

RENISON LIMITED

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Dept of Mines	
REF. No.	

② JN file

80-1440

E.L. 17/77

MERTON HILL AREA, WESTERN TASMANIA

PROGRESS REPORT

**OPEN FILE**

**MICROFILMED**

By: *A. Ross.*

A. Ross,  
SENIOR EXPLORATION GEOLOGIST

May 1980

Copies: Renison (1)  
Aberfoyle (1)  
C.G.F.A. (1)  
Department of Mines (1)

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CONTENTS

	Page
Summary	1
1. Introduction	2
2. Access	2
3. Land Tenure	3
4. Regional Geology	3
5. Work Carried Out	4
6. Results	5
7. Conclusions and Recommendations	9
8. Bibliography	10

Appendix 1

Petrological Report, C.M.S. 80/3/18

# RENISON LIMITED

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## FIGURES

- 002
1. Locality Map 1:50,000
  2. Geology Map - Merton Hill Area 1:5000  
(Photogeological Interpretation)
  3. Underground Workings 1:200
  4. Chip Sampling Assays
    - (a) Adit 1 - Tin
    - (b) Adit 1 - Lead
    - (c) Adit 1 - Zinc
    - (d) Adit 1 - Silver
    - (e) Adit 3 - Tin, Lead, Zinc, Silver
  5. Mt Merton Grid 1:1000
    - (a) Geology (MH 101)
    - (b) Soil Geochemistry - Tin (MH 201)
    - (c) Soil Geochemistry - Arsenic (MH 202)
    - (d) Soil Geochemistry - Copper (MH 203)
    - (e) Soil Geochemistry - Lead (MH 204)
    - (f) Soil Geochemistry - Zinc (MH 205)
    - (g) Soil Geochemistry - Nickel (MH 206)
    - (h) Magnetics (MH 309)
    - (i) Resistivity (MH 308)
    - (j) Chargeability (MH 307)
  6. Composite Profiles 1:1000
    - (a) Line 1100mE (MH 301)
    - (b) Line 1200mE (MH 302)
    - (c) Line 1300mE (MH 303)
    - (d) Line 1400mE (MH 304)
    - (e) Line 1500mE (MH 305)
    - (f) Line 1600mE (MH 306)

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SUMMARY

A group of abandoned tin workings has been located at Merton Hill, approximately 8 kilometres north of Renison Bell, and on the western limb of the Huskisson Syncline.

Work carried out has included sampling of underground workings, assaying and subsequent petrological examination, and the establishment of five cut grid lines. Mapping, geochemical soil sampling, magnetic and induced polarisation surveys have been completed.

This work confirms the presence of primary tin mineralisation as cassiterite, associated with base metal sulphides (mainly lead) and hosted in metasomatised quartzite, sandstone (minor shale) rocks. A vein style of mineralisation is encountered in the underground workings, however, there are possibilities of metasomatic replacement deposits occurring in other geological environments in the area.

It is proposed to complete two diamond drill holes to further investigate this style of mineralisation.

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1. INTRODUCTION

A group of abandoned underground and surface workings, collectively known as the Mt Merton Mine, are centred on Merton Hill, approximately 8 kilometres North of Renison Bell, western Tasmania.

Tin mineralisation was discovered in 1911. Subsequently the workings were described by L.J. Waterhouse (1914), who referred to the presence of primary cassiterite, sulphides and probable granitic intrusives.

This report deals with exploration work carried out by Renison Limited since July 1979. To the writer's knowledge there have been no reports of systematic exploration for tin mineralisation at Merton Hill since 1914, due possibly to the relative inaccessibility of the area prior to 1979.

2. ACCESS (Figure 1)

Access to the area is now excellent. The prospect lies 600 metres north-east of the sealed H.E.C. Pieman Road, at a distance of 21.5 kilometres from its junction with the Murchison Highway. An H.E.C. surveyed line (trending N.W.) passes within 250 metres of Merton Hill and is understood to be the proposed route of a transmission line from the Lower Pieman Power Scheme.

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3. LAND TENURE

Prior to September 1975, the Merton Hill area was part of E.L. 2/63, operated by Renison Limited through a Joint Venture Agreement with Aberfoyle Limited (and associated companies) and Consolidated Gold Fields Australia Limited.

On the recommendations of Renison Limited, part of E.L. 2/63 was relinquished in September 1975. This included the Merton Hill area, although the prospect's precise location outside this licence boundary was not substantiated until 1979.

Following the partial relinquishment of E.L. 2/63, the Merton Hill area lay within E.L. 3/76 held by the A.N.Z. Exploration Company. Following relinquishment of E.L. 3/76, this area now forms part of E.L. 17/77, which is held by Renison Limited. After consultations with Aberfoyle Limited, the area formerly relinquished from E.L. 2/63 is currently being transferred from E.L. 17/77 to the Joint Ventured E.L. 2/63 (Figure 1).

4. REGIONAL GEOLOGY

Figure 1 shows the location of Merton Hill in relation to the major geological features. It lies on the western limb of the Husskisson Syncline and several kilometres south of the Meredith Granite.

Recent photogeological interpretation by Hunting Geology and Geophysics (Australia) Pty Limited indicates a north westerly trending belt of Cambrian ultrabasic rocks in contact with Dundas Group sediments.

Further north east, the presence of Gordon Limestone and other pre-Carboniferous sediments is inferred. Several faults have been delineated in the air photo interpretation (Figure 2).

East of the ultrabasic contact in the Pieman Road area, a quartz feldspar porphyry intrusive has been mapped (pers. comm., A. Brown, Geological Survey).

## 5. WORK CARRIED OUT

5.1. The abandoned workings include three adits, of which two are accessible, and several trenches and pits. Detailed chip sampling of the two adits has been undertaken, with assays for Sn, As, Cu, Pb, Zn,  $WO_3$ , Ag on 225 samples. Follow-up assays for acid soluble Sn were carried out on 11 samples and petrological examination made of five crushed sample rejects.

Results of mapping and chip sample assays are presented in Figures 3 and 4. The petrological report is appended.

5.2. Six cut grid lines, each approximately 500m and spaced at 100m intervals, were established using the H.E.C. surveyed line as a baseline. The following has been carried out:

- (a) Geochemical sampling on all lines. Samples were taken by hand auger up to depths of one metre and as deep as conditions allowed. Minus 180 micron fractions were assayed for Sn, As (by X.R.F.) and Cu, Pb, Zn, Ni (by A.A.S) in the Renison Assay Laboratory.

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- (b) Magnetics. Using a Geometrics G816 instrument with a sensor height of 2.6 metres, readings were taken at 10 metre intervals on Lines 1100 to 1400mE, and at 15 metre intervals on Lines 1500, 1600mE. Base station corrections have been made.
- (c) Gradient Induced Polarisation Survey. Scintrex Pty Ltd carried out the survey on Lines 1100 to 1400mE. Results are reported in "Report on Gradient Array E.P. Survey, Mt Merton Grid, near Zeehan, Tasmania on behalf of Renison Limited, TAS-074A" by A.W. Howland-Rose.
- (d) Geological Mapping.

5.3. Results of the above programmes are presented on 1:1000 plans and composite profiles (Figures 5 and 6).

## 6. RESULTS

### 6.1. Geology [Figure 5(a)]

The essential features of the area are:

- (a) The development of old workings at the crest of Merton Hill for a distance of approximately 400 metres. The area supports rainforest vegetation giving way to ti-tree forest about Merton Creek, then relatively open timber to south-east. Areas of low topography N.E. and S.W. of Merton Hill are characterised by swamp or active drainage. These may constitute areas of secondary geochemical dispersion.

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- (b) A N.W. trending belt of ultrabasics with an inferred steep dip to the N.E.
  - (c) Sedimentary rocks, predominantly quartzite, sandstone and minor shales and siltstones lying to the N.E. Outcrop and floater conditions are poor. Exposure in Adits 1 and 3 indicate a N.W. strike and dips range from steeply S.W. to vertical.
  - (d) The saddle south of Merton Hill and near line 1400E may represent a fault.

#### 6.2. Chip Sampling [Figure 4]

- (a) Sampling of Adits 1 and 3 over 1 metre intervals indicates anomalous amounts of tin, lead, zinc and silver are present.
- (b) Values for copper, arsenic, tungsten are low.
- (c) In Adit No. 3, anomalous tin lead values are restricted to a vuggy sandstone unit. A similar pattern is found in Adit No. 1, especially for lead.
- (d) Acid soluble tin assays and petrological examination confirms the presence of cassiterite associated with oxidised lead and iron sulphides. The sedimentary host rocks show evidence of metasomatic alteration (Appendix 1).
- (e) Several quartz and sulphide veins (oxidised) have been detected in the underground workings.

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6.3. Soil Geochemistry [Figures 5(b) - (g)]

The soil geochemistry data is consistent with the presence of cassiterite sulphide mineralisation. Values of up to 0.3% tin are found in the vicinity of the old workings and a moderate anomaly occurs from 1600E/345N for a distance of approximately 400m in a north westerly direction. The mineralisation is also reflected by copper, lead, zinc (arsenic) values, although their distribution is not as spectacular.

The elemental patterns reflect a combination of situations, e.g. a contrast in rock types, dispersion of near surface cassiterite sulphide mineralisation, the influence of diverse topography, drainage patterns and cultural disturbance.

The responses of each element to the more obvious features is summarised as follows.

Feature \ Element	Sn	As	Cu	Pb	Zn	Ni
Contrast between Ultrabasic and Sediments	W	W	W	M	S	S
Ultrabasic Contact	W	S	W	S?	W	W
Dispersion about Mineralisation	S	W	M	S	M	W
Contamination of Drainage	S	W	W	M	W	W

S = Strong

M = Moderate

W = Weak

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6.4. Geophysics [Figures 5(h) - (j)]

The fundamental geology is reflected by the magnetic and induced polarisation surveys. It is doubtful, however, that the mineralisation displays a response which can be resolved without interference from other sources. Essentially three 'units' can be distinguished with the following characteristics:

	Magnetic Intensity	Charge-ability	Resistivity
Ultrabasics	High	Moderate	Low
Contact Zone (Sheared? U/b)	Variable	High	Moderate
Sediments	Low	Low	High

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7. CONCLUSIONS AND RECOMMENDATIONS

The confirmation of primary cassiterite sulphide mineralisation in the Merton Hill area is encouraging. Work carried out to date suggests that the mineralisation is vein style and localised in metasomatised sediments.

From an economic viewpoint, the prospect is well located.

It is recommended that the prospect be drilled to test the mineralisation below the old workings. It is considered the area offers considerable scope for the delineation of metasomatic replacement deposits such as may be hosted in

- (a) carbonate rich sediments
- (b) sheared ultrabasic margins
- (c) faults

Initially, a two hole programme is proposed, totalling 370 metres of triple tube NQ core drilling. Details of the holes are shown on Figures 6(c), (d) - collar co-ordinates Line 1300E, 330mN, Line 1400E, 330mN bearing grid line south and angled at  $-40^{\circ}$ .

From a regional exploration viewpoint, the area requires further work. Merton Hill lies well outside the contact aureole of any outcropping Devonian granite batholith and, as such, is superficially similar to Queen Hill. Proposals for further work should await the outcome of the initial drill programme. In the meantime, the Corinna D4/1, D4/3 1:5000 base plans will be completed.

8. BIBLIOGRAPHY

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- (2) Progress Report - E.L. 17/77 Wilson River Area. Unpub. Renison Report by R. Schellekens, 1978.
- (3) Interpretation Report Airborne E.M. (Input) Survey of the Wilson River Area. Geoterrex Pty Ltd Report 83-283 by G. Butt, 1978.
- (4) A Photogeological Study of the Meredith Granite and Surrounding Area, Western Tasmania. Hunting Geology and Geophysics Pty Ltd. Report No. GA 93/78 by P. Boshier, 1979.
- (5) Wilson River Area, E.L. 17/77, Annual Report 1978/79. Unpub. Renison Report by K. Wells, 1979.
- (6) Report on Gradient Array E.I.P. Survey, Mt Merton Grid, near Zeehan, Tasmania. Scintrex Report Tas-074A, by A.W. Howland-Rose, 1980.

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Central Mineralogical Services

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Chief Geologist  
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P.O. Box 20  
ZEEHAN / TAS. 7469

RENISON LIMITED	
File No.	3400
GEN. MGR.	<input checked="" type="checkbox"/>
CONTROLLER	<input checked="" type="checkbox"/>
MINE SUPT.	<input type="checkbox"/>
MILL SUPT.	<input type="checkbox"/>
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26 MAR 1980	
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PERSNL. OFFR.	<input type="checkbox"/>
SUPPLY OFFR.	<input type="checkbox"/>
CH. ACCT.	<input type="checkbox"/>
PAYMASTER	<input type="checkbox"/>



231 Magill Road  
Maylands, S.A. 5069  
Telephone 42 5659

24th March, 1980

REPORT CMS 80/3/18

YOUR REFERENCE: Letter dated 12.3.1980

DATE RECEIVED: 17th March, 1980

SAMPLE NOS.: 5 chip samples - Mt. Merton

SUBMITTED BY: A. Ross

WORK REQUESTED: Petrology/Mineralogy

*H.W. Fander*  
H.W. Fander, M. Sc.

REPORT CMS 80/3/18Mt. Merton Prospect

Five chip samples (A-E) were received from L.A. Newnham during my visit to Renison on 13th-14th March 1980, for petrological-mineralogical examination. In view of the unusual occurrence of the mineralisation, it was decided to carry out heavy-liquid separations as well as preparing thin-sections of the chips. The heavy fractions were individually examined under the stereobinocular microscope, then combined and briquetted for a polished section.

It is evident that the mineralisation is of considerable interest and could well be very amenable to upgrading; thus, it will be better to examine further, more suitable samples than to spend too much effort and time on the chip samples which are (superficially?) oxidised. In any case, chip samples are not generally very satisfactory for genetic studies, because of the lack of continuity of features; breakage tends to occur along veins, fractures and other weak structures, often precisely where mineralisation occurs and thus preventing meaningful observations.

Lithology

The host-rocks are sandstones, evidently with silty/shaly intercalations. They are well-cemented in places, consisting of rounded quartz grains and quartz cement; elsewhere, the matrix/cement is argillaceous or sericitic and the rocks are friable. The quartz (both framework and cement) is quite strongly stressed and fractured, recrystallized in places; finer-grained, more argillaceous bands have an almost schistose fabric. Thus, dynamic metamorphism has occurred, and there is also evidence of dispersed metasomatism, with sporadic occurrences of pale amber/green dravitic tourmaline, siderite and degraded ?phlogopite; it is not known at this stage whether the metasomatism is related to the dynamic metamorphism, or whether the two events are separate. Further studies on hand specimens should resolve this.

The coarser, more siliceous rocks would be less permeable, and not as amenable to metasomatism and mineralisation as the finer-grained, more argillaceous sequences; this may have a bearing on the distribution of the mineralisation.

Mineralisation

Minerals identified so far include cassiterite, sulphides and oxidic decomposition-products. Although traces of galena were seen, it is believed that almost all the Pb reported in assays is in "oxidic" form, as fine-grained, powdery sulphates, carbonates, possibly coronadite (Pb-Mn oxide) and in goethite; since these may be superficial products (in mine openings), there is little point in detailed investigations. Pyrite crystals and pyrrhotite grains were identified in heavy-liquid sink fractions.

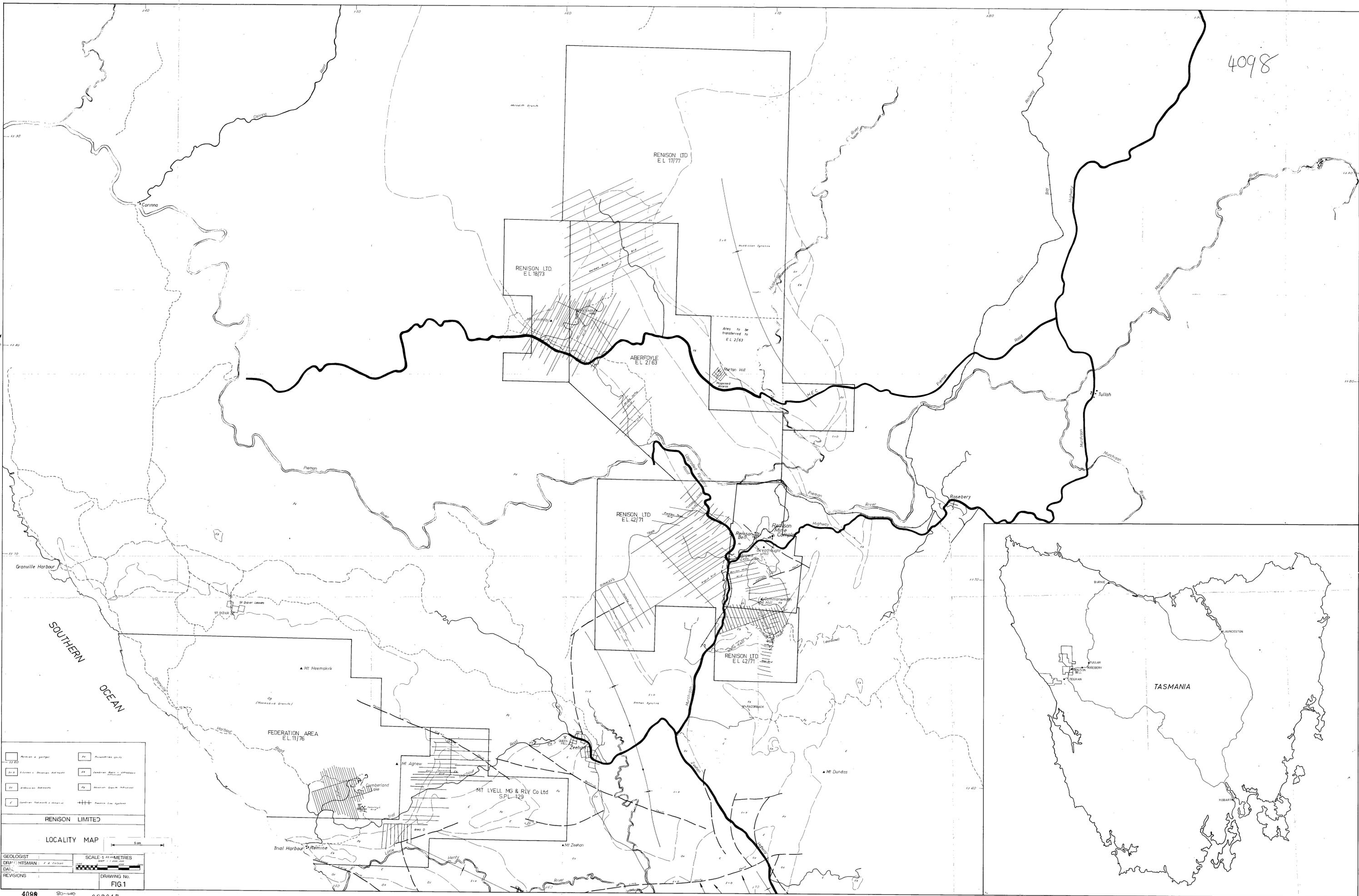
The cassiterite occurs as very well-defined euhedral crystals; individuals range from 50  $\mu$  (perhaps less) to 250  $\mu$  in size, and clusters of fairly densely intergrown crystals up to 2-3 mm occur, though quite possibly larger in uncrushed rock. The crystals are very pale, almost colourless, even in larger sizes, which is unusual and contrasts with Renison.

Little can be remarked about the genesis at this stage, particularly the relationship between cassiterite and sulphides; the presence of pyrrhotite is puzzling in view of strong oxidation, but it may be a contaminant and thus misleading. If pyrrhotite is absent (i.e. in other samples), the style of mineralisation may be more like that of Queen Hill than Renison. Arsenic and silver assays (because of Pb) may be useful.

On present indications, the material should be very amenable to upgrading, because of the paucity of "heavy" gangue and the good crystallinity of the cassiterite. Since this is in the nature of a preliminary report, more detailed assessment must await further examinations.

H.W. Fander, M. Sc.

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REINSON LIMITED

LOCALITY MAP

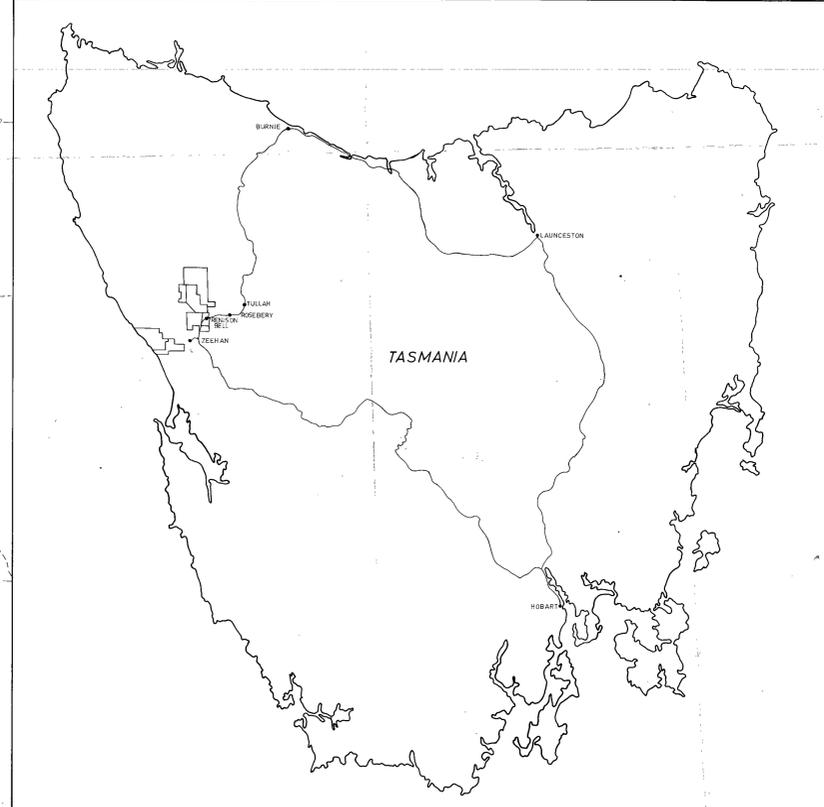
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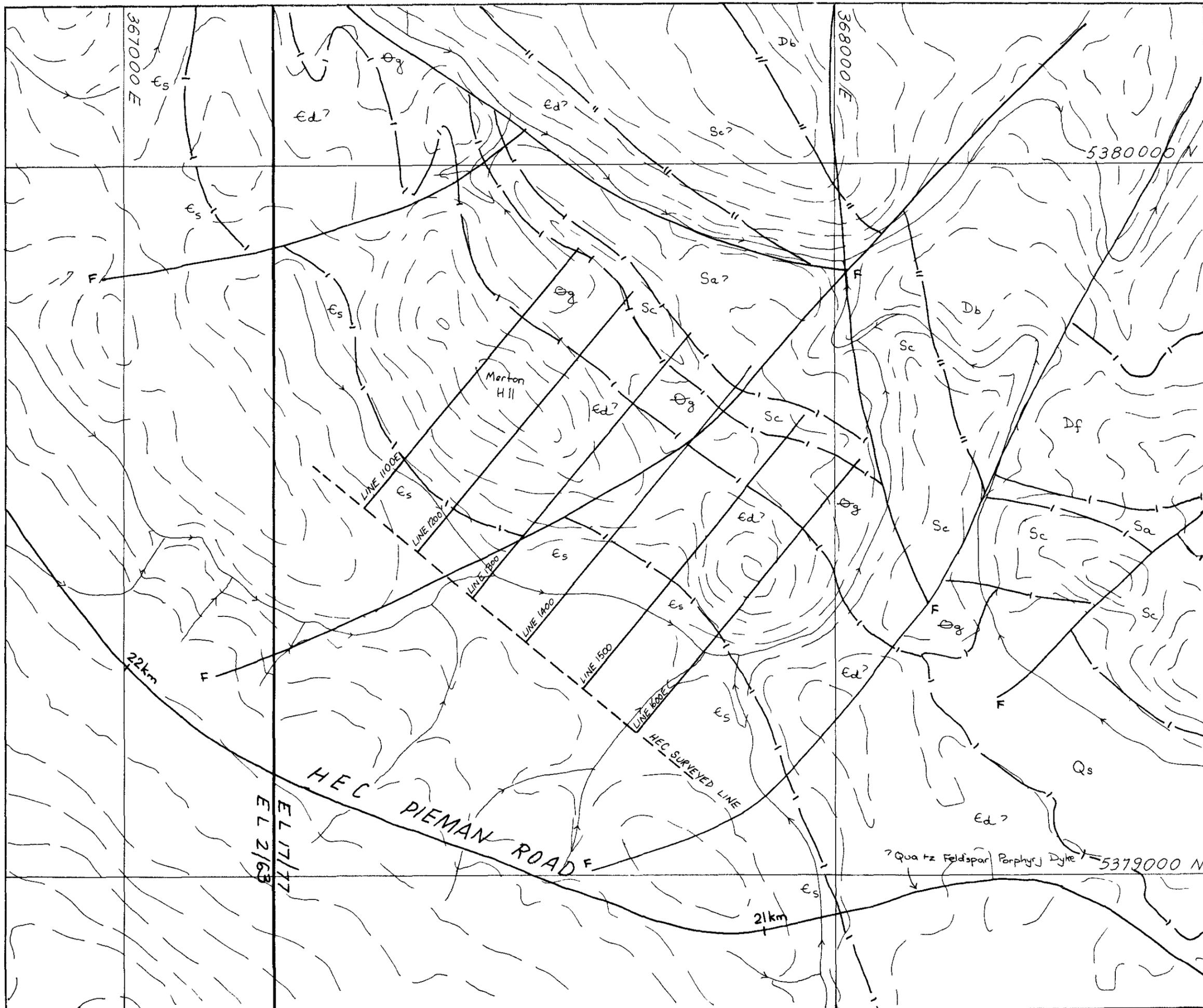
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DATE: [Date]

REVISIONS: [List]

DRAWING No. FIG. 1





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↑  
AMG

- LEGEND -

SEDIMENTS

Qs	Residual soil, swamp
Db	Bell shale
Df	Florence Quartzite
Sa	Amber Slate
Sc	Crotty Quartzite
Ed	Dundas Group

CAMBRIAN

DEVONIAN

IGNEOUS ROCKS

Es	Ultrabasic rock, serpentinites
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Geological contact  
Probable contact  
Fault

Topographic Form Lines  
Drainage

From Hunting Report Meredith Granite  
Photo Geological Interpretation

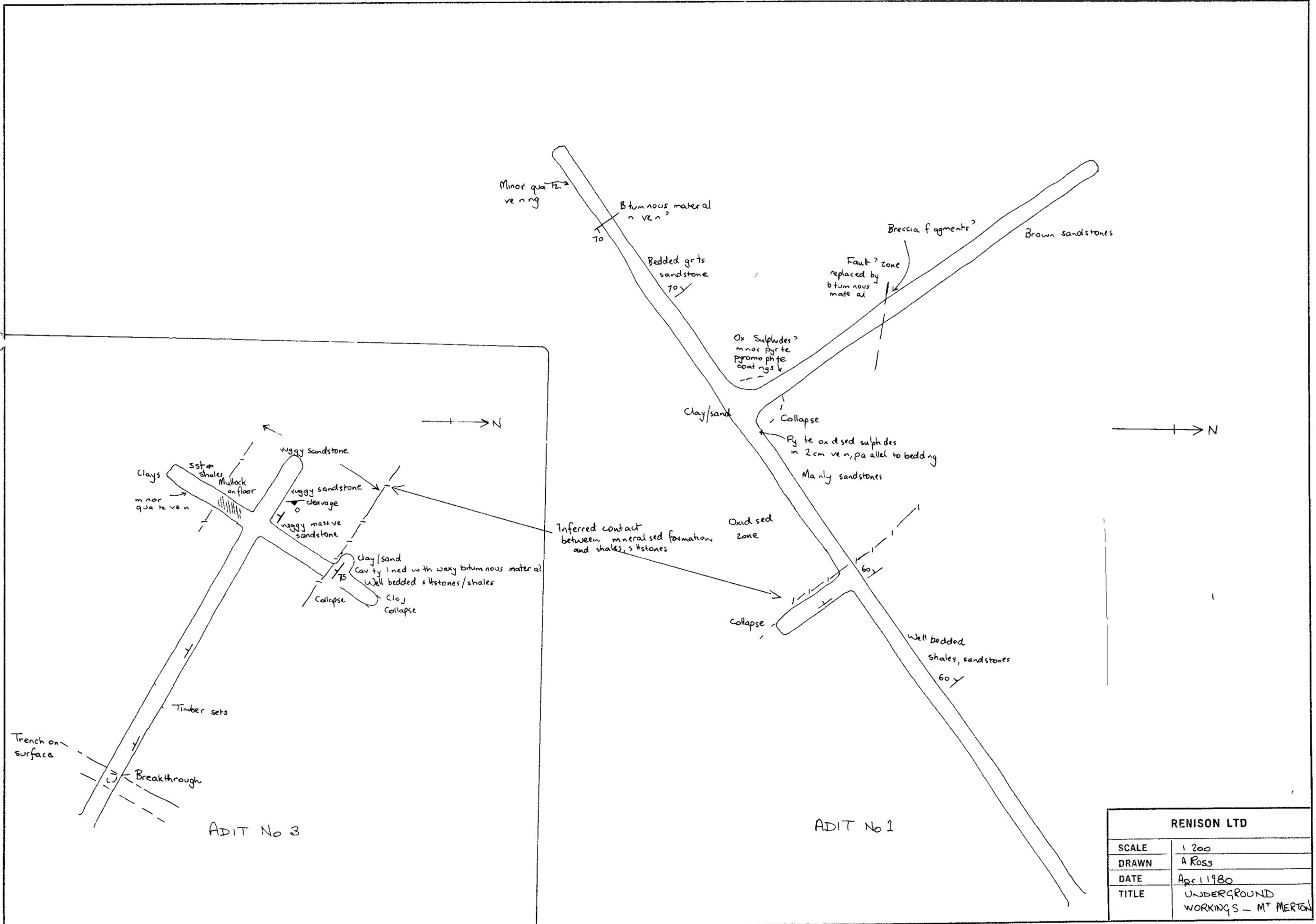
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DATE	APRIL 1980
TITLE	GEOLOGY MAP MERTON HILL AREA



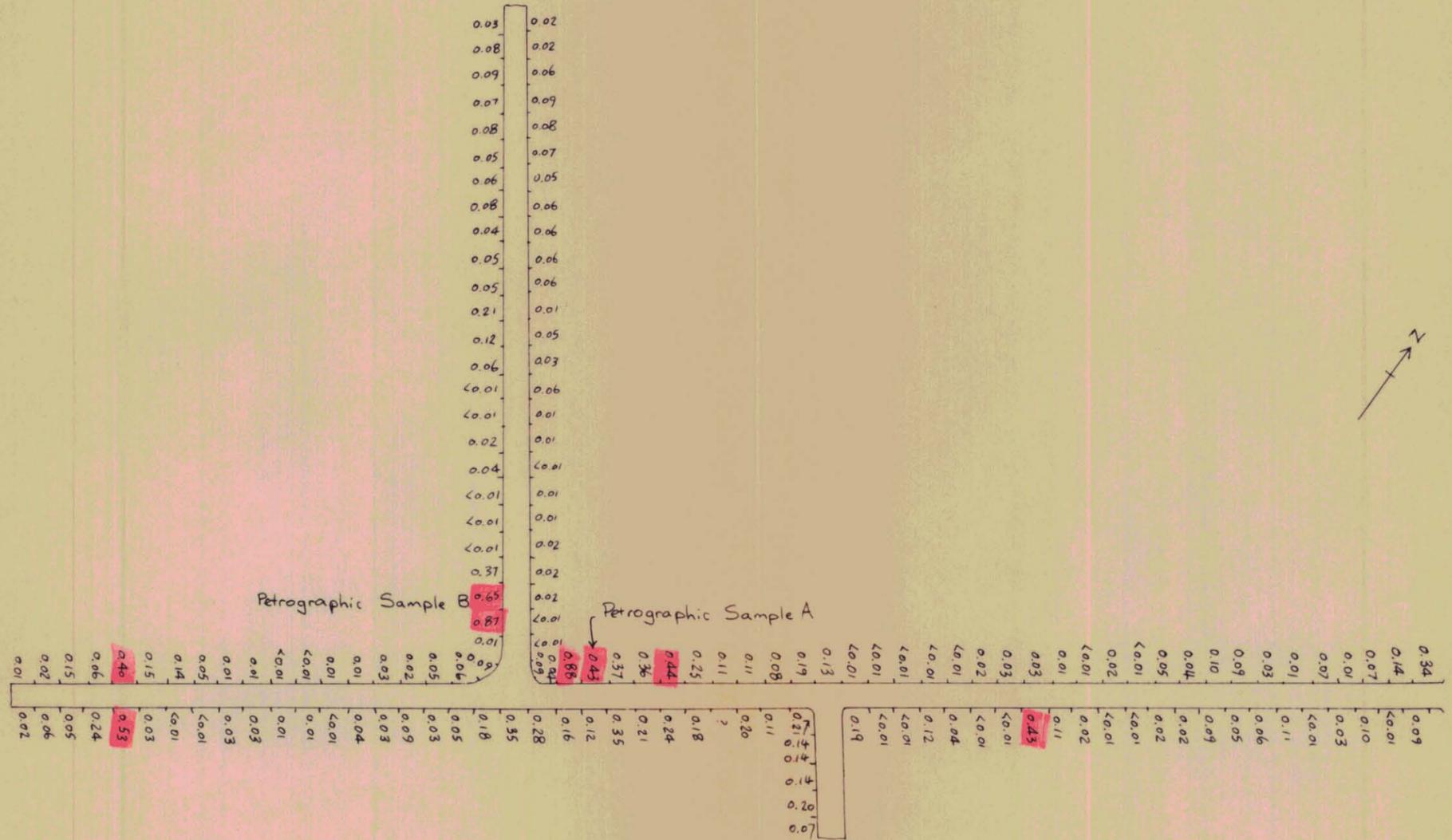
80-1440

FIGURE 2



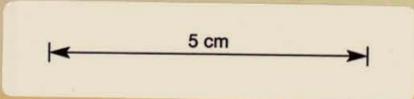
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DATE	Apr 11 1980
TITLE	UNDERGROUND WORKINGS - M <sup>r</sup> MERTON





- LEAD -  
Chip Sampling Results  
Values as % Pb

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DRAWN	A. Ross
DATE	April 1980
TITLE	ADIT No. 1 MT. MERTON



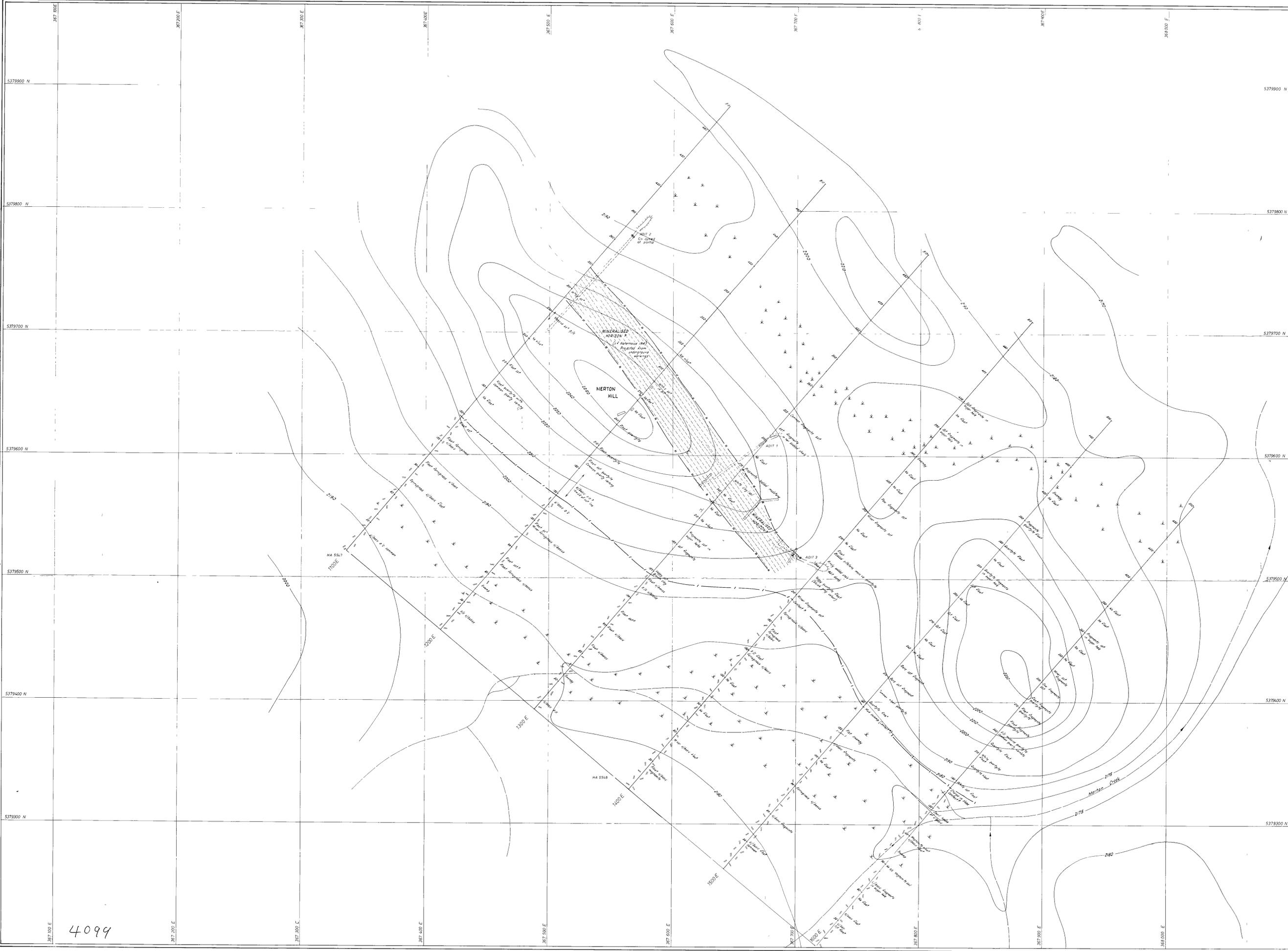
80-1440

FIGURE 4(b)



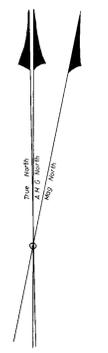






4099

- Legend
- Swamp transported alluvium?
  - Quartzite, sandstone, minor siltstone shales
  - Ultrabasic rocks - massive serpentinite
  - Mineralised horizon?
- KEY
- Grid lines and pegs
  - HEC survey points
  - Adit and dump
- Topographic contour = 200m  
 Derived from 1:5000 Contour Data  
 with slope correction along grid lines



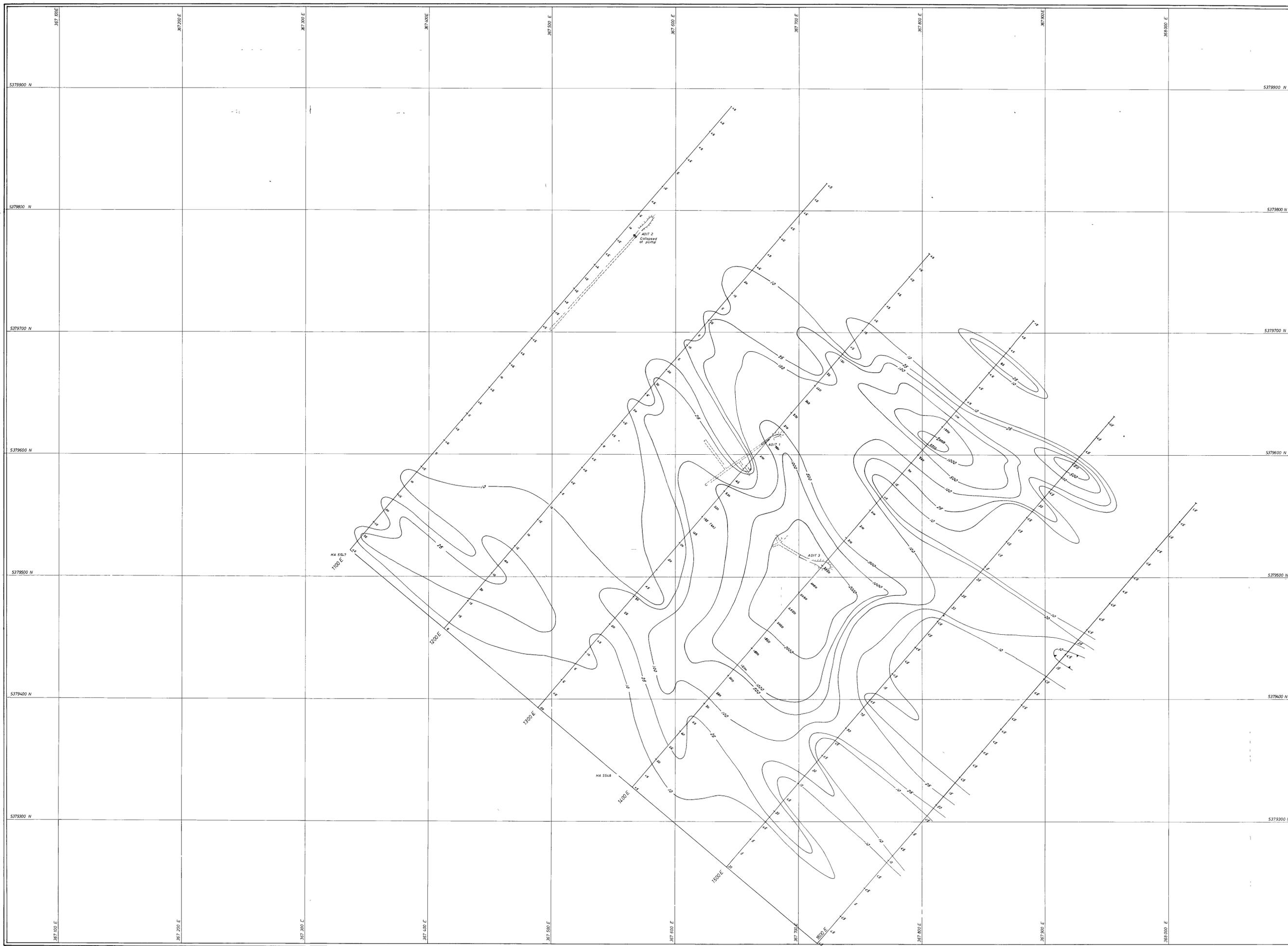
083025  
 5 cm

REINSON LIMITED  
 E.L. 17/77 WILSON RIVER AREA  
 MT MERTON MINE GRID  
 GEOLOGY

GEOLOGIST A.P.B.  
 DRAUGHTSMAN T.S.D.  
 DATE April 1982  
 REVISIONS

SCALE 1:1000 METRES

DRAWING No. MH 101

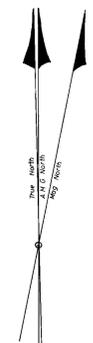


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**KEY**

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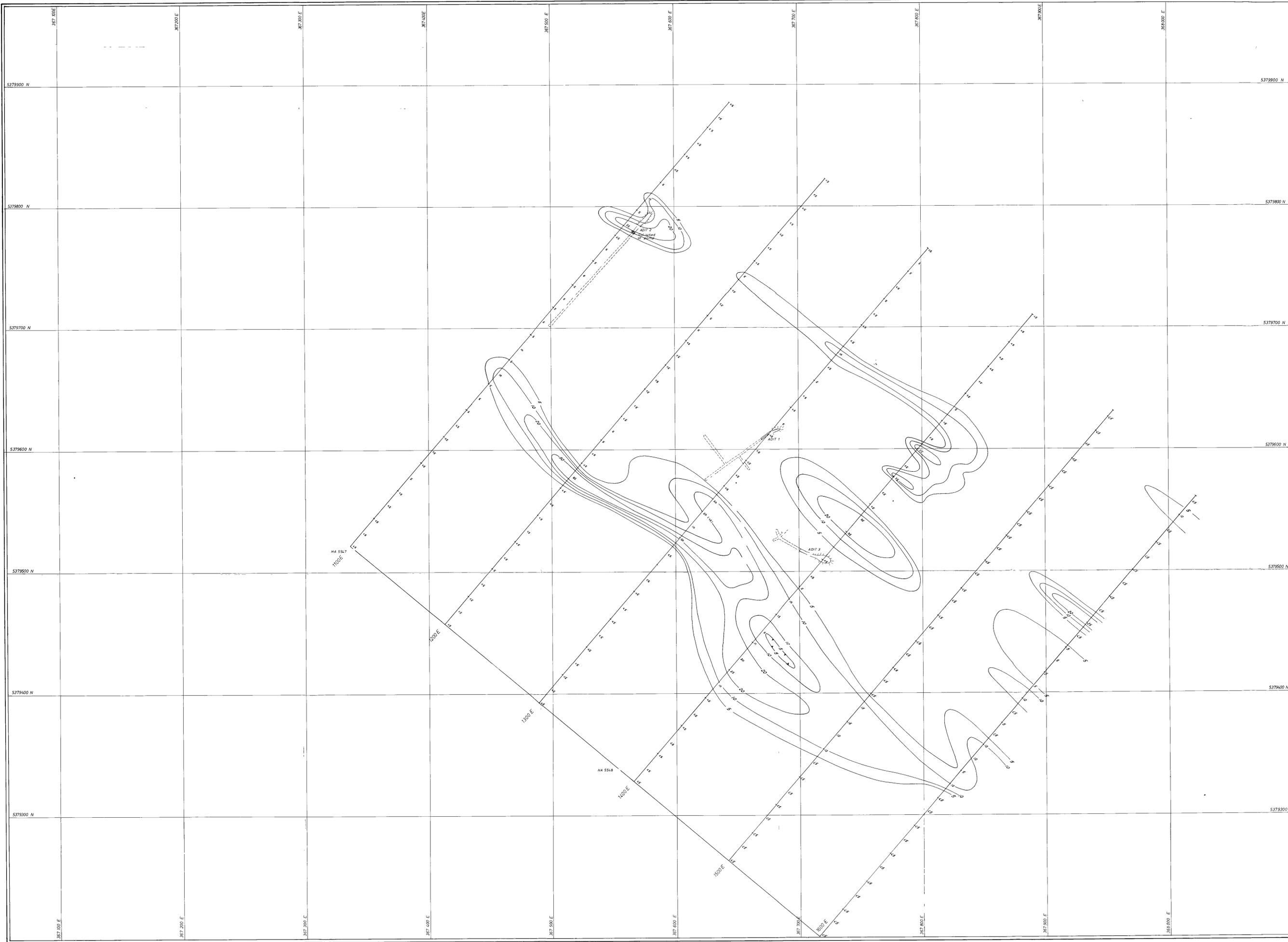


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**E L 17/77 WILSON RIVER AREA**  
**MT MERTON MINE GRID**  
**SOIL GEOCHEMISTRY - Sn**

GEOLOGIST K Wells	SCALE 1:1000 METRES
DRAUGHTSMAN J Matthews	
DATE 14. 2. 79	
REVISIONS April 1982 by AFR	DRAWING No. MH 201

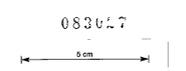
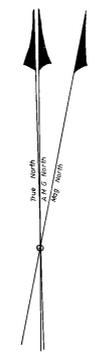


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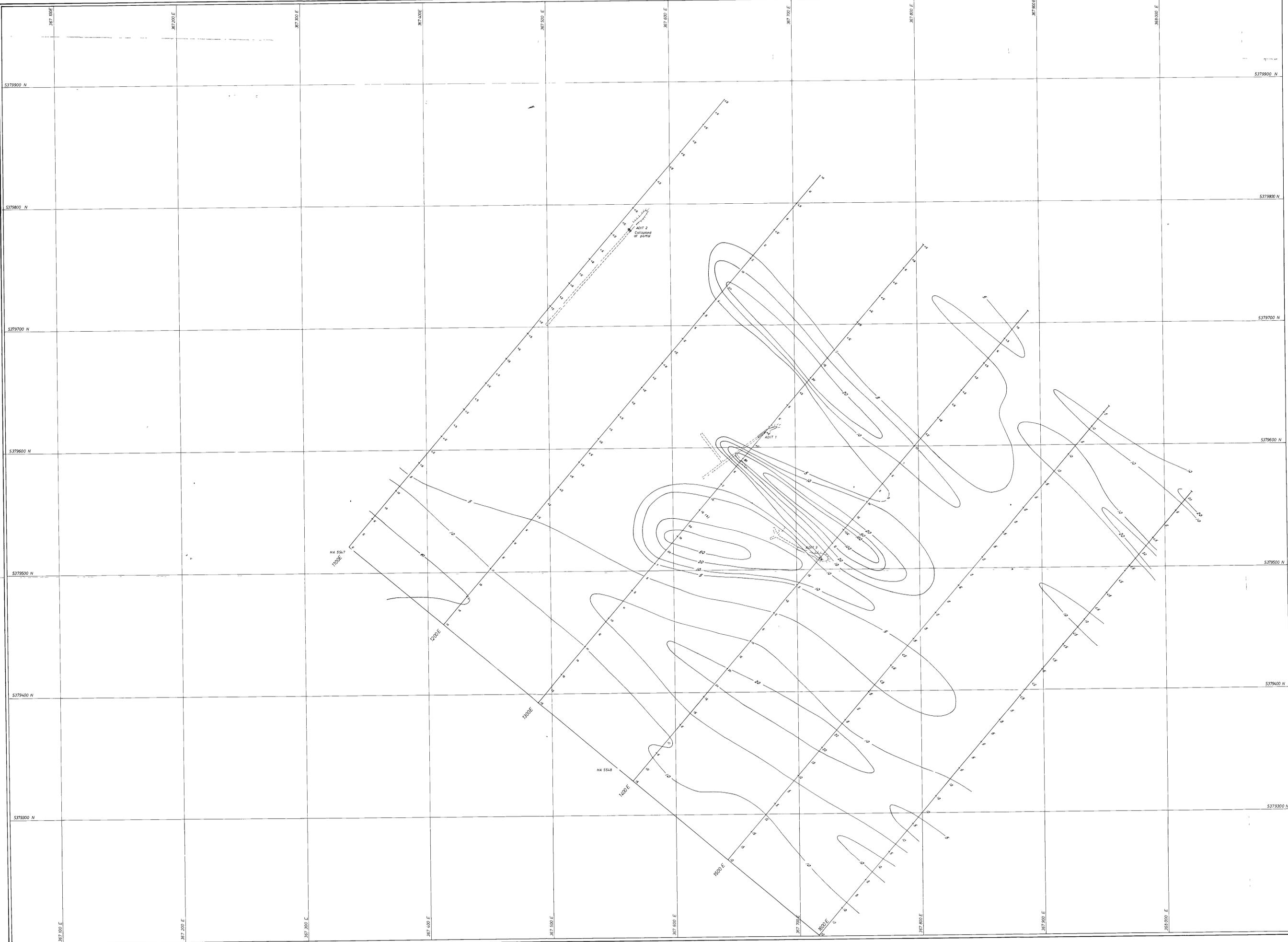
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**KEY**

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[Circle with cross symbol]	HEC survey points
[Line with arrow symbol]	Adit and dump



RENISON LIMITED	
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<b>MT MERTON MINE GRID</b>	
<b>SOIL GEOCHEMISTRY - As</b>	
GEOLOGIST <i>K Wells</i>	SCALE 1:1000 METRES
DRAUGHTSMAN <i>J Matthews</i>	0 20 40
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REVISIONS <i>April 1980 by AKR</i>	DRAWING No <b>MH 202</b>

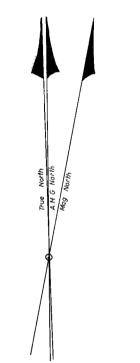


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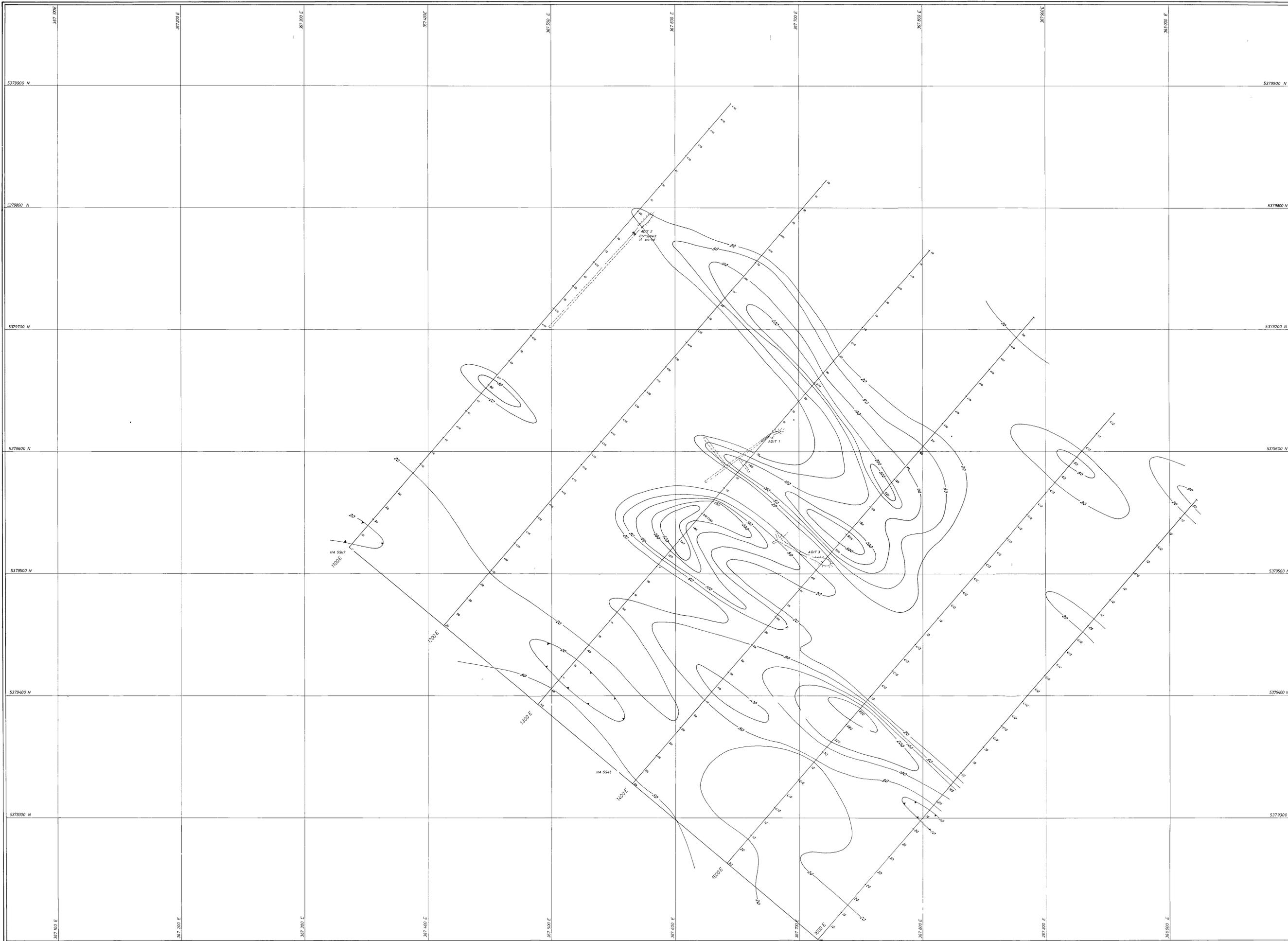
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[Symbol: grid lines and pegs]	Grid lines and pegs
[Symbol: HEC survey points]	HEC survey points
[Symbol: Adit and dump]	Adit and dump



083025  
5 cm

RENISON LIMITED	
<b>E.L. 17/77 WILSON RIVER AREA</b>	
<b>MT MERTON MINE GRID</b>	
<b>SOIL GEOCHEMISTRY - Cu</b>	
GEOLOGIST <i>K Wells</i>	SCALE 1:1000 METRES
DRAUGHTSMAN <i>J Matthews</i>	
DATE <i>19-2-79</i>	
REVISIONS	DRAWING No
<i>April 1980 by AFS</i>	<b>MH 203</b>



LEGEND

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- 100 - 200 ppm
- 50 - 100 ppm
- 20 - 50 ppm
- 20 ppm

KEY

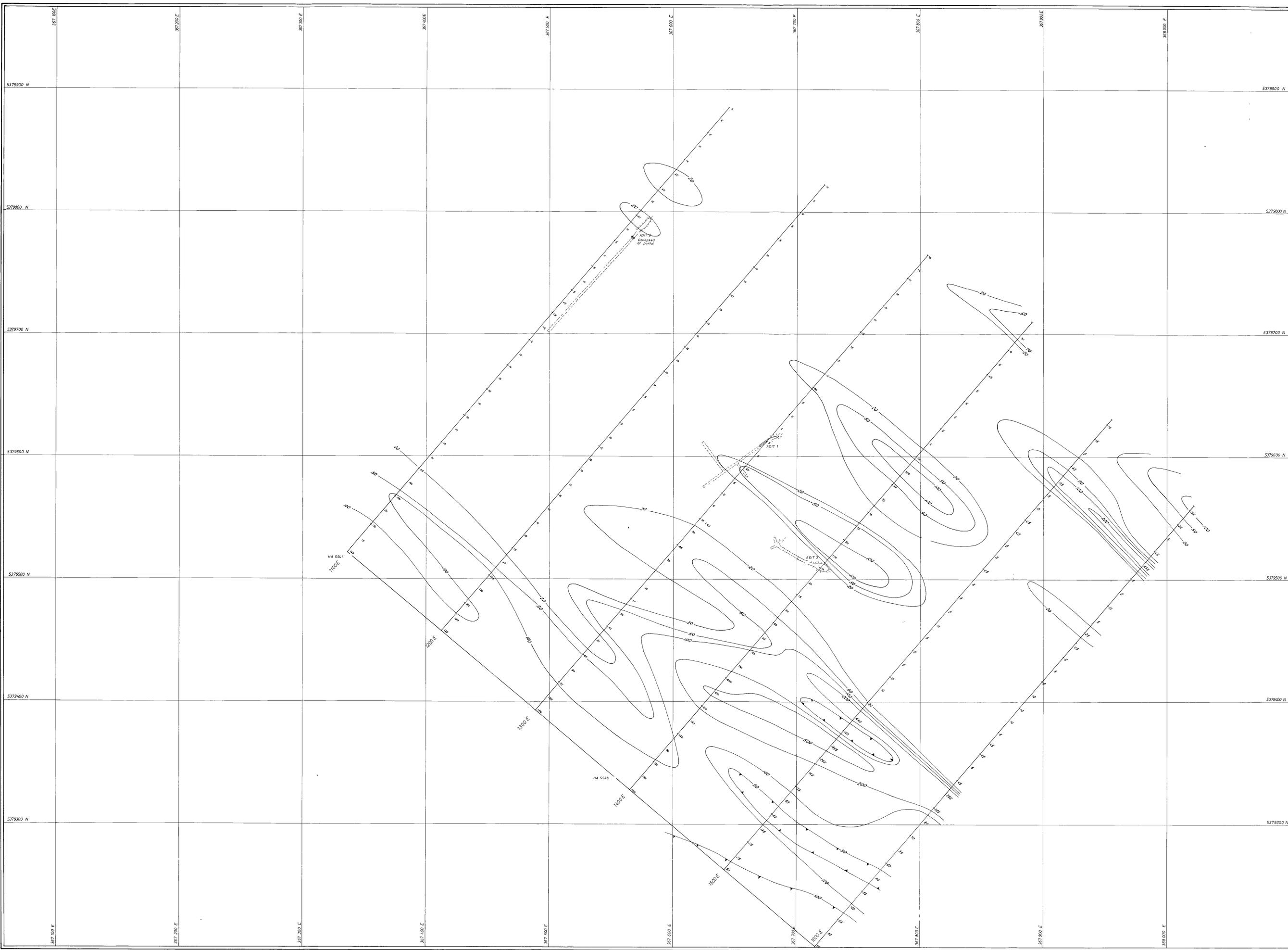
- Grid lines and pegs
- HEC survey points
- Adit and dump



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<b>E L 17/77 WILSON RIVER AREA</b>	
<b>MT MERTON MINE GRID</b>	
<b>SOIL GEOCHEMISTRY - Pb</b>	
GEOLOGIST <i>K Wells</i>	SCALE 1:1000 METRES
DRAUGHTSMAN <i>J Matthews</i>	
DATE <i>12 - 12 - 79</i>	
REVISIONS <i>April 1982 by ASB</i>	DRAWING No <b>M/H 204</b>

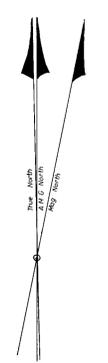


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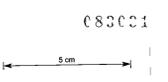
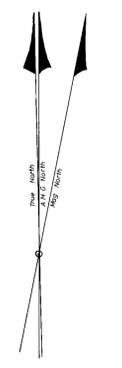
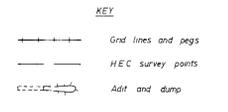
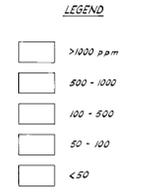
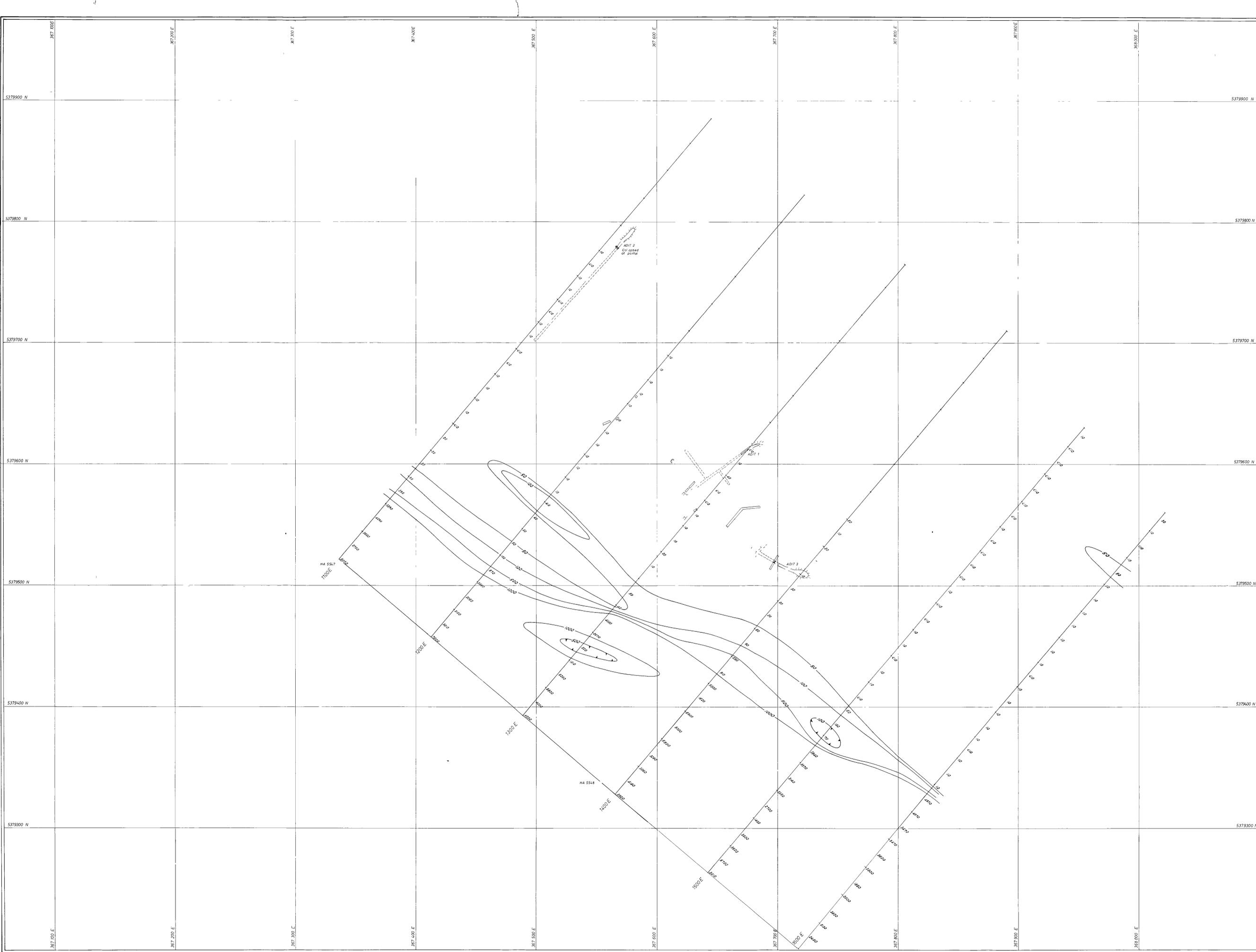
[Shaded box]	> 500 ppm
[Shaded box]	200 - 500 ppm
[Shaded box]	100 - 200 ppm
[Shaded box]	50 - 100 ppm
[Shaded box]	20 - 50 ppm
[Shaded box]	< 20 ppm

**KEY**

[Grid lines and pegs symbol]	Grid lines and pegs
[HEC survey points symbol]	HEC survey points
[Adit and dump symbol]	Adit and dump

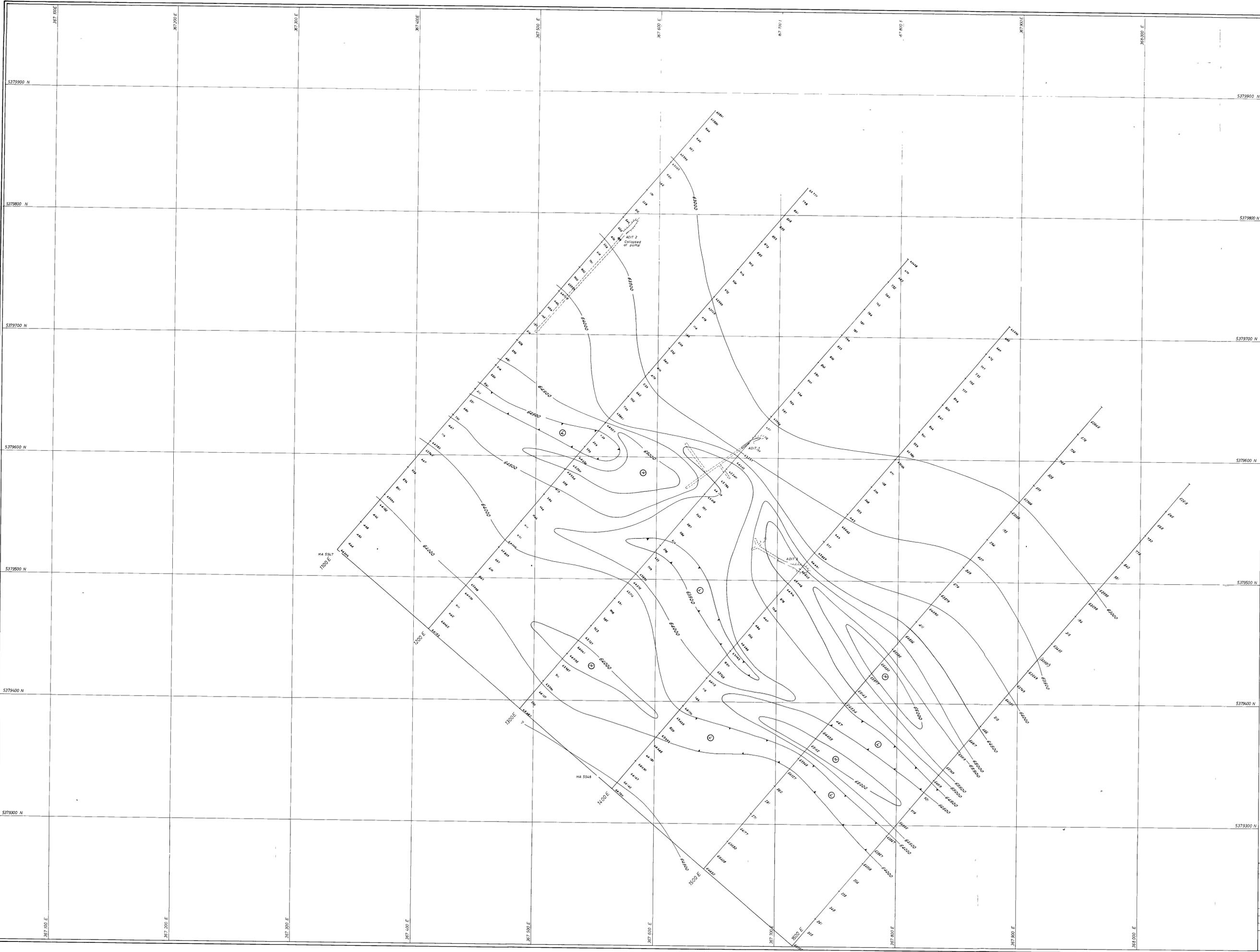


RENISON LIMITED	
<b>E.L. 17/77 WILSON RIVER AREA</b>	
<b>MT MERTON MINE GRID</b>	
<b>SOIL GEOCHEMISTRY - Zn</b>	
GEOLOGIST	K. Wells
DRAUGHTSMAN	J. Matthews
DATE	19 - 12 - 79
REVISIONS	April 1980 by AFR
SCALE 1:1000 METRES	
DRAWING No. MH 205	

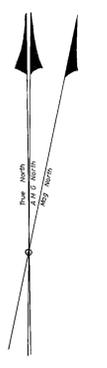


RENISON LIMITED  
**E L 17/77 WILSON RIVER AREA**  
**MT MERTON MINE GRID**  
**SOIL GEOCHEMISTRY - Ni**

GEOLOGIST	A.P.	SCALE	1:1000 METRES
DRAUGHTSMAN	T.P.S.	DATE	April 1982
REVISIONS		DRAWING No.	M H 205



- LEGEND**
- >65000
  - 64500 - 65000
  - 64000 - 64500
  - 63500 - 64000
  - 63000 - 63500
  - <63000
  - High
  - Low
- KEY**
- Grid lines and pegs
  - HEC survey points
  - Adit and dump

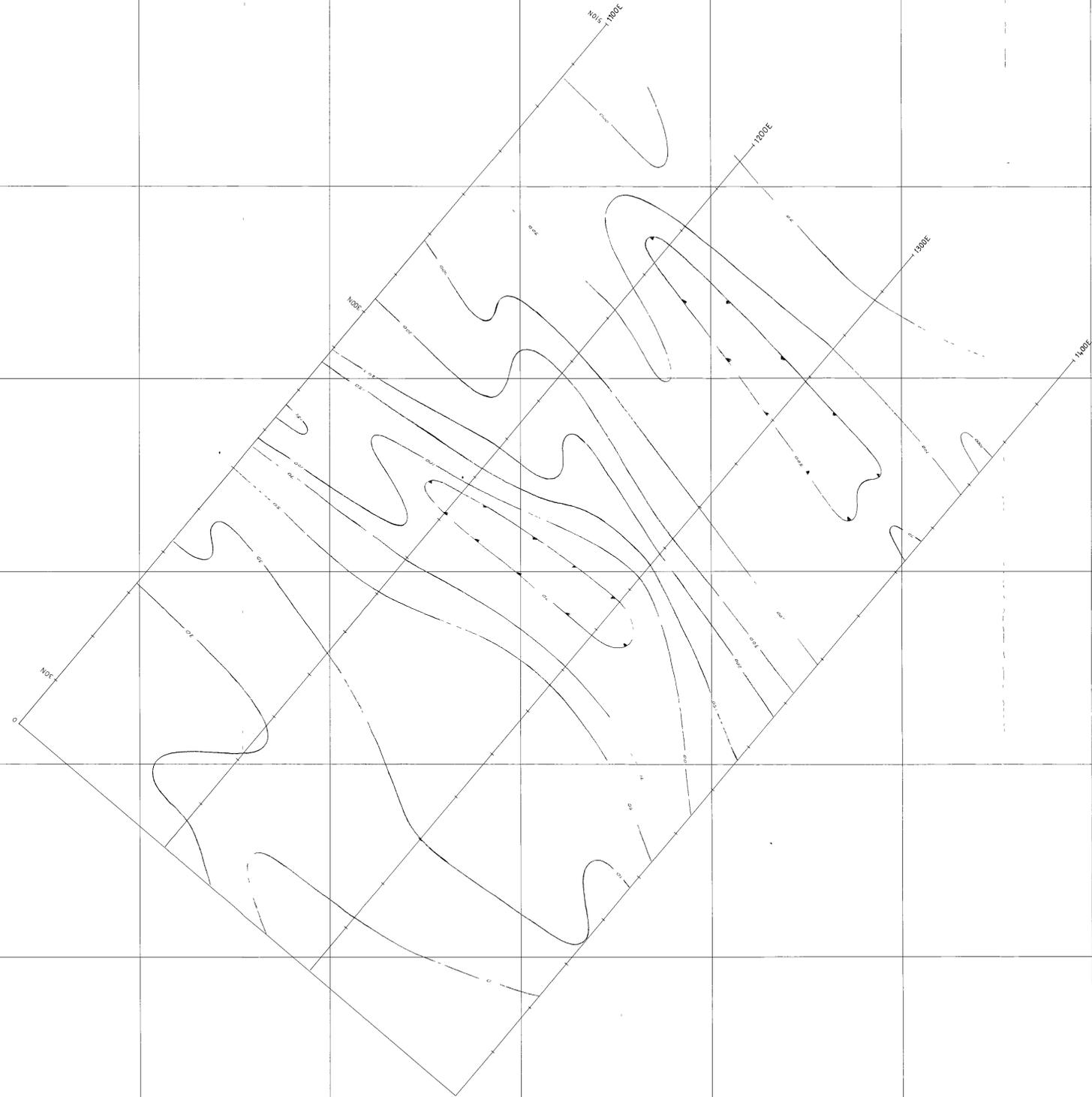


Magnetics: Proton Magnetometer Model G 816  
 Contractors: Hutcheon Brothers Ltd 1979 - 24/11/79 March 1980  
 Base Station: 2 kms south east of Mt Merton survey peg near  
 glacial erratic (down Congi north side of HEC road)  
 Base Station Value: 62625.9  
 Contour Interval: 500'

68C032



RENISON LIMITED	
<b>E L 17/77 WILSON RIVER AREA</b>	
<b>MT MERTON MINE GRID</b>	
<b>MAGNETICS (PROTON)</b>	
GEOLOGIST	K. White
DRAUGHTSMAN	J. Matthews
DATE	14.12.79
REVISIONS	April 1980 by AFR
SCALE	1:1000 METRES
DRAWING No	MH 309



GRADIENT ARRAY  
EIP SURVEY

RESISTIVITY  
CONTOUR PLAN

SURVEYED & COMPILED BY  
S C I N T R E X

November 1979

Job No YAS 074 A

083033

RENISON LIMITED

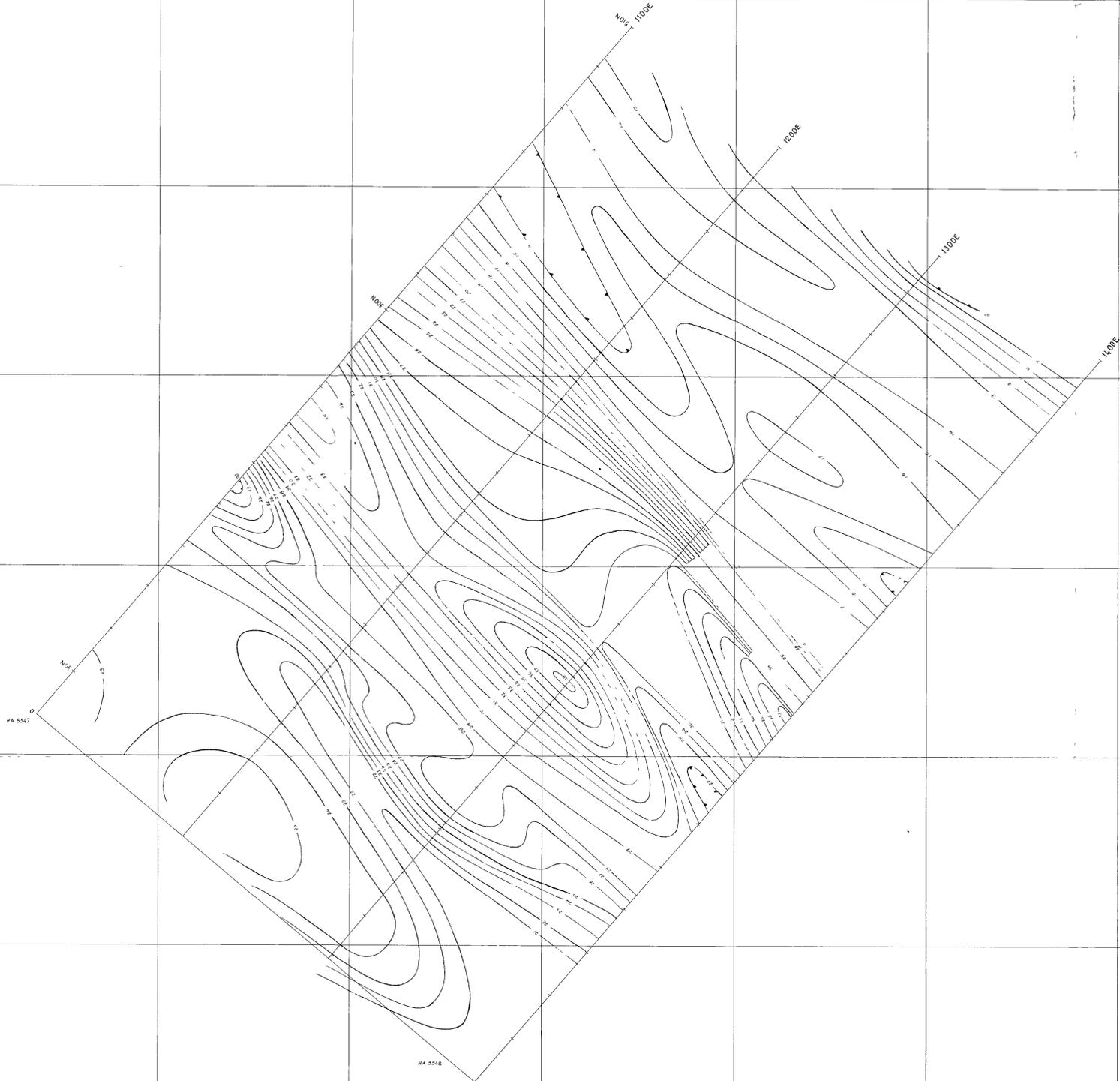
E.L. 17/77 WILSON RIVER AREA  
MT MERTON MINE GRID

SCALE 1:1000 METRES



5 cm

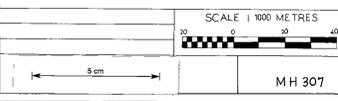
MH 308



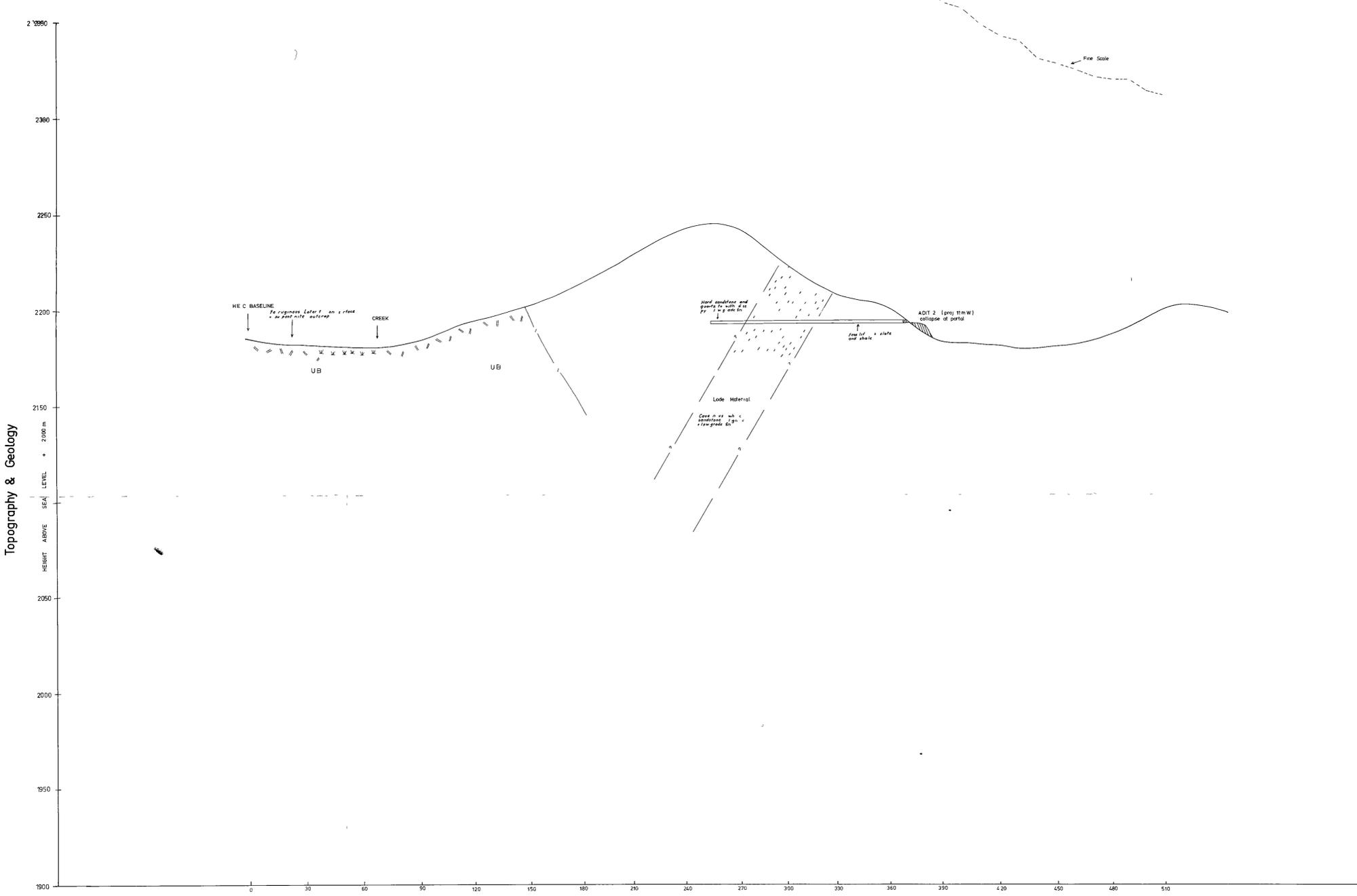
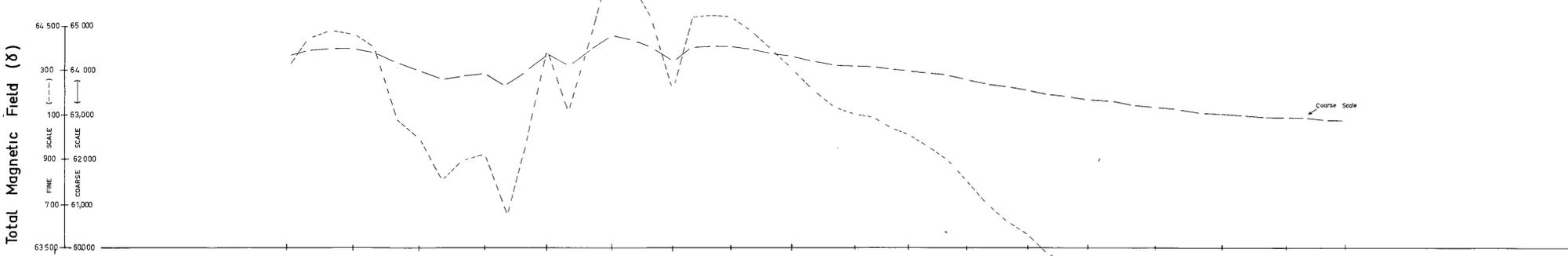
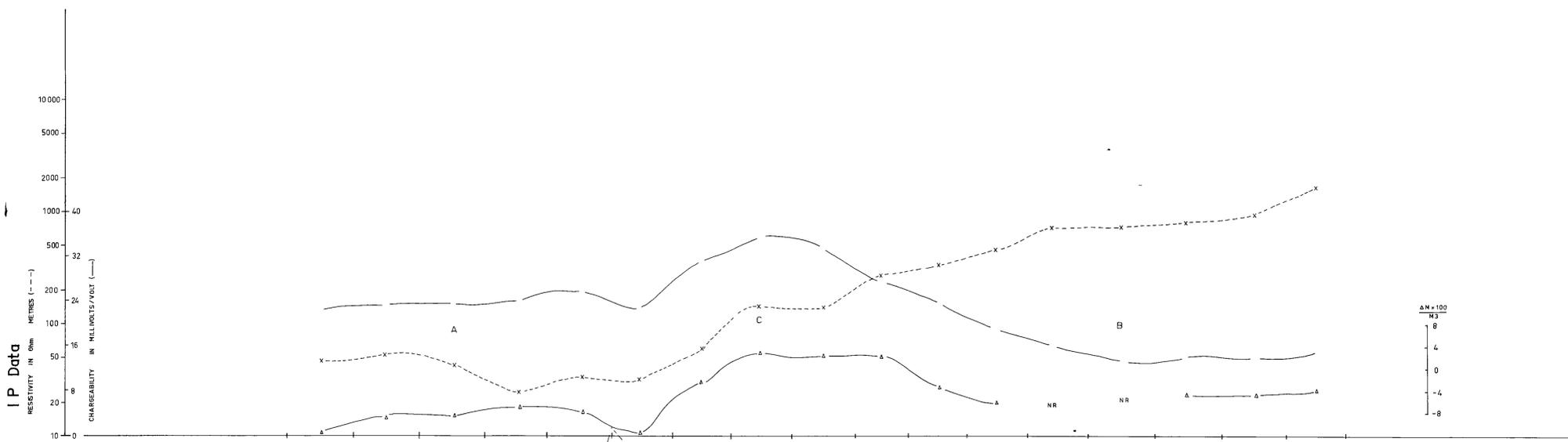
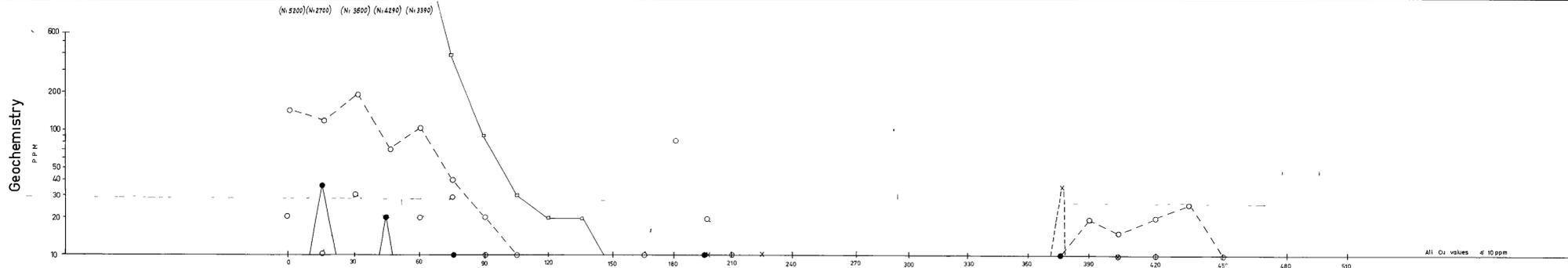
GRADIENT ARRAY  
EIP SURVEY  
CHARGEABILITY  
CONTOUR PLAN  
SURVEYED & COMPILED BY  
SCINTREX  
November 879  
Job # TAS 075-A

083021

RENISON LIMITED  
E.L. 17/77 WILSON RIVER AREA  
MT MERTON MINE GRID



MH 307



083035

RENISON LIMITED

E L 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1100m E

GEOLOGIST R Schellekens  
DRAUGHTSMAN J Matthews  
DATE Oct 1979

SCALE 1:1000 METRES

REVISIONS  
1/2 geochemistry data added  
Apr 1980 by JFR

DRAWING No  
M/H 301

IP

CHARGEABILITY

RESISTIVITY

MAGNETICS

5000  $\delta$  SCALE

1000  $\delta$  SCALE

GEOCHEMISTRY

Sn

Cu

Pb

Zn

As

Ni

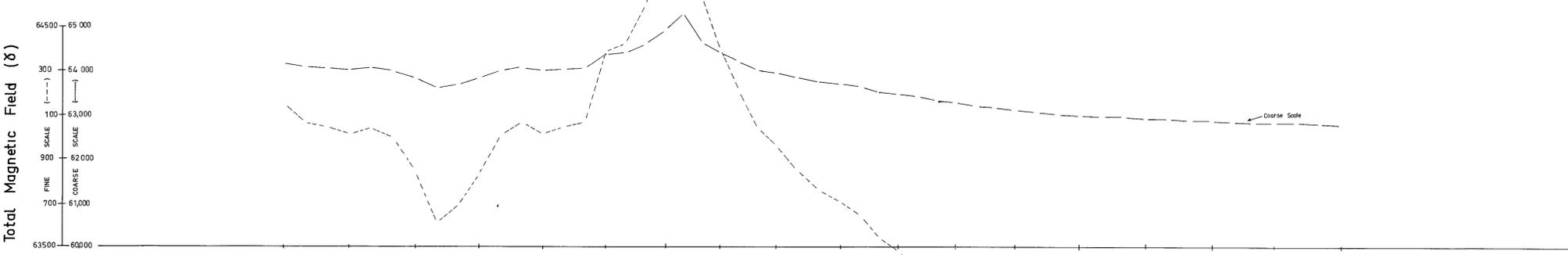
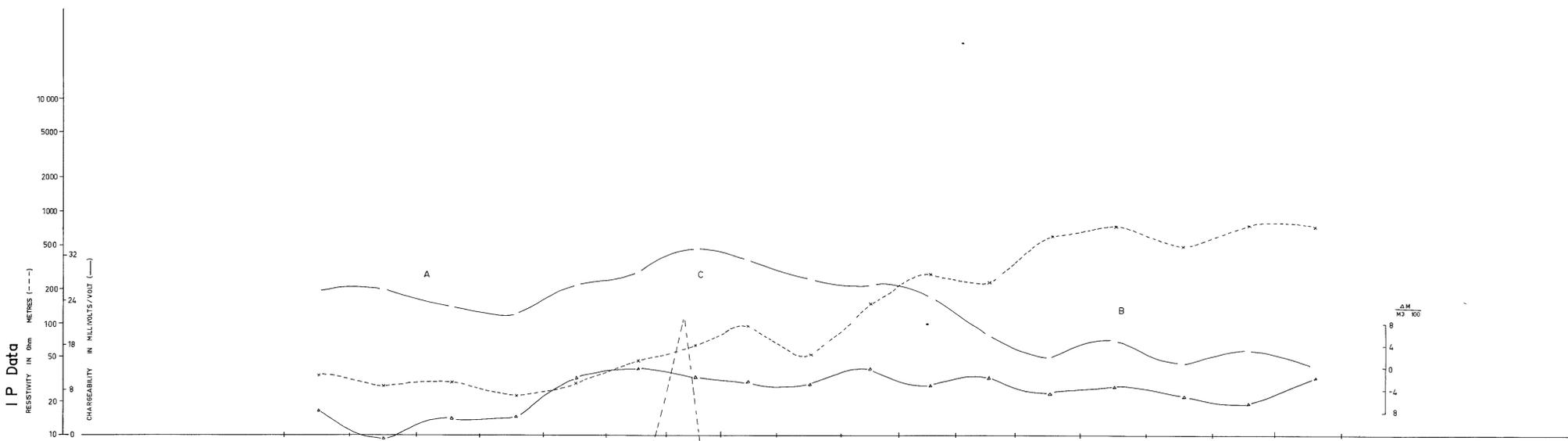
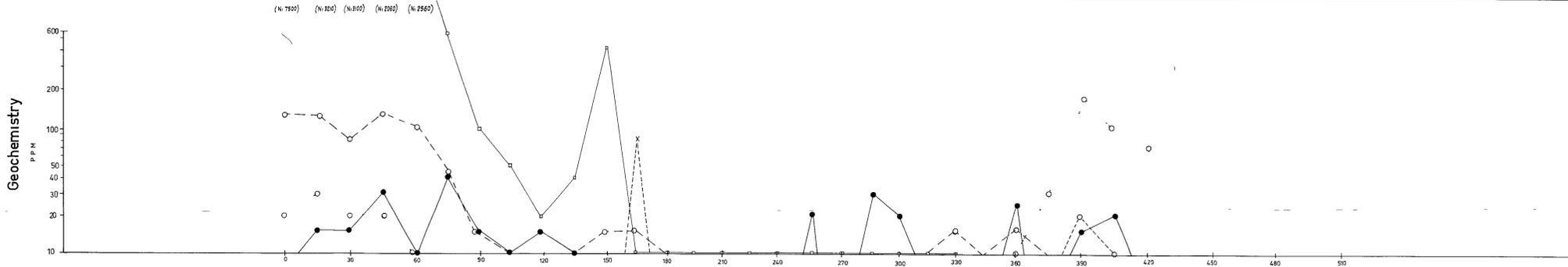
Legend

Swamp, transported alluvium?

Quartzite, sandstone minor siltstone shales

Ultrabasic rocks massive serpentinite

Mineralised hangon?



083036

RENISON LIMITED

E L 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1200mE

GEOLOGIST R Schellekens  
DRAUGHTSMAN J Matthews  
DATE Oct 1979

SCALE 1:1000 METRES

REVISIONS  
I.P. geochemistry data added April 1980 by A.F.R.

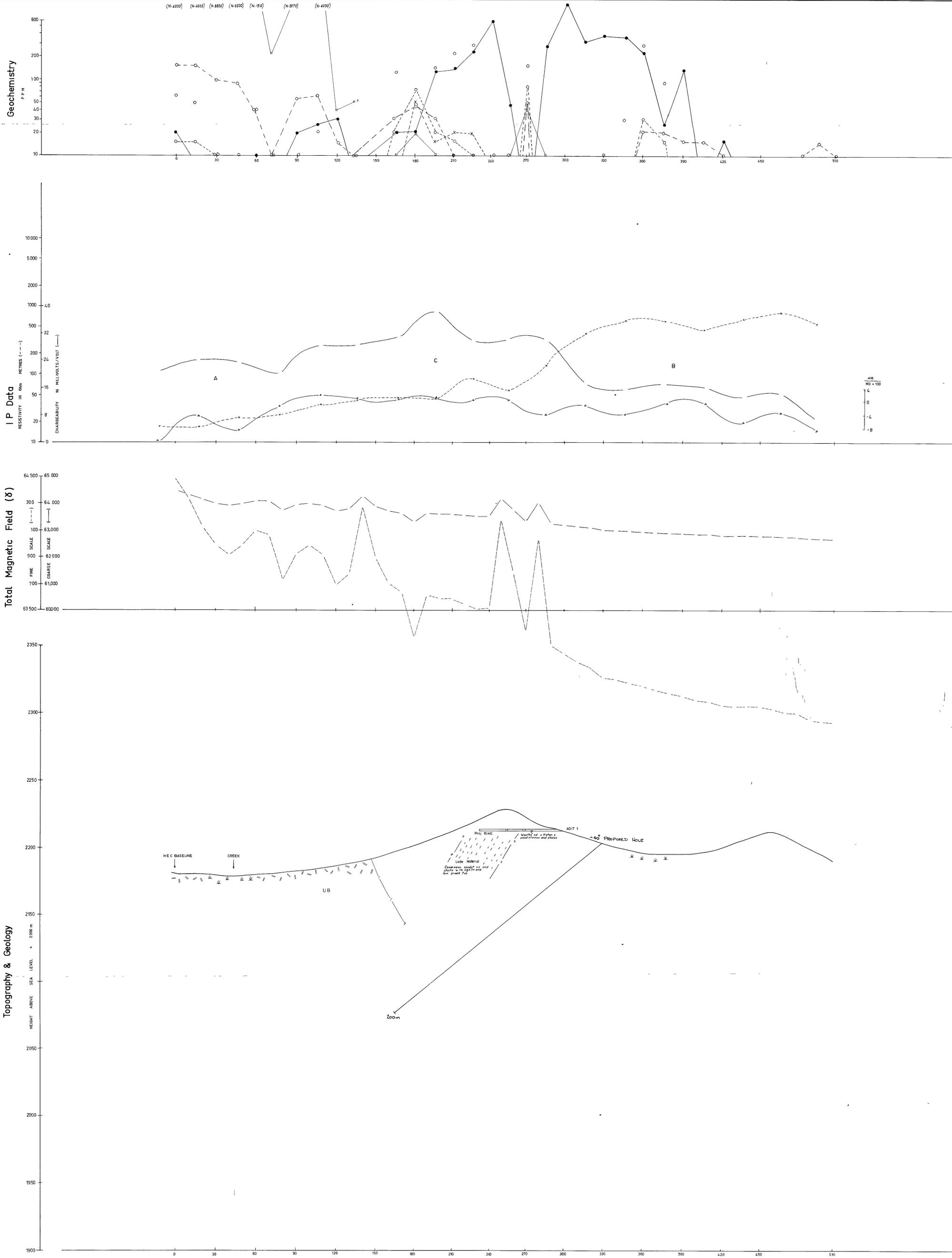
DRAWING No. MH 302

**IP**  
CHARGEABILITY  
RESISTIVITY

**MAGNETICS**  
5000  $\gamma$  SCALE  
1000  $\gamma$  SCALE

**GEOCHEMISTRY**  
● Sn  
○ Cu  
○ Pb  
○ Zn  
x As  
○ Ni

**Legend**  
[Symbol] Swamp, transported alluvium?  
[Symbol] Quartzite, sandstone, minor siltstones shales  
[Symbol] Ultrabasic rocks massive serpentinite  
[Symbol] Mineralized horizon?



083037

REXON LIMITED

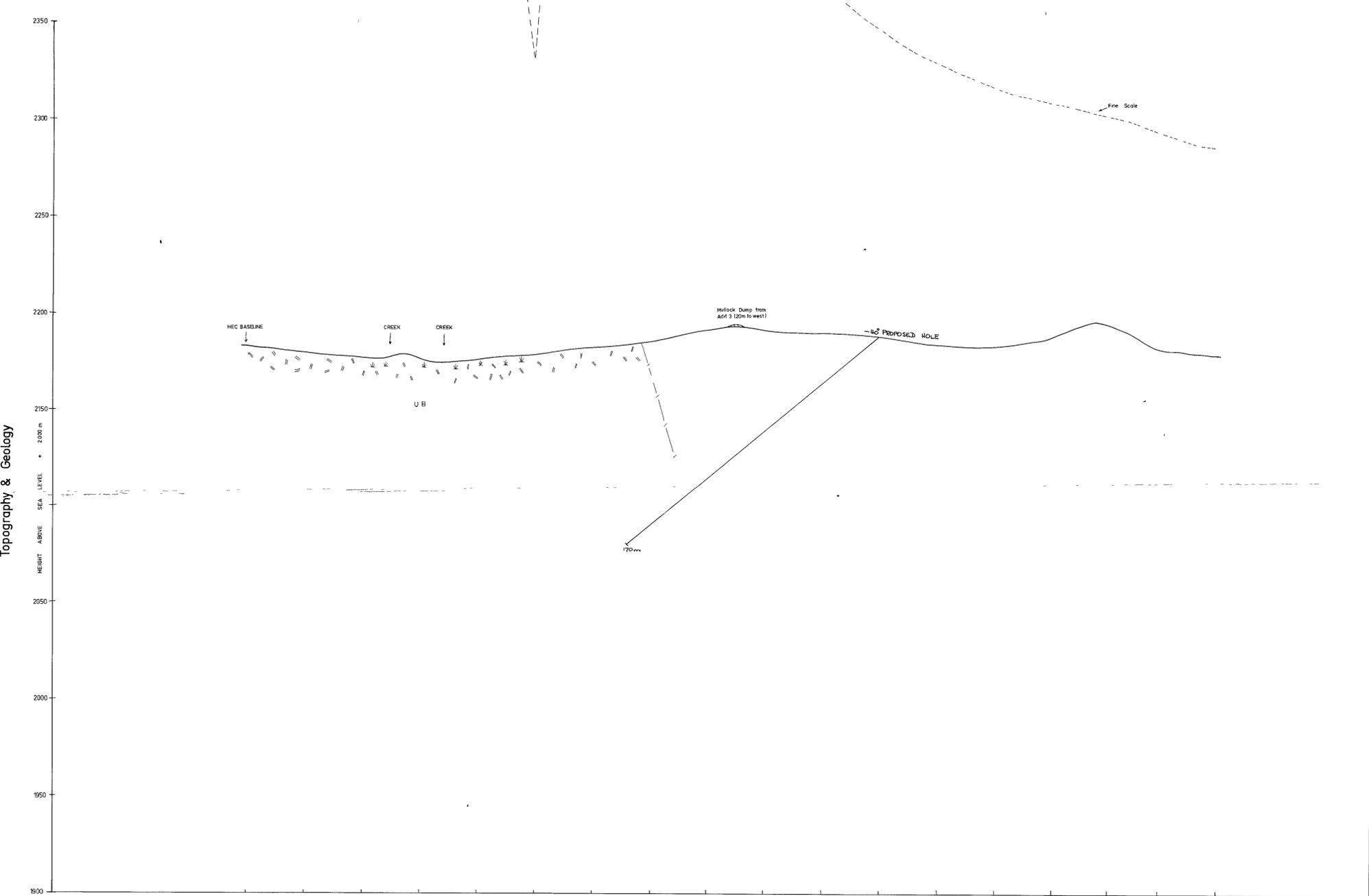
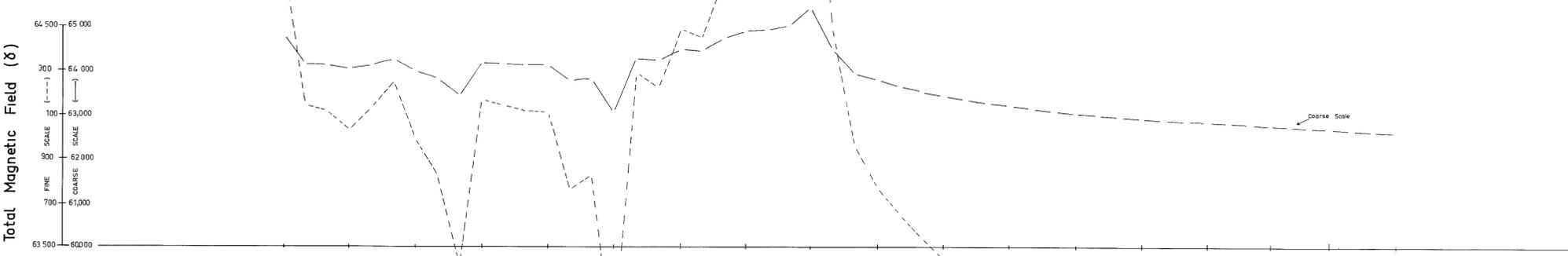
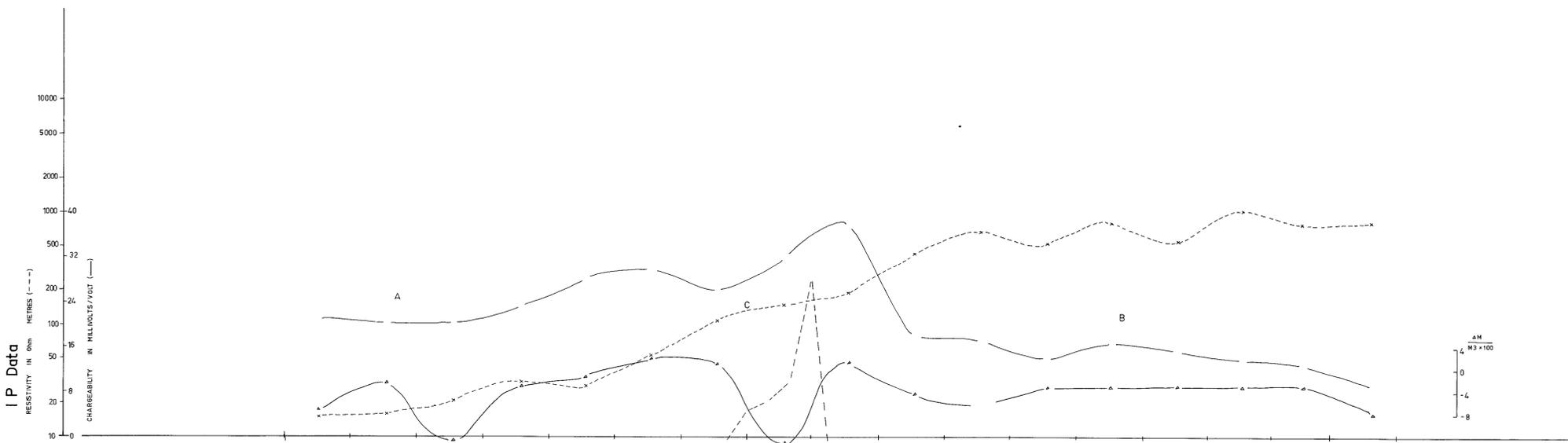
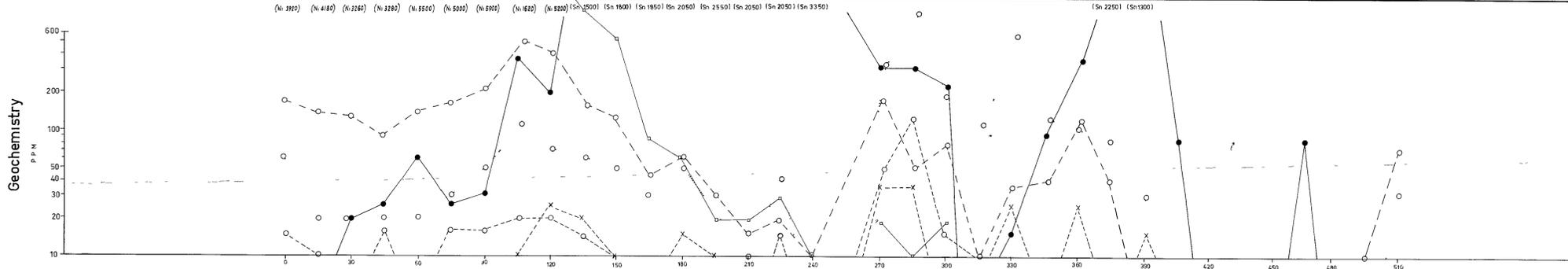
E L 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1300mE

GEOLOGIST R Schellekens	SCALE 1 1000 METRES
DRAUGHTSMAN J Matthews	20 0 20 40
DATE Oct 1979	0 20 40
REVISIONS <i>IP geochemistry data added April 1980 by JFR</i>	DRAWING No MH 303

- |  |   |  |
|--|---|--|
| <p><b>IP</b></p> <p>CHARGEABILITY</p> <p>RESISTIVITY</p> | <p><b>MAGNETICS</b></p> <p>5000 <math>\delta</math> SCALE</p> <p>1000 <math>\delta</math> SCALE</p> | <p><b>GEOCHEMISTRY</b></p> <p>● Sn</p> <p>○ Cu</p> <p>○ Pb</p> <p>○ Zn</p> <p>x As</p> <p>○ Ni</p> |
|--|---|--|

- Legend**
- Swamp, transported alluvium?
  - Quartzite, sandstone, minor siltstones shales
  - Ultrabasic rocks massive serpentinite
  - Mineralized horizon?

FIGURE 6(c) 4111 80-1440



08302S

RENISON LIMITED

E L 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1400mE

GEOLOGIST R Schellekens SCALE 1:1000 METRES  
DRAUGHTSMAN J Matthews  
DATE Oct 1979

REVISIONS  
I.P. geochemistry data added  
April 1982 by J.M.S.

DRAWING No  
MH 304

**I.P.**

CHARGEABILITY

RESISTIVITY

**MAGNETICS**

5000  $\delta$  SCALE

1000  $\delta$  SCALE

**GEOCHEMISTRY**

● Sn  
○ Cu  
○ Pb  
○ Zn  
x As  
○ Ni

**Legend**

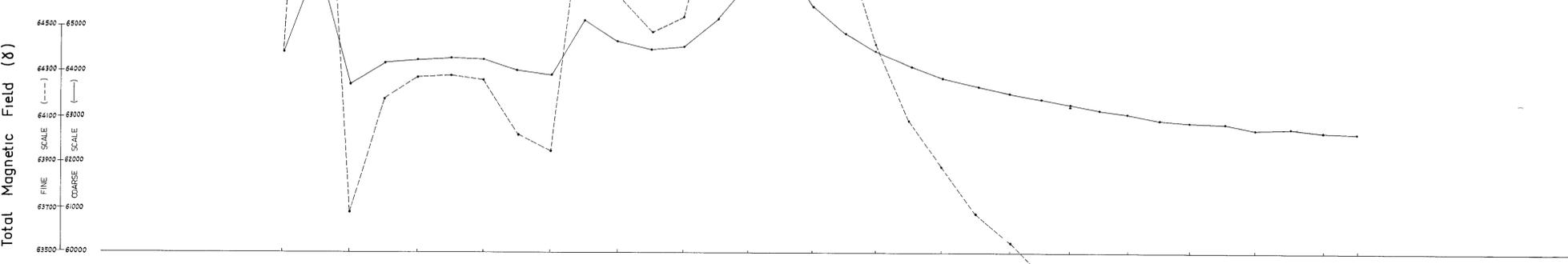
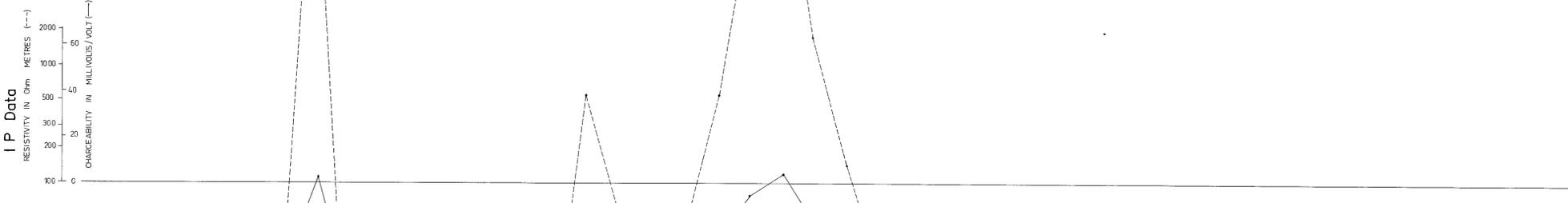
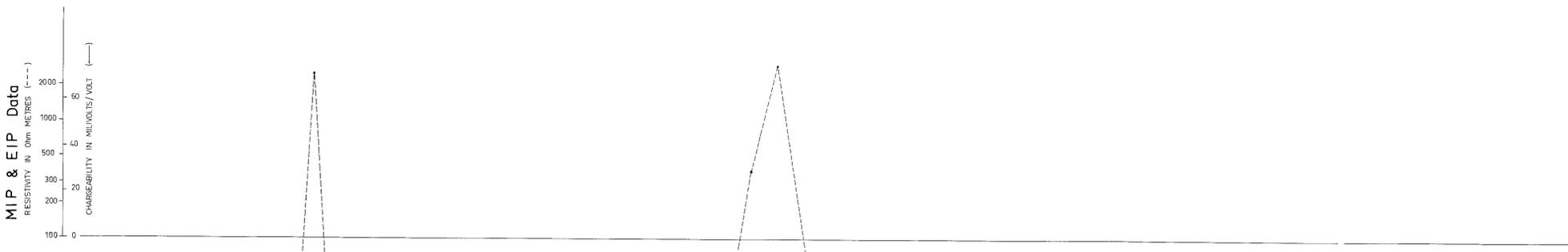
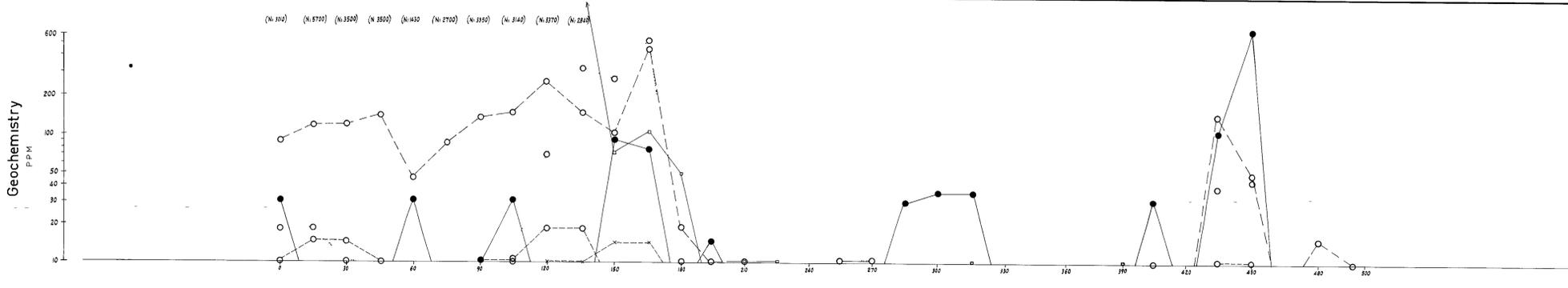
Swamp, transported alluvium?

Quartzite, sandstone minor siltstones shales

Ultrabasic rocks massive serpentinite

Mineralized horizon?

FIGURE 6(a) 4112



083039

RENISON LIMITED

EL 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1500m E

GEOLOGIST APR SCALE 1:1000 METRES  
DRAUGHTSMAN T.S.D.S.  
DATE April 1980

REVISIONS

DRAWING No. MH 305

MAGNETICS

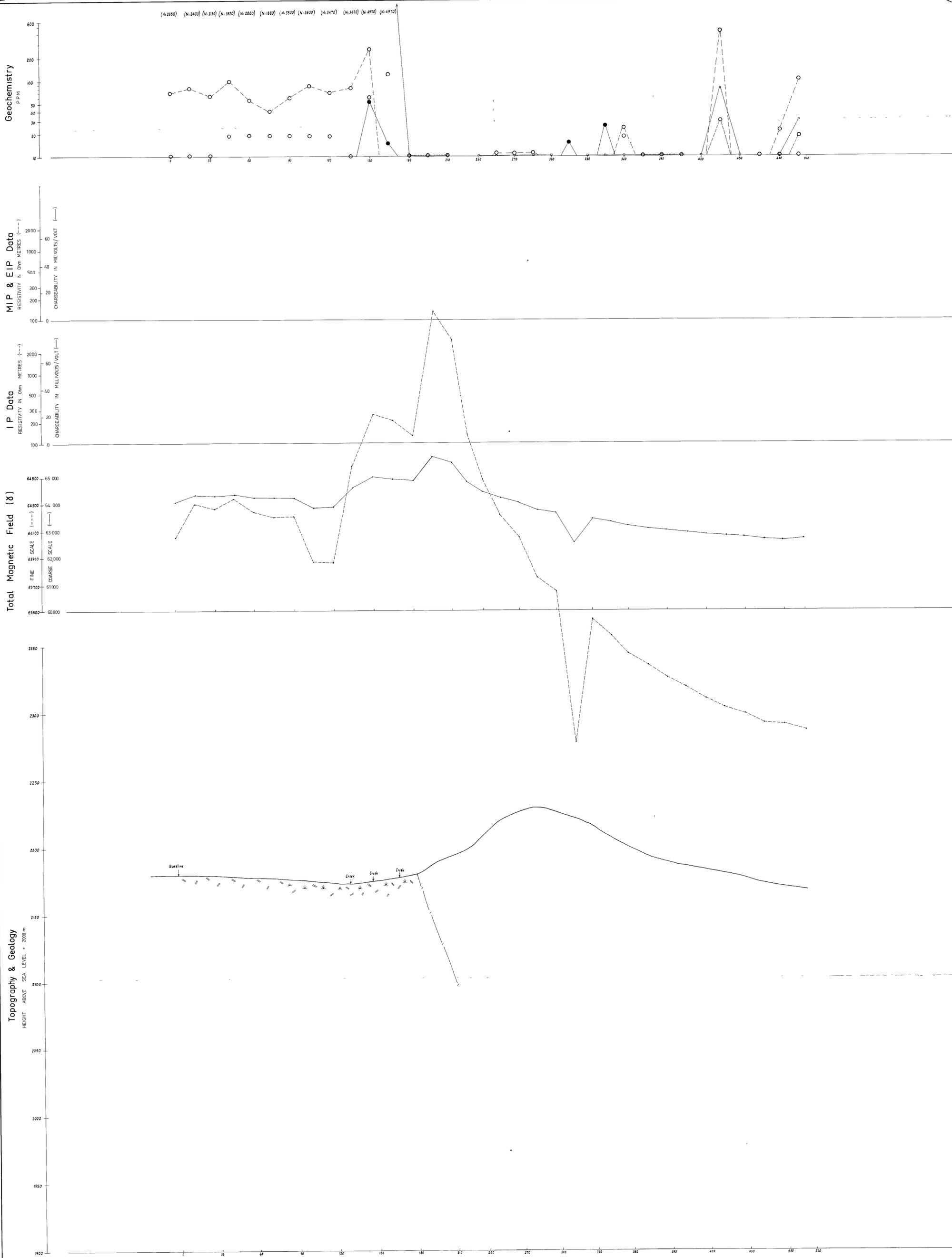
- 5000 f Scale
- 1000 f Scale

SOIL GEOCHEMISTRY

- Sn
- Cu
- Pb
- Zn
- As
- Ni

Legend

- Swamp, transported alluvium?
- Quartzite sandstone, minor siltstone shales
- Ultrabasic rocks massive serpentinite
- Mineralized horizon?



083040

RENISON LIMITED

EL 17/77 WILSON RIVER AREA  
MT MERTON GRID  
LINE Mt M 1600mE

GEOLOGIST JFR SCALE 1:1000 METRES  
DRAUGHTSMAN TOS  
DATE April 1980  
REVISIONS

DRAWING No MH 306

MAGNETICS  
— 5000  $\times$  Scale  
--- 1000  $\times$  Scale

SOIL GEOCHEMISTRY  
● Sn  
○ Cu  
○ Pb  
○ Zn  
○ As  
○ Ni

Legend  
 [Swamp, transported alluvium?]  
 [Quartzite, sandstone, minor siltstones shales]  
 [Ultrabasic rocks massive serpentinite]  
 [Mineralised horizon?]

FIGURE 6(f) 4114 85-1440