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RENISON LIMITED

REPORT FOR THE SIX MONTH PERIOD  
ENDING  
19TH JANUARY, 1971

**MICROFILMED**

S.P.L. 27 (SOUTH DUNDAS) TASMANIA

**OPEN FILE**

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AMG REFERENCE POINTS ADDED

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INTRODUCTION

The last report dated July 1970, outlined the results of geological mapping, geochemical and magnetic surveys carried out over the area. A follow-up programme of geophysics involving simultaneous IP - SP and resistivity readings was carried out over the area which had shown the most interesting response from the reconnaissance work.

The programme was completed in May and at the time that the report was compiled a final report from the geophysical contractors was not to hand.

Based on the results of this programme several targets were selected for drilling, some of which have now been completed. Drilling is still in progress in the Argent - Kapi and Razorback areas.

During road construction in the Razorback area considerable quantities of long fibre asbestos were exposed and a programme of costeening was carried out.

I.P. - S.P. <sup>is</sup> Resistivity Survey:

Three areas were surveyed using gradient and pole-dipole arrays as appropriate. The following summaries are quoted from the geophysical report.

1. Serpentine Hill:

"Serpentine Hill is a serpentinite body which presents a concentric structure where polarizable magnetic material has higher concentration along the edges slightly within the serpentinite mass itself. An IP anomaly is situated outside the serpentinite body along its northern edge coinciding with an S.P. anomaly and a conductive zone. The polarizable body is non-magnetic and dips southward, it may consist of graphitic shales manganese oxide or sulphides."

In the absence of known graphitic shales in the area and as subsequent trending revealed no explanation of the anomaly it was considered that the anomaly could be due to non-magnetic sulphides. More over the S.P. indicated that if sulphides were present they would be quite massive.

On this basis it was decided to test the anomaly by diamond drilling.

2. Razorback Area:

"Razorback is a serpentine which presents the same kind of concentric structure as Serpentine Hill. Anomalies are generally associated with higher concentrations of magnetic material. Fifteen anomalous axes and one wide anomalous zone have been detected. A9, A10 and A12 coincide with a nickel geochemical anomaly. Wide conductive zones within the serpentine body seem to be due to a sub-horizontal layer like alteration. On the conductive zones low voltages between potential electrodes prevented use of gradient array."

Two anomalous zones were singled out by the geophysicists for future exploration by drilling. The Sediment Serpentine contact in the N.W. area of the body contains 3 subparallel I.P. axes and an S.P. anomaly indicating that massive sulphides could be present at depth, and possibly in association with the contacts. A nickel geochemical anomaly along traverse 436N fits in with the picture. This Zone is being drilled at present. Anomalous zone Z1 is situated at the S.E. perimeter of the serpentinite. Four I.P. axes converge on this point creating quite a substantial zone of activity. A resistivity axis also passes through the zone Z1. In view of the lack of interpretive evidence and the possibility of sulphides being present a vertical diamond drill hole will be commenced shortly.

3. Argent - Kapi:

"Further from the Quartz porphyry (Pine Hill: R.M.L.) I.P. anomalies are not associated with strong magnetic anomalies."

The I P, S P and magnetic anomalies in this area are tending to parallel the Crimson Creek Argillite, Serpentinite contact. Known metasomatic alteration of the argillite with the production of low grade cassiterite - quartz - tourmaline extends East - Westwards from Pine Hill along the flanks of Commonwealth Hill, hence the I P axes found outside the magnetic body of the Serpentine are thought to be likely indicators of sulphide mineralisation, perhaps caused by the Pine Hill intrusion. I P axis A12 which is contained within a spur of the magnetic zone was drilled and at present the "join" of two I P axes and S P axes outside the magnetic zone is being drilled.

DRILLING - Strata found and average weighted assays:

1. Serpentine Hill: (See Fig. I)

S277: Graphitic Shales at 300' were found to be the cause of the anomalies. The core was assayed in regions where there was both shearing and quartz veining (mostly in the Serpentine and contact zone). As the average weighted assays show, mineralisation was scant. The nickel assay is relatively higher due to 15 ft. of core assaying, at 1800, 2300, 2100 ppm at 249' - 254': 254' - 259': 259' - 264' respectively. This assay coincides with the Shale/Serpentine contact and the geochemical soil anomaly occurring at traverse 73W.

	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Ni</u>	<u>As</u>
S277: No Lode	90 ppm	100	130	560	16
	(Assays taken over 249' - 324')				

2. Razorback: (See Fig. II)

S282: This hole is in progress and has reached a depth of 1057'. The Serpentine/Dundas Sediment contact has not been intersected. The Serpentine contains slip fibre asbestos and is generally talcose. Magnetite/quartz veins are common and these concentrations of magnetite are the cause of most of the magnetic anomalies found within the general magnetic high which surrounds the Serpentine. The magnetite veins have been assayed

and values for nickel have been found in association with the Fe. Assays for veins throughout the core have shown a definite trend between the concentrations of magnetite and the values of nickel. Up to 1900 ppm nickel has been encountered and the higher assays fit in with the surface geochemical anomalies.

A cavernous formation at about 850' has caused a lot of sludge and this contains more magnetite than is the norm for the hole. It is expected that assays of this magnetite will show high nickel values that can be correlated with the large surface soil and magnetite anomalies.

3. Argent - Kapi: (See Fig. III)

S283: Assay data on the hole already completed is sparse at present and conclusions are thus tentative, however the mineralisation present was found to be associated with quartz - tourmaline alteration, similar to that present at Pine Hill. The disseminated sulphide mineralisation is within the argillites - there being no mineral introduction at the Serpentine contact. Fe, Ni, Zn and Pb are seen to be concentrated more on the Hanging Wall side of the lode (within the range 85' - 100'). Tin values are poor.

	<u>Sn</u>	<u>As</u>	<u>Cu</u>
S283: Lode 85' - 195'	0.15%	0.08%	0.07%

S284: (See Fig. V)

This hole is in progress and has intersected mineralisation of the quartz - tourmaline cassiterite type within argillites. The Serpentine argillite contact was barren. The disseminated sulphides were of low grade and indicate with the evidence from S283 that Argent Kapi area is under the influence of the metamorphism of the Pine Hill granite.

	<u>Sn</u>	<u>As</u>	<u>Cu</u>
S284: Lode 175' - 295'	0.03%	0.05%	0.02%

Current Investigations: (See Fig. VI)

The Razorback Serpentine body is now known to contain slip fibre asbestos along shear and joint planes. The quality of the chrysotile is such that an economic deposit is a possibility if quantities are sufficient.

An extensive programme of costeaming is nearly completed and traverse lines used in the preliminary exploration have been opened up to give exposure over most of the width of the body. Mapping of the asbestos exposures has been completed. It is proposed to seek the advice of a consultant familiar with assessment of asbestos deposits before proceeding to the drilling stage. It is clear that any drilling will have to be of extremely large diameter as normal Bx drilling fails to recover the fibre.

Future Drilling Proposals:

Two drilling rigs are at present on S.P.L.27 and future drilling sites are partly dependant on the results of the current holes - S282; S284. Surface investigations would justify future drilling of anomalous targets in the Razorback and Argent - Kapi areas, however, promising finds of minerals in these two holes would add impetus to drilling projects and would aid the siting of the drill targets.

Anomalous Zone Z1 on the Razorback is the next site for the drill at present operating on the Razorback and a access has already been made and the site cleared. This drill hole will have a dual purpose, to both investigate the possibility of sulphides and also to allow us to see if the asbestos persists at depth and in what quantities. (See Fig. III).

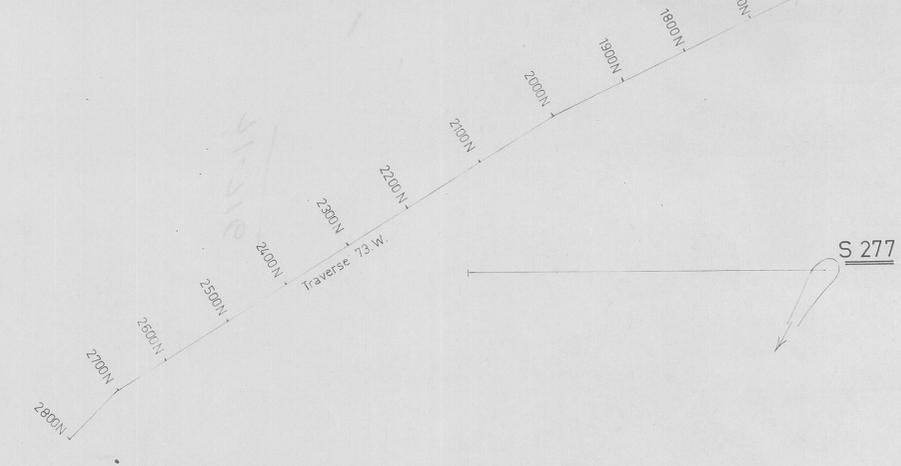
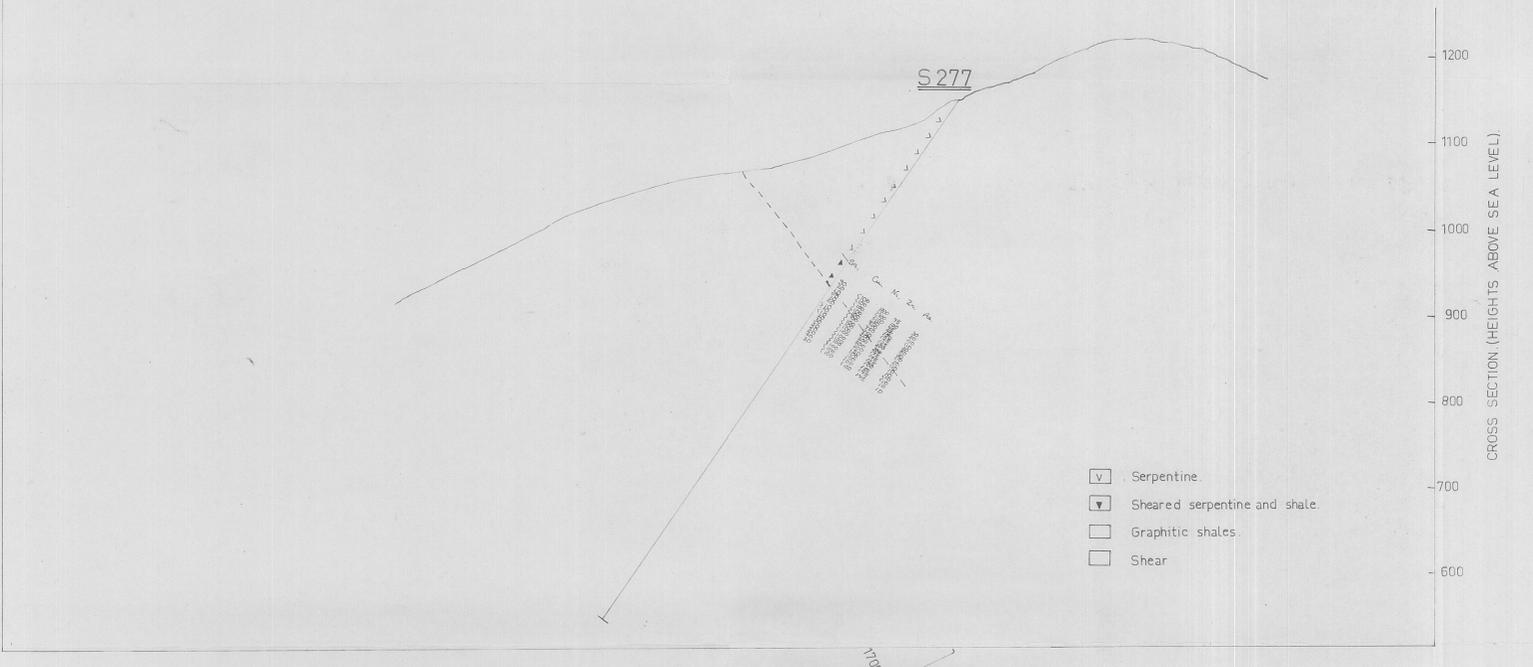
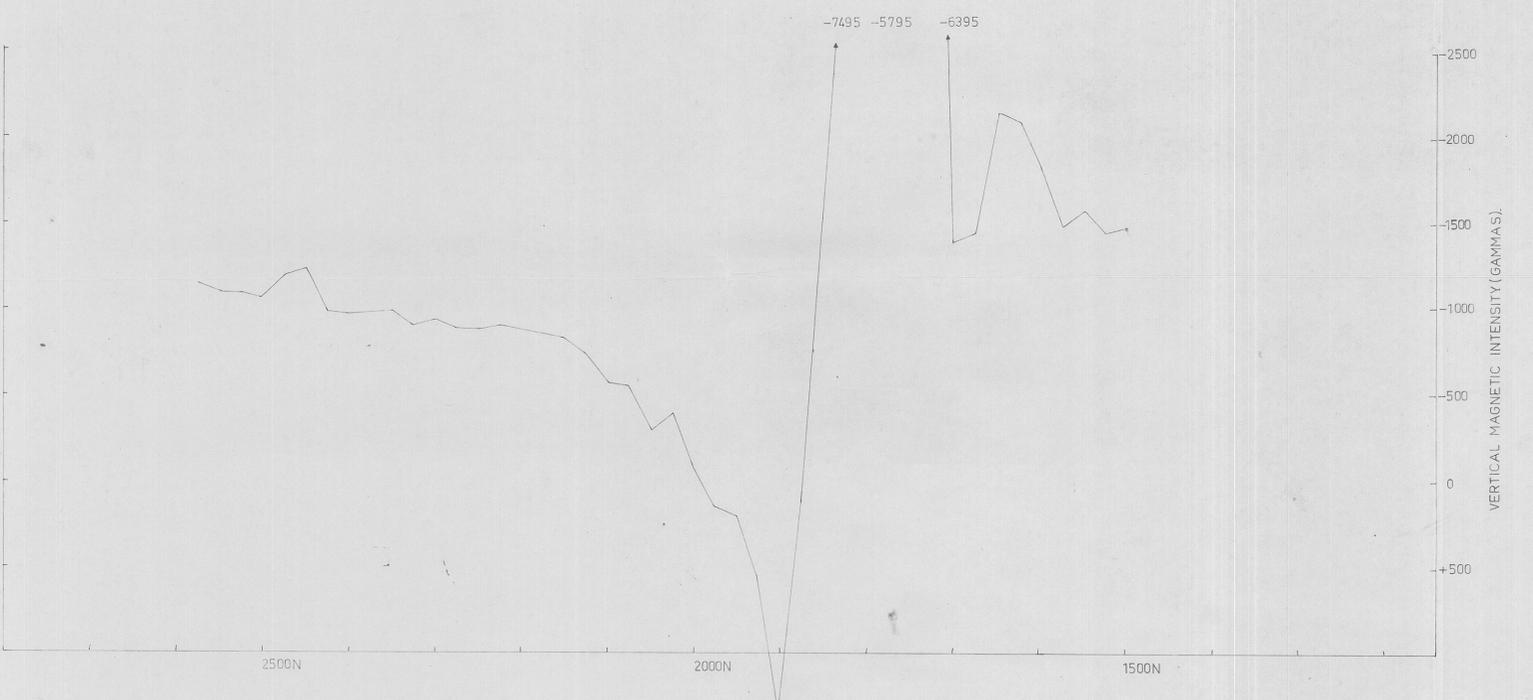
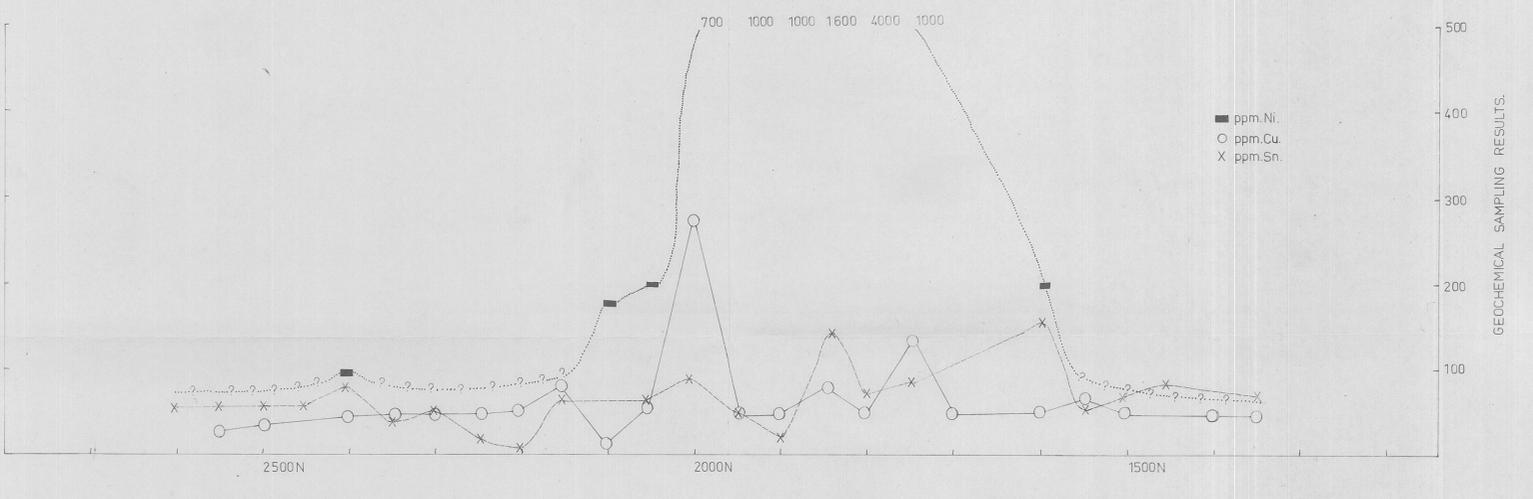
Further Work S.P.L.27

The grids so far cut in the lease cover most of the ground except for the greater part of the area in which Melba Spilites are found.

An Antimony show - Madame Melba workings - is within such an area and this has yet to be investigated. A grid over the mine workings would cover some of the spilites and such a programme of exploration is being contemplated.

A Wolfram show is in existence beneath the Penzance workings at Pine Hill and it is hoped to cut a small sub grid of the Pine Hill base line to cover this area and to enable investigation of the gessen and substrata.

Earlier this month the results of magnetometer surveys over the grids in S.P.L. 27 were submitted to Geophysical consultants for reinterpretation. A more general and overall picture of the structure of the lease is hoped for and new areas of interest will be investigated.

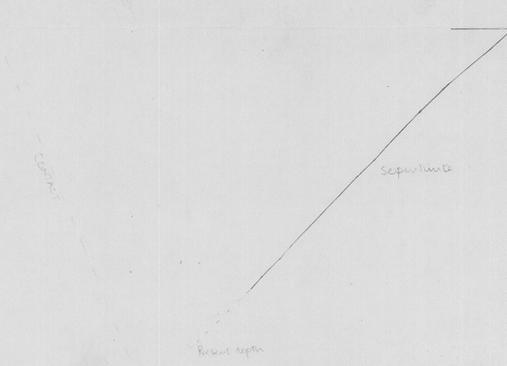
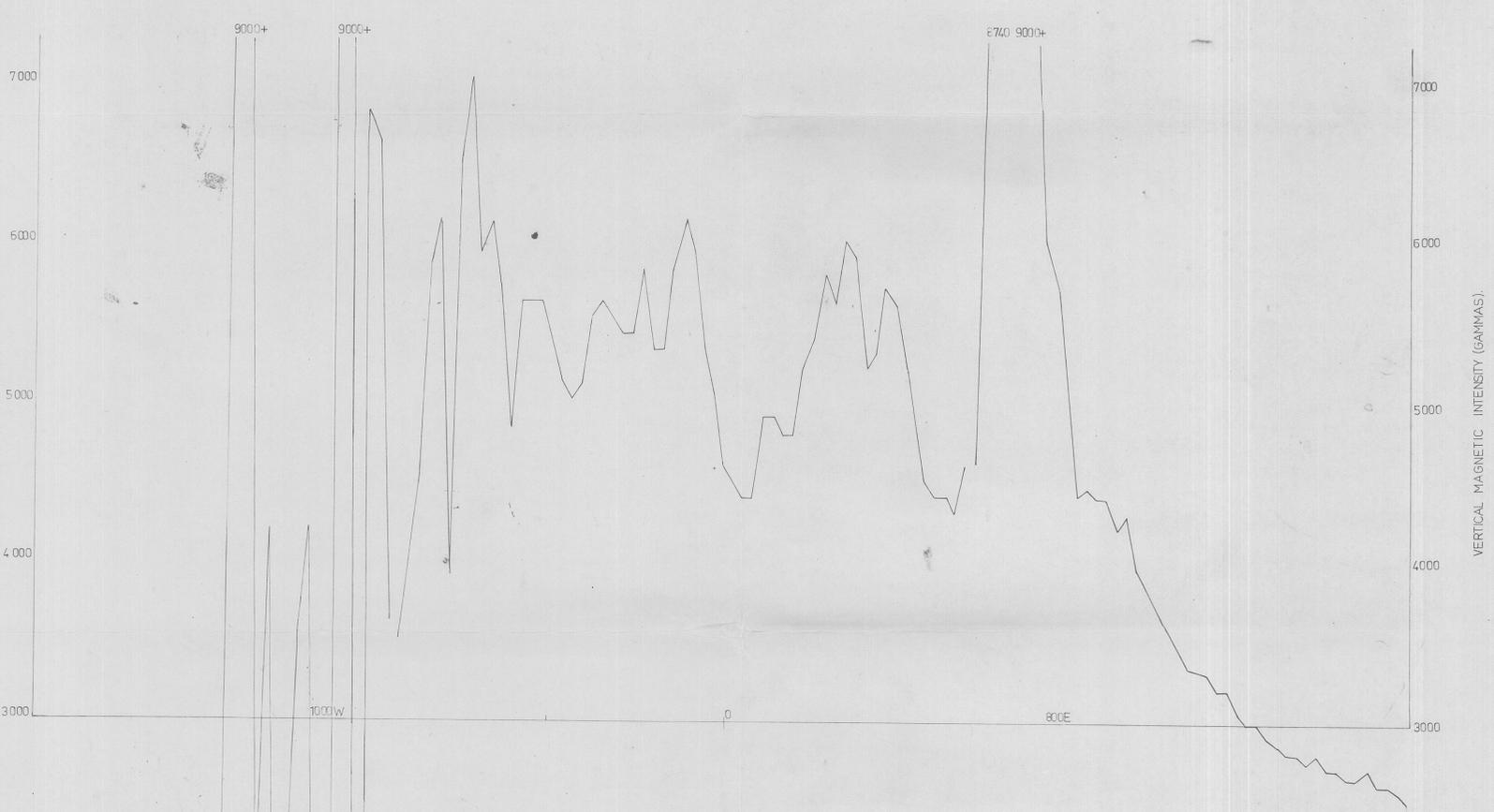
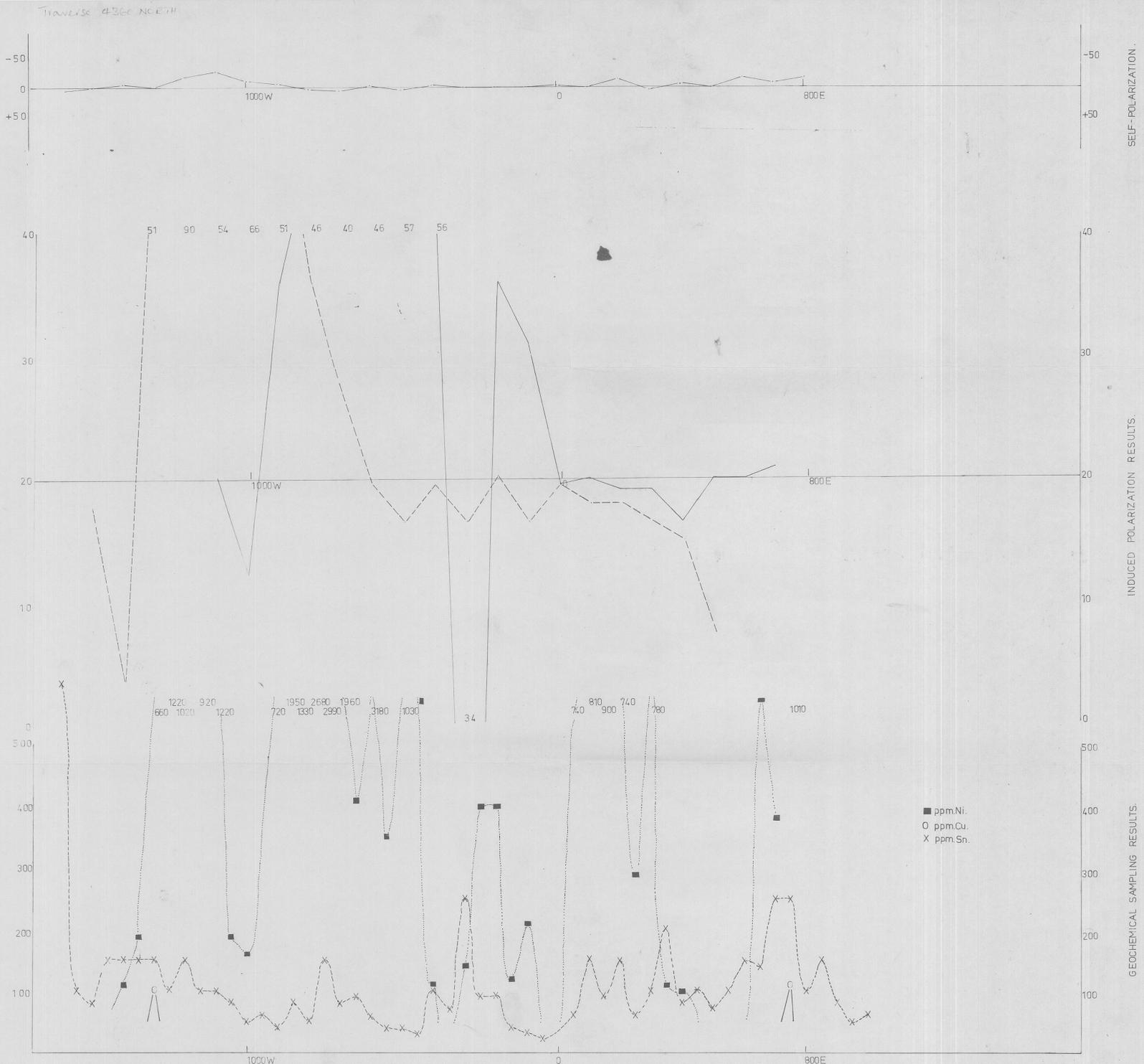


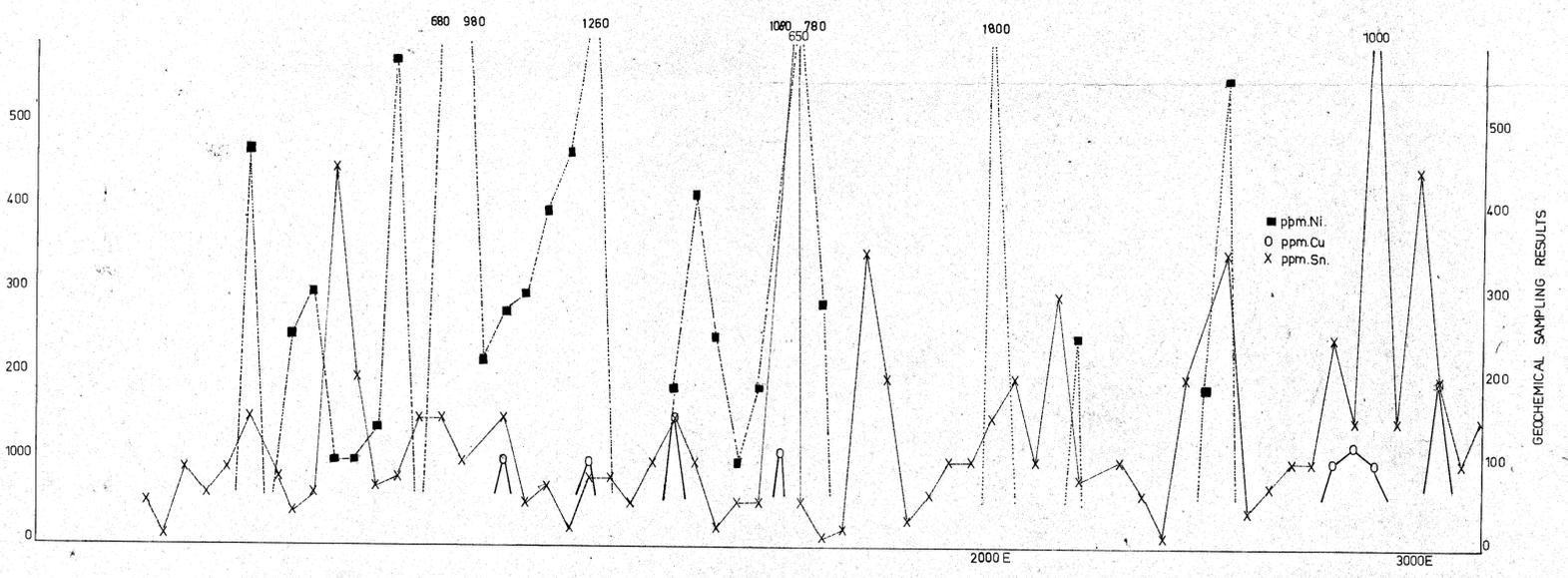
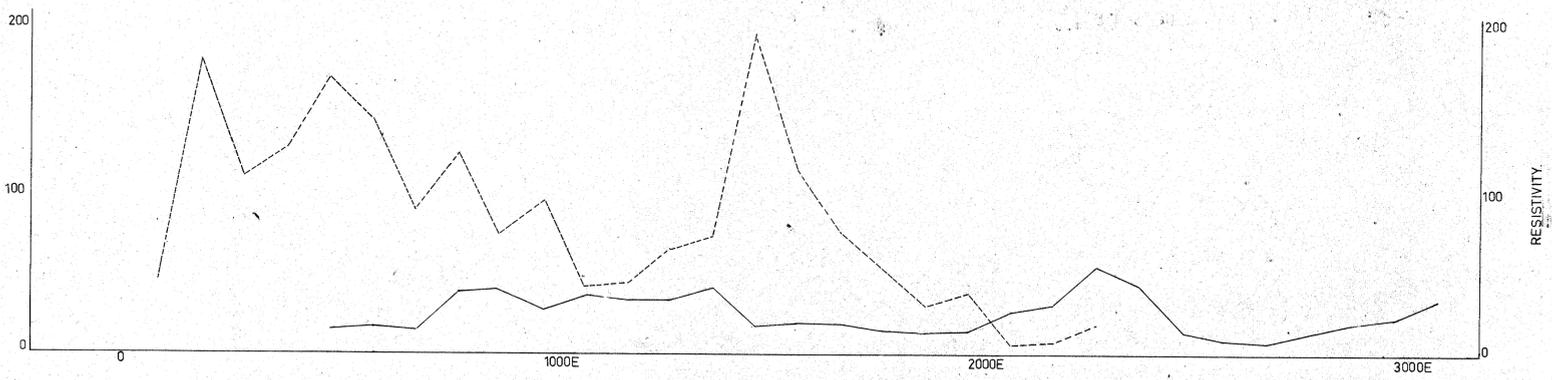
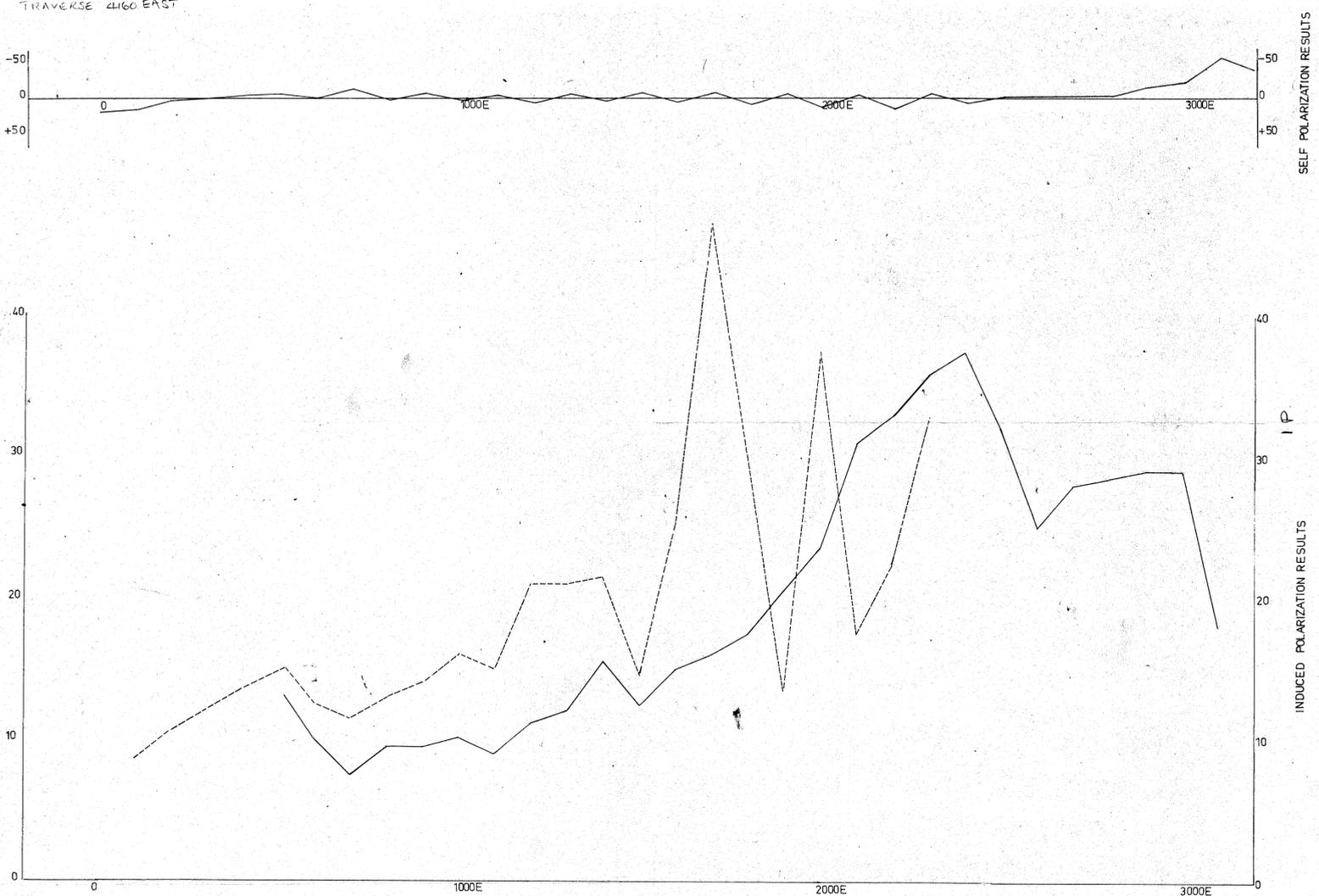
PLAN OF DRILL SITE

Fig. 1

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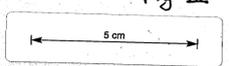
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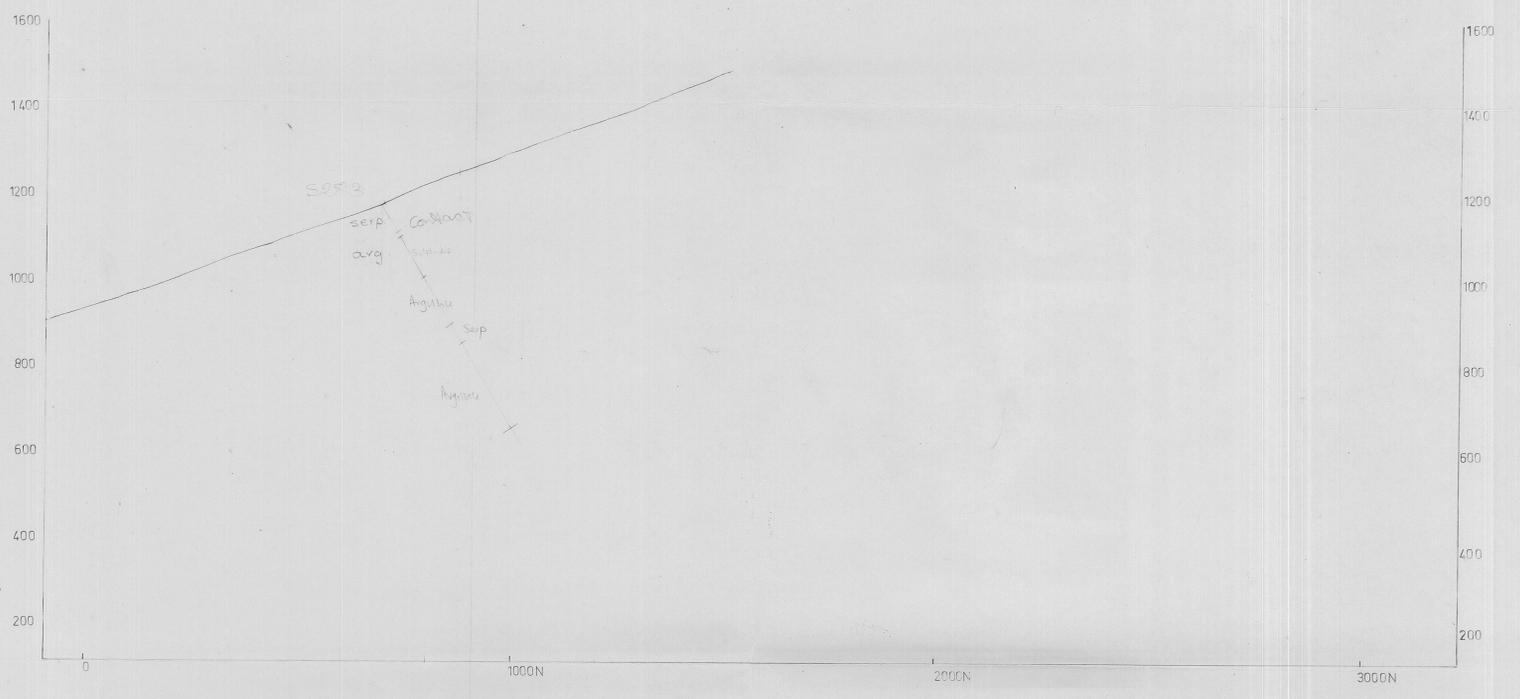
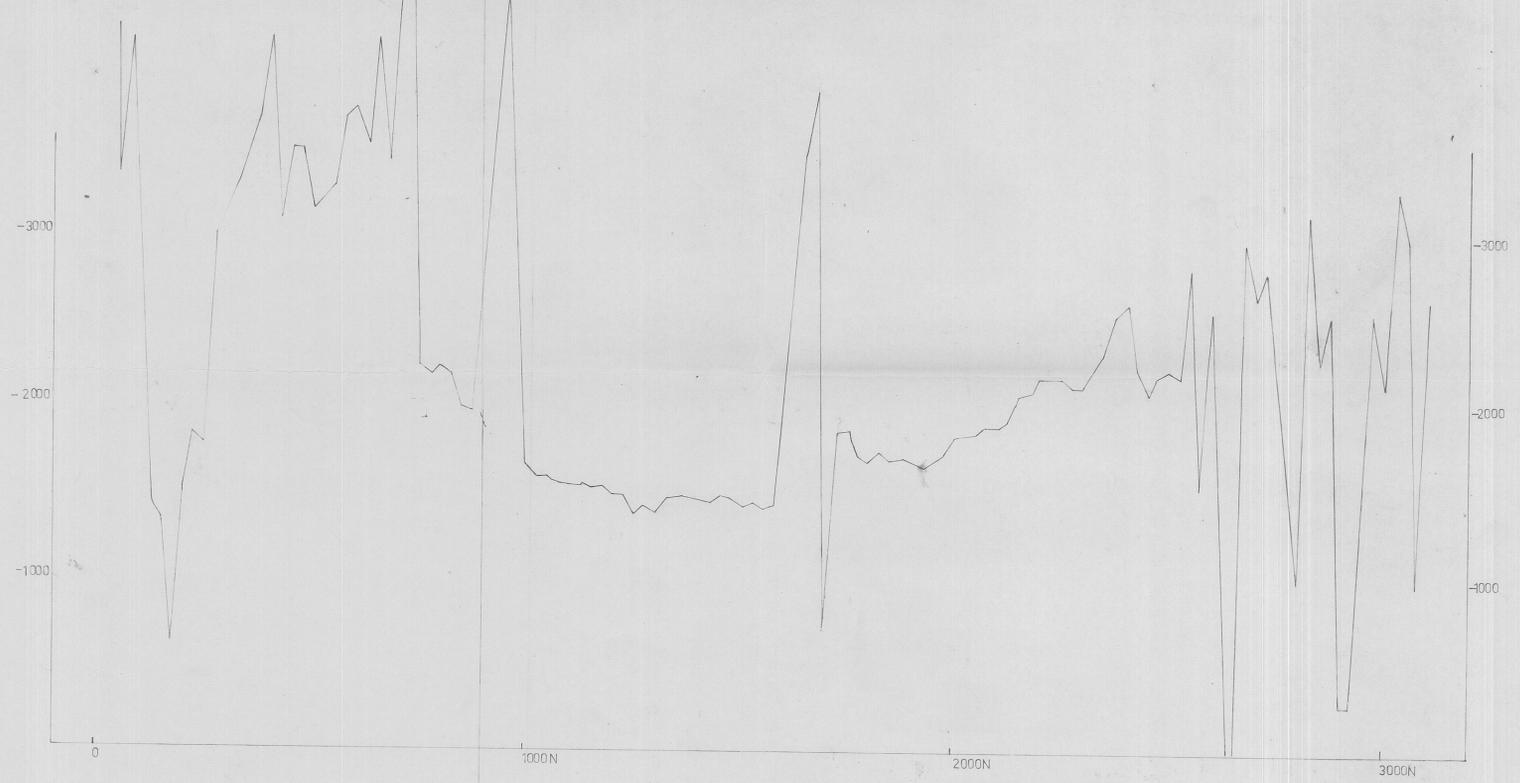
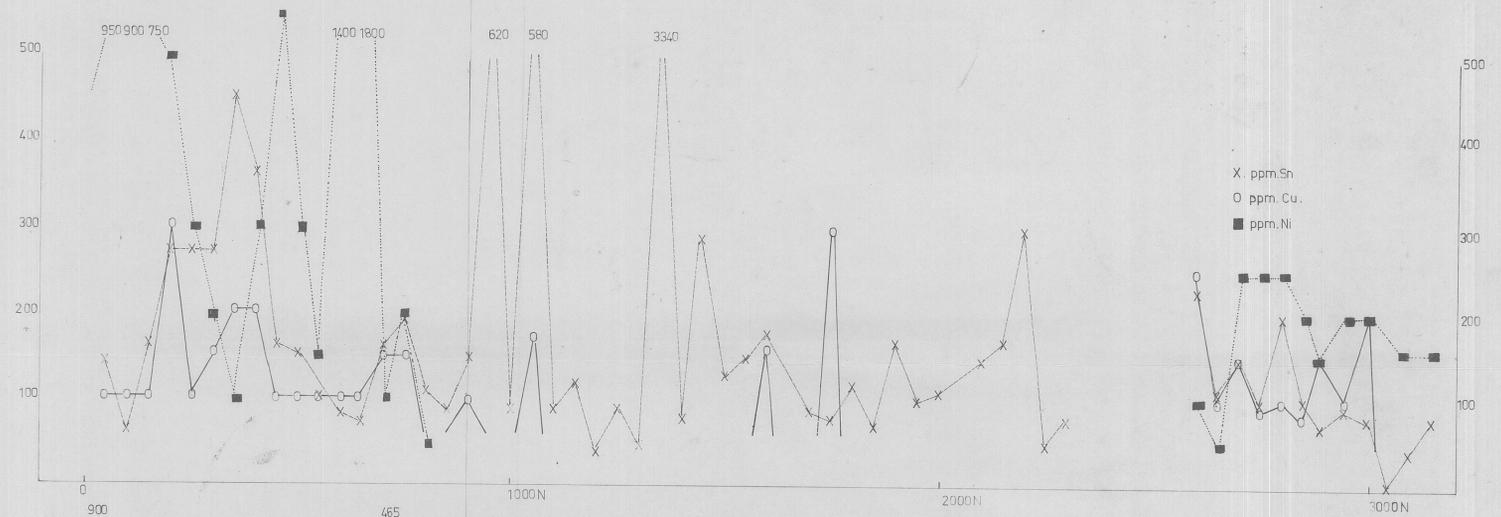


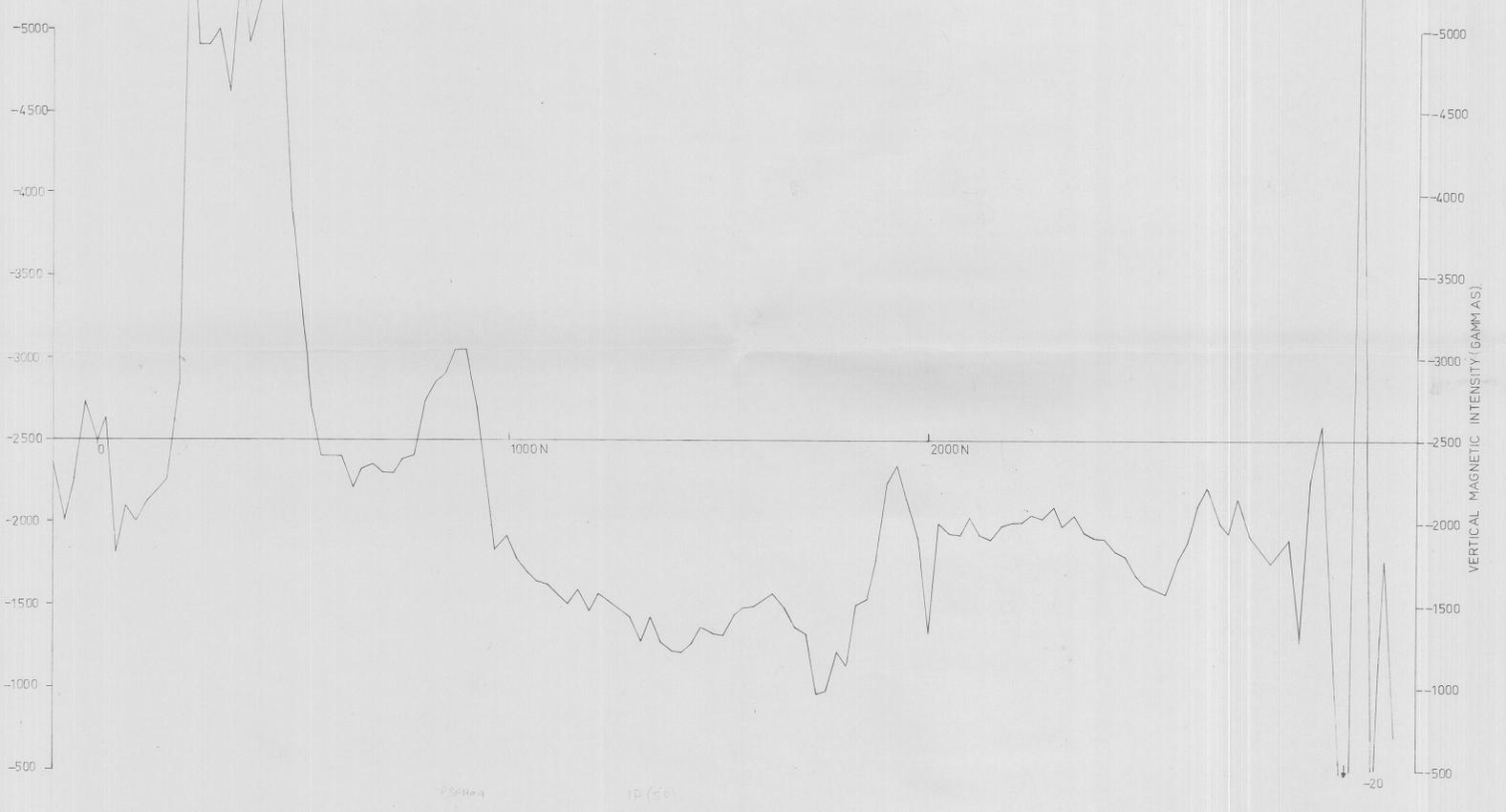
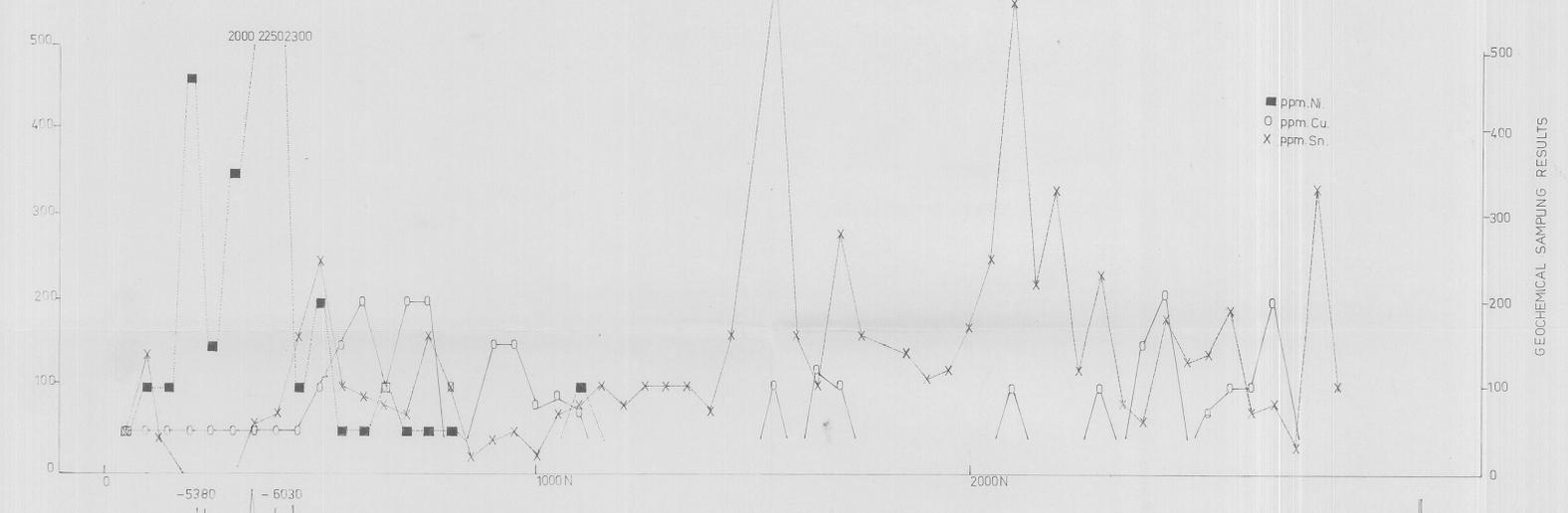
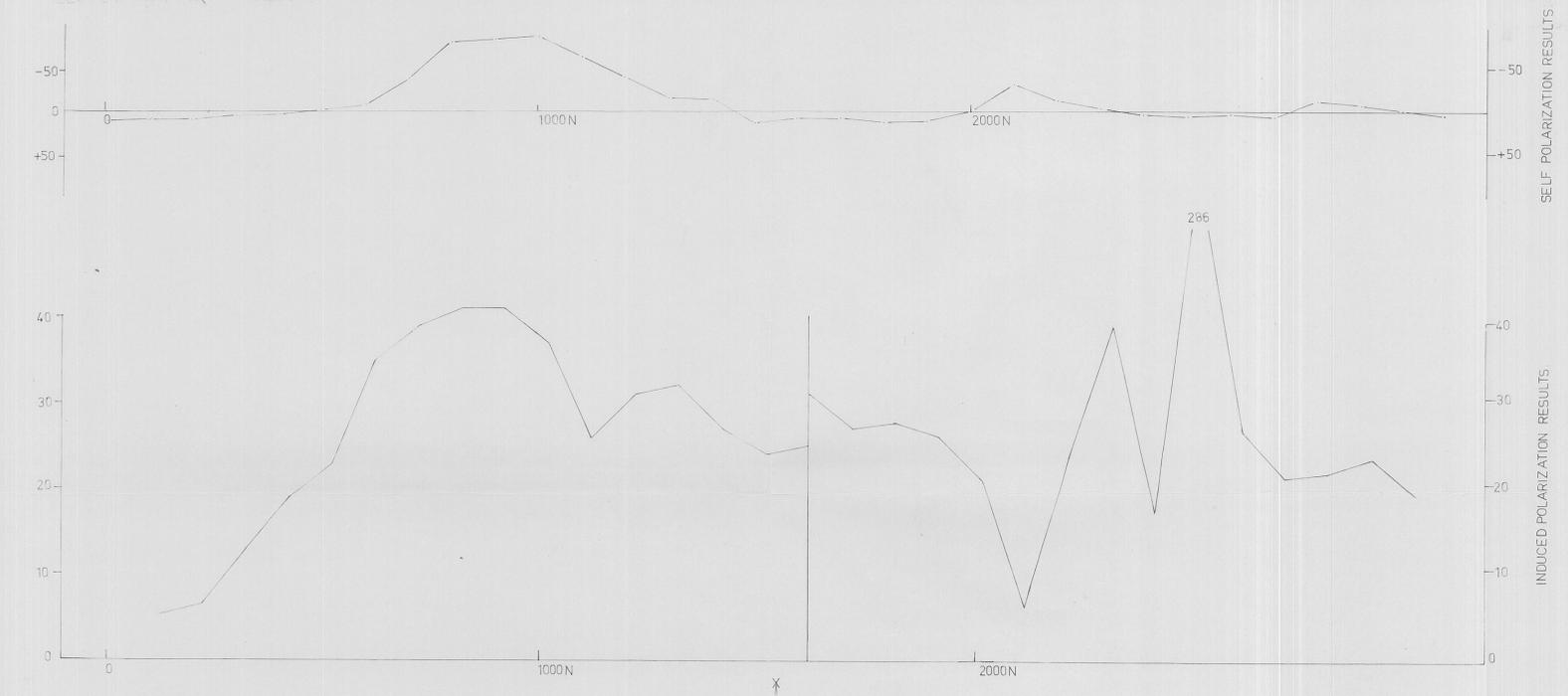


Z1 Drill Site

Fig II







250 (N) (S)  
 200 (N) (S)  
 150 (N) (S)  
 100 (N) (S)  
 50 (N) (S)

CROSS SECTION (HEIGHTS ABOVE SEA LEVEL)

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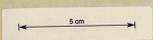
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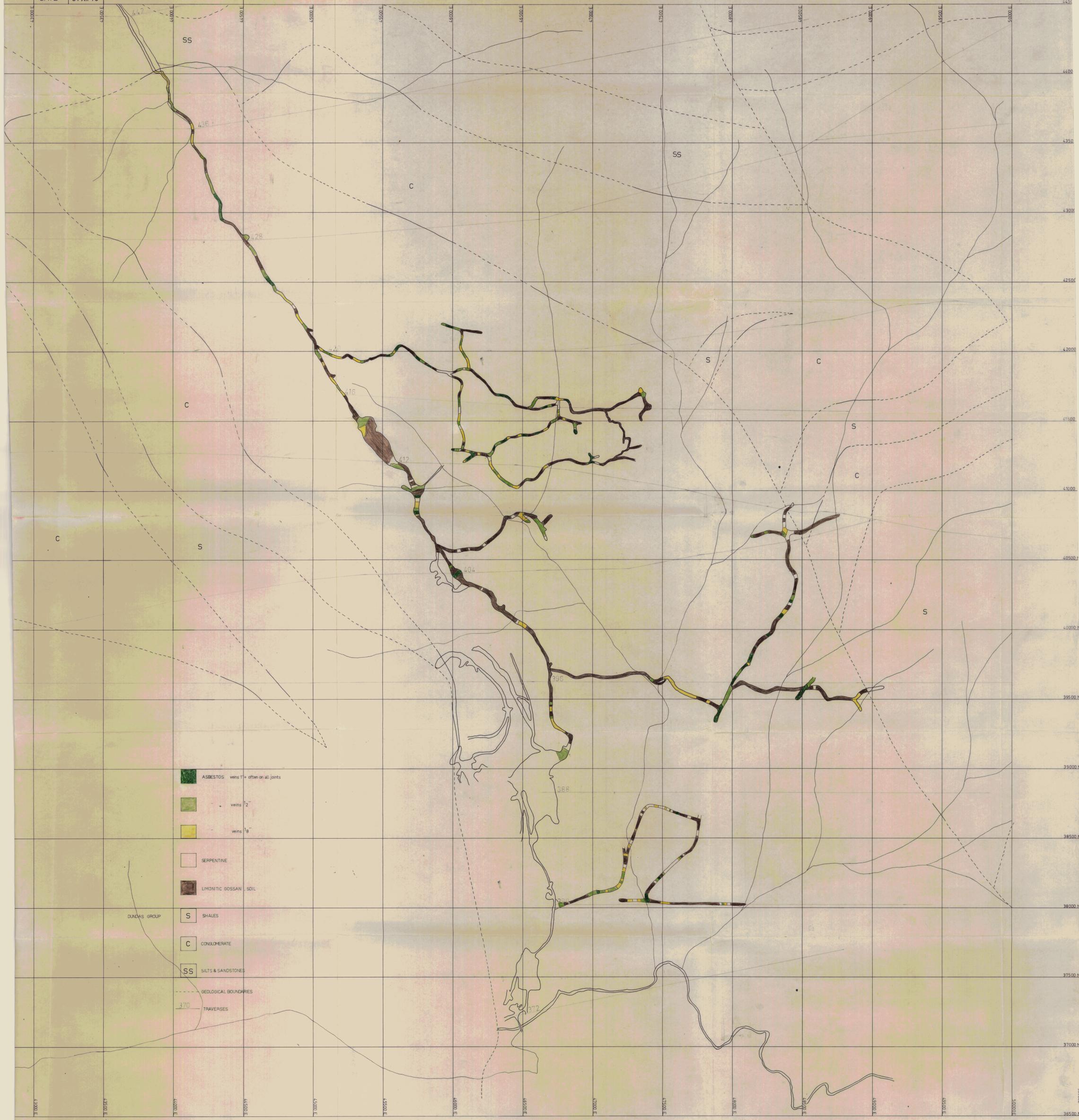
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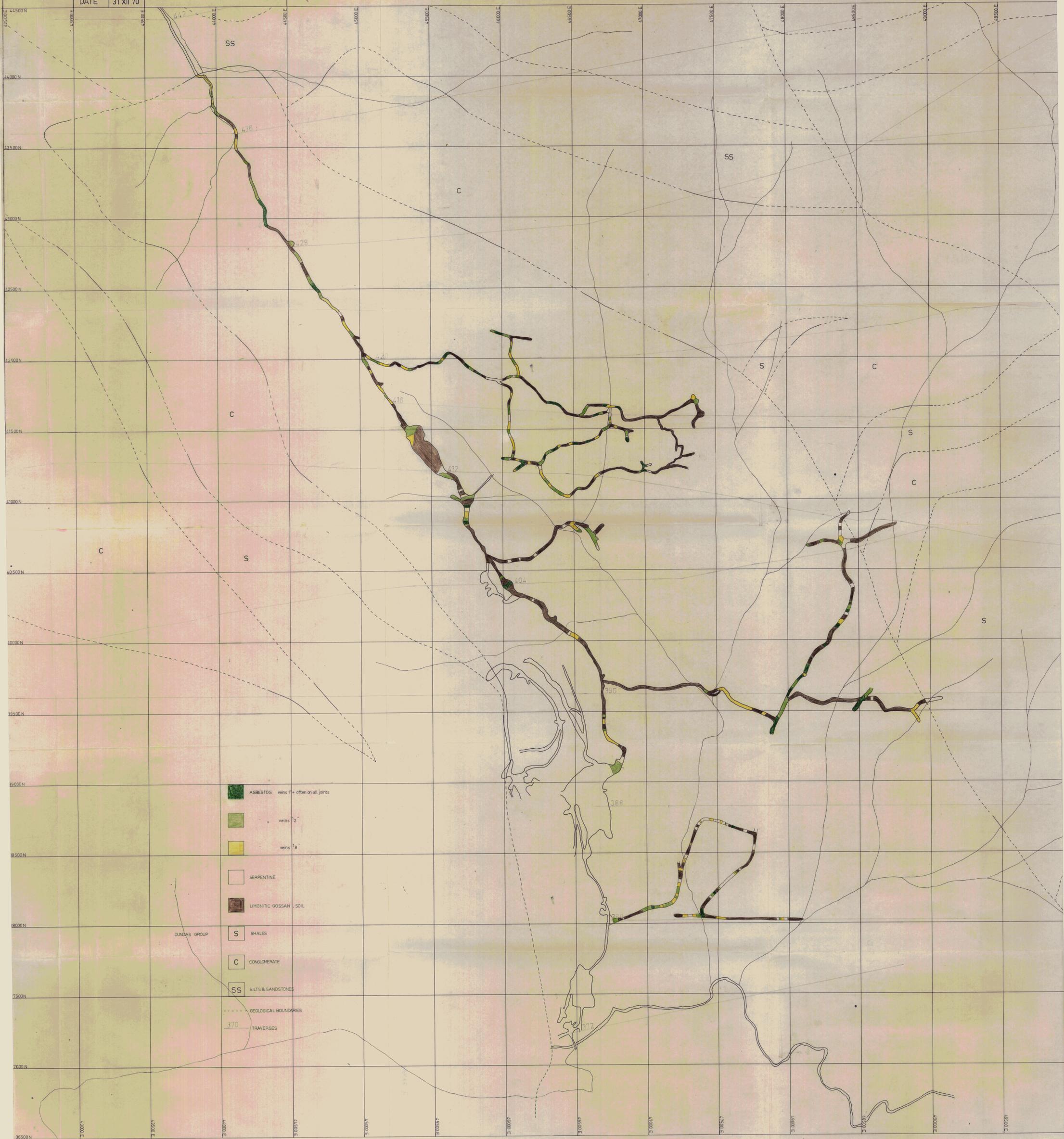
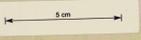
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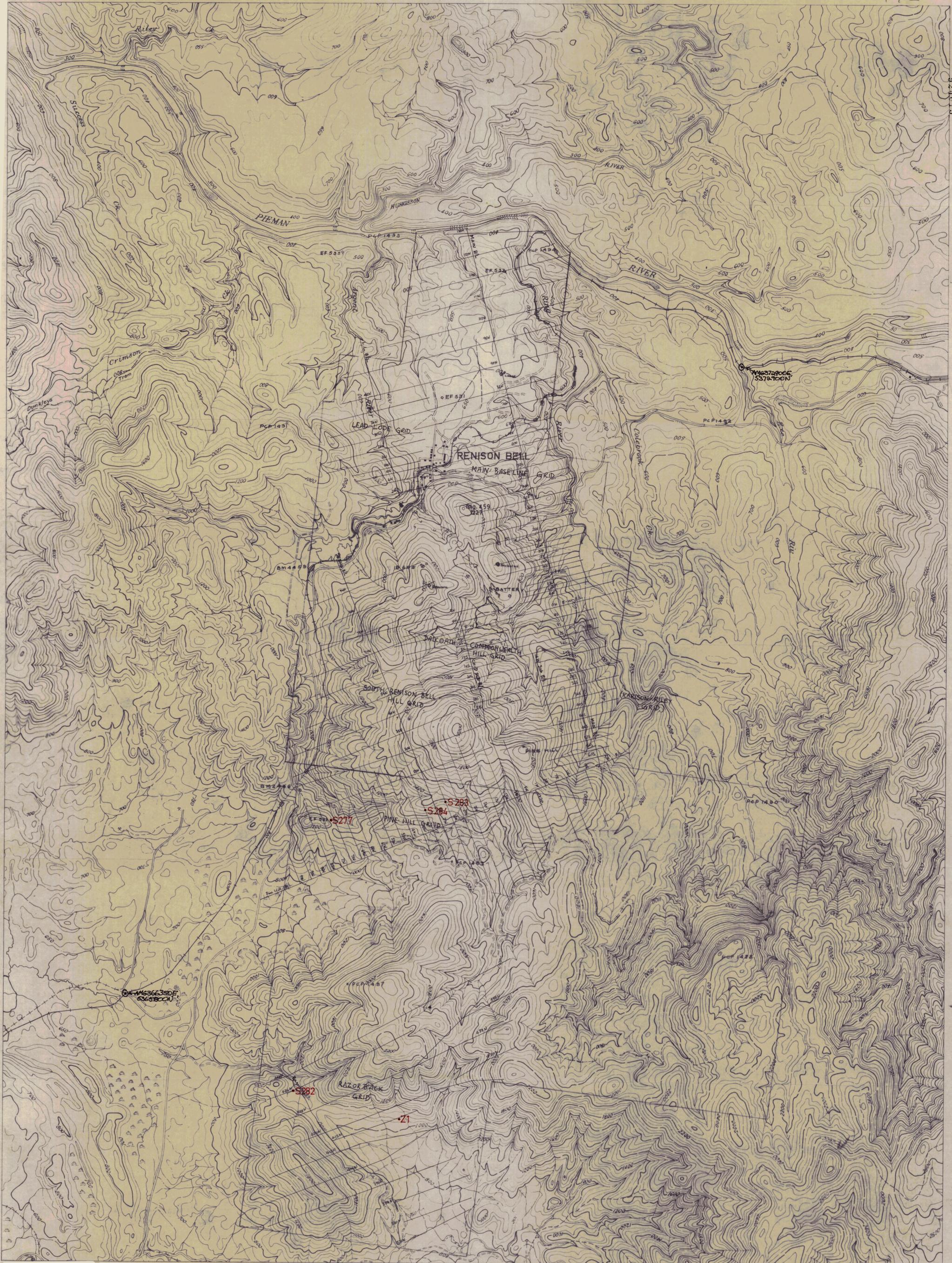
- ASBESTOS veins 1" or more on all joints
- veins 1/2"
- veins 1/8"
- SERPENTINE
- LIMONITIC GOSSAN SOIL
- S** SHALES
- C** CONGLOMERATE
- SS** SILTS & SANDSTONES
- GEOLOGICAL BOUNDARIES
- 370 TRAVERSES

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DRAWN	C.J.W.
SCALE	1" to 200'
DATE	31 XII 70



- ASBESTOS veins 1" or often on all joints
- veins 2"
- veins 6"
- SERPENTINE
- LIMONITIC GOSSAN SOIL
- S** SHALES
- C** CONGLOMERATE
- SS** SILTS & SANDSTONES
- GEOLOGICAL BOUNDARIES
- 370 TRAVERSES



5 cm

AMG REFERENCE POINTS ADDED