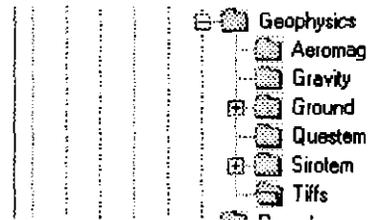
Geochemistry contains a selection of MapInfo files and a comma delimited file which contains soils and or C-Horizon entered. Both AMG and local grids are referenced with captured data of lead and zinc. Rock chips and some stream sediment locations are also contained in this directory.

### GEOLOGY

Geology contains numerous files relating to the digitising of geology from a number of different reports. The files are in a variety of formats including predominantly MapInfo, DXF and some csv files.

## GEOPHYSICS

This directory is a direct copy of a CD of data supplied by consulting geophysicist Bill Peters of Southern GeoScience.



The sub directory is further divided into additional sub directories (as shown) depending on the type of geophysical data. A number of readme files are included in the directories and provide additional information concerning the file types present.

## REPORTS

Directory contains a copy of reports in Word and Excel format.

## TOPOGRAPHY

This directory contains topographic and and cultural details/data over the area of E20/96. The data is in mapinfo and DXF form and has also been exported as a csv file as Featstr.csv.

Mordet data is the tracks, water courses etc and Morcon is contours of the topo. The data was purchased from the Lands Dept in Tassie.

## WORKSPACES

This directory was an inhouse directory, and is not valid.