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RENISON LIMITED

E.L. 42/71

RENISON BELL AREA

1976/77

ANNUAL REPORT

MICROFILMED

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GEOLOGIST

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1. SUMMARY

During 1976-77 \$40,247 were spent on exploration on E.L. 42/71. This brings to \$181,127, the amount spent since 1971.

The exploration effort concentrated on two grids:

Kapi Grid: a grid of 9.5 line kilometres lying in the Kapi Creek Valley South of Pine Hill. Proton ground magnetics, electrical induced polarization and geological mapping were completed over the grid. Several encouraging anomalies were outlined along the Kapi Fault.

Argent Grid: 10.8 line kilometres of intermediate lines were cut. The work programme concentrated on soil sampling the entire grid and construction of an access road into the central area of the grid.

\$80,000 has been budgetted for exploration in 1977-78 which will include:

- i) 1 diamond drill hole on the Kapi Grid.
- ii) 2 diamond drill holes on the Argent Grid.
- iii) Additional road construction on the Argent Grid area.
- iv) Additional proton ground magnetics and geological mapping on intermediate lines on the Argent Grid.

2. ARGENT GRID

2.1. Introduction

The Argent Grid was cut in 1975 to test for extensions of the Renison Mine Sequence with the object of locating Renison type stanniferous deposits.

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The original grid contained several lines in excess of 3000m long which made access very difficult. A road was therefore constructed into the central grid area, approximately following the "Mine Sequence Equivalent". This enabled intermediate lines to be cut and a soil sampling programme to be undertaken.

The intermediate lines total 10.8 line kilometres and were cut with approximately 200m spacing to adjacent lines. Line 15 was extended 2000m west to act as a base line for the Dunkley Grid.

2.2. Previous Work:

The Argent Grid was cut in 1975 using a 400m line spacing. Proton ground magnetics, I.P. and geological mapping were completed over the grid. The results of these surveys indicated the existence of a belt of black carbonaceous shale with interbedded pyroclastics and dolomites lying below the Crimson Creek Formation and above the Success Creek Group. This unit was termed the Lower Crimson Creek Formation and was thought to be stratigraphically equivalent to the Renison Mine Sequence.

Work prior to 1975 in the Argent Grid area is adequately described in Kelleher J.P. 1976 (Bib 17), and previous Annual Reports for years (1972-75) (Bib, 22, 23, 26).

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2.3. Geology:2.3.1. Stratigraphy

The interpretation of the stratigraphy is basically the same as that described in the 1975-76 Annual Report (Bib, 17 P5-9).

The oldest rocks consist of the U Proterozoic to L Cambrian Success Creek Group; a series of massive hard grey quartzite and thinly laminated black shales and siltstones, with occasional dolomite horizons near the top.

Overlying this unit is the Lower to Middle Cambrian Lower Crimson Creek Formation ("Mine Sequence Equivalent"). These rocks are very well exposed along the new access road into the central area of the grid. The unit is dominated by carbonaceous black shales, highly pyritic in places. Minor tuff breccias and pyroclastics are also exposed along the road. The high carbon and pyrite content of these rocks probably explains many of the numerous I.P. anomalies outlined in 1975-76 (Bib 16).

Over the last 200m of the access road, red and grey oolitic cherts and reddish brown clays are well exposed. These rocks are very similar in appearance to the dolomite - Red Rock - dolomite sequence exposed in the mine area.

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Overlying the Mine Sequence Equivalent is the Upper Crimson Creek Formation, a sequence consisting of 2000m of intermediate to basic tuffs, pyroclastics and argillaceous grey-wackes and fine grained siltstones. The rocks are well exposed over the southern part of the grid.

Quaternary gravels and alluvium are mainly restricted to low lying flat areas near the Argent Dam, in the Cuni area and along the northern end of the base line. Pleistocene fluvioglacial cover an area east of Dunkley Town to the Pieman River.

2.3.2. Structural Setting

The rocks exposed along the new access road help confirm the complex structural interpretation outlined in the 1975-76 Annual Report (Bib 17).

In summary the rocks in the Renison Bell area have been anticlinally folded between Zeehan and Huskisson Synclines resulting in a broad south plunging anticlinorium forming along the eastern margin of the Argent Grid. The Renison mine sequence occurs on the eastern flank of this anticlinorium with the Mine Sequence Equivalent occurring on the western flank over the Argent Grid.

A further south plunging syncline is developed on the western margin of this main anticlinorium and is thought to be truncated to the north by a NE-SW fault. This fault is exposed on the access road between lines 9 and 10.

2.4. Soil Sampling Survey

From November 1976 to February 1977, approximately 41 line kilometres were sampled at 25m intervals over the Argent Grid. All samples were collected with a hand auger at depths up to 90cm within the Bor C horizons, whenever possible. A description of each sample and its depth was recorded and filed.

The results of the programme are recorded on the line profiles (Map 3) with individual elements contoured on 1:5000 scale plans (Maps 6-11). A stacked profile of the As values was also constructed (Map 8).

2.5. Proton Ground Magnetism Survey

A proton magnetic survey commenced on the intermediate lines after the soil sampling programme was completed in February. However, due to a combination of bad weather and demands on manpower elsewhere, this survey was not completed. Completion of this survey will be one of the first priorities during the coming summer.

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A geometrics proton Magnetometer Model G816, giving a sensitivity of one gamma was used. All readings were taken at 10m or 12.5m intervals. Diurnal variations were usually less than 20 gammas and in most cases zero. Refer to the line profiles (Map 3) and Maps 4-5 for results of the survey to date.

3. KAPI GRID3.1. Introduction

The Kapi Grid was cut during July and August 1976 over the Kapi Fault Zone. 15 lines were cut at 200m intervals and line M15900N was extended, totalling 9.5 line kilometres in all. The grid extends from the licence boundary in the south to the southern slopes of Pine Hill in the north. Work undertaken over the grid included proton ground magnetics, geological mapping, soil sampling and induced polarization.

3.2. Previous Work

The Dundas - Kapi area was first mapped in detail by Elliston J. (1954) (Bib 9) and later by Blissett and Blissett & Gulline in 1961 and 1962 (Bib 1, 2). Earlier, Taylor, working for the Mines Department, reported on several of the mine workings in the area

Rabenach completed a Ph.D. thesis on the Serpentine Hill Complex in 1967 and later published a paper summarizing his results (Bib 24).

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In 1958 the Kapi Fault was drilled by the Mines Department to test for Razorback-type mineralization, but only minor pyrite and pyrrhotite was found. A log of the holes, by Renison Ltd. geologists, occurs in the Appendix.

In 1968 Renison Limited cut the Commonwealth Hill Grid, and the Razorback Grid (Bib 11).

Following the regional surveys over these grids, several areas of interest were outlined, one of which was the Kapi area. A small grid was cut over the Kapi Fault in the vicinity of the North East Dundas Tram during 1969-70. A small Sn anomaly was reported, but no further work appears to have been done over this grid.

Renison Limited commenced a diamond drilling programme in 1970 on S.P.L. 27 and later reduced and amalgamated the licence area into E.L. 42/71 in 1971.

In 1972 Brophy reported on the Asbestos Potential of the Razorback and Serpentine Hill Complexes (Bib 3).

3.3. Topography

The Kapi grid is located in the Kapi Creek Valley which drains north from Black Hill towards Commonwealth Hill. There is a general reduction in elevation from south to north over the grid.

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The southern area mainly consists of thick Myrtle forest intergrown with Horizontal scrub. Near the North East Dundas Tram, ultrabasics outcrop and the vegetation changes to button grass and ti-tree with occasional Eucalyptus trees. South of line 2100N the grid lies in a low swampy area covered in button grass and bauera.

3.4. Geology

The geology over the grid has already been outlined in previous Renison Reports 1967-1970 (Bib 11, 20). For this reason and because the area was explored during the Winter when creeks are at their highest the work programme mainly concentrated on geophysics and geochemical soil sampling.

The geology over the grid appears to be complex and will only be adequately understood when the area can be mapped on 1:2000 scale and some drill hole information is available.

Map 12 outlines the present known geology.

This map is a compilation of previous work together with information obtained during 1976-77.

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3.4.1. Stratigraphy

The rock types over the grid can be divided into the following stratigraphic column.

Recent		Alluvium
Devonian	Pine Hill Granite	Granite, quartz porphyry
U. Cambrian	Dundas Group	Black shale, Conglomerate and grit. Shales, tuffaceous siltstones and siltstones.
M-U Cambrian	Serpentine Hill Complex	Spilites, metadolerites, gabbro & tuff. Ultramafics.
L-Cambrian	Crimson Creek Fm.	Pyroclastics, sediments and greywackes.

The Crimson Creek Formation occurs only in the north on line 15900N between the Serpentine Hill ultramafics and the Pine Hill granite. It consists mainly of highly weathered pyroclastics and greywackes which have been hornfelsed in contact with the granite.

The Serpentine Hill Complex consists of ultramafics (gabbro, pyroxenite) which have been serpentised, and a sequence of spilites, metadolerites, gabbros and tuffs which apparently overlie the ultramafics.

The ultramafics outcrop in the north while the spilites etc., occupy the central western area of the grid.

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The Dundas Group consists of a series of interbedded shales, siltstones, conglomerates and grit bands. The lowest stratigraphic unit in the sequence consists of dark carbonaceous shales and siltstones, slightly tuffaceous in a few localities. They are well exposed along the North East Dundas Tram where they dip steeply east.

The conglomerates are composed of sub-rounded to rounded pebbles of quartz, chert and shale in a fine siliceous groundmass. They are often hematitic. The best exposure on the grid occurs on the walking track between lines 700N and 500N. A small lense of conglomerate and grit occurs along the Kapi Creek between lines 1300N and 2100N. This appears to be the same unit described above, although it may be a lense within the lowermost shale and siltstone unit (See Map 12).

The topmost unit consists of black shale and siltstone and is only poorly exposed on line 100N.

On the road near the start of line M15900 a quartz porphyry outcrops. This forms part of the Devonian Pine Hill Granite.

Recent alluvium occupies the lower part of the Kapi Valley between lines 2100N and 2900N. The alluvium is a fine grey-green silt in excess of one metre deep in places. It appears to obscure the Kapi Fault north of line 2300N.

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3.4.2. Structural Setting

The structural relationship between individual rock units within the area studied is difficult to interpret due to the limited size of the grid. Rubenach, 1973, who studied the whole Serpentine Hill area postulates "the Serpentine Hill Complex was emplaced as a thrust slice" on top of the Crimson Creek Formation before deposition of the Dundas Group. Many of the sheared contacts with the Crimson Creek Formation may have formed during this thrusting.

Following the emplacement of the Serpentine Hill Complex and the deposition of the Dundas Group, Devonian Tabberabberan folding and faulting occurred. Folding within the Dundas Group is in a general NE - SW direction. The faults shown on the geology map (Map 12) including the Kapi Fault, appear to be Tabberabberan in age.

The Pine Hill Granite also appears to have been intruded at about this time.

3.4.3. Mineralisation

Of main interest is the series of workings along the Kapi Valley centred on the Kapi Fault. The Fault strikes N-S and can be traced on the surface for about 500m: Geophysical and soil sampling results indicate that it extends over a distance of about 1200m. The Fault is well exposed on the small road leading to the Kapi

Mine between lines 1900N and 1700N. Here it is about 2-3m wide, dips steeply east and consists of brecciated shale and quartz within a network of gossanous sulphides. Pyrite, pyrrhotite, galena and sphalerite are the dominant sulphides. Crocoite is also common in the adits along the creek.

A hole drilled into the fault by the Mines Department in 1958 failed to intersect any major mineralisation. It did however intersect an extensive carbonate zone in contact with basalts and metadolerites. This carbonate could act as a suitable replacement host for massive sulphides similar to the Razorback deposit, (See Appendix for a log of the hole).

3.5. E.I.P. and M.I.P. Survey

Scintrex executed a gradient array electrical induced polarization survey with some magnetic induced polarization detail work over the Kapi grid between 6th and 16th February, 1977.

The survey indicates a north - south strike, with a number of north - east/south-west dislocations being evident. Chargeability, resistivity and magnetics all show extreme variation and distinct boundaries within the grid, thus enabling a good geophysical property map to be constructed which should represent some function of the underlying geology.

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This geophysical data, together with the geology and geochemical data available, has enabled the position of the Kapi Fault to be fairly well defined between lines 1900N and 2500N. (Map 12).

Refer to "A report on an Electrical and Magnetic Induced Polarization Survey over the Kapi Fault, near Renison Bell, West Coast Tasmania on behalf of Renison Ltd., April 1977" by A.W. Howland-Rose, Scintrex Ltd.

3.6. Proton Ground Magnetics Survey

The proton ground magnetics survey was conducted during September and October 1976. The instrument used was a Geometrics Portable Proton Magnetometer Model G816 giving a sensitivity of one gamma. Diurnal variations were less than 20 gammas in most cases. Readings were taken at 10m intervals on a pole approximately 3m above the ground.

Refer to the Kapi Grid line Profiles (Map 22) and Maps 13 & 14 for the results of the survey. The raw data was passed to Scintrex for analysis in conjunction with the I.P. data. The results are summarized on P.14-16 of Howland-Rose A.W., 1977 (Bib 16).

The background varies between 62600 gammas in the south to 62000 gammas in the north. The strike direction is clearly defined as north-south.

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The most significant anomaly occurs as a narrow high of about 1200 to 1600 gammas above background on lines 1900N, 340; 2100N, 270W; 2300N, 290W; 2500, 300W. This feature also coincides with a sharp change in apparent resistivity from over 1500 ohm-metres to the west to about 50 ohm-metres to the east. The chargeability data shows values down to 5 milli-volts/volt over the northern half of this zone.

There appears to be a distinct change in rock-type from east to west across this anomaly, possibly indicating the presence of the Kapi Fault.

3.7. Soil Sampling Survey

Approximately 9.5 line kilometres were sampled at 25m intervals using a hand auger. All samples were taken in the B or C horizon whenever possible. A description of each sample and its depth was recorded and filed.

The results of the programme are recorded on the Kapi Grid line profiles (Map 22) with individual elements contoured on 1:5000 scale (Maps 15-21). A stacked profile on 1:2000 scale of As was constructed (Map 17) and this can be overlain on the proton ground magnetics stacked profile (Map 14).

4. ANOMALIES4.1. Kapi Grid

Two significant anomalies have been outlined. The first appears to be the Kapi Fault which has anomalous Sn, Cu, As, Pb, Zn, proton ground magnetics and I.P. values. The anomaly, centred on lines 1900N, 250W; 2100N, 300; 2300N, 300W; and 2500N, 300W; is well defined on the As, and proton ground magnetics plans (Maps 13 & 16). It is significant that the Kapi Fault appears to pass beneath the alluvium cover north of line 2700N (Map 12).

The second anomaly is centred on line 1700N, 200W where Sn, Cu, As, Pb, Zn, Ni and proton ground magnetic anomalies coincide.

Both anomalies could be tested by a drill hole located on 00W, line 1900N, drilled to the west along the line.

4.2. Argent Grid

The most significant target is centred on line 13,800W, where coincident Sn, As, Pb, Zn, proton ground magnetics and I.P. anomalies occur. In addition, a small sulphide gossan outcrop at 850W on line 13 and several small mine workings have been excavated along the creek which crosses line 13 at 850W. Refer to Geology Map.

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The anomaly appears to be associated with either the dolomites outcropping along the creek or the Argent Fault which outcrops to the south-east along strike.

The numerous geochemical anomalies on lines 21, 19 and 17 will need to be better defined before a specific target can be located.

5. RECOMMENDATIONS

5.1. Argent Grid

- (i) Additional soil sampling should be undertaken in the vicinity of the line 13,800W, to check the anomalous assays already observed.
- (ii) If the anomaly in (i) is confirmed a drill hole of about 400m length should be drilled to test it.
- (iii) Lines 16, 18 and 20 should be cut to enable the anomalies already located on lines 17, 19 and 21 to be better defined.
- (iv) A second drill hole of about 400m should be considered, the location of which to be decided following the results of the surveys on all intermediate lines and the completion of the first hole.

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- (v) Proton ground magnetics and geological mapping should be completed on lines 4, 6 and 14.

- (vi) The access road should be continued north to the Dunkley Tram.

5.2. Kapi Grid

A drill hole of about 400m should be drilled into the coincident Sn, As, Cu, Pb, Zn proton magnetics and I.P. anomaly centred on line 1900N, 250W.

6. BUDGET

E.L. 42/71 - 1977/78

Period	1	2	3	4	5	6	7	8	9	10	11	12	Total
Salaries	2153	2153	2691	3310	3862	3310	2813	3376	4501	2856	2284	2284	35593
Consumables	261	261	1046	265	531	531	589	1072	268	272	109	109	5314
Diamond Drilling				10000	5000				10000	5000			30000
Site & Access Development				500	500				500	500			2000
Consultants & Contractors								7093					7093
Section Total	2414	2414	3737	14075	9893	3841	3402	11541	15269	8628	2393	2393	80000

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7. BIBLIOGRAPHY

1. Blissett, A.H. 1962 "Geological Survey Explanatory Report - Zeehan" Tas. Department of Mines.
2. Blissett A.H. and Gulline A.B. 1961. The Proterozoic Upper Cambrian Succession in W. Tasmania. Aust. J. Sci. 23, 337-339.
3. Brophy P., 1972 "Asbestos Potential of the Razorback and Serpentine Hill Ultrabasics". Unpub. Renison Limited Rept..
4. Burton, C.C.J. (1970) - Report on the Exploration work completed during 1970/71 at Melba Flats. E.Z. Coy. Rept. 106.
5. Burton, C.C.J. - Report on the Exploration work completed during 1971/72 at Melba Flats. E.Z. Coy. Rept. 109.
6. Campana, B. and King, D. (1960) Cambro-Ordovician Sedimentation and Tectonism in West Tasmania. Rio Tinto Australian Exploration Pty. Ltd.
7. Comstaff Pty. Ltd., (1968-69) Review of Summer Exploration Programme E.L. 5/63.
8. Dikoff, D. 1970 "Geophysical Survey at Serpentine Hill, Razorback, Commonwealth and Pine Hill, March 1970", Unpub. C.G.G. Rept. for Renison Limited.

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RENISON LIMITED

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9. Elliston J. 1954 The Geology of the Dundas District, Tasmania. Proc Roy Soc. Tas, 88, 161-183.
10. Fander, H.W. Miscellaneous Petrological Descriptions Central Mineralogical Services Pty. Ltd.
11. Fergusson, K., 1970 "Progress Report on South Dundas - S.P.L. 27, Tasmania 1967/68 and 1968/69 Field Seasons" Unpub. C.G.G. Rept. for Renison Ltd.
12. Hackett D.N. (1968) - Interim Report on Exploration at Melba Flats, Tasmania E.Z. Coy. Rept. 98.
13. Hackett, D.N. (1968) - Report on Magnetic Anomaly "A" at Melba Flats E.L. 2/62. E.Z. Coy. Rept. 100.
14. Howland-Rose A.W. (1974) - Final Report on Induced Polarization Surveys on the Crimson Creek Grid, near Renison Bell Tasmania, on behalf of Renison Ltd., Unpub. Scintrex Rept.
15. Howland-Rose, A.W. (1976) - A Report on an Electrical Induced Polarization Survey in the Argent Dam Area, Near Renison Bell, West Coast Tasmania on behalf of Renison Ltd., Unpub. Scintrex Rept.
16. Howland-Rose, A.W. (1977) A Report on an E.I.P. and M.I.P. Survey over the Kapi Grid near Renison Bell, West Coast Tasmania, on behalf of Renison Ltd.
17. Kelleher J.P. (1976) E.L. 42/71, Renison Bell area. 1975-76 Annual Report Unpublished Renison Ltd. Report.

RENISON LIMITED

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18. Lillicrap, T.J. (1973) - Exploration work completed during 1972-73. E.Z. Coy Rept. 111.
19. Montgomery, A. 1893 "Progress of the Mineral Field in the County of Montague", Tas. Dept. of Mines.
20. Newnham, L.A. 1971 "S.P.L. 27, South Dundas, 1970/71 Annual Report". Unpub. Renison Ltd. Report.
21. Newnham, L.A. 1972 "S.P.L. 27, South Dundas, 1971/72 Annual Report" Unpub. Renison Ltd. Rept.
22. Newnham, L.A. and Lees, R.N. (1974) "E.L. 42/71 Renison Bell Area. 1973-74 Annual Report" Unpub. Renison Ltd. Report.
23. Newnham, L.A. (1975) E.L. 42/71 and S.P.L. 131 Renison Bell Area. Annual Report 1974-75. Unpub. Renison Ltd. Rept.
24. Rubenach M.J. 1974. The Origin and Emplacement of the Serpentine Hill Complex, W. Tasmania. J. Geol. Soc. of Aust. Vol. 21 P & 1.
25. Schellekens, R. 1972 "Report on the Dunkley Area. E.L. 42/71" Unpub. Renison Ltd. Rept.
26. Schellekens, R.R. & Newnham L.A. (1973) - E.L. 42/71 Renison Bell Area - Western Tasmania Annual Report 1972-73 Unpub. Renison Ltd. Rept.

RENISON LIMITED

-22-

27. Solomon M. (1965) Geology and Mineralization of Tasmania in Geology of Australian Ore Deposits, 8th Commonwealth Mining and Metallurgy Congress.
28. Spry, A. (1964) The Precambrian Rocks of Tasmania Pt. 6. Proc. Royal Soc. Tasmania.
29. Stephenson, P. (1976) Summary of Previous Work Area 1 E.L. 42/71. Unpub. Renison Ltd. Rept.
30. Stevens, A., Poltock, R., Cpward, R., Cottan, A., 1973 "Report on the Summer Exploration Programme 1972/73 S.P.L. 117, E.L. 2/63" Unpub. Renison Ltd. Rept.
31. Taylor, B.L. 1954 "Progress Report on the North Pieman Mineral Area" Unpub. Rept. Tasmanian Department of Mines.
32. Taylor, B.L. 1954 "Bon Accord - Owen Meredith Area" Unpublished Rept. Tasmanian Department of Mines.
33. Taylor, B.L. 1954 "Notes to Accompany Plan Entitled Area North of Zeehan Regional Structure" Unpub. Rept. Tasmanian Department of Mines.
34. Waller, G.A. 1902 "Ore Deposits Other Than Those of Tin of North Dundas" Tasmanian Department of Mines.
35. Webster, S.S. (1967) - Report on Magnetometer Survey at Melba Flats. E.Z. Coy. Rept.

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APPENDIX

RENISON LIMITED - DIAMOND DRILL RECORD

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HOLE NUMBER	KAPI No. 1	SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
		Depth	Bearing	Dip			D. Sin Dip	R.L.	D. Cos Dip	Prog. Total
PURPOSE	To test the fault junction between slate and serpentine for tin mineralisation.		270 ^D (Magnetic)	- 50						
LOCATION	KAPI MINE (N.E. DUNDAS TRAM)									
COLLAR R.L.										
CO-ORDINATES										
LENGTH	285'									
HOLE SIZE	-									
COMMENCED	21/2/58									
COMPLETED	2/4/58									
SIGNIFICANT CORE LOSS ZONES	-									
ORE ZONE GROUND CONDITIONS	-									
LOGGED BY	T.D. HUGHES									
COMMENTS	Discrepancies show between petrographic report and visual logging. Absence of serpentine minerals in thin section. This area requires further investigation. P. BROPHY Drilled by Mines Dept. 1958									

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS				
				Sn.	Cu.	As.	S.	

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S.	Ce F ₂	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

291029

DIAMOND DRILL RECORD

HOLE NUMBER: KAPI NO. 1

LOGGED BY:

INTERVAL (m.)		DESCRIPTION	FORMATION	CORE RECOVERY				S'PL No.	ASSAYS								
FROM	TO			FROM	TO	m.	%		FROM	TO	Sn	S	As	Cu			
		LOGGED BY: T.O. HUGHES															
0	10'	Overburden															
10'	89'	Cleaved grey and black slates, occasionally pyritic. 2" calcite vein at 88'	(Crimson Creek Formation) ??														
89'	92'	fault zone. Chiefly serpentine or dolomite, some slate fragments, Quartz veining.	fault														
92'	233'	Serpentine, often dolomitised. Calcite veining between 125' and 143'6" and 159' to 161'. Mineralised 190'-200'. Calcite 198'-199'. Pyrrhotite at 200'. Mineralised at 212'-215'. Slight mineralisation 215'-233'	Serpentinite ???														
233'	270'	Dolomite with scattered calcite veins. Some mineralisation 233'-257'. Sulphides 263'-267'. Traces of sulphides 267'-270'															
270'	285'	Serpentine with calcite veins.															
		LOGGED BY: P. BRUPHY - 1973															
0'	89'	Thinly bedded, fine-grained siltstones with minor traces of sulphides. B.C.A. ~ 45°. Possibly similar to Crimson Creek Formation.															
89'	92'	Fault zone.															
92'	190'	'Paucdo - breccia' with calcite, serpentinised dolomite and chert.															
190'	210'	Mineralised serpentinites with calcite, chalcopyrite pyrite and pyrrhotite.															
210'	280'	Strongly altered, carbonate rich, serpentinised rocks.															
280'	285'	Chert rich sediments.															

026

291030

DIAMOND DRILL RECORD

HOLE NUMBER: KAPI NO. 1

LOGGED BY:

INTERVAL (m.)		DESCRIPTION	FORMATION	CORE RECOVERY				ASSAYS					
FROM	TO			FROM	TO	m.	%	FROM	TO	Sn	S	As	Cu
		PETROGRAPHIC DESCRIPTIONS - W. Fander CMS 74/1/14											
K1-92'		Altered Tuff Not unlike K2-369 but with more advanced degradation of the relict fabric due to development of granular carbonate. Weakly recrystallised but relict colloform textures (chlorite, illitesericite) are retained in vesicle fillings of pumiceous fragments. Alteration largely diagenetic but some metasomatism has occurred with introduction of magnetite and sparse fine grained sulphides.	Red Rock										
K1-200'		Chloritic Marble Virtually identical to K2-280' - thus interlocking carbonate with subordinate intergranular almost colourless isotropic, Mg-chlorite. Weakly translucent magnetite is present and anhedral pyrite is relatively abundant.	Crimson Creek Formation Carbonates										
K1-272'		"Illitic Marble" An unusual rock, mainly granular carbonate with interstitial microgranular quartz, disseminated magnetite and traces of pyrite. Aggregates of sericitic illite-hydromuscovite occur throughout. These are recognisably clasts of some sort but not definitely pyroclastic in origin. The rock probably represents a recrystallised penecontemporaneous ("soft pebble") breccia alternately a chemical sediment (limestone) with some pyroclastic components.	Crimson Creek Formation Carbonates										
K1-285'		Recrystallised Calc-pelite Originally a bedded argillite with calcareous layers - now recrystallised to semi-orientated illite-hydromuscovite occur throughout, and granular carbonate. Diagenetic carbonate veins occur parallel and discordant to the relict bedding. Magnetite and pyrite disseminations are present.	Crimson Creek Formation Carbonates										

027

291031

RENISON LIMITED - DIAMOND DRILL RECORD

028

HOLE NUMBER	KAPI No.2	SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
		Depth	Bearing	Dip			D. Sin Dip	R.L.	D. Cos Dip	Prog. Total
PURPOSE	To test the fault junction between slates and serpentine for tin mineralisation.		270 ⁰	-55 ⁰						
LOCATION	KAPI MINE (N.E. Dundas Tram)									
COLLAR R.L.										
CO-ORDINATES										
LENGTH	381'									
MOLE SIZE	-									
COMMENCED	11-4-58									
COMPLETED	24-6-58									
SIGNIFICANT CORE LOSS ZONES	-									
ORE ZONE GROUND CONDITIONS	-									
LOGGED BY	T.D. HUGHES									
COMMENTS	As for KAPI No.1									

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS				
				Sn.	Cu.	As.	S.	

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S.	Ca F ₂	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

291032

DENISON LIMITED
DIAMOND DRILL RECORD

PAGE

HOLE NUMBER: KAPI No.2

LOGGED BY:

NWFL

INTERVAL (m.)		DESCRIPTION	FORMATION	CORE RECOVERY				ASSAYS				
FROM	TO			FROM	TO	m.	%	FROM	TO	Sn	S	As
LOGGED BY T.D. HUGHES												
0'	10'	Overburden	Crimson Cree formation??									
10'	120'	Cleaved black slate, occasionally pyritic,										
120'	139'	Mainly carbonates and serpentine. Some pyrite	FAULT									
		Fault zone.					281'	333'	-	NIL		
139'	281'	Dolomitised serpentine. Slightly pyrite in places	SERPENTINITE??									
		Scattered veins of calcite.										
281'	333'	Carbonates. Some pyrite bands										
333'	381'	Dolomitised serpentine. Occasionally pyritic.										
PETROGRAPHIC DESCRIPTION. W. FANDER C.M.S. 74/1/14												
K2-70'		Pyritic Silty Carbonaceous Shale A finely layered and weakly graded silty carbonaceous shale with fine grained pyrite and variable development of layered fine grained carbonate. Consists mainly of clay flakes, chlorite and quartz stained throughout with ultrafine carbonaceous material. Coarser (silt-sized) detritus generally quartz. Some vague shard-like shapes suggest rock is in part of pyroclastic origin.	Crimson Cree Formation									
K2-160'		Sericite-Calcite Rock (Shale-Breccia) Almost entirely very fine "sericite" (illite-hydromuscovite) with granular aggregates and thin veinlets of carbonate (positive calcite stain) and minor green chlorite. Traces of sulphide (pyrite, spalerite) disseminated throughout. Considered to be an altered (carbonated, recrystallised) argillite breccia on relict textural evidence.	Crimson Cree Formation.									
K2-200'		Illitic Marble Largely aggregated interlocking carbonate hence marble abundant randomly orientated illite-hydromuscovite flakes, dots of Mg-chlorite, perhaps traces of talc, dispersed aggregates of microgranular quartz. Sulphide (? pyrrhotite) and euhedral magnetite disseminated throughout. Disharmonically folded chloritic partings. Evidently an altered calcareous pelite. Magnetite is a weakly translucent (? magnesian) variety.	Crimson Cree Formation									

029

291033

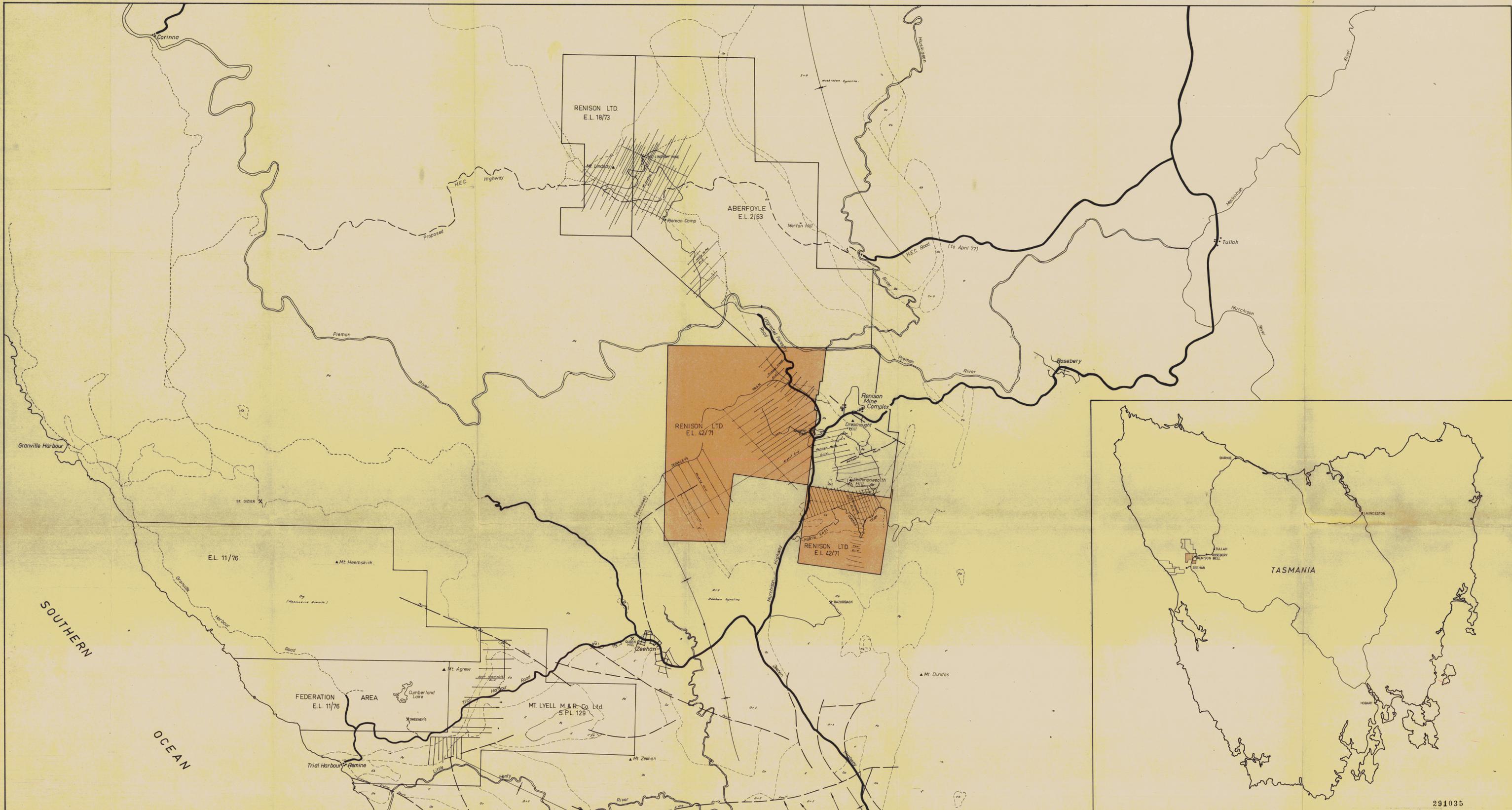
RENISON LIMITED
DIAMOND DRILL RECORD

PAGE
HOLE NUMBER: KAPI No. 2
LOGGED BY:

INTERVAL (m.)		DESCRIPTION	FORMATION	CORE RECOVERY				ASSAYS										
FROM	TO			FROM	TO	m.	%	FROM	TO	Sn	S	As	Cu					
K2-220'		Illitic Marble Essentially similar (and may be correlated with) K2-200'. Interlocking aggregate carbonate with flakes and scattered aggregates of illite, microgranular and ("authigenic") euhedral quartz. Mg-chlorite partings (sim. 200') microfolded and frequently displaced. Disseminated Fe-sulphide and magnetite, particularly associated with chlorite.	Crimson Cree Formation Carbonates															
K2-280'		Chloritic Marble Not unlike K2-200', 220' but interlocking carbonate with relatively minor interstitial Mg-chlorite and very rare illite flakes. Recrystallised but little evidence of deformation. Abundant Fe-sulphide in places and traces of magnetite.	Crimson Cree Formation Carbonates															
K2-283'		Illitic Marble Similar to the above, especially K2-220' although relatively devoid of chlorite and deformation features. Relatively marked development of "diagenetic" microgranular to euhedral quartz. Carries disseminated Fe-sulphide (pyrite) and magnetite.	Crimson Cree Formation Carbonates															
K2-286'		Siliceous Marble Clearly a recrystallised (calcite) limestone with marked development of diagenetic-authigenic quartz. Carbonate is cloudy and of organic character, there are rare structures apparently bivalve fragments and a single siliceous oolite. Local tendency to lutre mottling. Disseminated pyrite and fine magnetite.	Crimson Cree Formation Carbonates															
K2-304'		Tourmalinised Illite Marble Similar K2-200' etc. but with patchy development of green tourmaline and yellow phlogopite-vermiculite. Magnetite disseminated throughout fairly marked development of pyrrhotite aggregates and grains locally accompanied fine grained sphalerite which is also disseminated throughout aggregate carbonate.	Crimson Cree Formation Carbonates															
K2-369'		Altered Tuff Although thoroughly altered to sericitic white mica and Mg-chlorite with subordinate carbonate and quartz this rock retains a well defined pyroclastic fabric. Originally a vitric-lithic-crystal tuff and rather basic but with some "andesitic" fragments - perhaps also some ultrabasic components. Contains scattered crystals of weakly translucent spinel (?magnesian magnetite) - identical to that in the marbles - no sulphides detected.	Red Rock															

430

291034



291035

RENISON LIMITED

LOCALITY MAP

GEOLOGIST :	SCALE 1:100,000 METRES
DRAUGHTSMAN :	MAP 1:100,000
DATE :	
REVISIONS :	
	DRAWING No. 1.

77-1234 2/3

KEY

Permission & Design	Permission limits
Section & Strata boundaries	Contour lines & spot heights
Section boundaries	Section boundary structures
Contour boundaries & structures	Section line systems

1033



MAPPING SYMBOLS

- Definite Geological boundaries
- - - - - Approximate Geological boundaries
- - - - - Inferred Geological boundaries
- Strike and dip of bedding
- Vertical bedding
- Horizontal bedding
- Strike and dip of jointing
- Strike and dip of shearing
- Fault (up and downthrow)
- Fault, position approximate
- Fault, position inferred
- Syncline with plunge
- Anticline with plunge
- Old mine workings
- Py Pyroxenite } Mineralization
- Po Pyroclastic } Mineralization
- Driveway road
- Road
- Driveway hole
- * Sample location

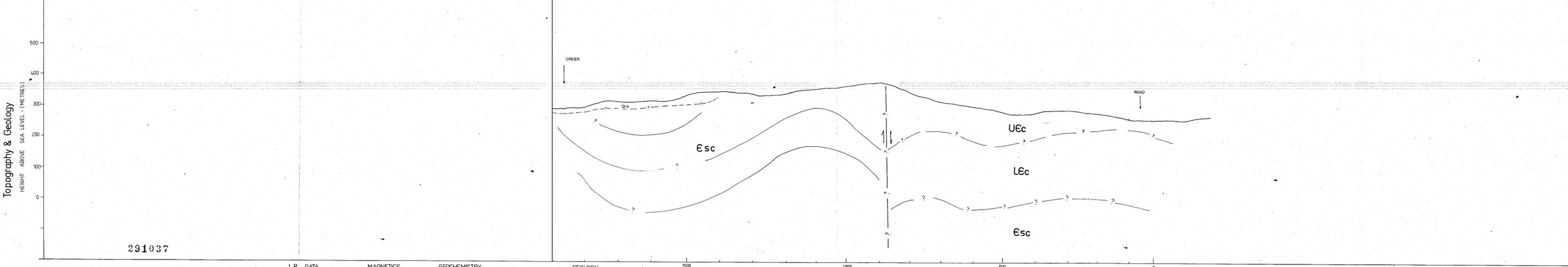
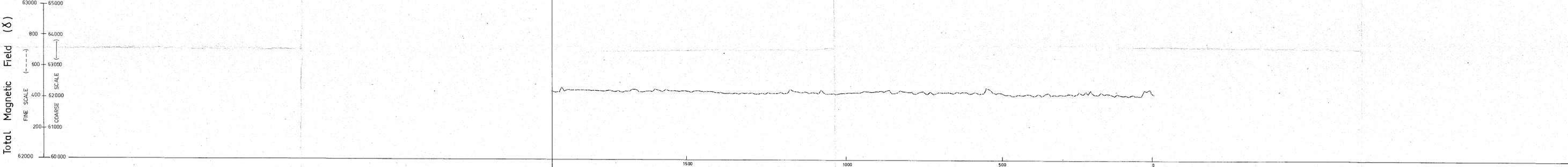
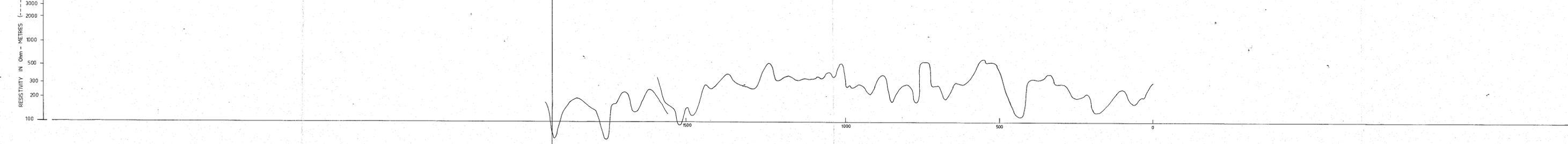
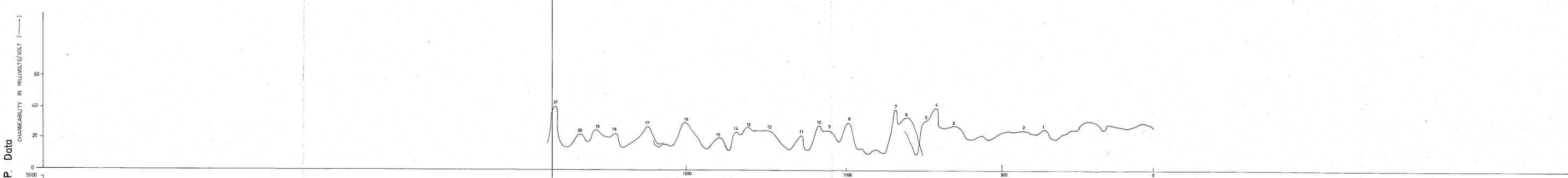
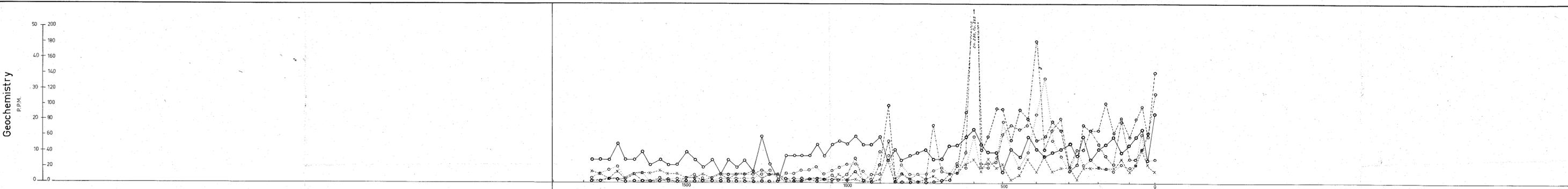
ROCK TYPE DESCRIPTION

- QUATERNARY**
- Ora Alluvium
 - Opf Pleistocene fluvioglacial
- LOWER TO MIDDLE CAMBRIAN**
- UEc UPPER ORISON CREEK FORMATION
Pyrroclastics, gneisses, siltstones
 - LEc LOWER ORISON CREEK FORMATION
FERRIC SILICATES, GRANULITE?
 - Esc CARBONIFEROUS SHALE, SLATE, BRECCIA, GNEISS
- UPPER PROTEROZOIC TO LOWER CAMBRIAN**
- Esc SUCCESS CREEK GROUP
Gneiss, siliceous siltstone and shale
 - Esc Gabbro, dioritic shale
 - Esc Gneiss, pseudogneiss, marble
 - Esc Dark, chert breccia
 - Esc Metarhyolite, argillaceous siltstone and mudstone
- INTRUSIVES**
- Quartz, perthite dyke
 - Basic dyke

5 cm 291036

RENISON LIMITED
ARGENT GRID AREA
 INTERPRETATIVE GEOLOGY

GEOLOGIST	J. KELLEHER	SCALE 1:5000 METRES
DRAUGHTSMAN	J. MATTHEWS	100 0 100
DATE	MAY, 1976	
REVISIONS	AUGUST, 1977	DRAWING No. 2



291037

RENISON LIMITED
ARGENT GRID
 LINE 1
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

DRAWN	J. P. K.
TRACED	J. M. M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	3 a

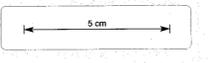
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 — GRADIENT ARRAY
 —X—X— POLE - DIPOLE

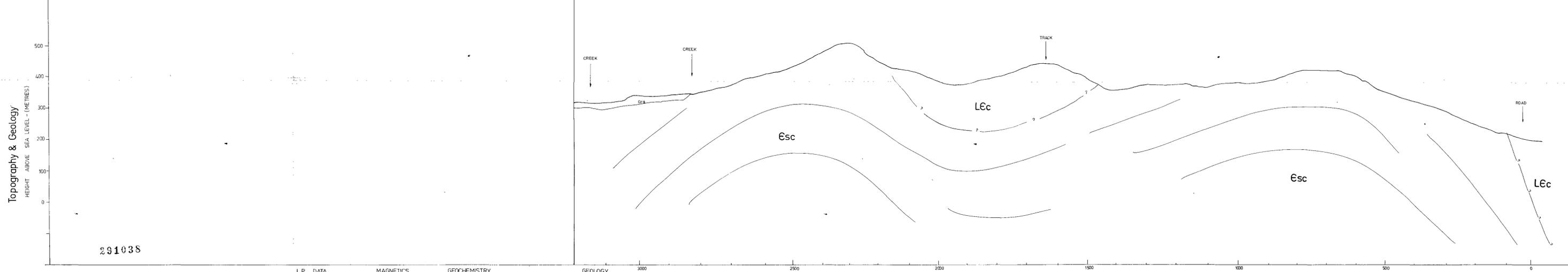
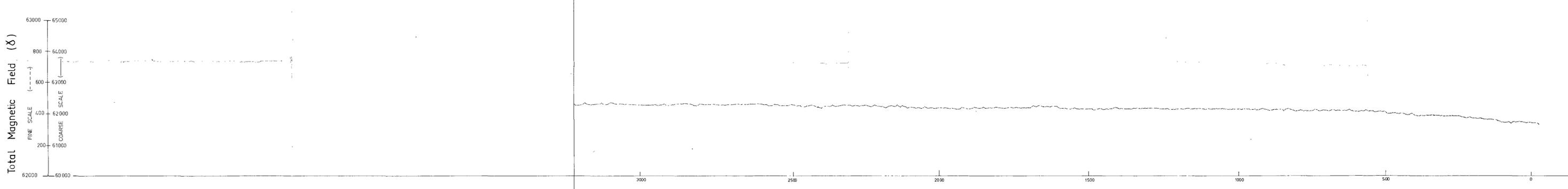
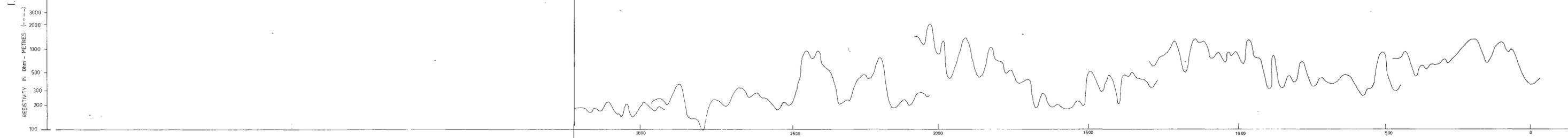
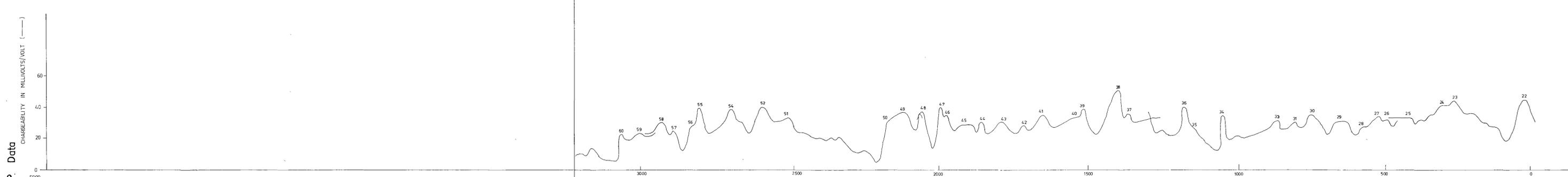
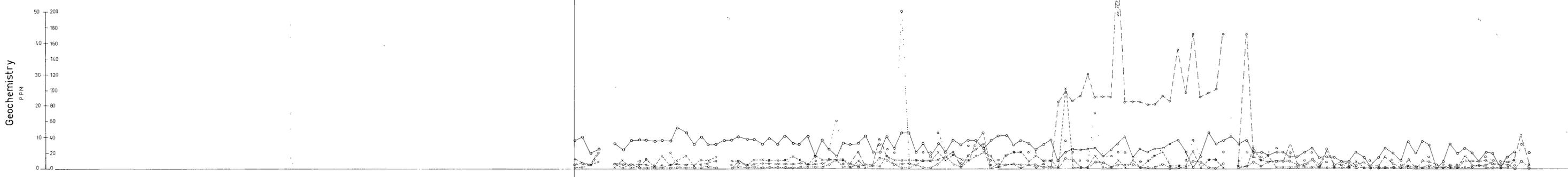
MAGNETICS
 5000 X SCALE
 1000 X SCALE

GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 W

GEOLOGY

Qu Quaternary alluvium, fluvioglacial
 UEc Upper Crimson Creek Formation
 LEc Lower Crimson Creek Formation (Mine sequence equivalent)
 ESC Success Creek Group





291038

REXON LIMITED
 ARGENT GRID
 LINE 3
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

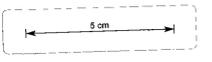
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TRACED	J.M.M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	
	3b

I.P. DATA
 CHARGEABILITY & RESISTIVITY
 — GRADIENT ARRAY
 —X—X— POLE - DIPOLE

MAGNETICS
 5000X SCALE
 1000X SCALE

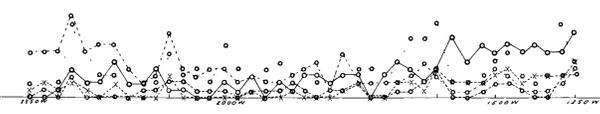
GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 W

GEOLOGY
 Qra Quaternary alluvium, fluvio-glaciols
 UEc Upper Crimson Creek Formation
 LEc Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group



Geochemistry
PPM

50
40
30
20
10
0



I. P. Data

CHARGEABILITY IN MILLIVOLTS/VOLT (---)

60
40
20
0

RESISTIVITY IN Ohm-METRES (---)

5000
3000
2000
1000
500
200
100

Total Magnetic Field (γ)

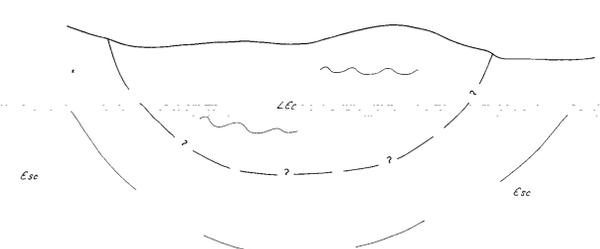
FINE SCALE
COARSE SCALE

65000
64000
63000
62000
61000
60000

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (METRES)

500
400
300
200
100
0



291039

REINSON LIMITED
ARGENT GRID
LINE 4

DRAWN	J.P.K.
TRACED	P.A.C.
DATE	July '77
SCALE	1:5000
DRAWING No.	3c

I. P. DATA
CHARGEABILITY & RESISTIVITY

GRADIENT ARRAY
POLE - DIPOLE

MAGNETICS

5000 SCALE
1000 SCALE

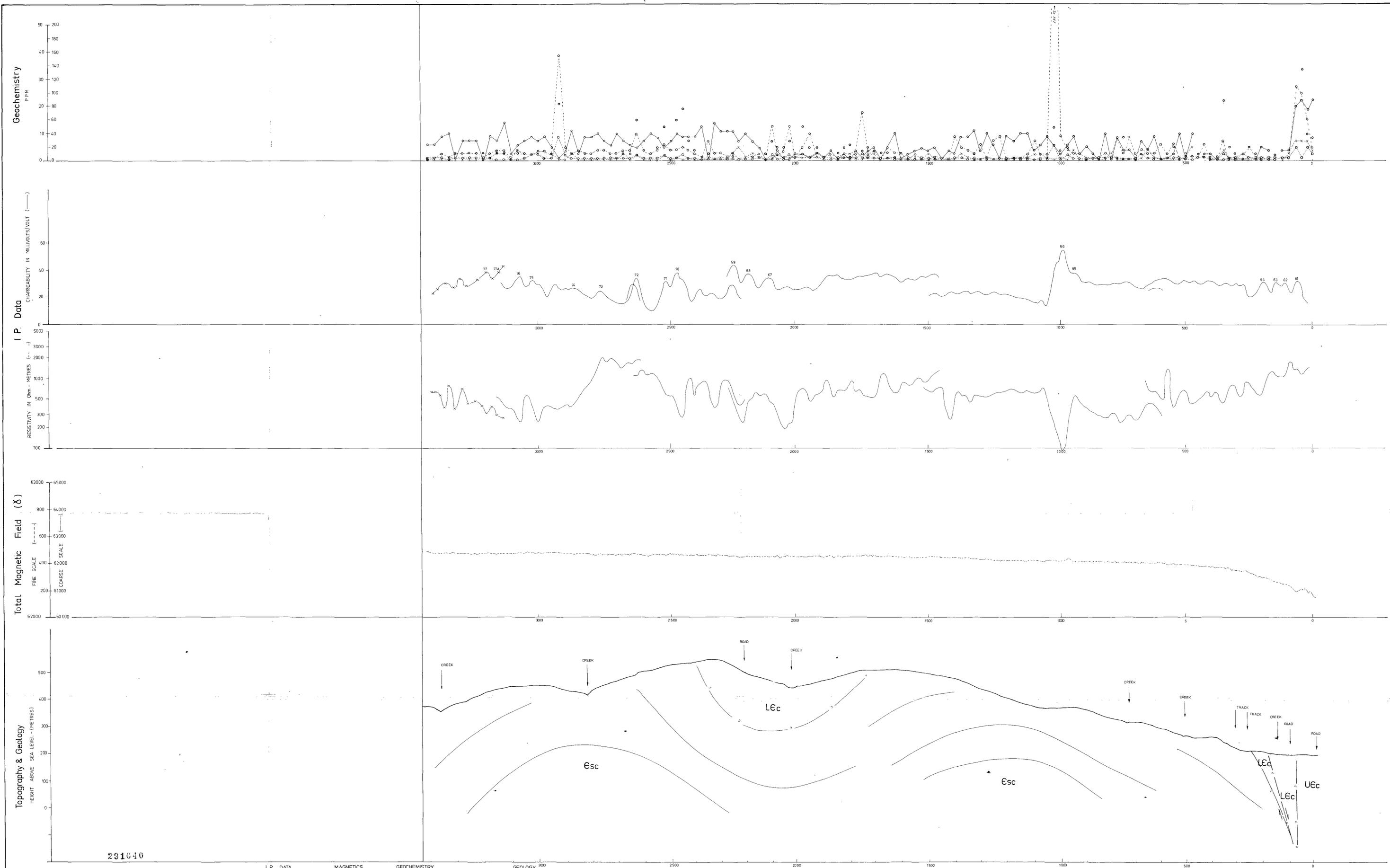
GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
W

GEOLOGY

- Ora Quaternary alluvium, fluvio-glacials
- UEC Upper Crimson Creek Formation
- LEC Lower Crimson Creek Formation (Mine sequence equivalent)
- Esc Success Creek Group





291040

RENISON LIMITED	
ARGENT GRID	
LINE 5	
SECTION LOOKING N.W.	
SCALE: 1:5000 METRES	
DRAWING No. 3d	

I.P. DATA
 CHARGEABILITY & RESISTIVITY
 — GRADIENT ARRAY
 — X — POLE - DIPOLE

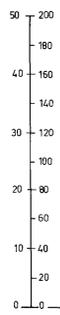
MAGNETICS
 5000 F SCALE
 1000 F SCALE

GEOCHEMISTRY
 Cu
 Pb
 Zn
 As
 W

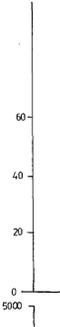
GEOLOGY
 Qra Quaternary alluvium, fluvioglacial
 UEc Upper Crimson Creek Formation
 LEc Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group



Geochemistry
PPM



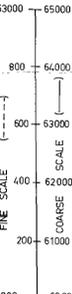
I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (---)



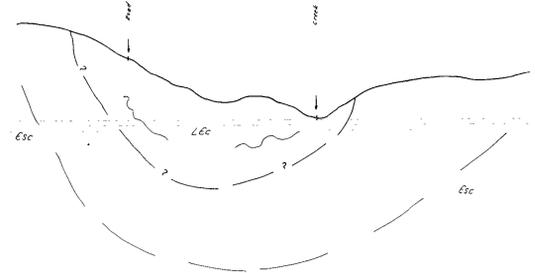
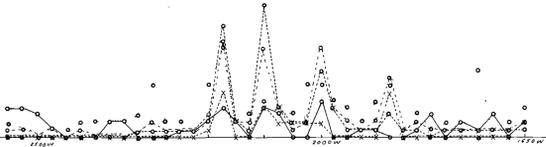
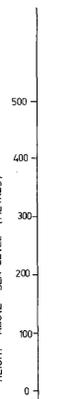
RESISTIVITY IN Ohm-METRES (---)



Total Magnetic Field (δ)



Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)



291041

RENISON LIMITED

ARGENT GRID®

LINE 6

SECTION LOOKING N.W.

SCALE: 1:5000 METRES

DRAWN	J.P.K.
TRACED	F.A.C.
DATE	July 1977
SCALE	1:5000
DRAWING No.	
	3e

I. P. DATA

CHARGEABILITY & RESISTIVITY

--- GRADIENT ARRAY

-X-X- POLE - DIPOLE

MAGNETICS

5000 SCALE

1000 SCALE

GEOCHEMISTRY

Sn

Cu

Pb

Zn

As

W

GEOLOGY

Qra Quaternary alluvium, fluvio-glacials

UEC Upper Crimson Creek Formation

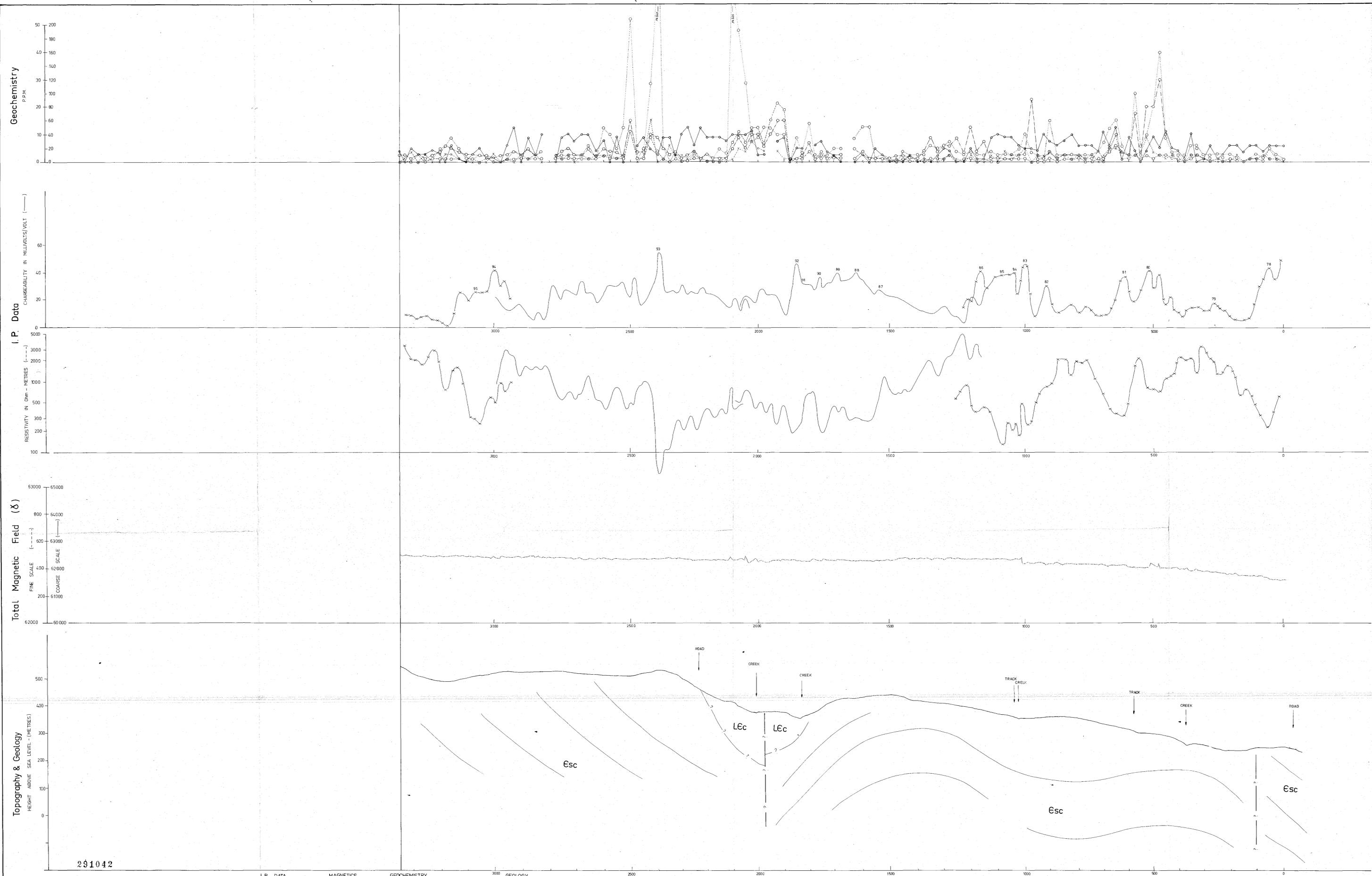
LEC Lower Crimson Creek Formation (Mine sequence equivalent)

Esc Success Creek Group



77-1234 2/3

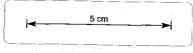
1039

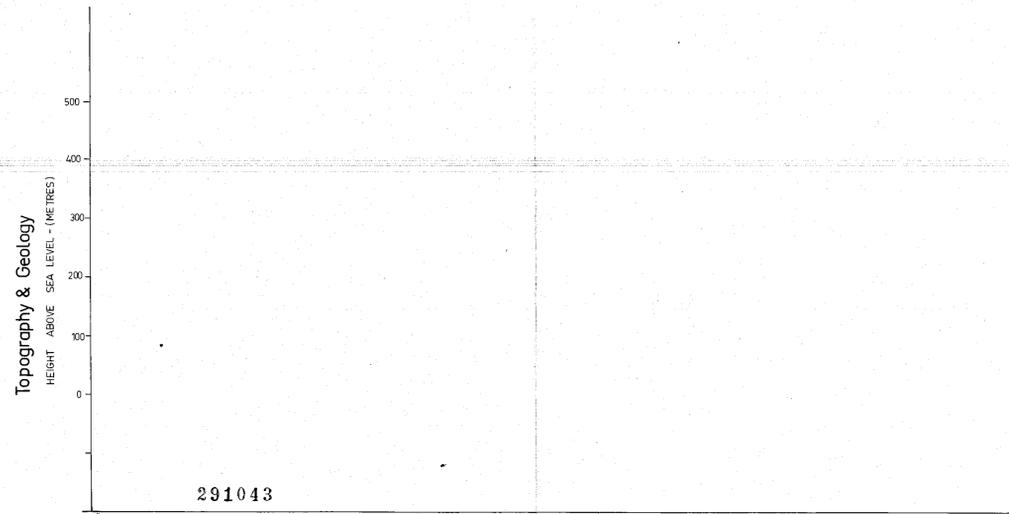
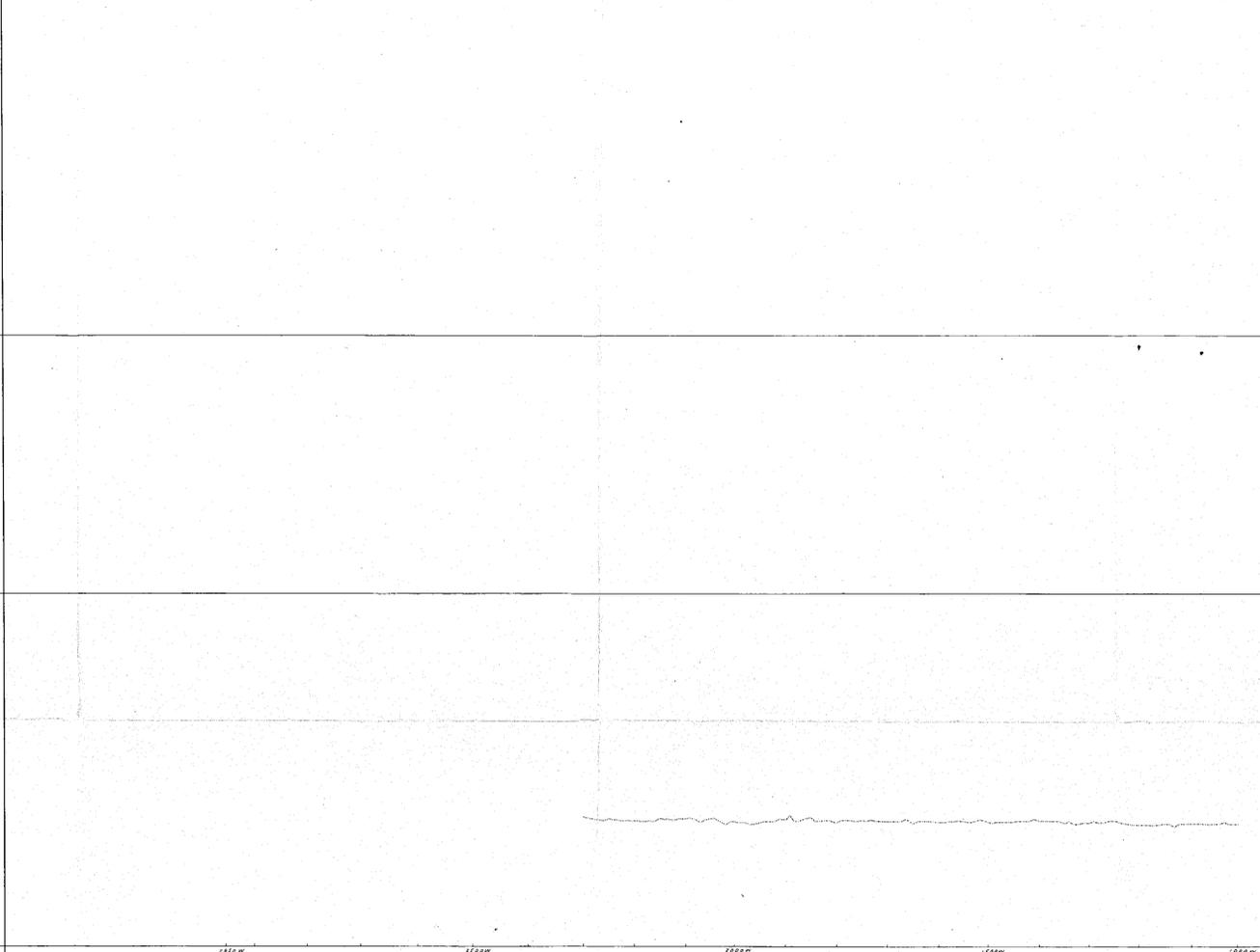
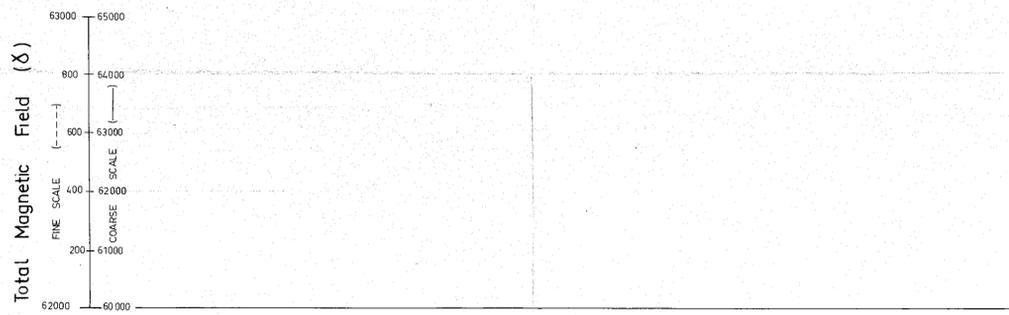
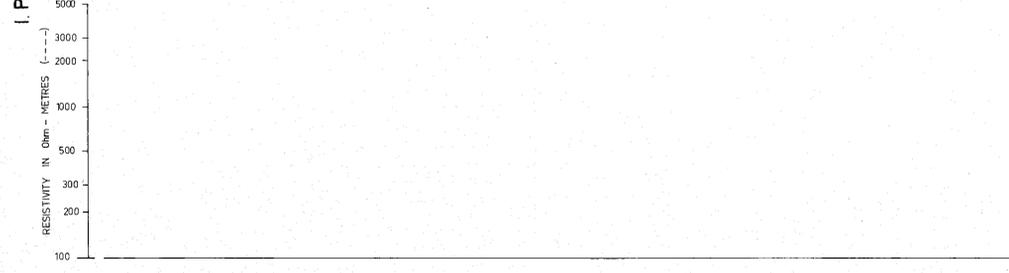
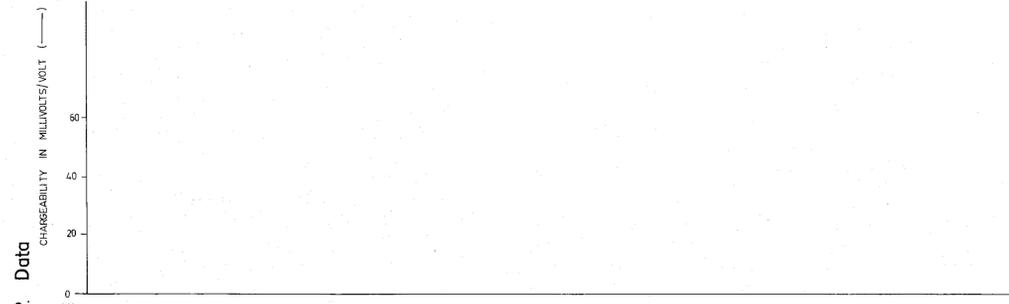
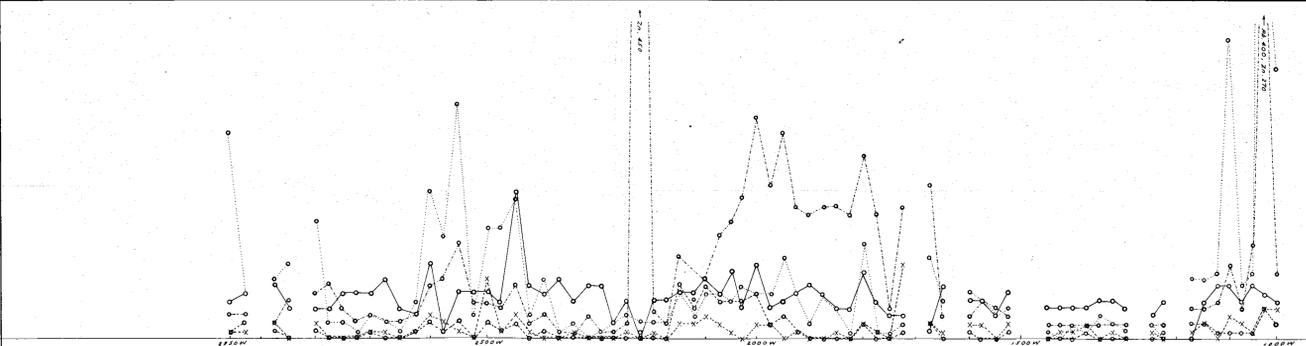
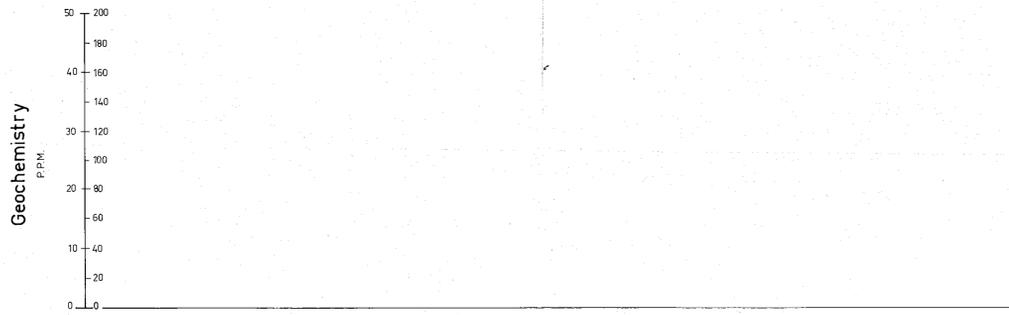


291042

RENISON LIMITED	DRAWN J.P.K.
ARGENT GRID	TRACED J.M.M.
LINE 7	DATE MAY, 76
SECTION LOOKING N.W.	SCALE 1:5000
SCALE 1:5000 METRES	DRAWING No.
200 0 200	3f

I.P. DATA	MAGNETICS	GEOCHEMISTRY	GEOLOGY
CHARGEABILITY & RESISTIVITY			
— GRADIENT ARRAY	5000' SCALE	○ Sn	Qa Quaternary alluvium, fluvio-glacial
-X-X- POLE - DIPOLE	1000' SCALE	○ Cu	UCC Upper Crimson Creek Formation
		○ Pb	LEc Lower Crimson Creek Formation (Mine sequence equivalent)
		○ Zn	Esc Success Creek Group
		X-X-X As	
		X-X-X W	



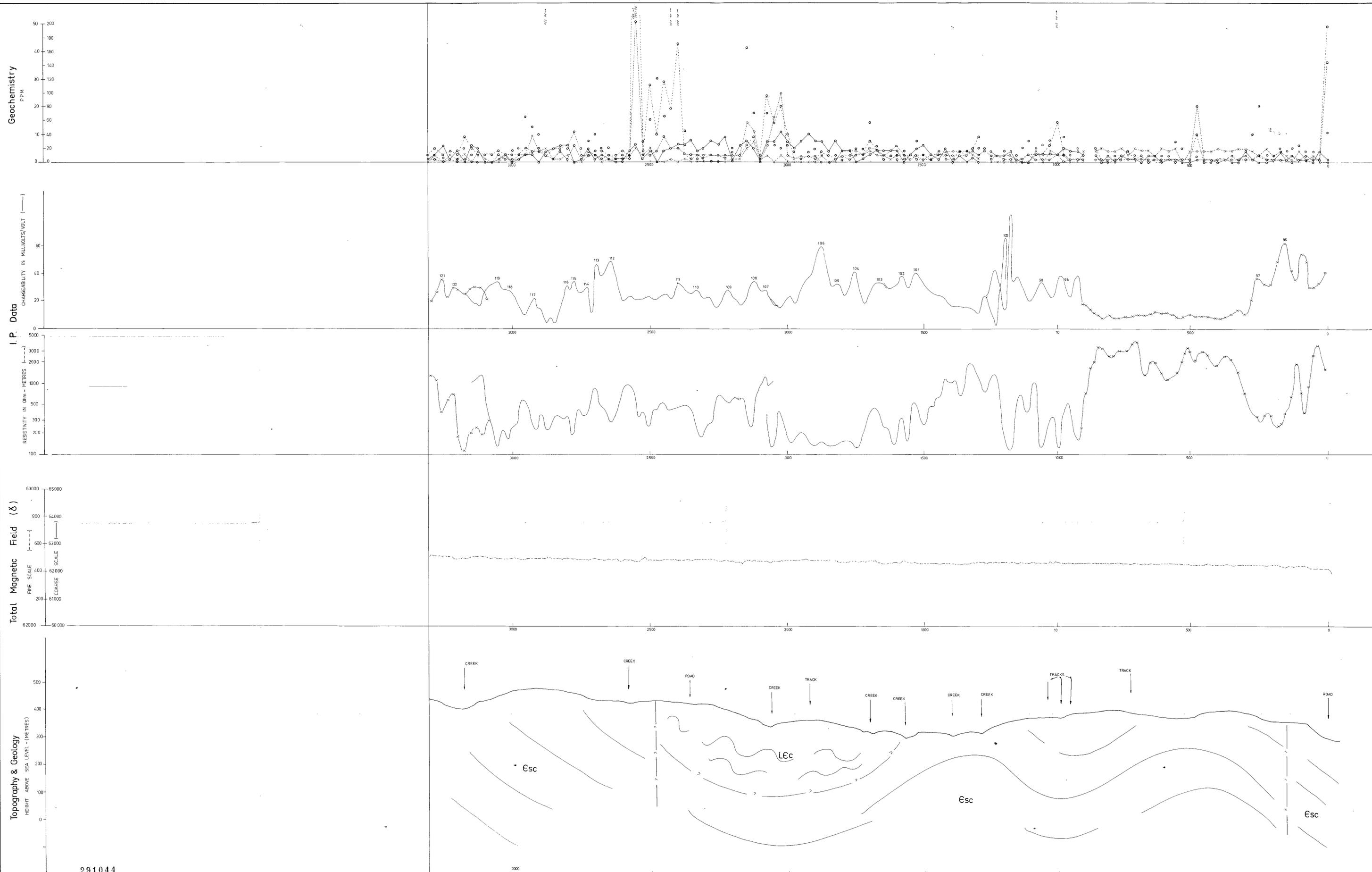


REXON LIMITED	
DRAWN	J.P.K.
TRACED	F.A.C.
DATE	July 1977
SCALE	1:5000
DRAWING No.	39

I.P. DATA		MAGNETICS		GEOCHEMISTRY	
CHARGEABILITY & RESISTIVITY		5000 SCALE		○	Sn
—	GRADIENT ARRAY	~	5000 SCALE	○	Cu
-X-X-	POLE-DIPOLE	~	1000 SCALE	○	Pb
				○	Zn
				X-X-X	As
				X-X-X	W

GEOLOGY	
Qra	Quaternary alluvium, fluvio-glacials
UCC	Upper Crimson Creek Formation
LEC	Lower Crimson Creek Formation (Mine sequence equivalent)
Esc	Success Creek Group





291044

RENISON LIMITED
 ARGENT GRID
 LINE 9
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

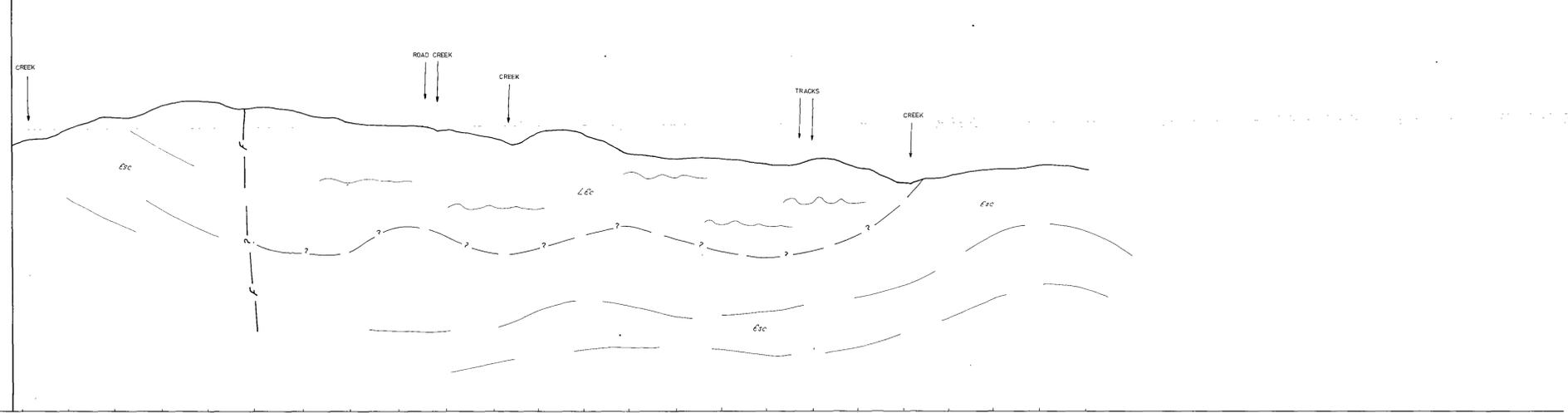
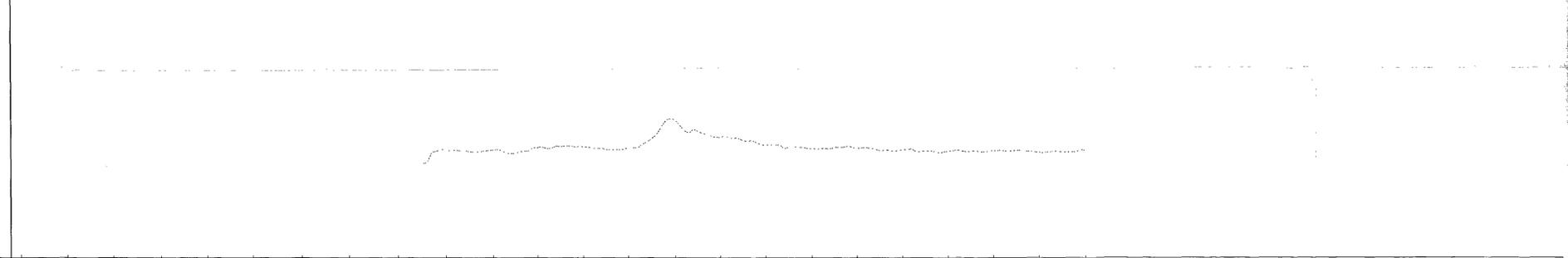
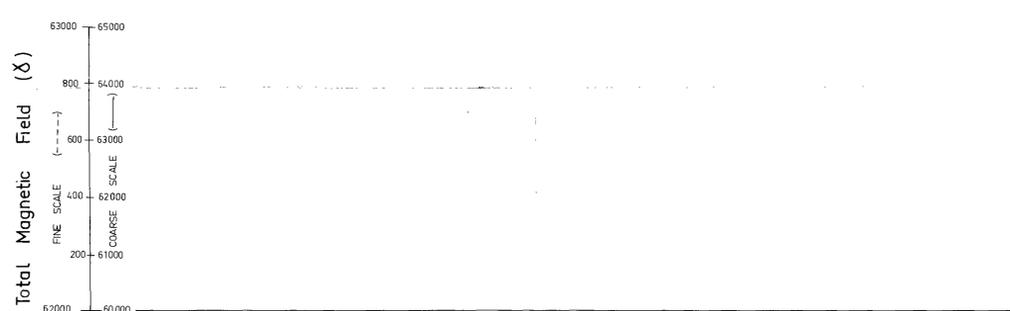
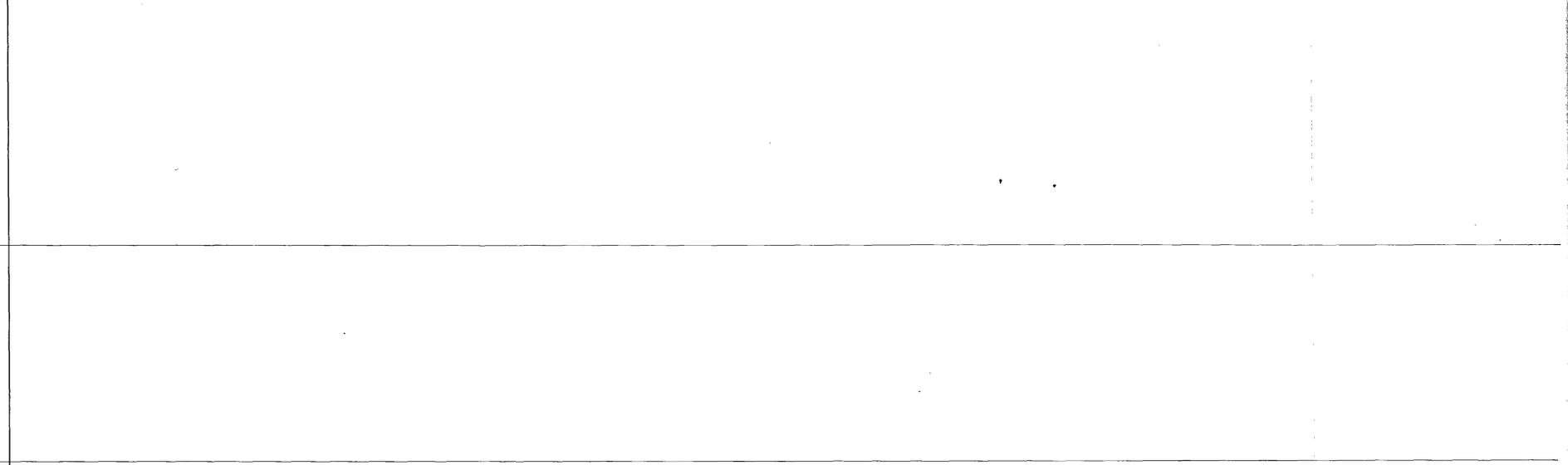
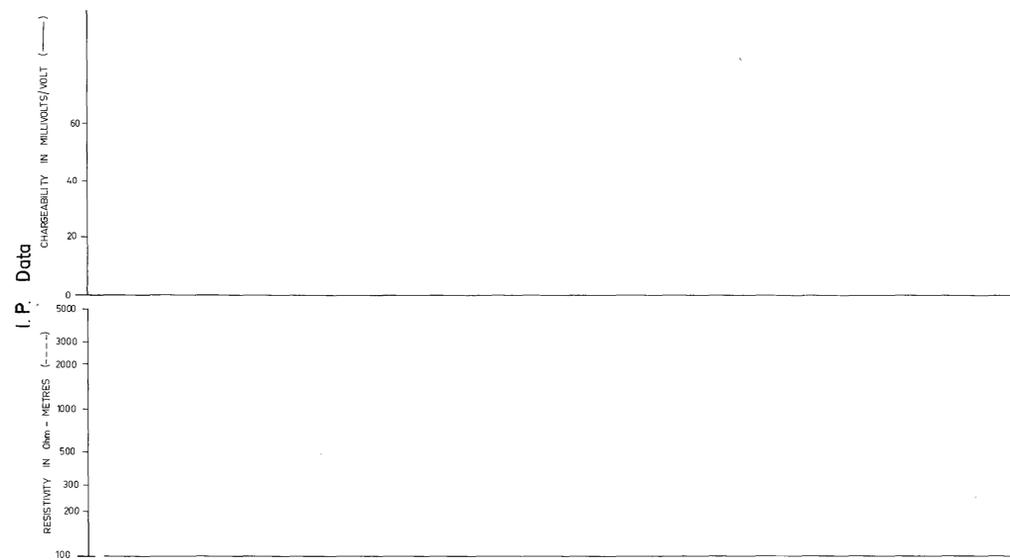
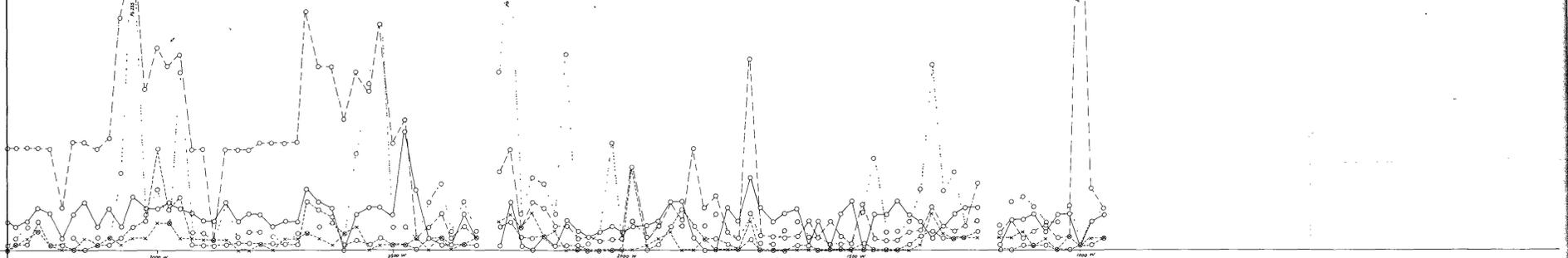
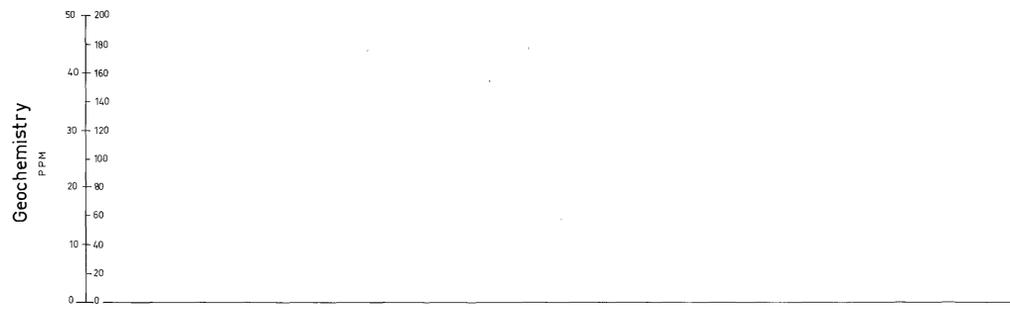
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TRACED	J.M.M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	
3h	

I.P. DATA	MAGNETICS	GEOCHEMISTRY
CHARGEABILITY & RESISTIVITY	5000 Y SCALE	Sn
GRADIENT ARRAY	1000 Y SCALE	Cu
X-X POLE-DIPOLE		Pb
		Zn
		As
		W

GEOLOGY

Qra	Quaternary alluvium, fluvioglacial
UEC	Upper Crimson Creek Formation
LEC	Lower Crimson Creek Formation (Mine sequence equivalent)
Esc	Success Creek Group





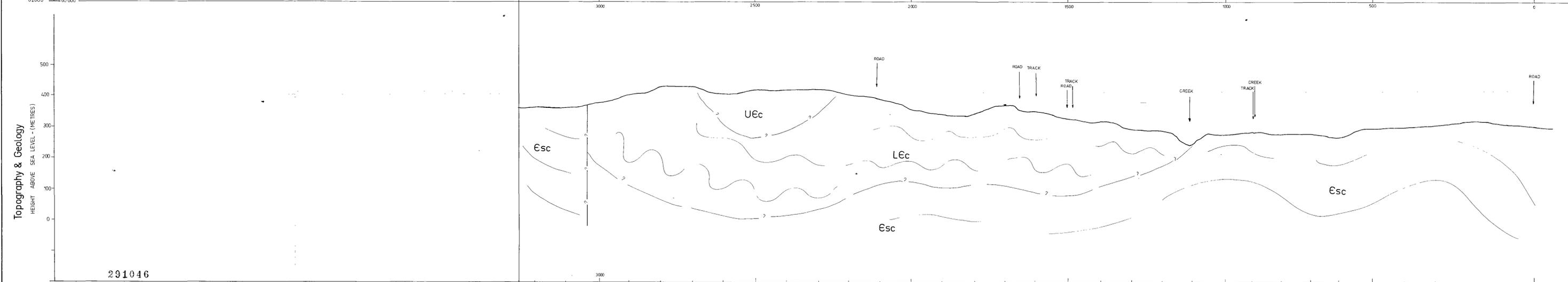
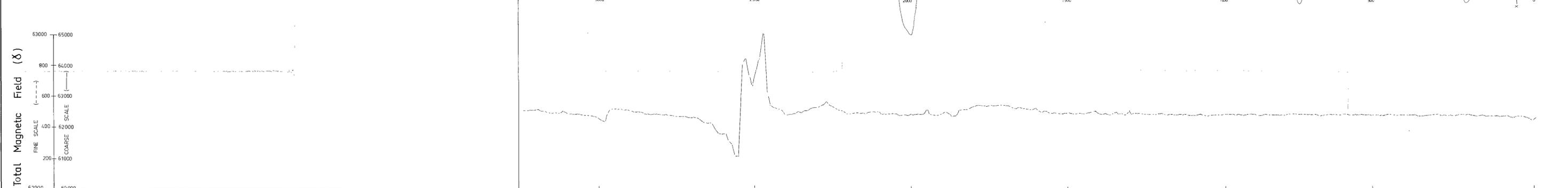
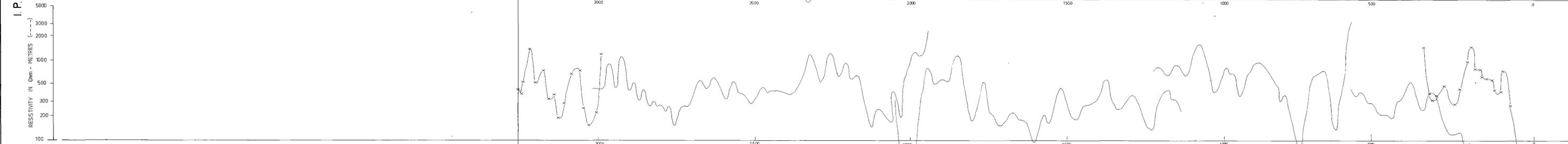
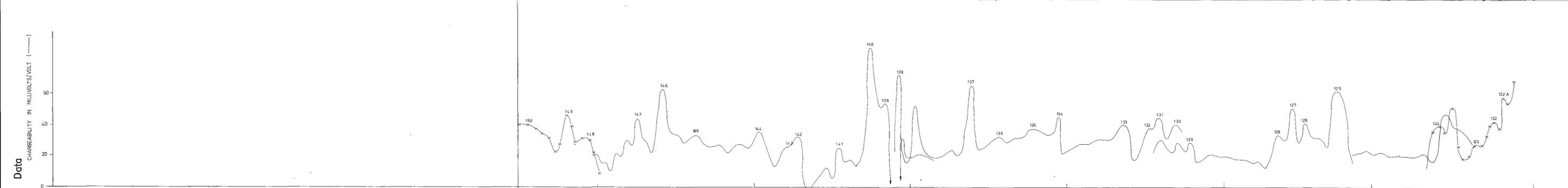
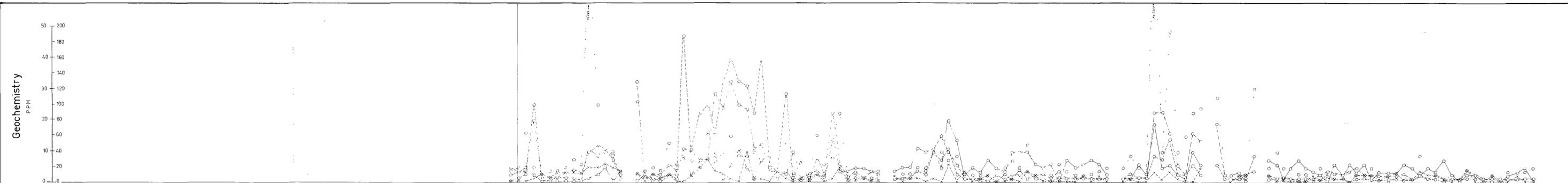
291045

REINSON LIMITED	DRAWN J.P.K.
ARGENT GRID	TRACED J.M.H.
LINE 10	DATE 28-7-77
SECTION LOOKING N.W.	SCALE 1:5000
SCALE 1:5000 METRES	DRAWING No.
3	

I.P. DATA	MAGNETICS	GEO-CHEMISTRY
CHARGEABILITY & RESISTIVITY	GRADIENT ARRAY	Sn
—X—X— POLE - DIPOLE	5000 SCALE	Cu
	1000 SCALE	Pb
		Zn
		As
		W

GEOLOGY
Qtd Quaternary alluvium, fluvio-glaciols
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
ESC Success Creek Group





291046

DRAWN	J.P.K.
TRACED	J.M.M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	

3j

I.P. DATA
CHARGEABILITY & RESISTIVITY

GRADIENT ARRAY
POLE - DIPOLE

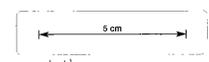
MAGNETICS
5000' SCALE
1000' SCALE

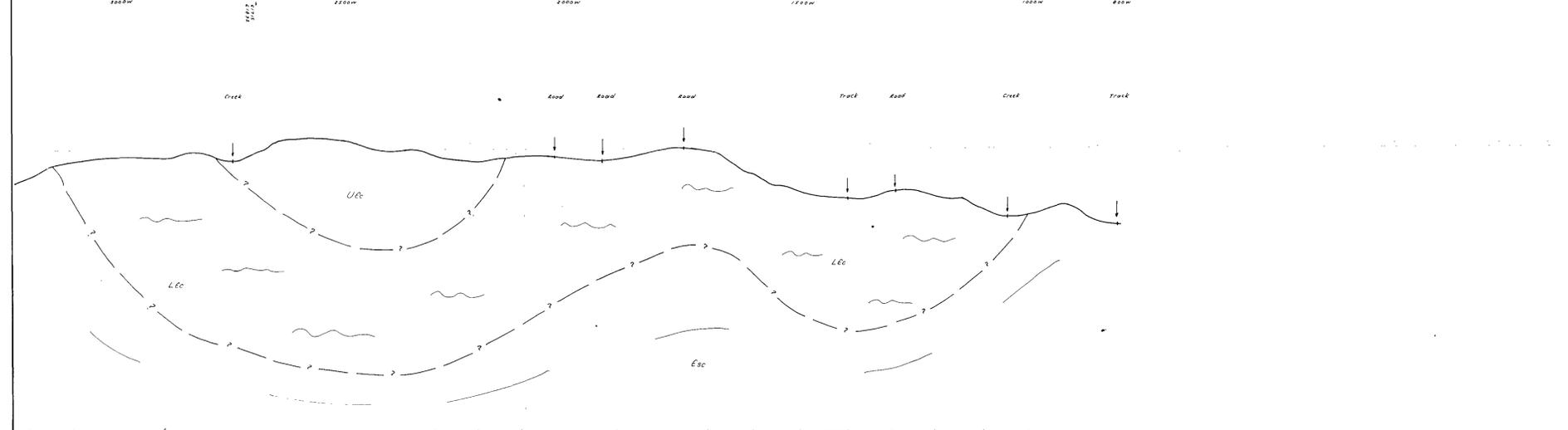
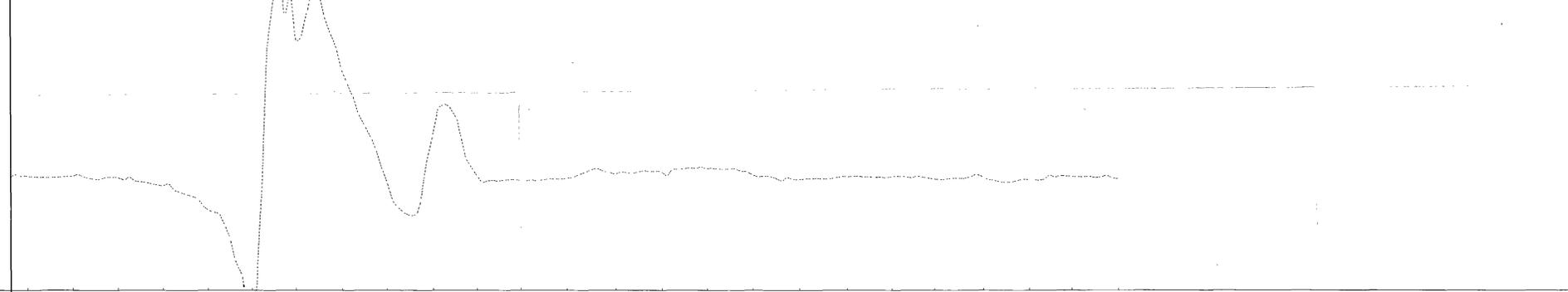
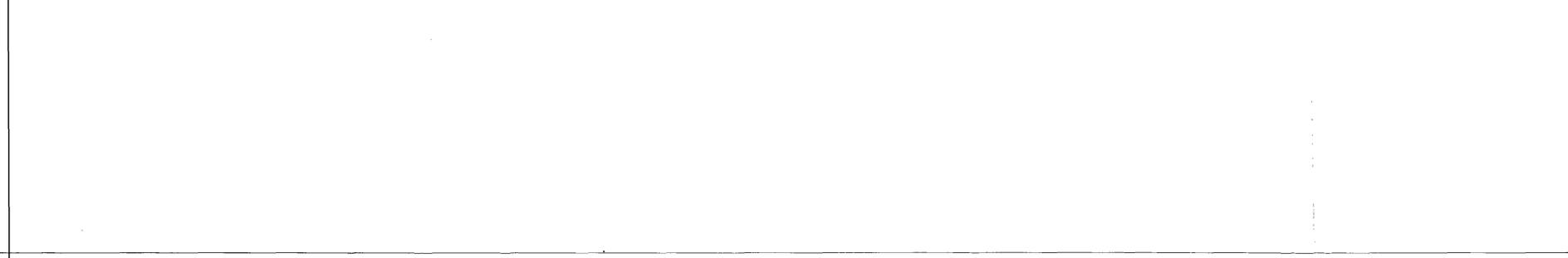
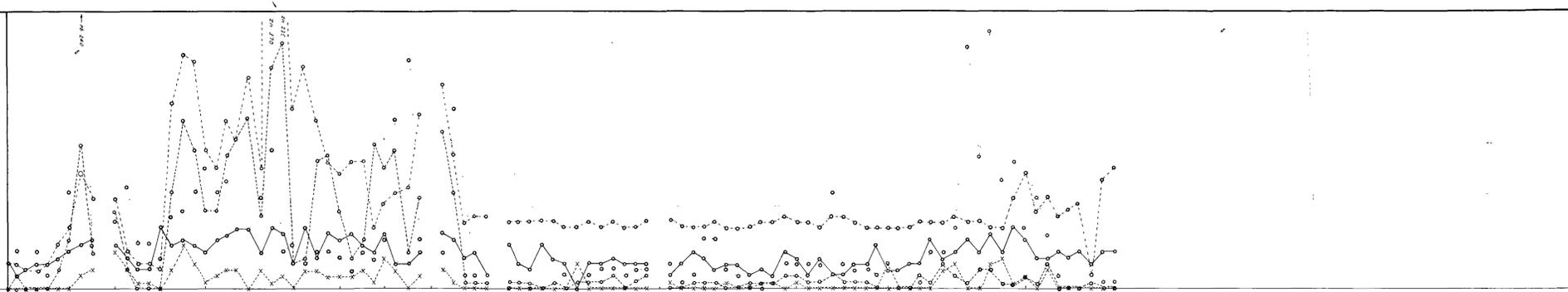
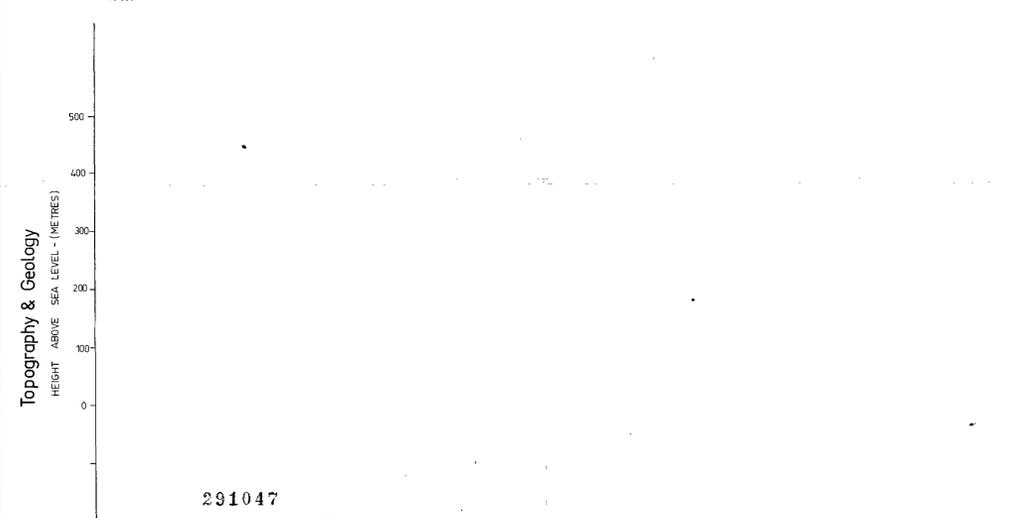
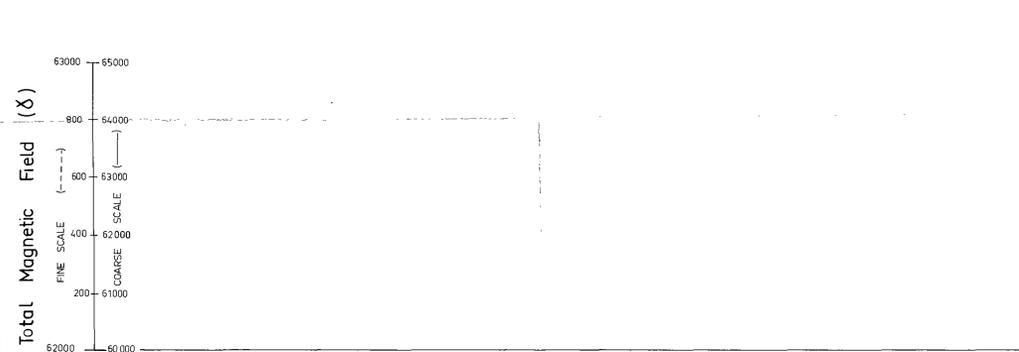
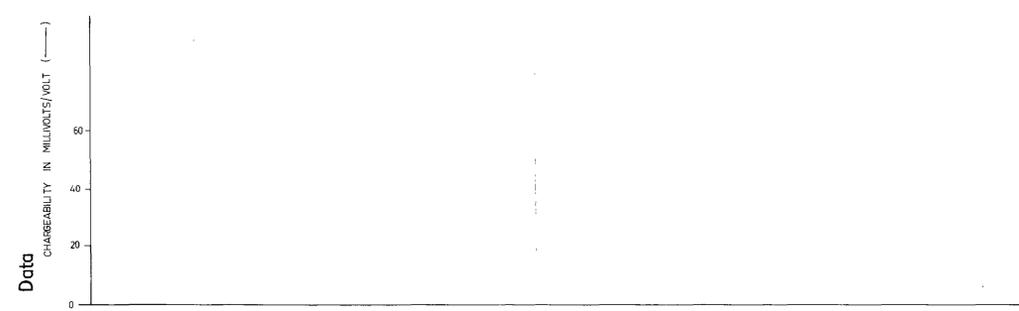
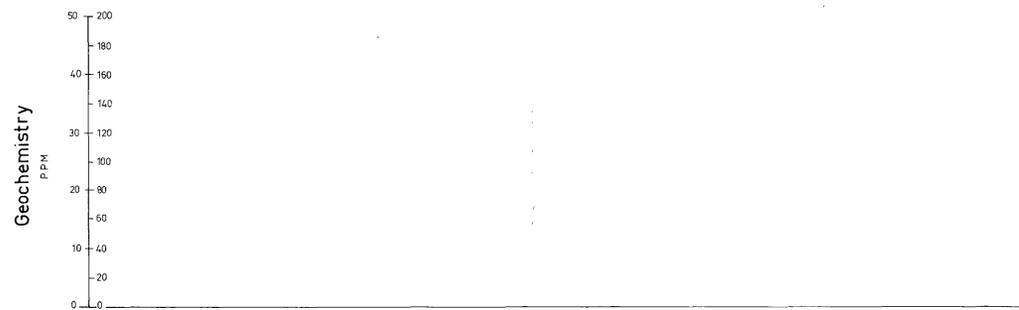
GEOCHEMISTRY

- Sn
- Cu
- Pb
- Zn
- × As
- × W

GEOLOGY

- Qra Quaternary alluvium, fluvio-glacial
- UEc Upper Crimson Creek Formation
- LEc Lower Crimson Creek Formation (Mine sequence equivalent)
- Esc Success Creek Group





291047

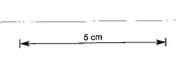
RENISON LIMITED	DRAWN J.P.K.
ARGENT GRID	TRACED J.A.C.
LINE 12	DATE July 1977
SECTION LOOKING N.W.	SCALE 1:5000
SCALE 1:5000 METRES	DRAWING No. 3k

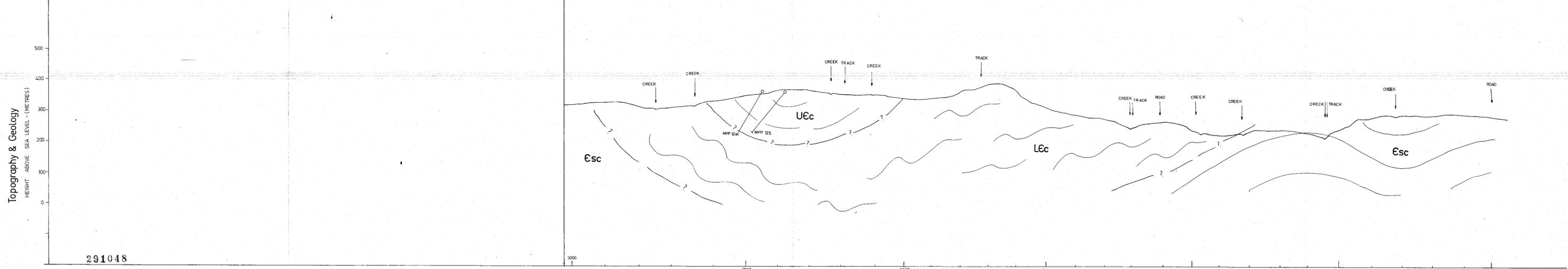
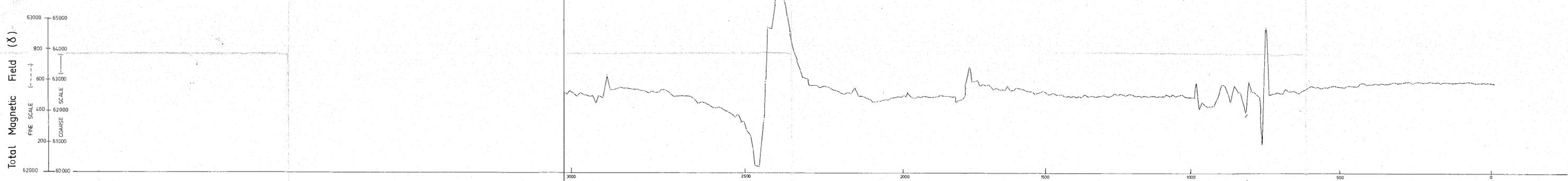
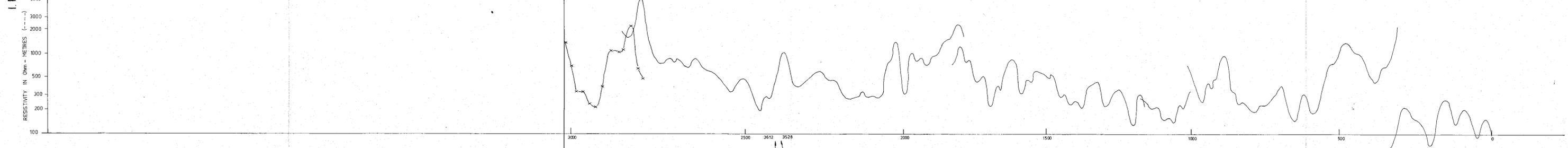
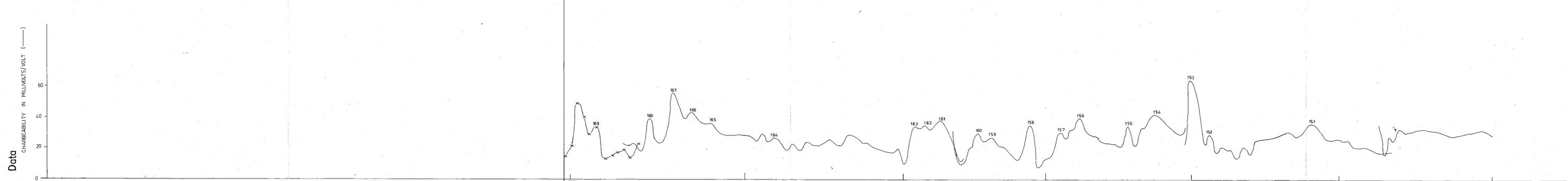
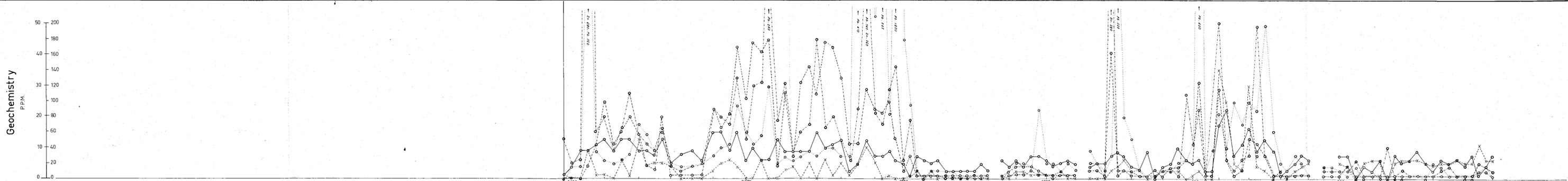
I.P. DATA
 CHARGEABILITY & RESISTIVITY
 — GRADIENT ARRAY
 —X—X— POLE - DIPOLE

MAGNETICS
 5000 SCALE
 1000 SCALE

GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 W

GEOLOGY
 Qa Quaternary alluvium, fluvio-glacial
 UCc Upper Crimson Creek Formation
 LCc Lower Crimson Creek Formation (Mine sequence equivalent)
 E.Sc Success Creek Group





291048

RENISON LIMITED
 ARGENT GRID
 LINE 13
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

DRAWN	J.P.K.
TRACED	J.M.M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	
31	

I.P. DATA
 CHARGEABILITY & RESISTIVITY
 — GRADIENT ARRAY
 —X—X— POLE - DIPOLE

MAGNETICS
 5000 γ SCALE
 1000 γ SCALE

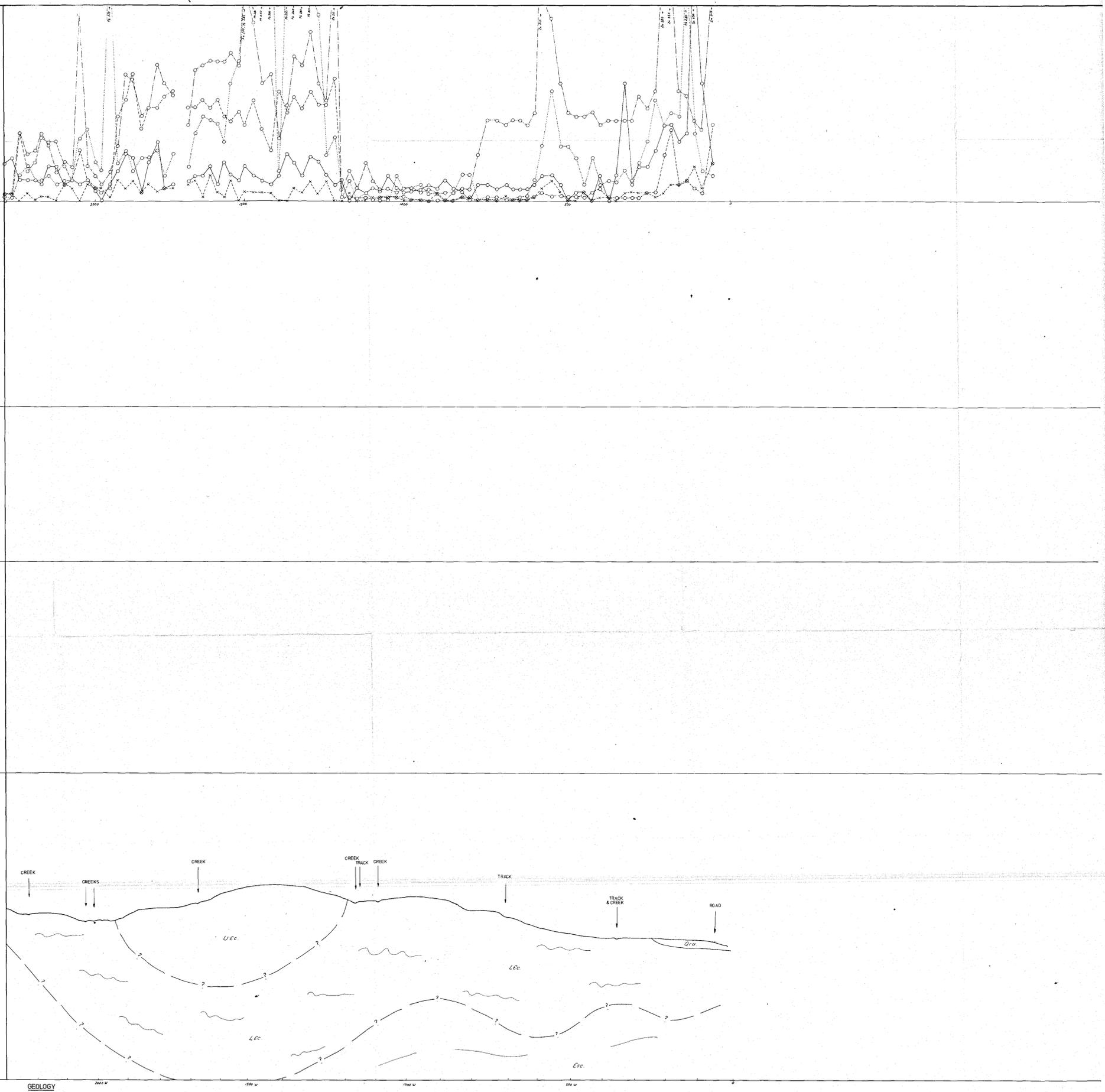
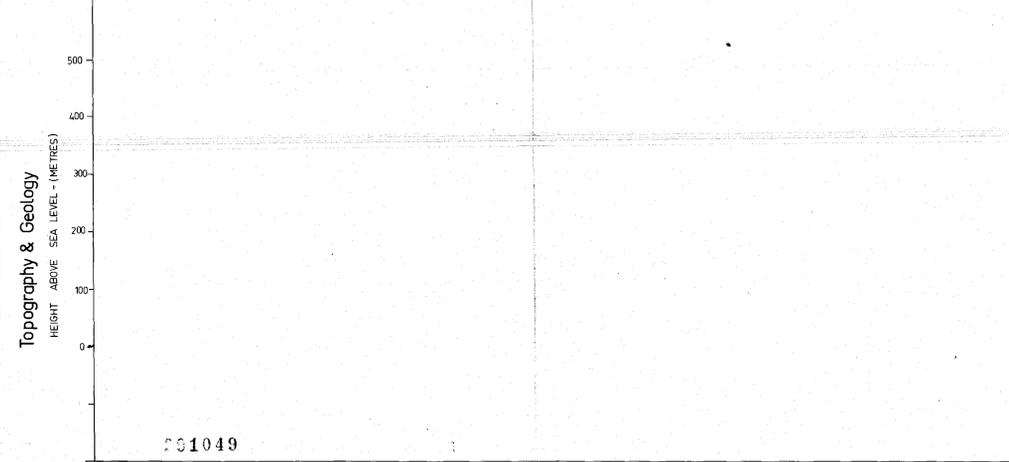
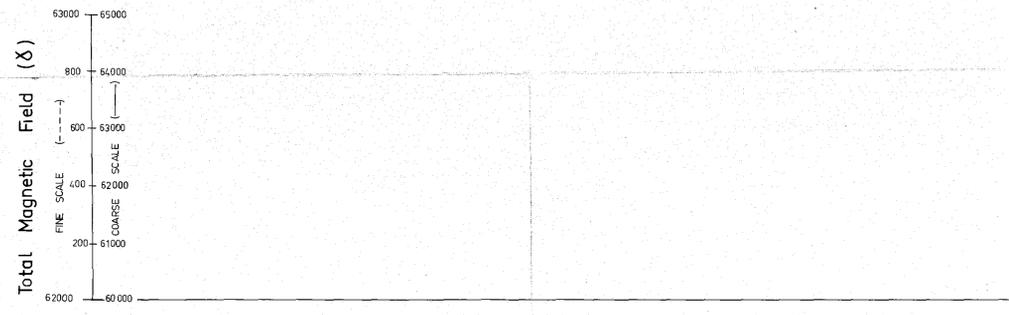
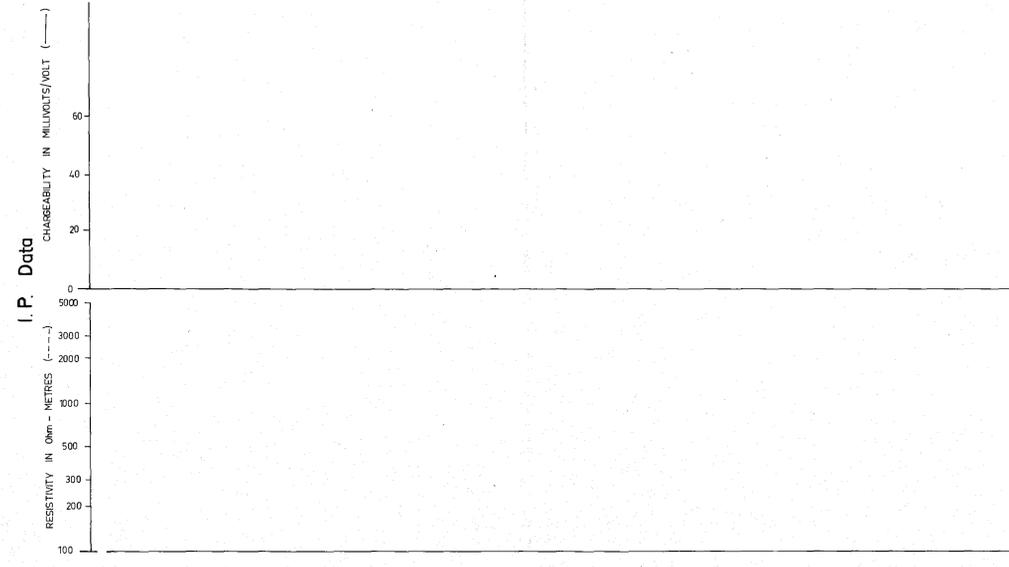
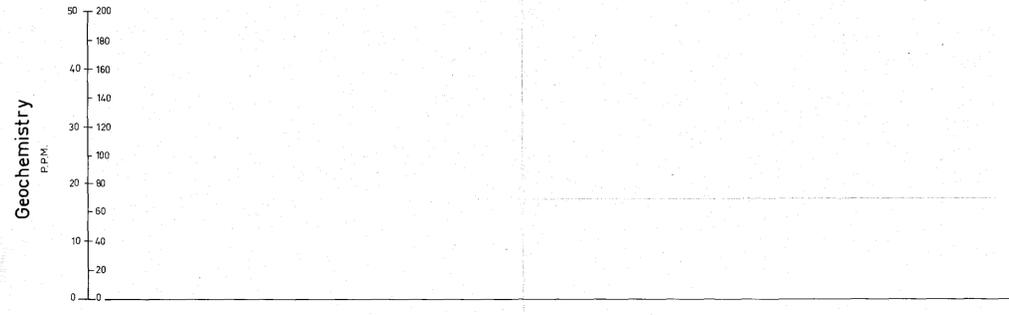
GEOCHEMISTRY

- Sn
- Cu
- Pb
- Zn
- × As
- × W

GEOLOGY

- Qra Quaternary alluvium, fluvio-glacials
- UEc Upper Crimson Creek Formation
- LEc Lower Crimson Creek Formation (Mine sequence equivalent)
- Esc Success Creek Group





77-1234 2/3

RENISON LIMITED
 ARGENT GRID
 LINE 14
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

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TRACED	J. M. M.
DATE	28.7.77
SCALE	1:5000
DRAWING No.	
3m	

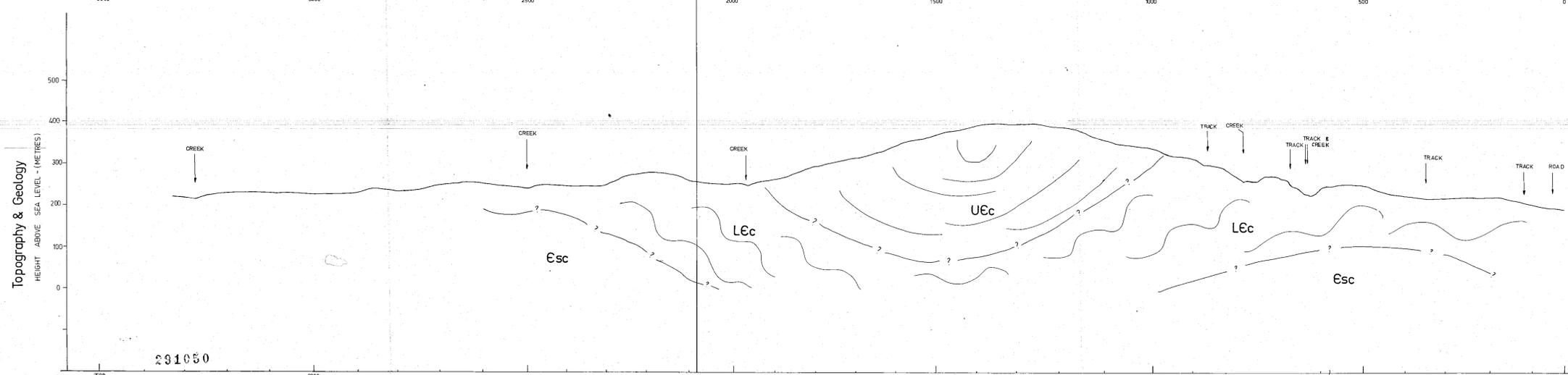
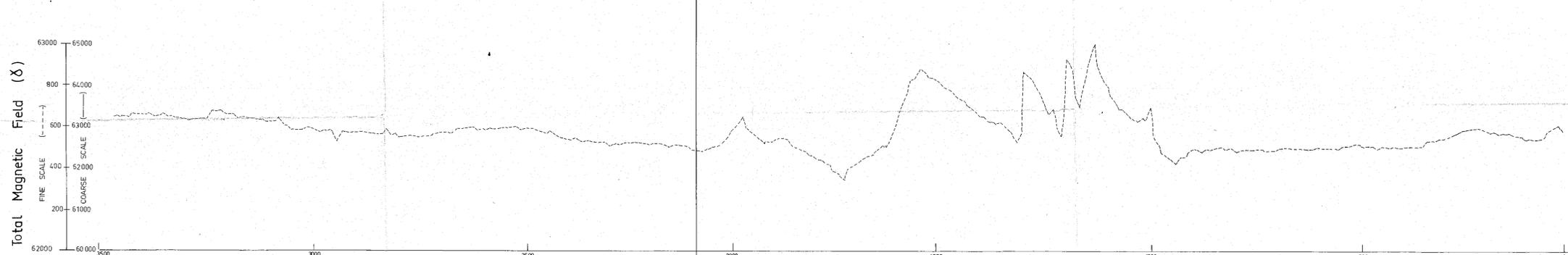
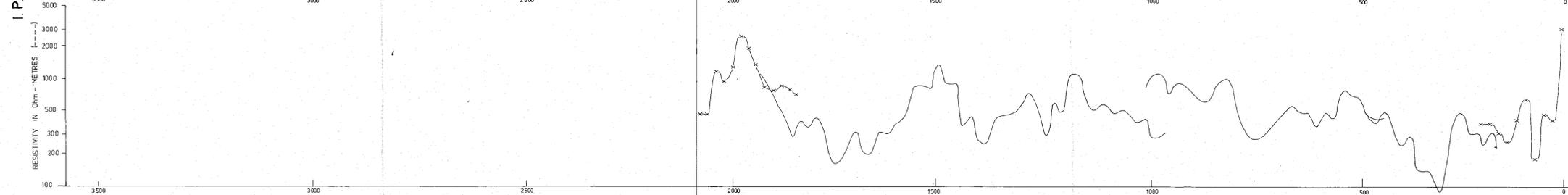
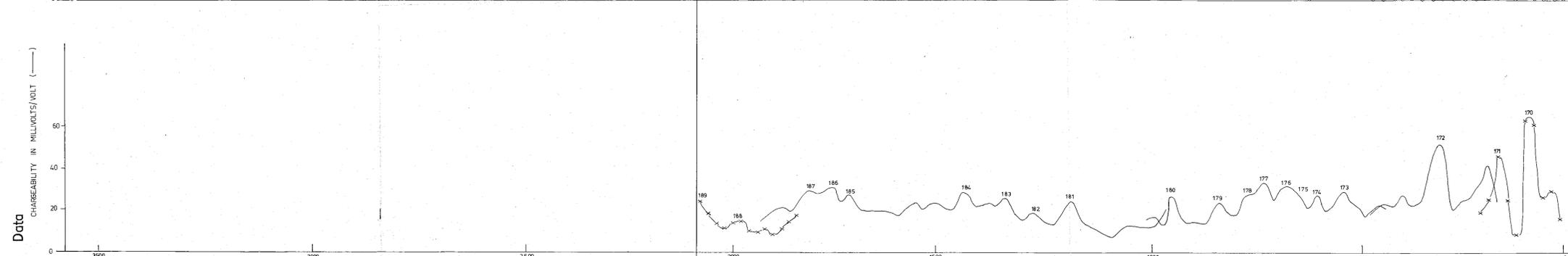
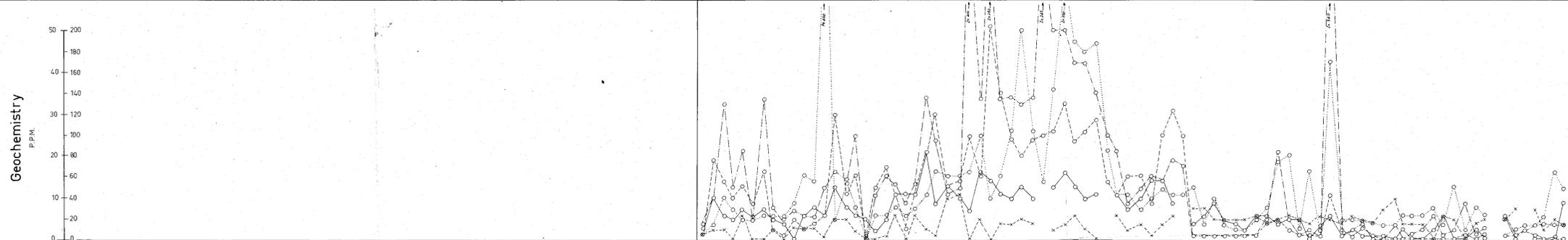
I.P. DATA
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 ——— GRADIENT ARRAY 5000 SCALE
 —X—X— POLE - DIPOLE 1000 SCALE

MAGNETICS
 ——— 5000 SCALE
 - - - 1000 SCALE

GEOCHEMISTRY
 ○ Sn
 ○ Cu
 ○ Pb
 ○ Zn
 X As
 X W

GEOLOGY
 Qra Quaternary alluvium, fluvioglacial
 Ucc Upper Crimson Creek Formation
 Lcc Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group





RENISON LIMITED
 ARGENT GRID
 LINE 15
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

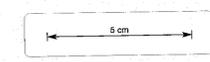
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TRACED	J. M. M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	
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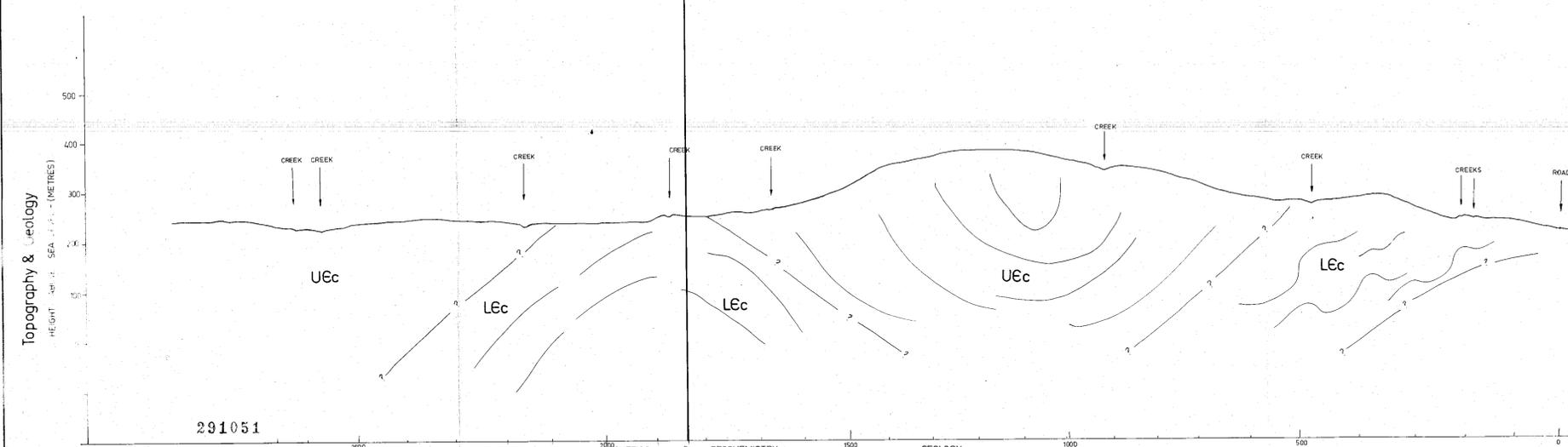
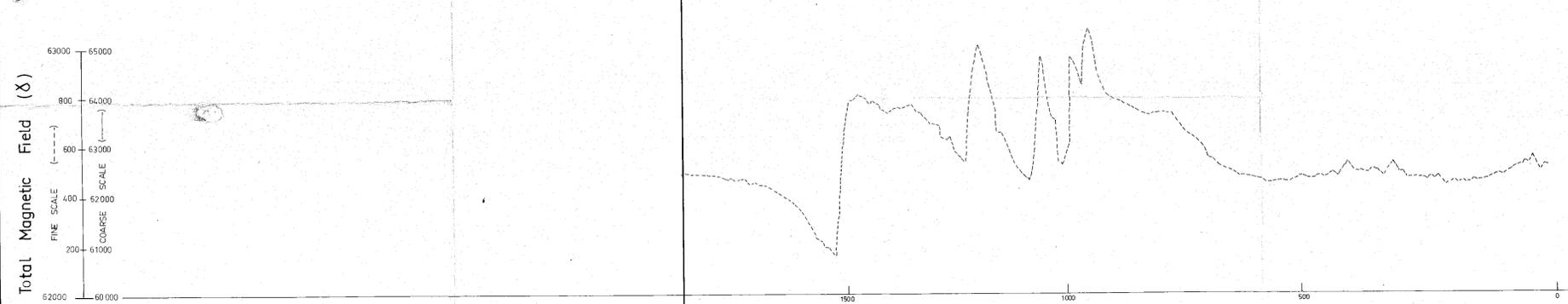
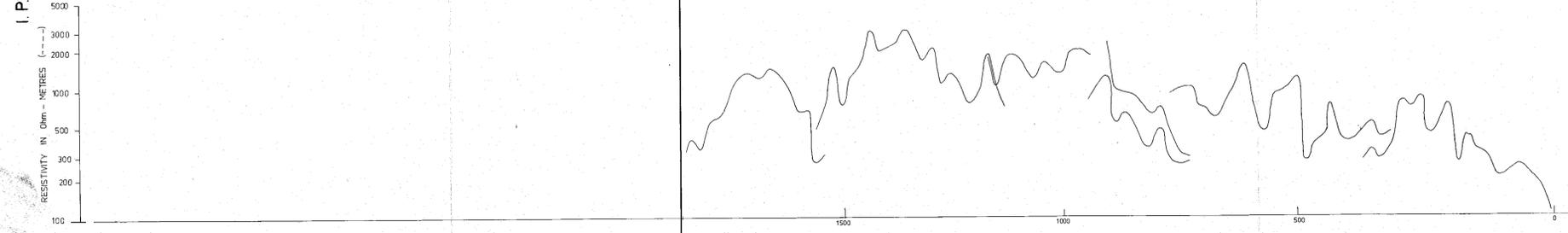
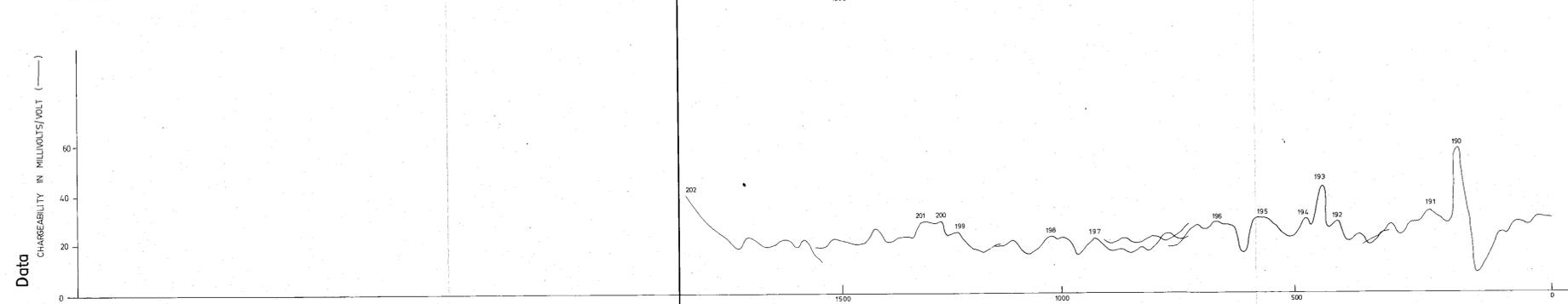
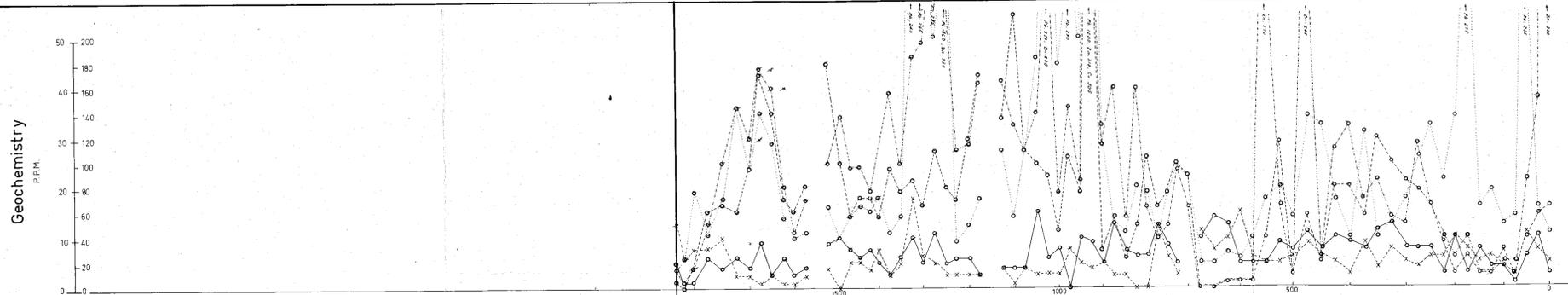
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 CHARGEABILITY & RESISTIVITY
 — GRADIENT ARRAY 5000 Y SCALE
 — X — X — POLE - DIPOLE 1000 Y SCALE

MAGNETICS
 — MAGNETIC FIELD 5000 Y SCALE
 — X — X — POLE - DIPOLE 1000 Y SCALE

GEOCHEMISTRY
 ○ Cu
 ○ Pb
 ○ Zn
 X As
 X W

GEOLOGY
 Qr Quaternary alluvium, fluvioglacial
 UEc Upper Crimson Creek Formation
 LEc Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group





291051

RENISON LIMITED	DRAWN J.P.K.
ARGENT GRID	TRACED J.M.N.
LINE 17	DATE MAY, 76
SECTION LOOKING N.W.	SCALE 1:5000
SCALE 1:5000 METRES	DRAWING No.
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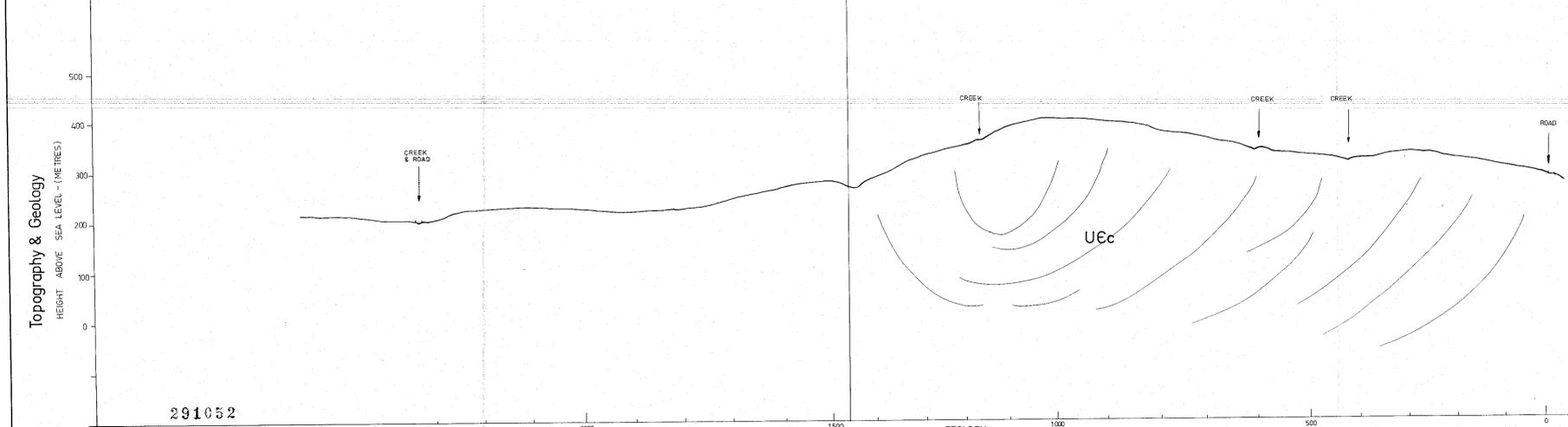
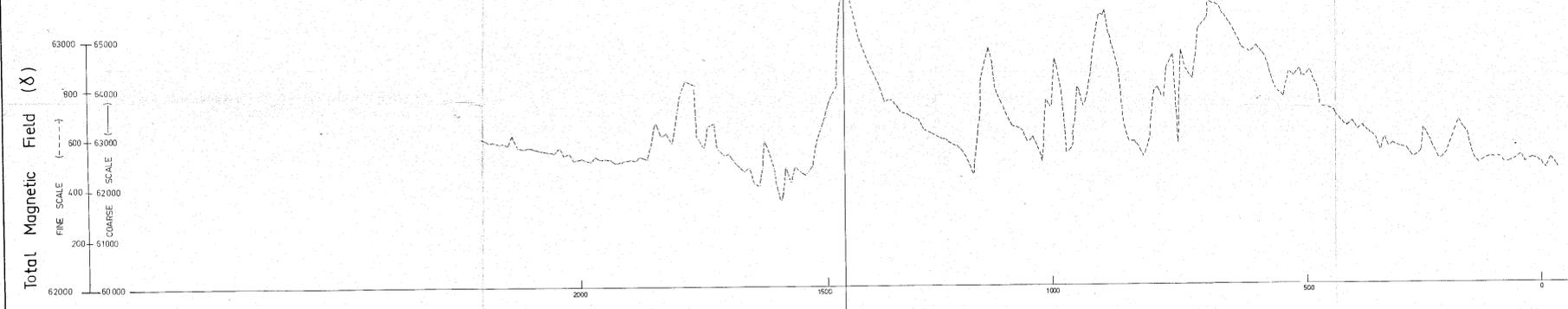
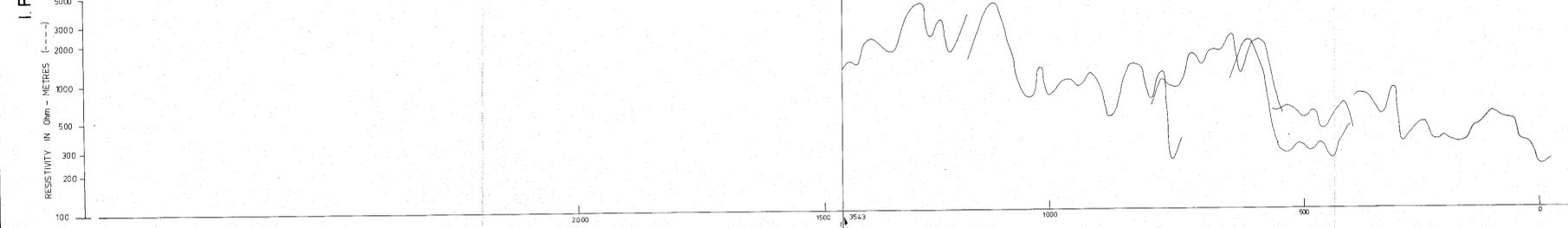
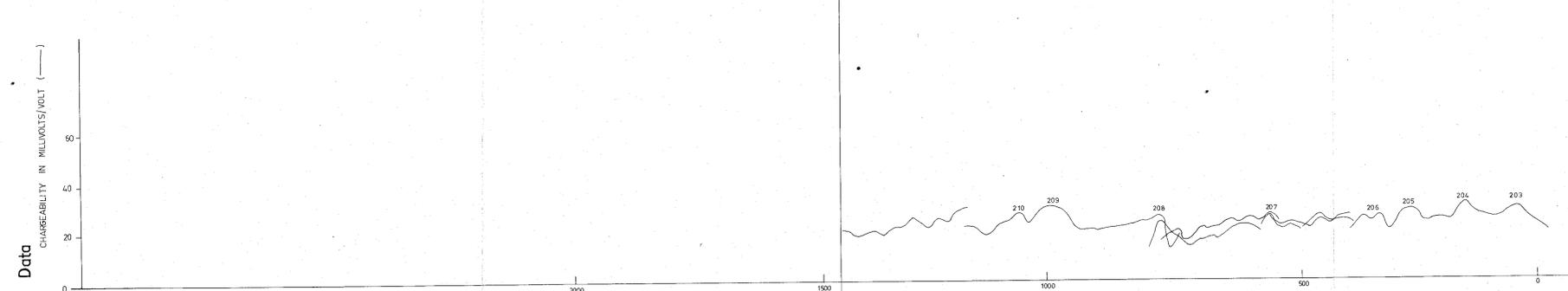
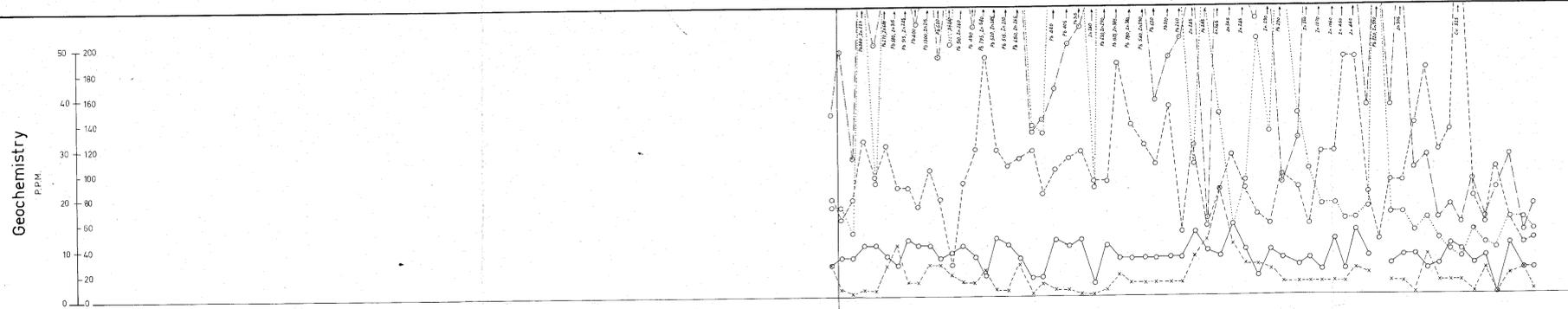
I.P. DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARRAY
X - X - POLE - DIPOLE

MAGNETICS
5000 X SCALE
1000 X SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Gra Quaternary alluvium, fluvio-glaciols
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group





291052

REINSON LIMITED
 ARGENT GRID
 LINE 19
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

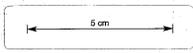
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TRACED	J.M.M.
DATE	MAY. 78
SCALE	1:5000
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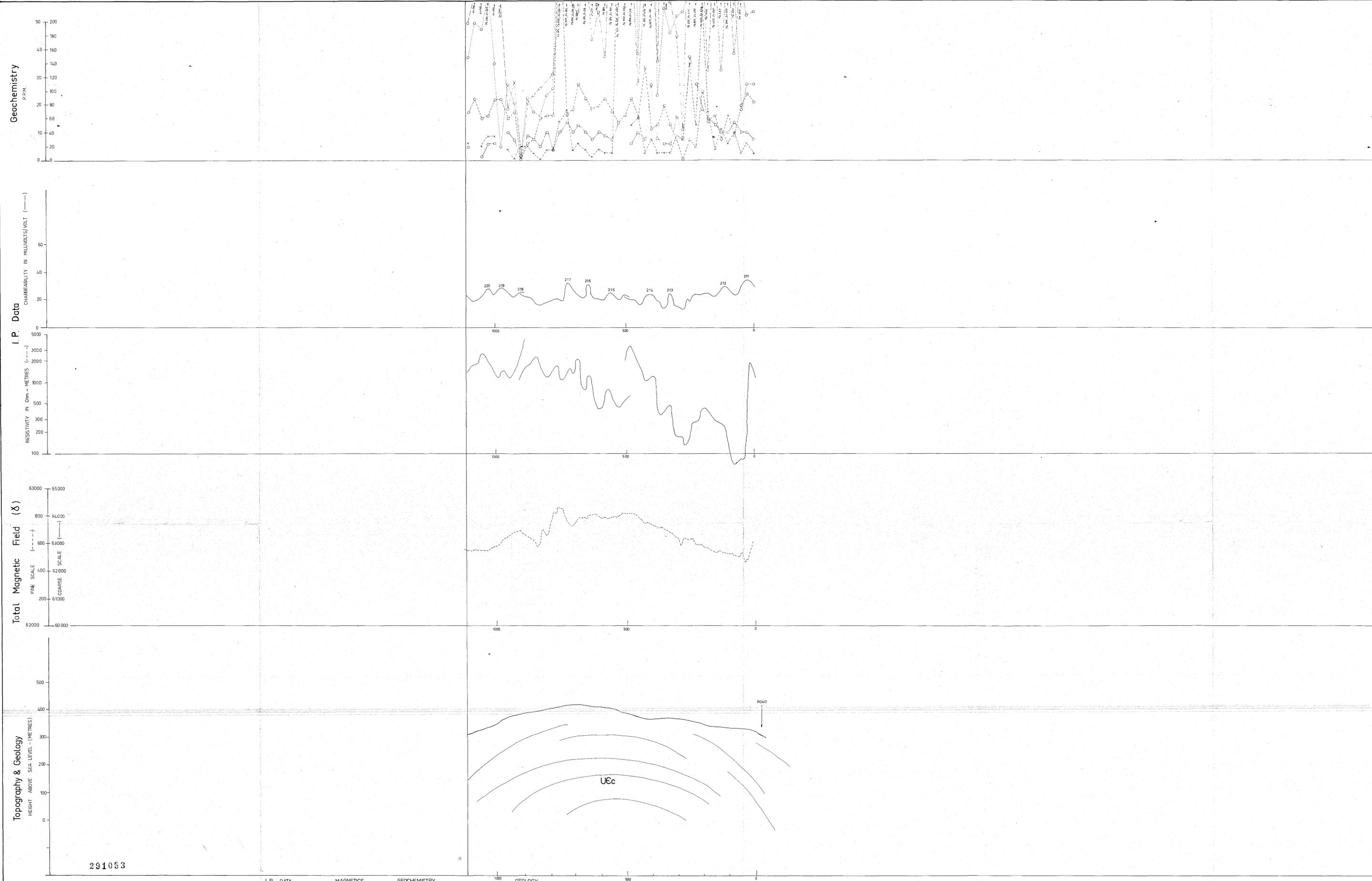
I.P. DATA
 CHARGEABILITY & RESISTIVITY
 GRADIENT ARRAY
 POLE - DIPOLE

MAGNETICS
 5000 X SCALE
 1000 X SCALE

GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 W

GEOLOGY
 Qra Quaternary alluvium, fluvio-glacial
 UEC Upper Crimson Creek Formation
 LEC Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group





291053

RENISON LIMITED
 ARGENT GRID
 LINE 21
 SECTION LOOKING N.W.
 SCALE: 1:5000 METRES

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TRACED	J. M. M.
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	3r

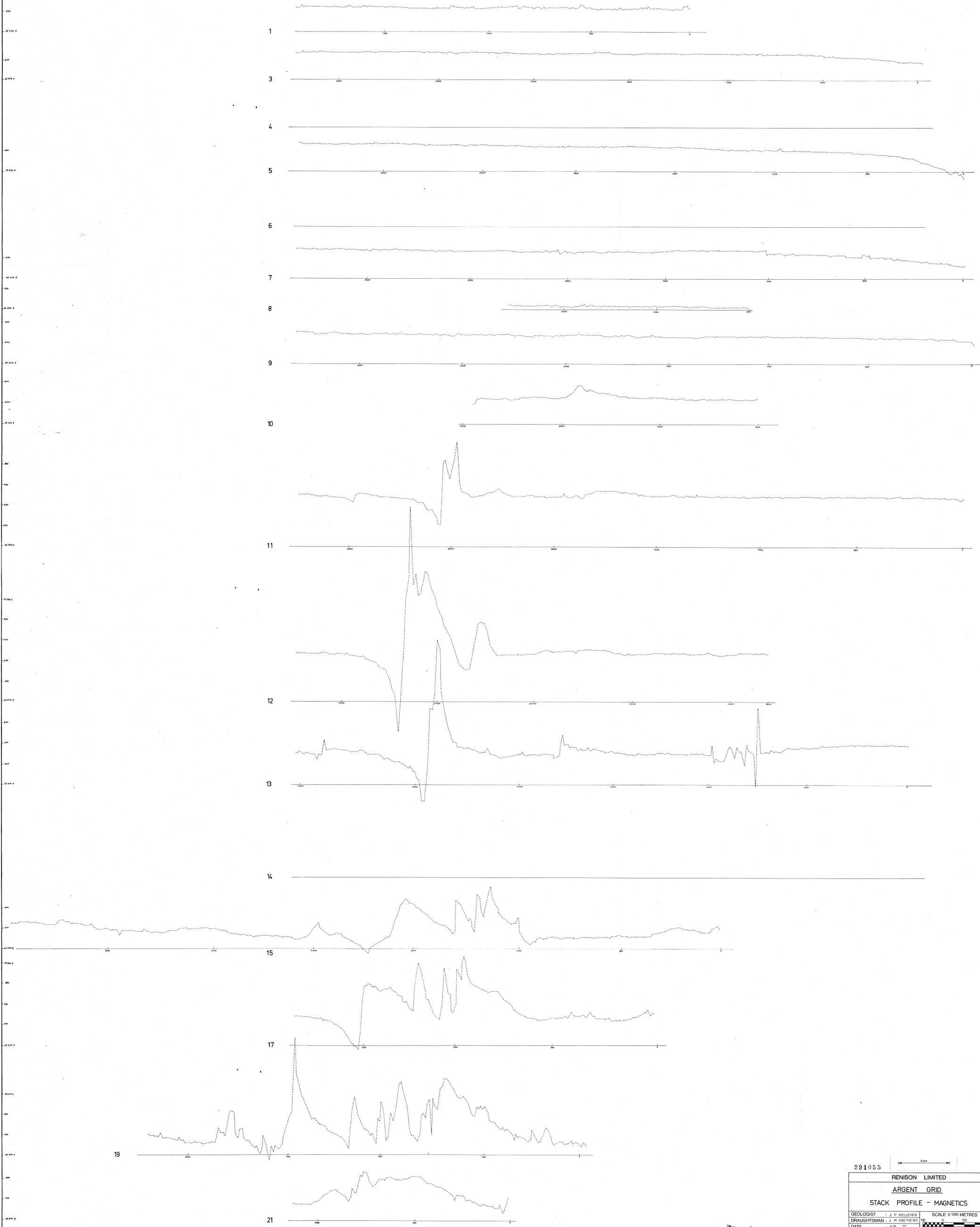
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 CHARGEABILITY & RESISTIVITY
 GRADIENT ARRAY
 X - X - POLE - DIPOLE

MAGNETICS
 5000 Y SCALE
 1000 Y SCALE

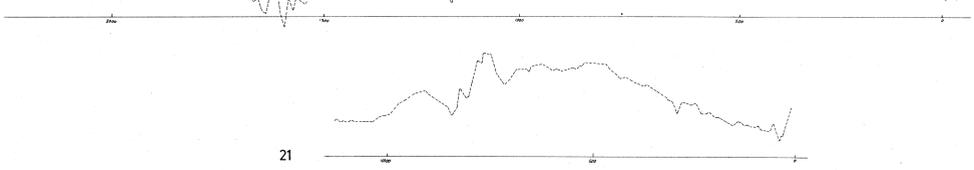
GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 W

GEOLOGY
 Qrc Quaternary alluvium, fluvioglaciols
 UEc Upper Crimson Creek Formation
 LEc Lower Crimson Creek Formation (Mine sequence equivalent)
 Esc Success Creek Group

5cm



19



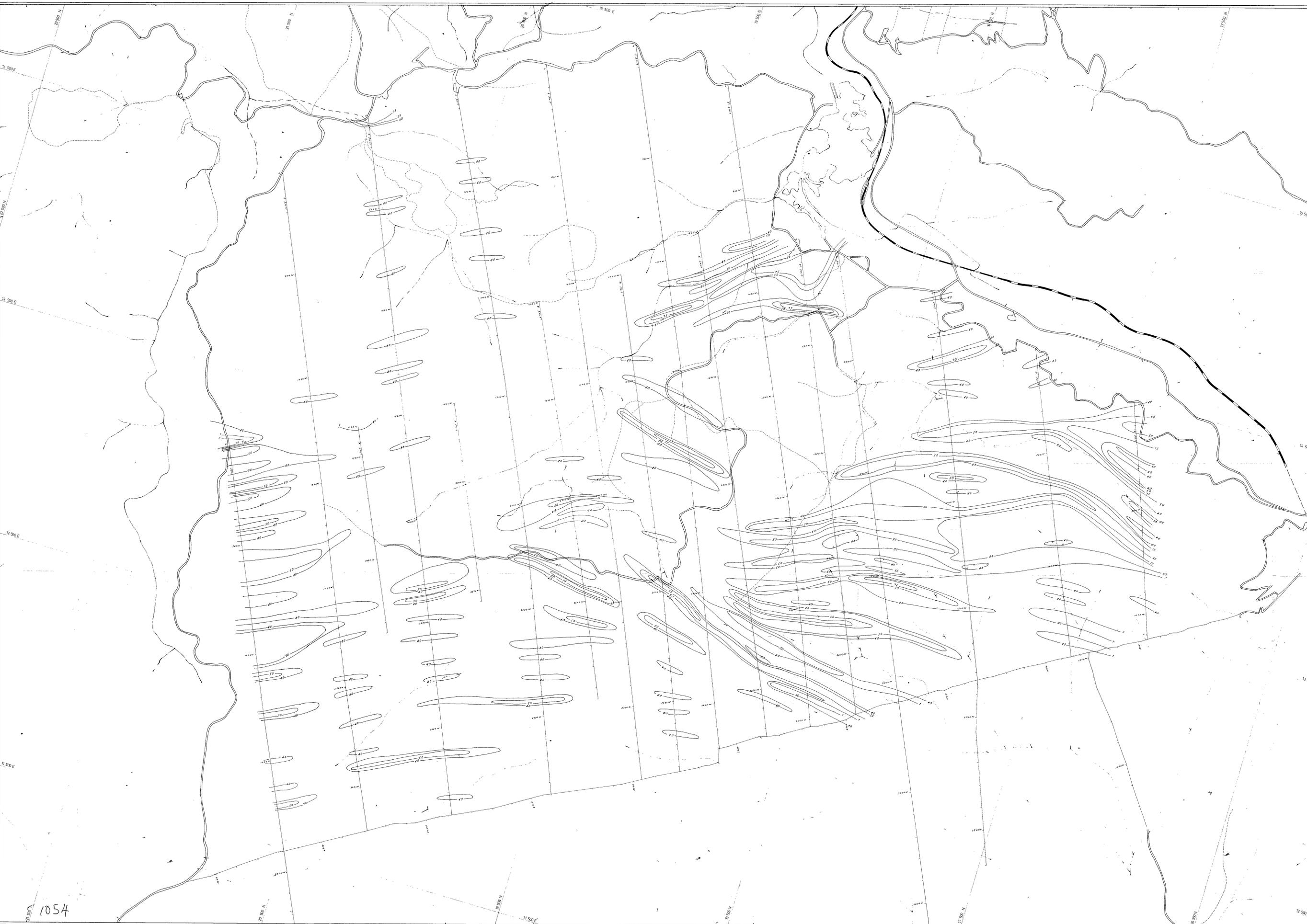
291055

REINSON LIMITED

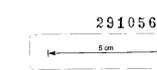
ARGENT GRID

STACK PROFILE - MAGNETICS

GEOLOGIST : J. P. KELLENB	SCALE 1:5000 METRES
DRAUGHTSMAN : J. M. MATHEWS	0 100 200
DATE : AUG 77	
REVISIONS :	DRAWING No. 5

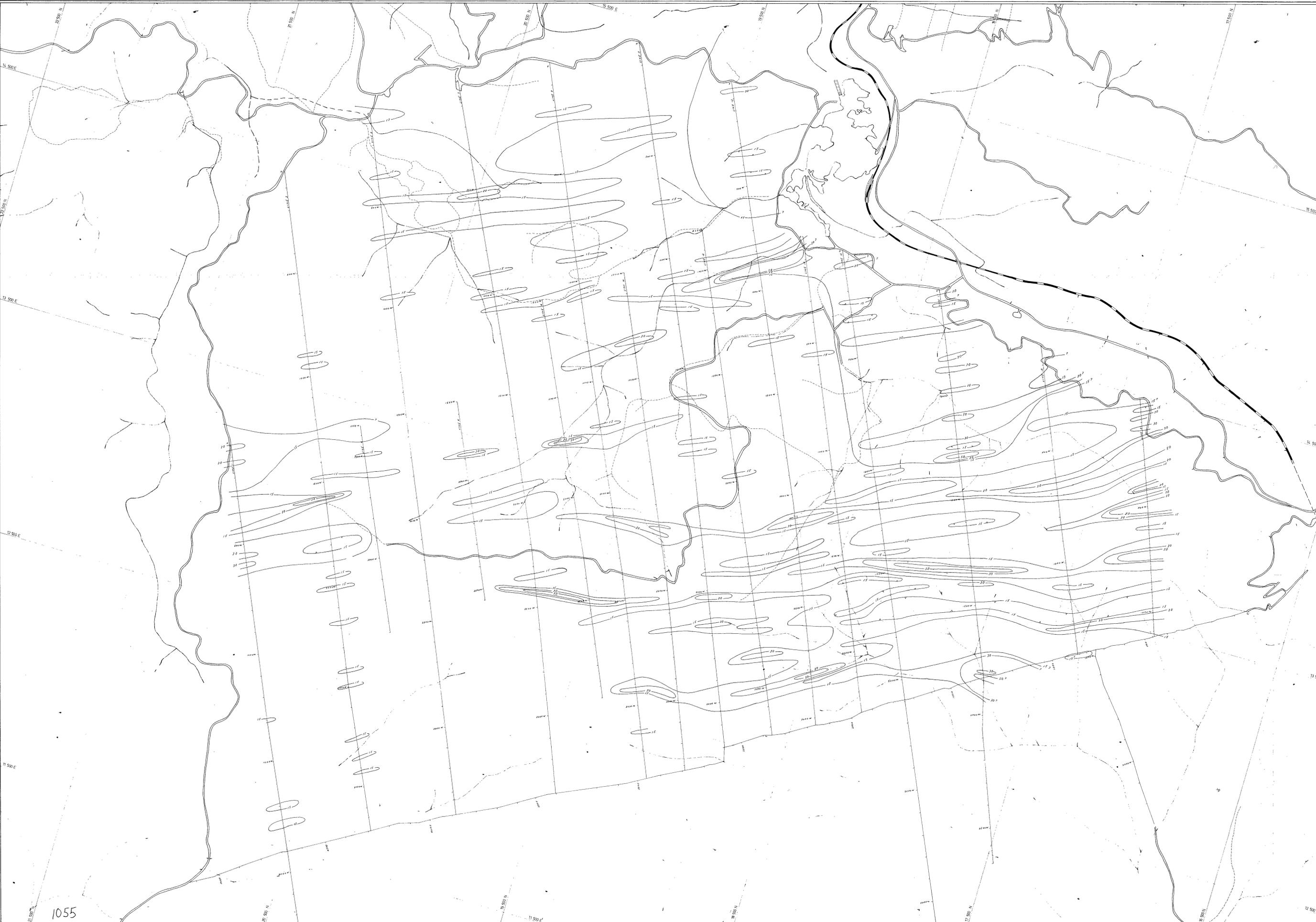


1054



1054

RENISON LIMITED	
ARGENT GRD AREA	
Sn. ASSAY (ppm)	
GEOLOGIST J. A. Walker	SCALE 1:5000 METRES
DRAUGHTSMAN P. A. Collins	DATE August 1977
REVISIONS	DRAWING No. 6



- 50+ p.p.m.
- 20-50 p.p.m.
- 15-20 p.p.m.
- 0-15 p.p.m.

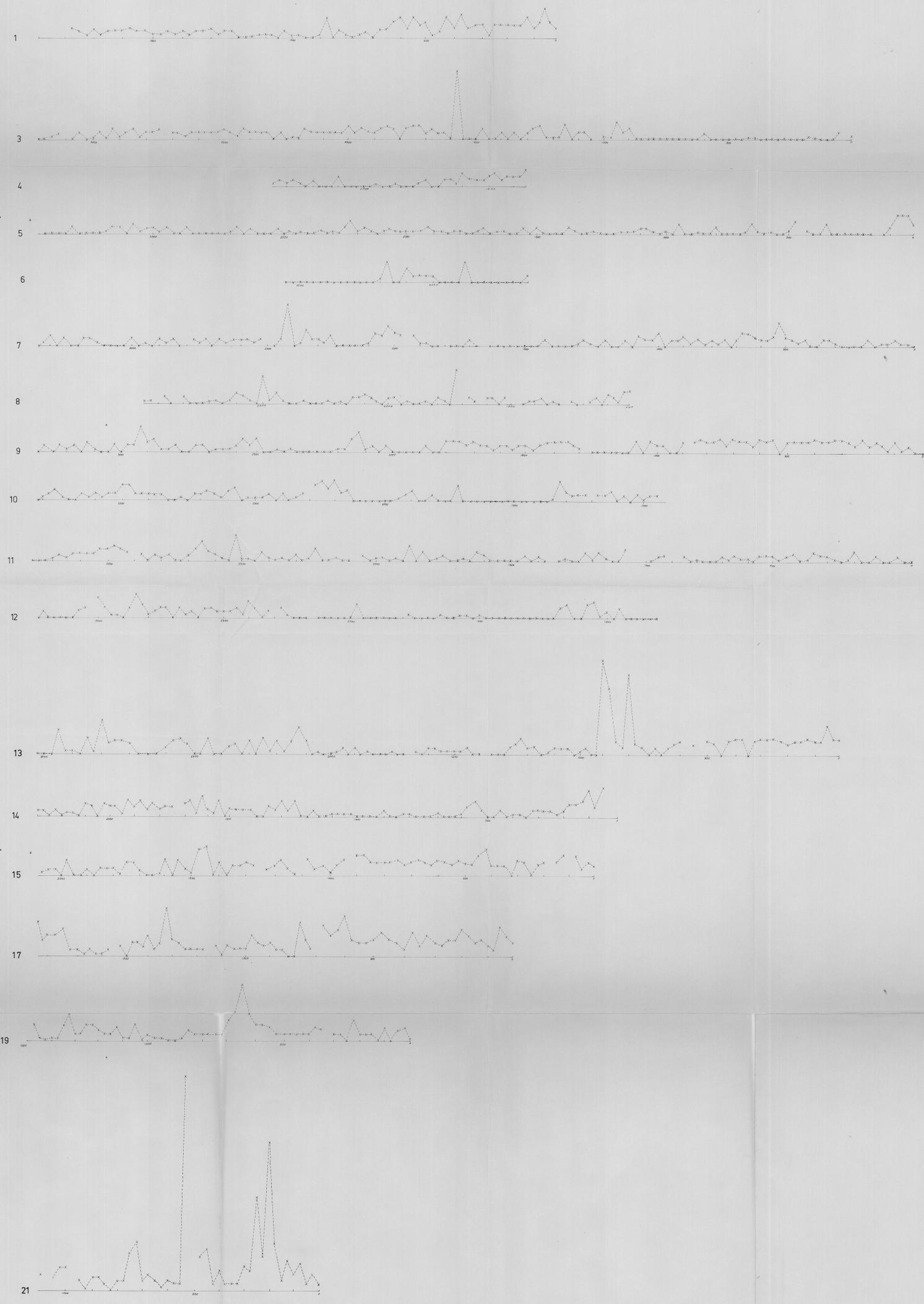
291057
 5cm

RENISON LIMITED
 ARGENT GRD AREA

As. ASSAYS (p.p.m.)

GEOLOGIST	J. P. Kesteven	SCALE 1:5000 METRES
DRAUGHTSMAN	P. A. Coulson	100 100 500
DATE	August 1977	
REVISIONS		DRAWING No 7

1055

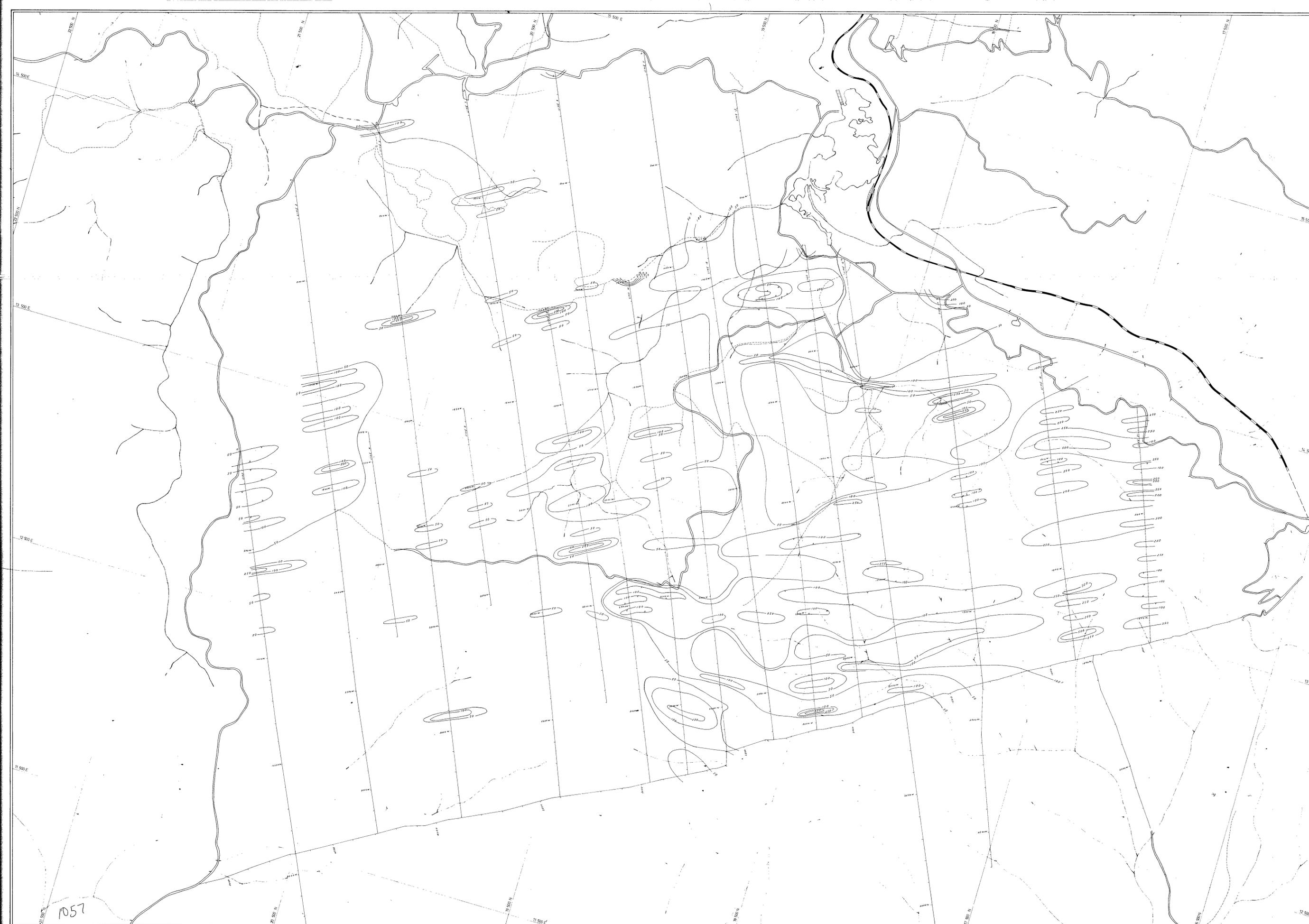


291058

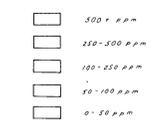


RENISON LIMITED	
ARGENT GRID	
STACKED PROFILE - ARSENIC	
GEOLOGIST : J. P. KELLERER	SCALE 1:5000 METRES
DRAUGHTSMAN : J. M. MATHEWS	DATE : 15-8-77
REVISIONS :	DRAWING No. 8





1057



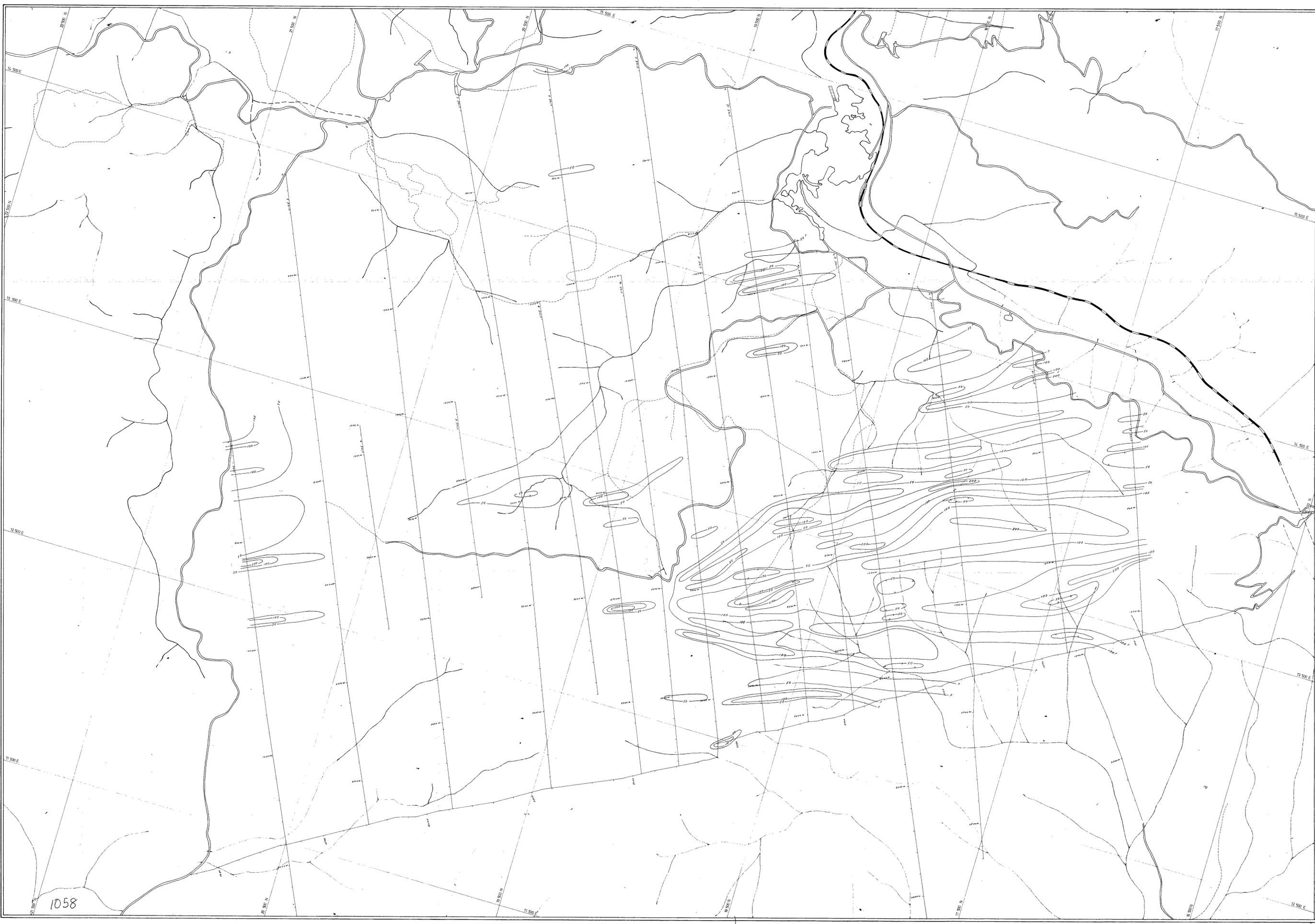
291059



RENISON LIMITED
ARGENT GRD AREA

Zn. ASSAYS (ppm)

GEOLOGIST	J. P. Kellner	SCALE 1:5000 METRES
DRAUGHTSMAN	K. A. Dalton	0 50 100 200
DATE	August 77	
REVISIONS		DRAWING No. 9



1058

- 0-50 ppm
- 50-100 ppm
- 100-200 ppm
- 200+ ppm



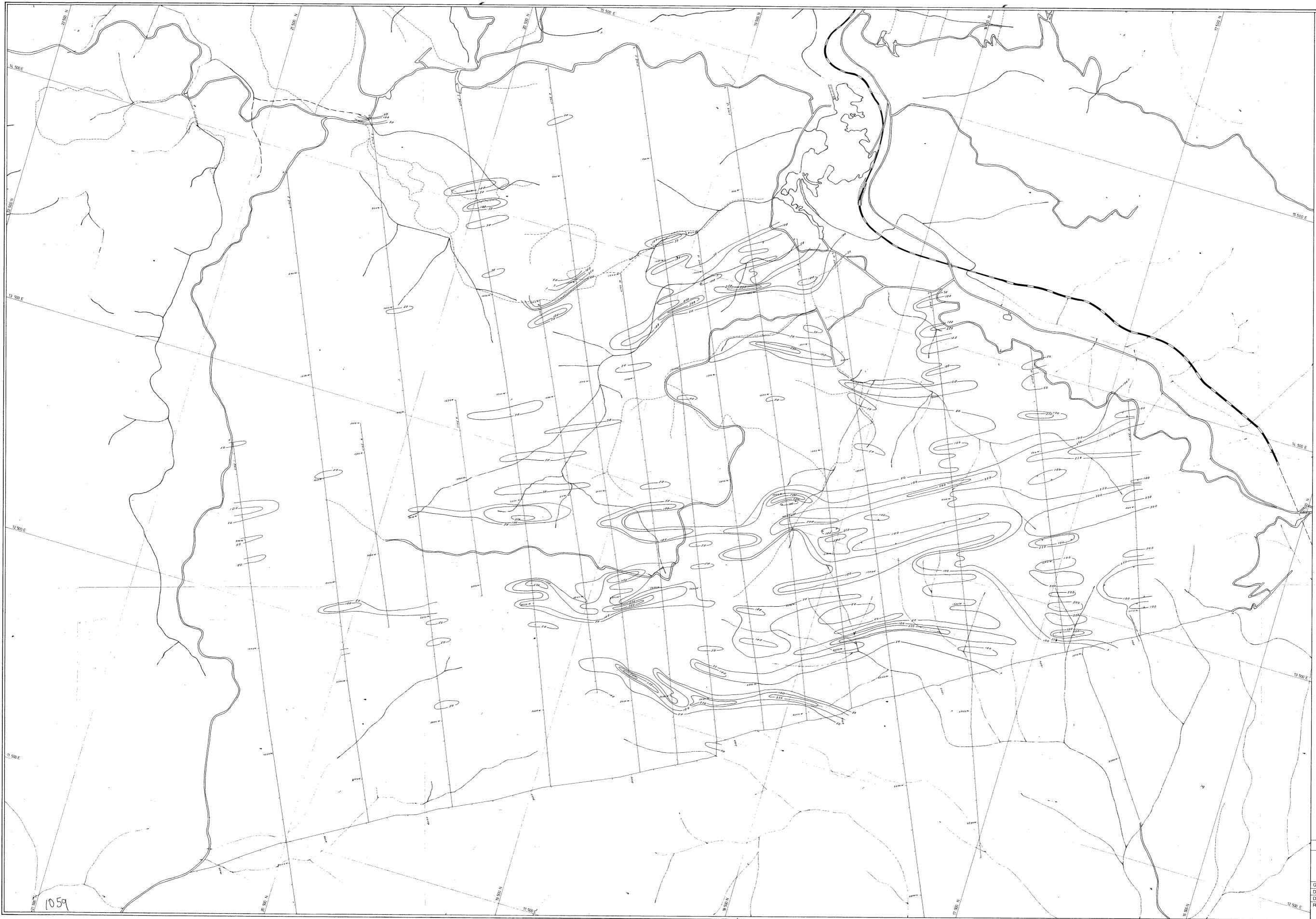
291060

RENISON LIMITED

ARGENT GRD AREA

Cu. ASSAYS (p.p.m.)

GEOLOGIST	J. P. Kitcher	SCALE	1:5000 METRES
DRAUGHTSMAN	A. A. Green	DATE	Aug 1977
REVISIONS		DRAWING No.	10



1059

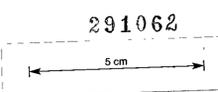
- 0 - 20 ppm
- 20 - 100 ppm
- 100 - 200 ppm
- 200 - 500 ppm
- 500 + ppm

291061



RENISON LIMITED
 ARGENT GRD AREA
 Pb. ASSAYS (p.p.m.)

GEOLOGIST	J. P. Kitcher	SCALE	1:5000 METRES
DRAUGHTSMAN	F. A. Cullen	DATE	AUG 1977
REVISIONS		DRAWING No	11



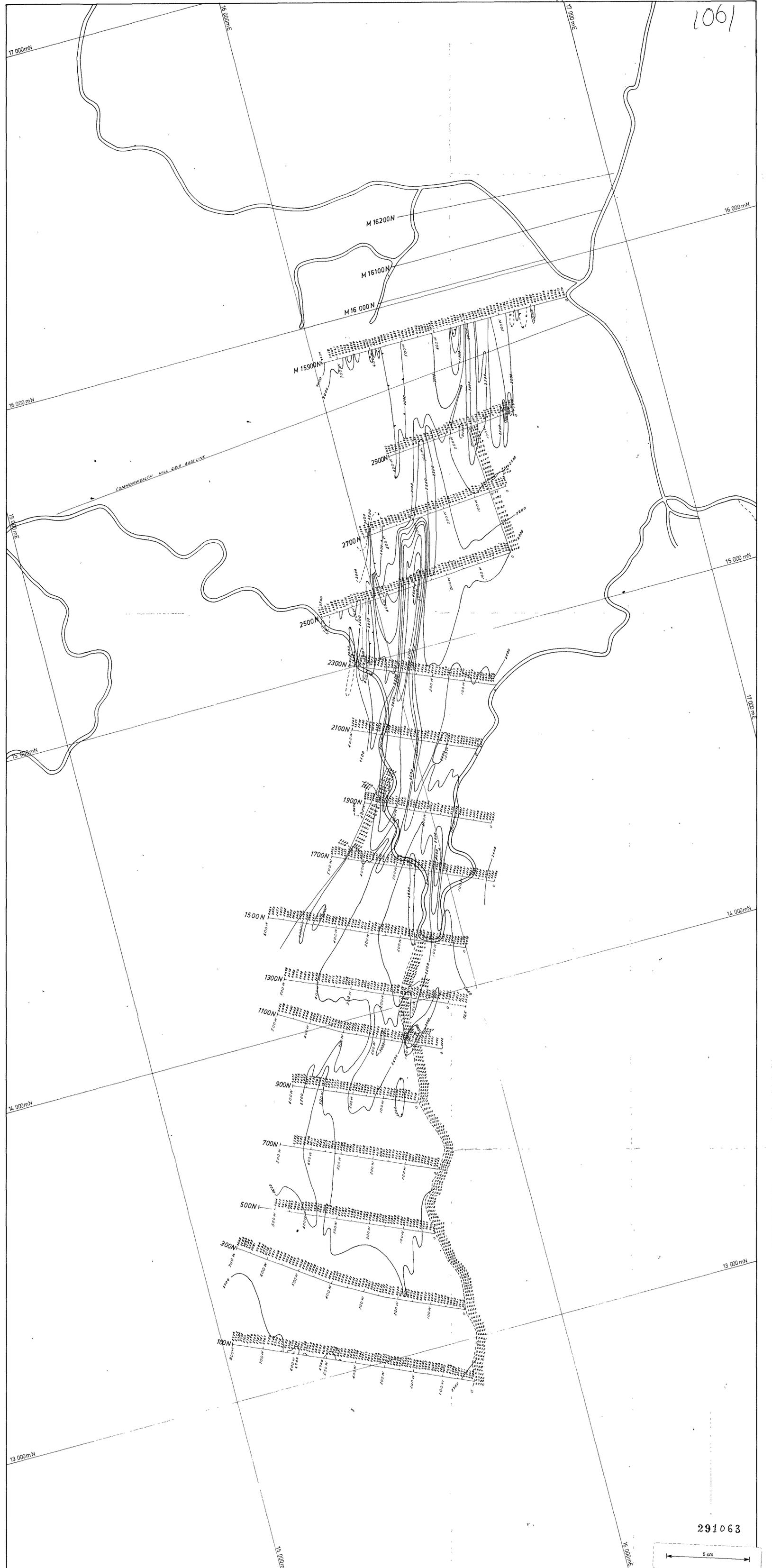
LEGEND	
Geological Boundary	—
Inferred Geological Boundary	- ? - ? -
Approx Geological Boundary	- - -
Fault	- - - -
Inferred Fault	- ? - ? -
Approx Fault	- - - -
Dip and Strike of bedding	- / -
Mine	X

RECENT	Qra	Alluvium.	Ems	Spilites, metadiorite, gabbro and tuff
DEVONIAN	*	Granite	Eum	Ultramafics
	Eug	Black Shale (slaty)	Ecd	Pyroclastics and sediments
U CAMBRIAN - DUNDAS GROUP	Euc	Conglomerate & grit		
	Eus	Shales, tuff / siltst & siltshoss		

M-U CAMBRIAN	Serpentine Hill Complex
L-M CAMBRIAN	Camson Creek Formation

RENISON LIMITED	
KAPI GRID	
GEOLOGY	
GEOLOGIST	J P Kelleher
DRAUGHTSMAN	F A Colson
DATE	March '77
REVISIONS	
SCALE 1:5,000 METRES	
DRAWING No	
12 1060	

1061

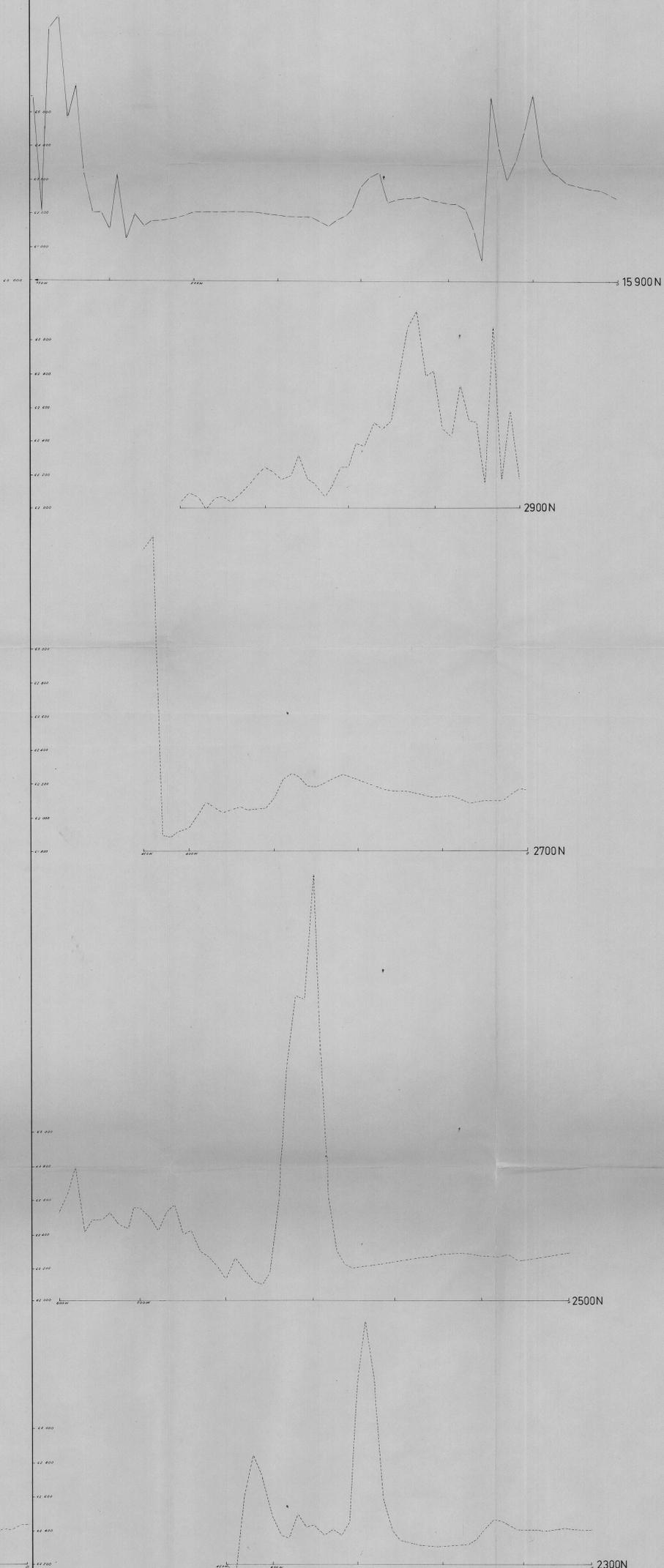
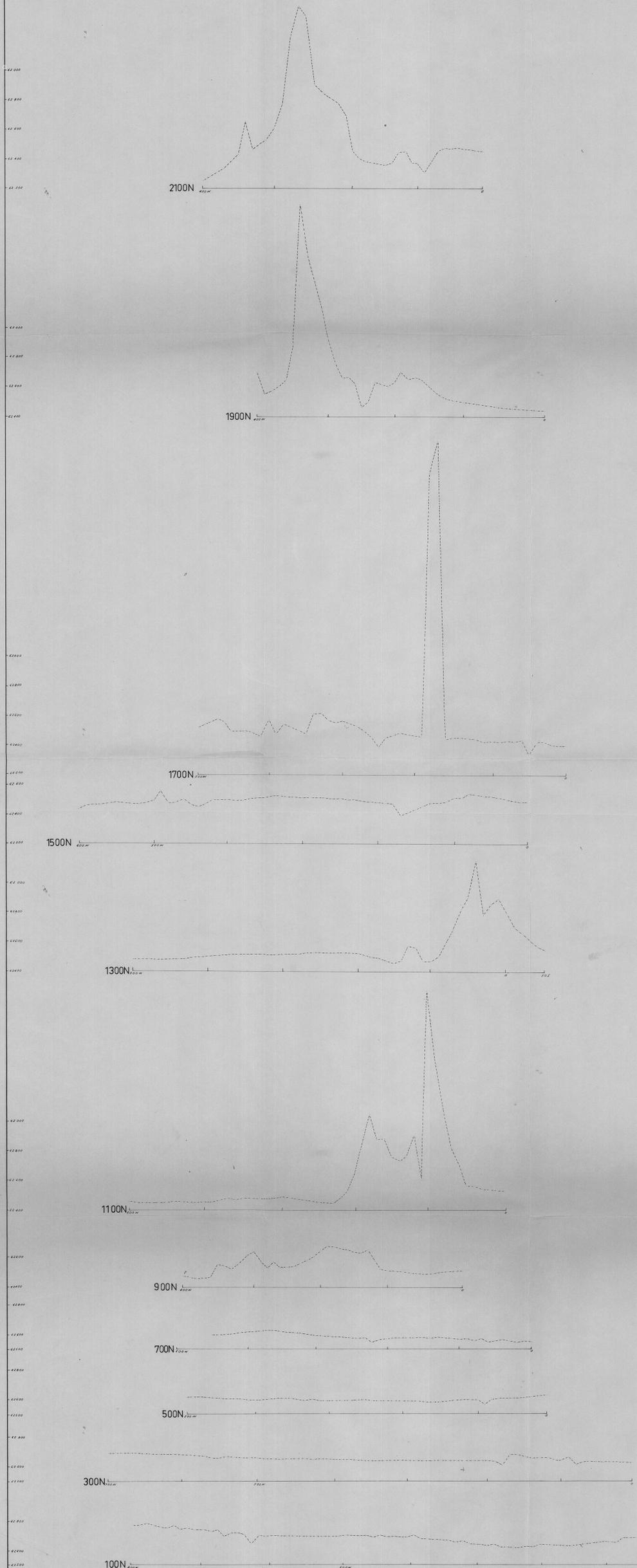


291063



- > 3500 γ
- 2000 - 3500 γ
- < 2000 γ

RENISON LIMITED		←
KAPI GRID		
PROTON MAGNETICS		
(COMPILED BY SCINTREX)		(Add 60,000 γ)
GEOLOGIST	J. P. Kelleher	SCALE 1:5,000 METRES
DRAUGHTSMAN	F. A. Colson	100 0 100 200
DATE	August 77	
REVISIONS		DRAWING No. 13



291064
5 cm

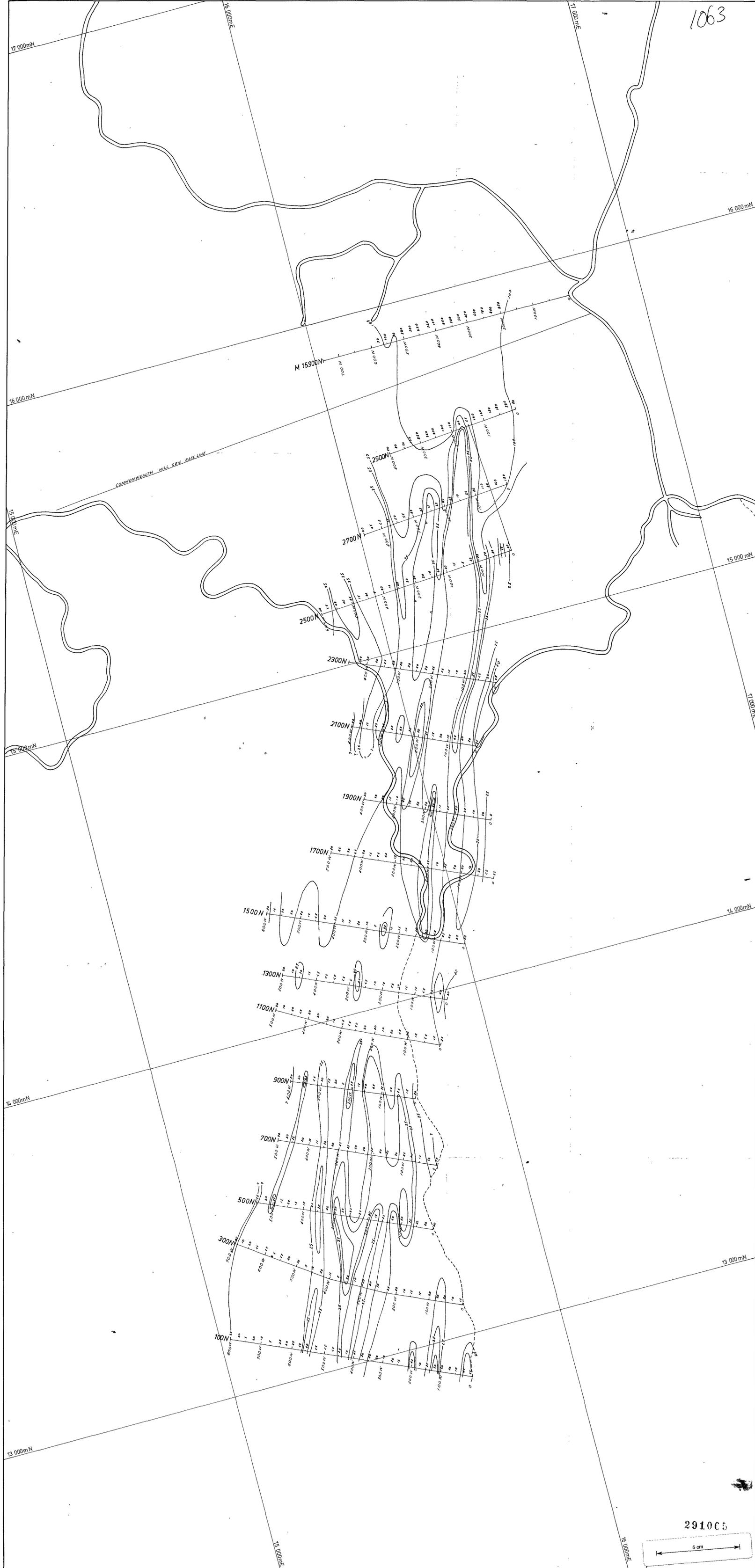
RENISON LIMITED
 TOTAL FIELD MAGNETICS (γ)
 KAPI GRID
 STACKED PROFILE

GEOLOGIST : J. P. McArthur	SCALE 1:2,000 METRES
DRAUGHTSMAN : P. A. Carlson	DATE : June 99
REVISIONS :	DRAWING No. 14

5 cm

--- --- True Field
 --- --- Corrected Data

1063



17 000mN
16 000mN
15 000mN
14 000mN
13 000mN

15 000mE
16 000mE
17 000mE
18 000mE
19 000mE
20 000mE
21 000mE
22 000mE
23 000mE
24 000mE
25 000mE
26 000mE
27 000mE
28 000mE
29 000mE
30 000mE
31 000mE
32 000mE
33 000mE
34 000mE
35 000mE
36 000mE
37 000mE
38 000mE
39 000mE
40 000mE
41 000mE
42 000mE
43 000mE
44 000mE
45 000mE
46 000mE
47 000mE
48 000mE
49 000mE
50 000mE
51 000mE
52 000mE
53 000mE
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55 000mE
56 000mE
57 000mE
58 000mE
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81 000mE
82 000mE
83 000mE
84 000mE
85 000mE
86 000mE
87 000mE
88 000mE
89 000mE
90 000mE
91 000mE
92 000mE
93 000mE
94 000mE
95 000mE
96 000mE
97 000mE
98 000mE
99 000mE
100 000mE

COMMONWEALTH HILL GRID BASK LINE

M 15900N

2900N

2700N

2500N

2300N

2100N

1900N

1700N

1500N

1300N

1100N

900N

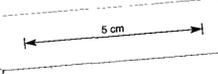
700N

500N

300N

100N

29100E



- > 100 ppm
- 50-100 ppm
- 35-50 ppm
- 25-35 ppm
- < 25 ppm

RENISON LIMITED
KAPI GRID
Sn. Assays ppm.

GEOLOGIST J. P. Kelleher
DRAUGHTSMAN F. A. Colson
DATE March '77
REVISIONS

SCALE 1:5,000 METRES
100 0 100 200
DRAWING No. 15

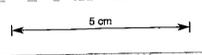
77-1254 3/3

1063

1064



291066

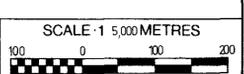


- > 200 ppm
- 100 - 200 ppm
- 60 - 100 ppm
- 20 - 60 ppm
- < 20 ppm

RENISON LIMITED

KAPI GRID
As. Assays ppm.

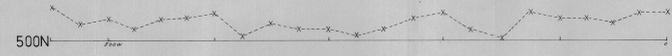
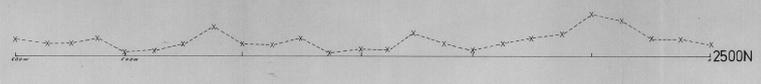
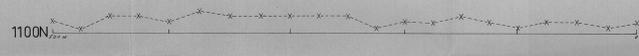
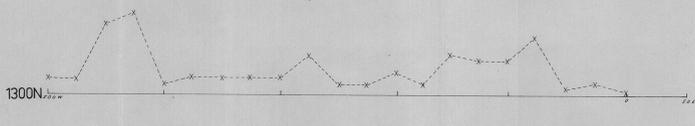
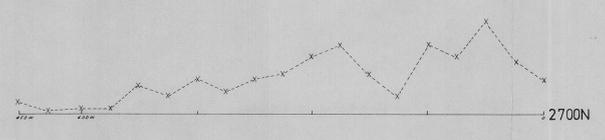
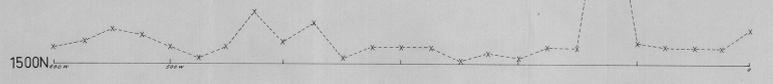
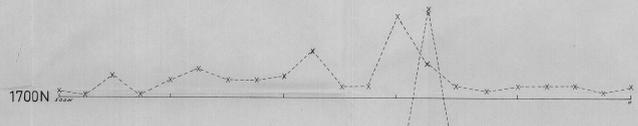
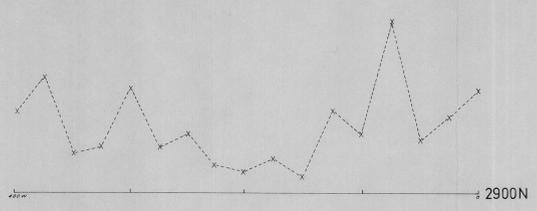
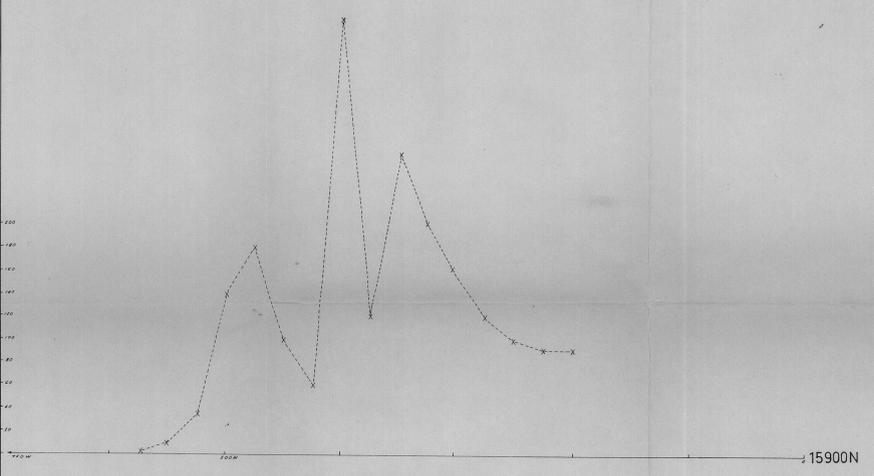
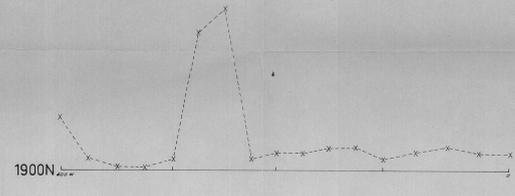
GEOLOGIST : J. P. Kelleher
 DRAUGHTSMAN : F. A. Colson
 DATE : March '77



REVISIONS :
 DRAWING No. 16

77-1234 3/3

1064



291067

RENISON LIMITED

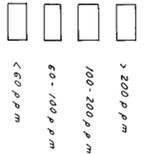
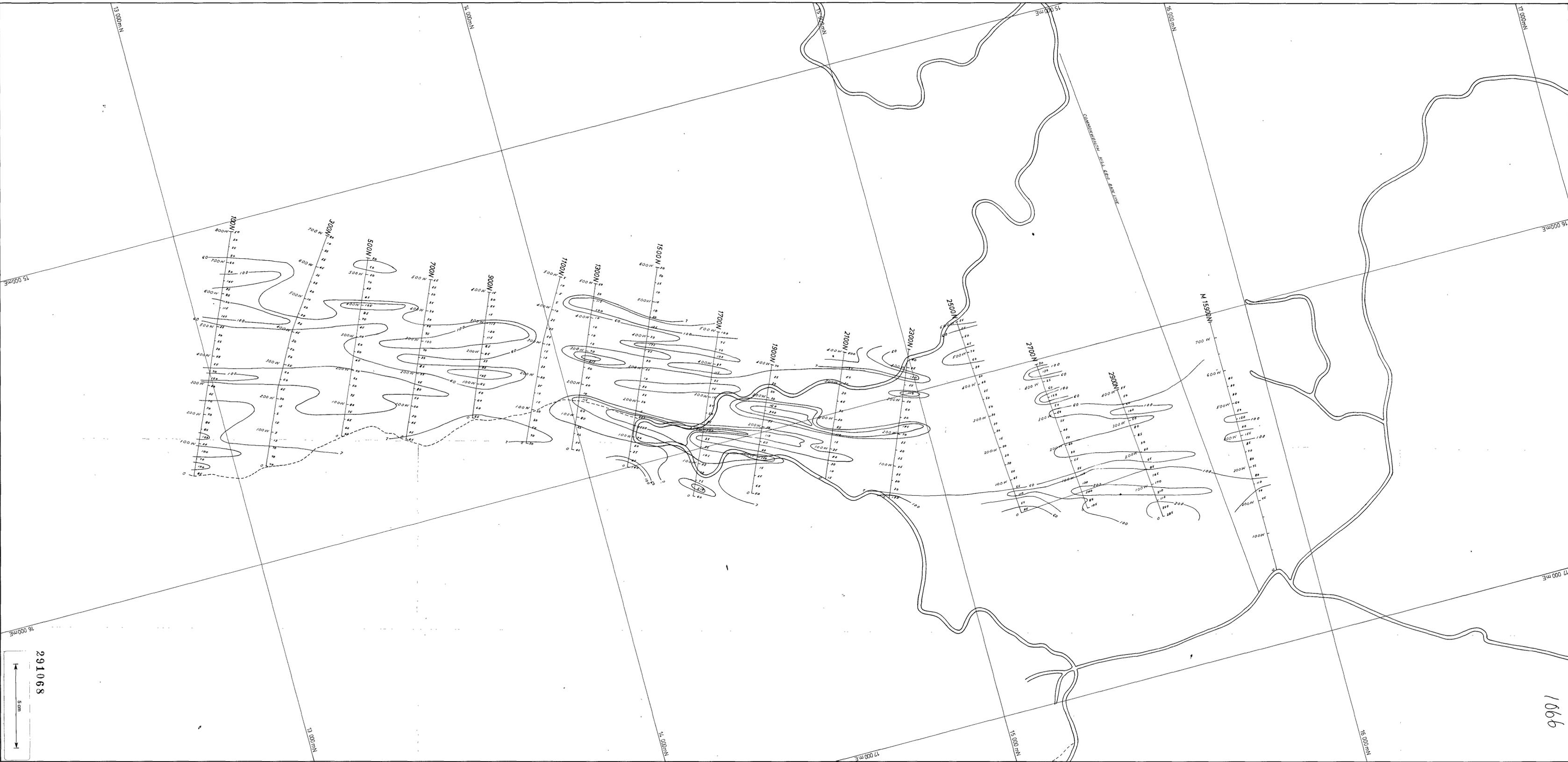
KAPI GRID - STACKED PROFILE

As. ASSAYS - ppm

GEOLOGIST : J. P. ...
 DRAUGHTSMAN : ...
 DATE : ...
 REVISIONS : ...

SCALE: 1:1000 METRES
 DRAWING No. 17



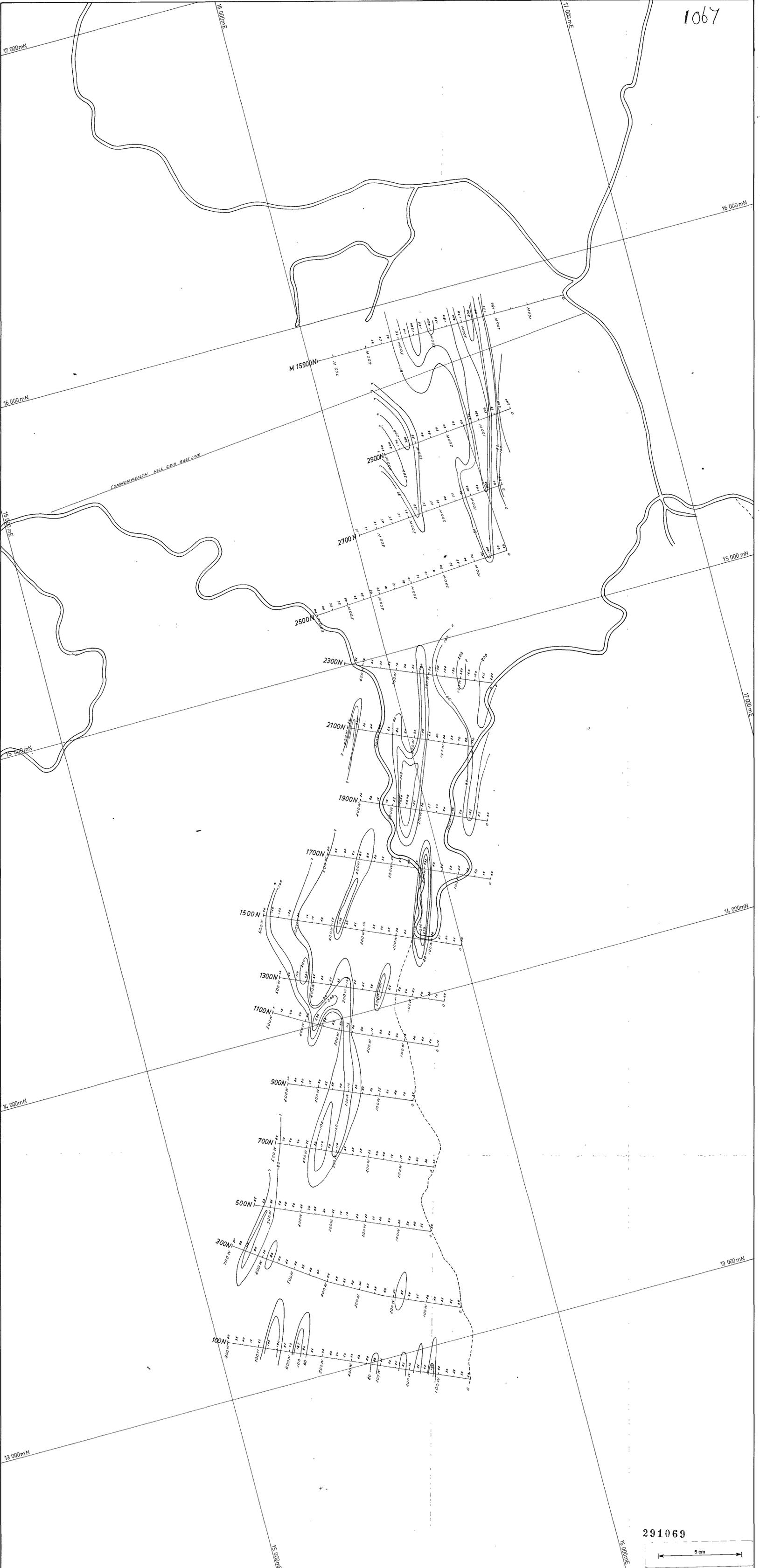


291068

5cm

RENISON LIMITED
KAPI GRID
Zn Assays ppm.

GEOLOGIST	J. P. Kalkreuth	SCALE 1:500 METRES	200
DRAUGHTSMAN	F. A. Colgan	DATE	March '77
REVISIONS		DRAWING No.	1068



- > 200 ppm
- 100-200 ppm
- 80-100 ppm
- < 80 ppm

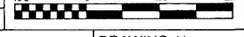
291069
 5 cm

RENISON LIMITED

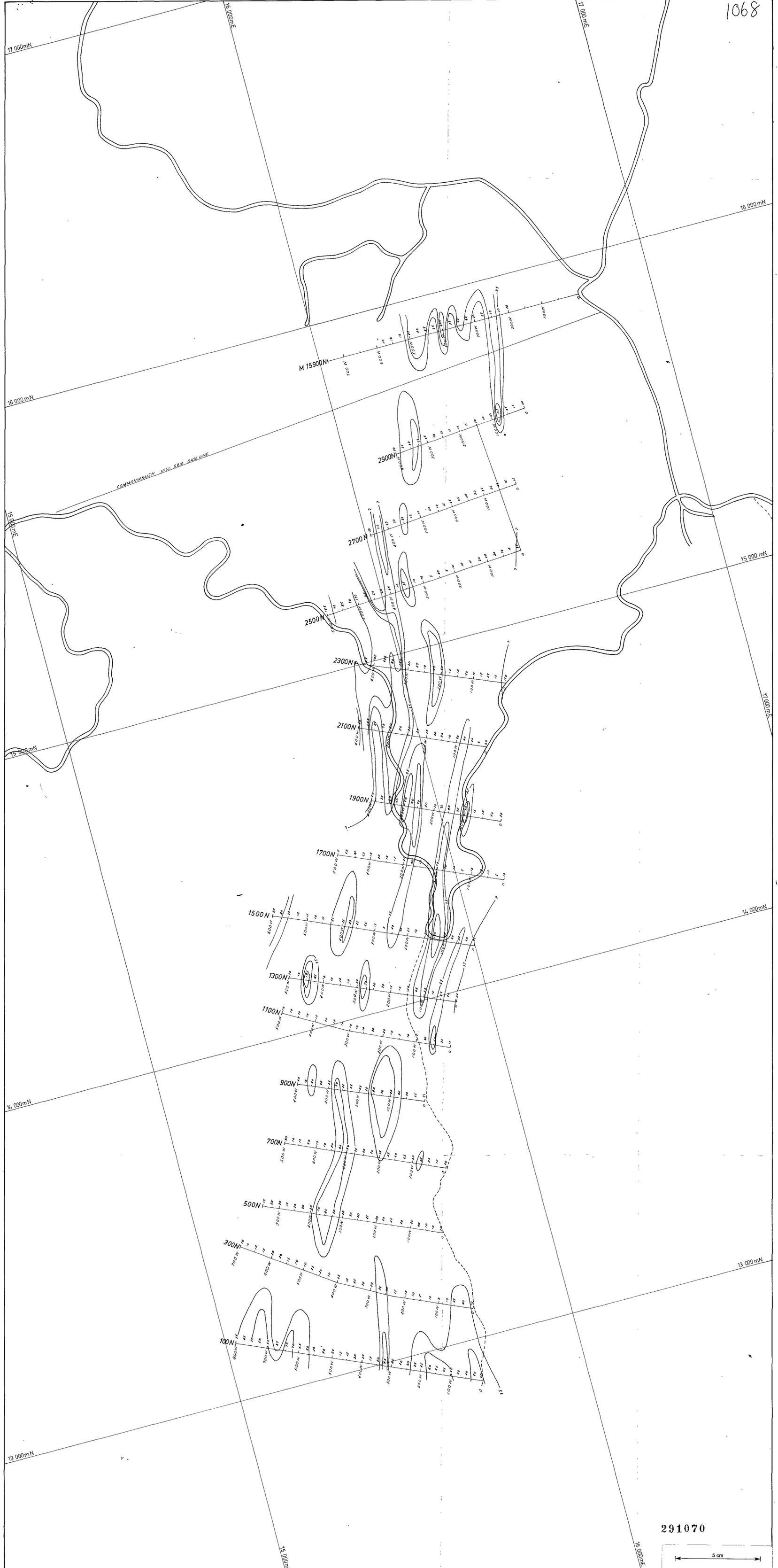
KAPI GRID
 Pb. Assays ppm.

GEOLOGIST J. P. Kelleher
 DRAUGHTSMAN F. A. Colson
 DATE March '77
 REVISIONS

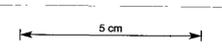
SCALE 1:5,000 METRES



DRAWING No. 19



291070

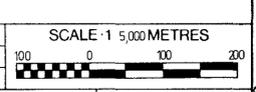


- > 100 ppm
- 50 - 100 ppm
- 35 - 50 ppm
- < 35 ppm

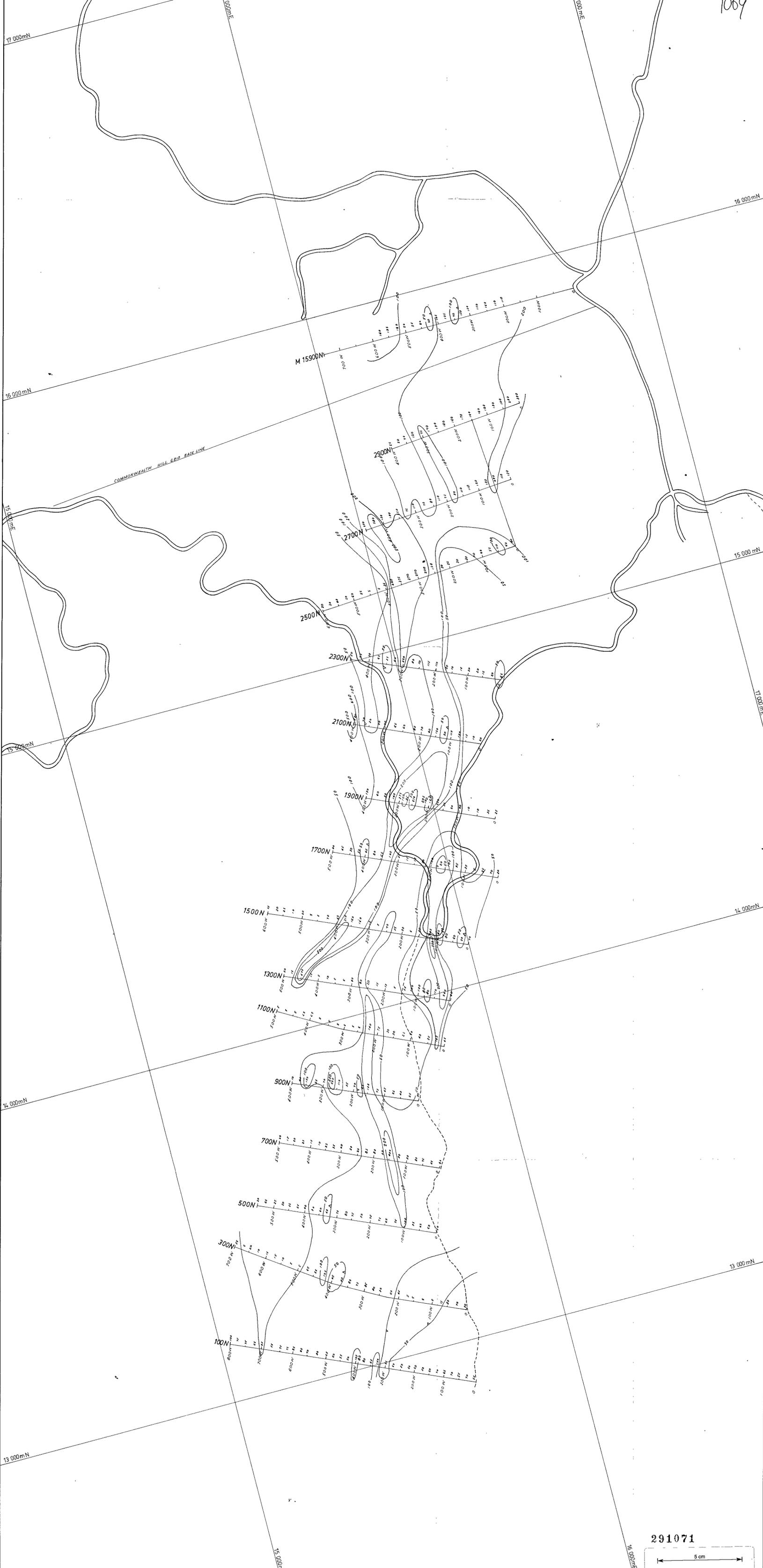
REXON LIMITED
 KAPI GRID
 Cu. Assays ppm.

1068

GEOLOGIST J. P. Killeher
 DRAUGHTSMAN F. A. Colson
 DATE March '77
 REVISIONS



SCALE 1:5,000 METRES
 DRAWING No. 20



- > 500 ppm
- 200-500 ppm
- 100-200 ppm
- 50-100 ppm
- < 50 ppm.

291071

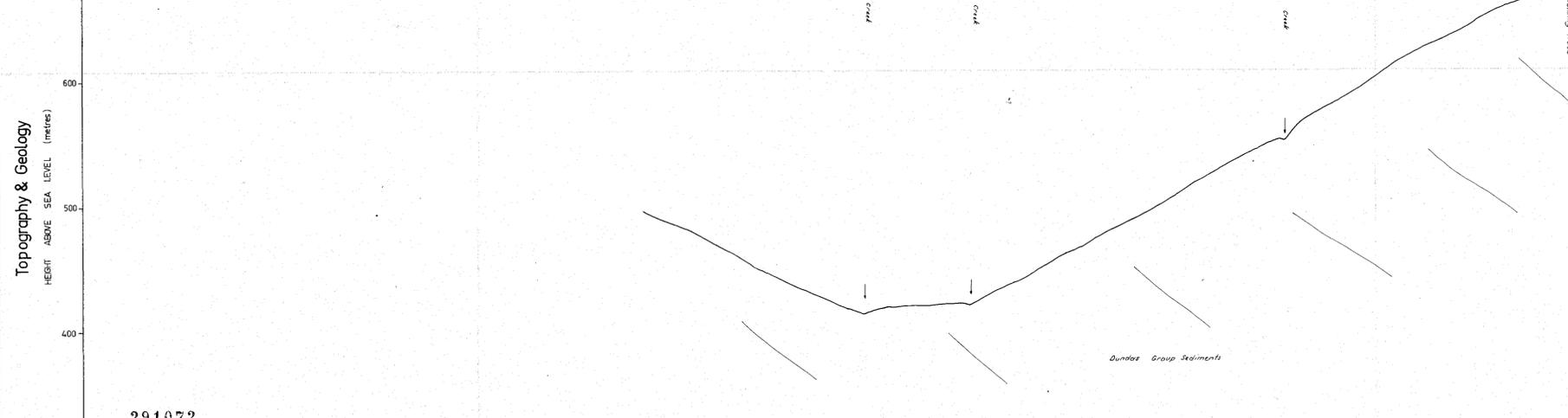
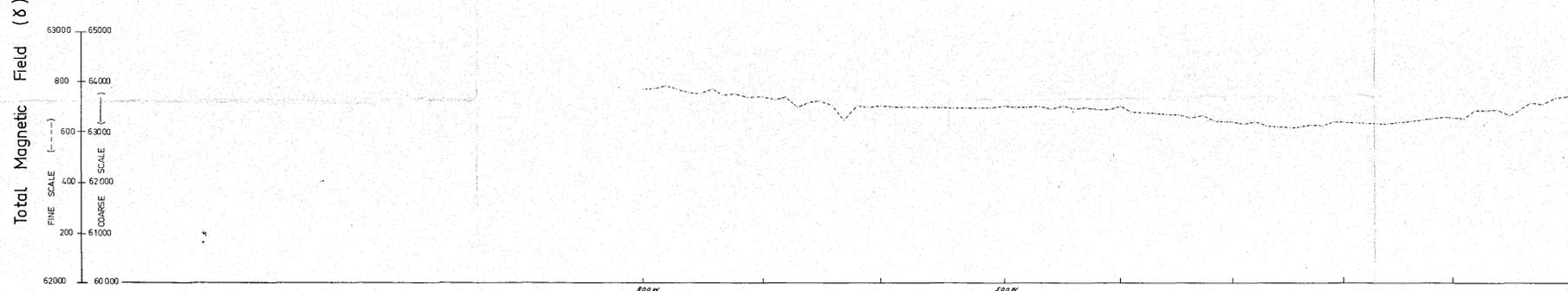
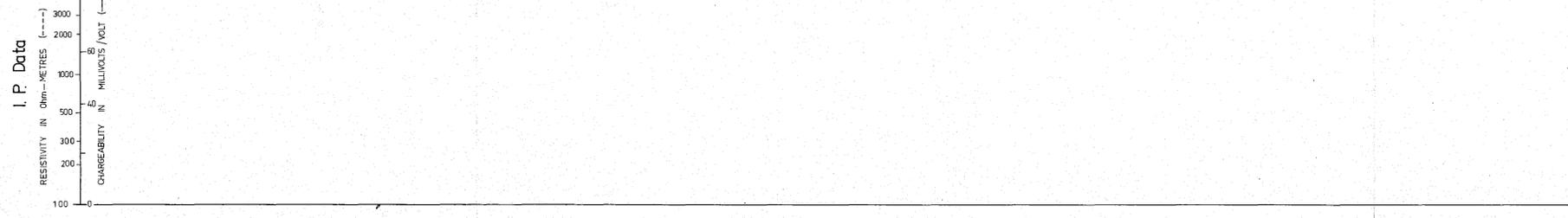
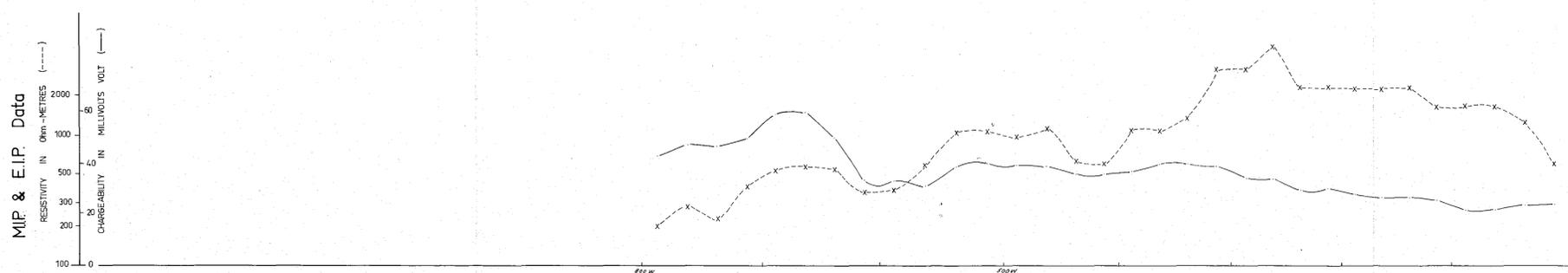
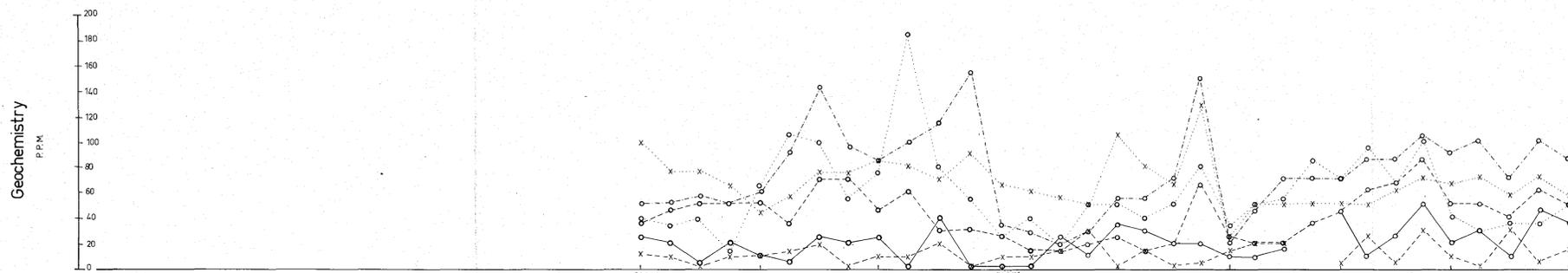
5 cm

RENISON LIMITED

KAPI GRID

Ni. Assays ppm.

GEOLOGIST	J. P. Keltner	SCALE: 1:5,000 METRES
DRAUGHTSMAN	F. A. Colson	100 0 100 200
DATE	March '77	
REVISIONS		DRAWING No. 21



291072

RENISON LIMITED
 KAPI GRID
 LINE 100N
 SECTION LOOKING Nth
 SCALE: 1:2,000 METRES

DRAWN	J.P.R.
TRACED	V.A.C.
DATE	March '77
SCALE	1:2000
DRAWING No.	22 a

1070

MAGNETICS
 5000 SCALE
 1000 SCALE

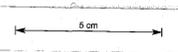
GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 N

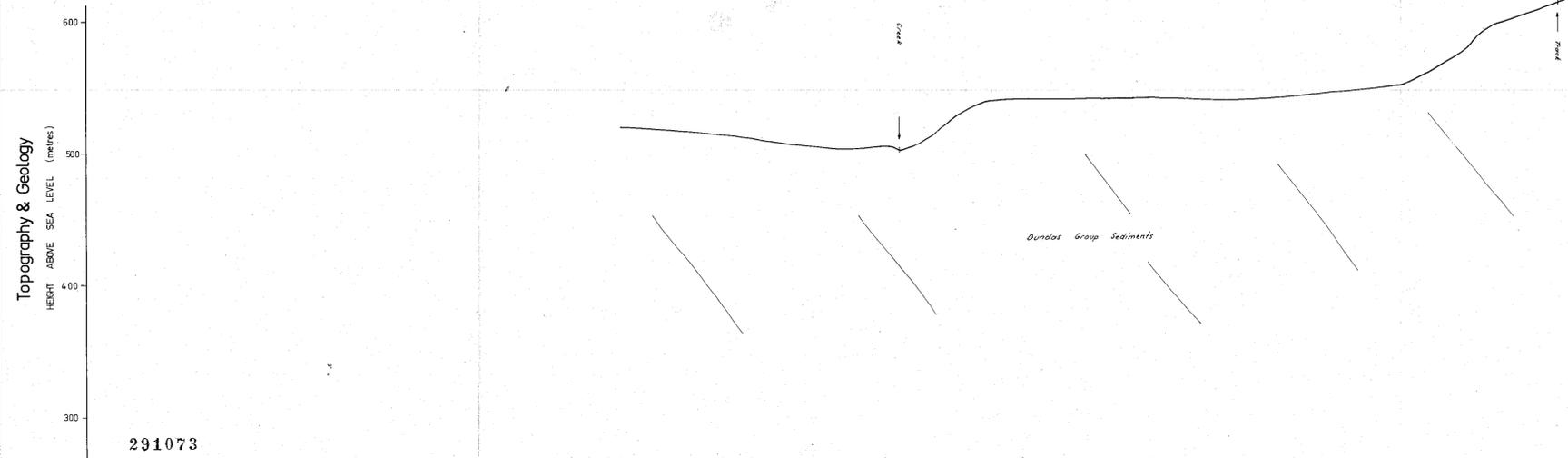
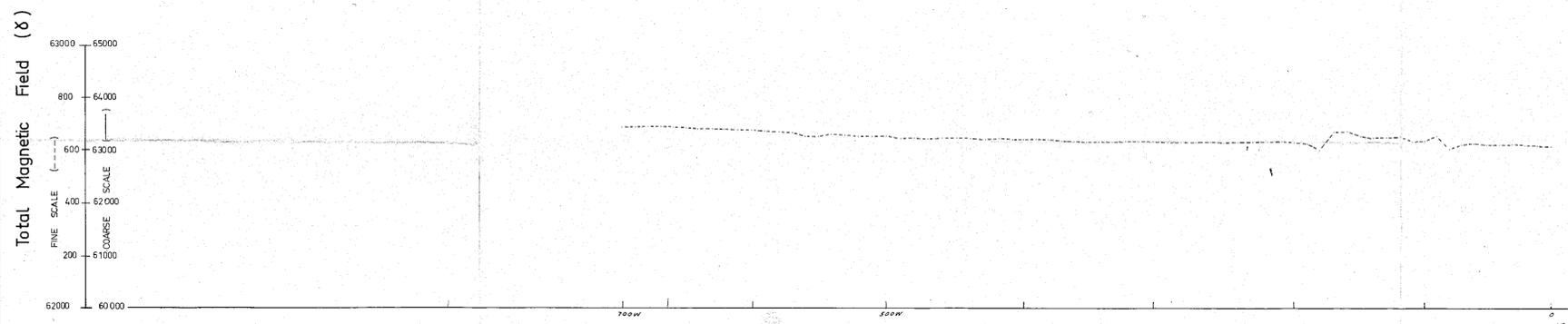
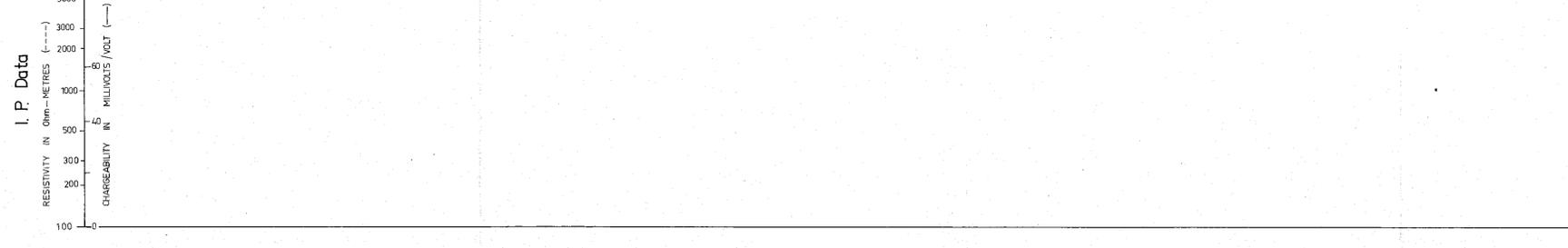
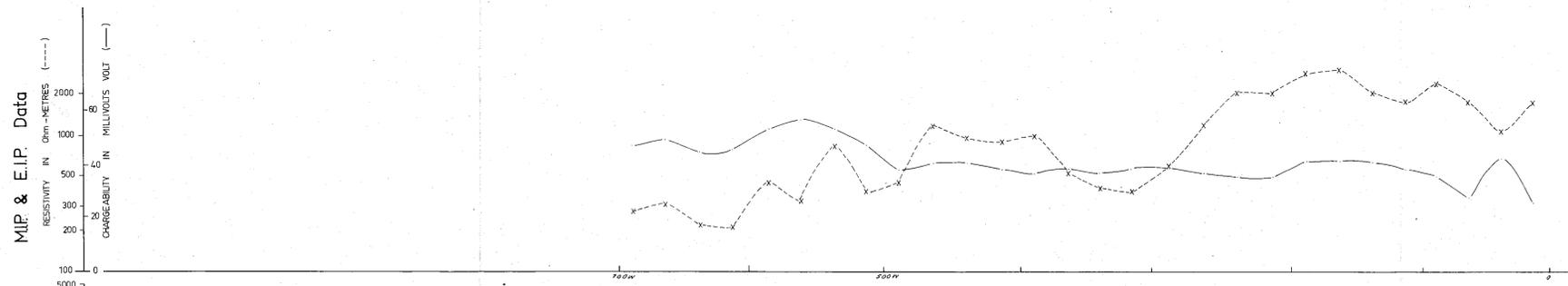
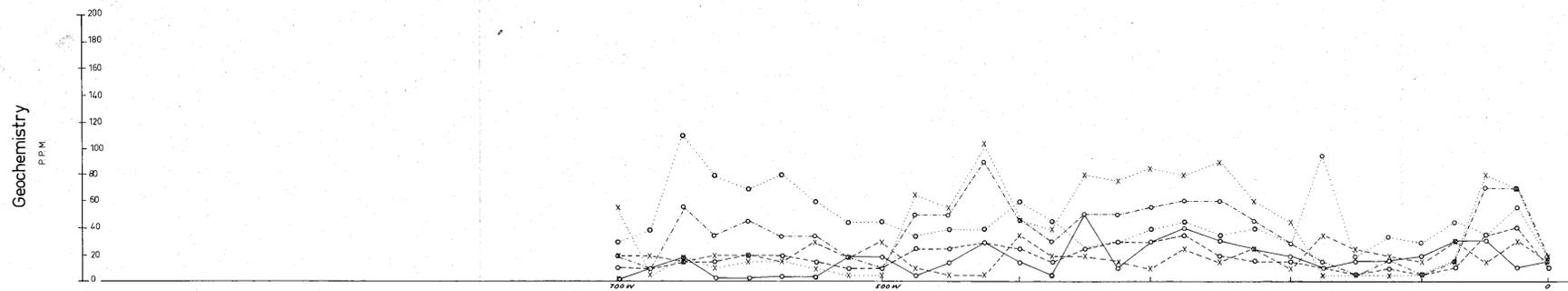
I.P.
 CHARGEABILITY
 RESISTIVITY
 POLE-DIPOLE

RECENT
 Q10 Alluvium
 Q15 Gravel
 DEVONIAN
 E10 Sand Shale (Silty)
 E11 Conglomerate & grit
 E12 Shales, silt/siltst & siltstones
 M.C. CAMBRIAN
 E20 Sandstone with coarset
 L.M. CAMBRIAN
 E21 Cambrian coarse sandstone
 U. CAMBRIAN - DUNDAS
 GROUP
 E22 Shales, silt/siltst & siltstones

E23 Spillies, metaulverite, gabbro and tuff
 E24 Ultramafic
 E25 Pyroclastic and sediment.

LEGEND
 Geological Boundary
 Inferred Geological Boundary
 Approx. Geological Boundary
 Fault
 Inferred Fault
 Approx. Fault





291073

RENISON LIMITED
KAPI GRID
LINE 300N
 SECTION LOOKING Nth
 SCALE: 1:1,000 METRES

DRAWN	J.P.R.
TRACED	P.A.C.
DATE	March 1977
SCALE	1:5000
DRAWING No.	22 b

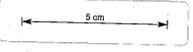
MAGNETICS
 5000 SCALE
 1000 SCALE

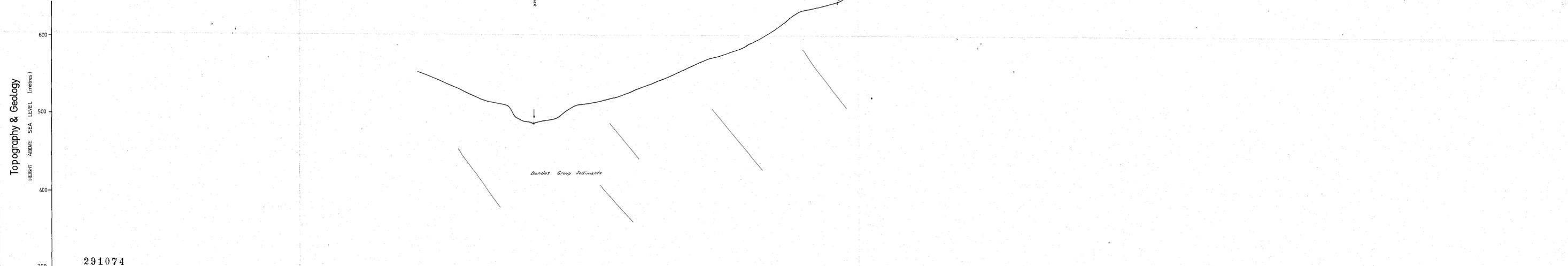
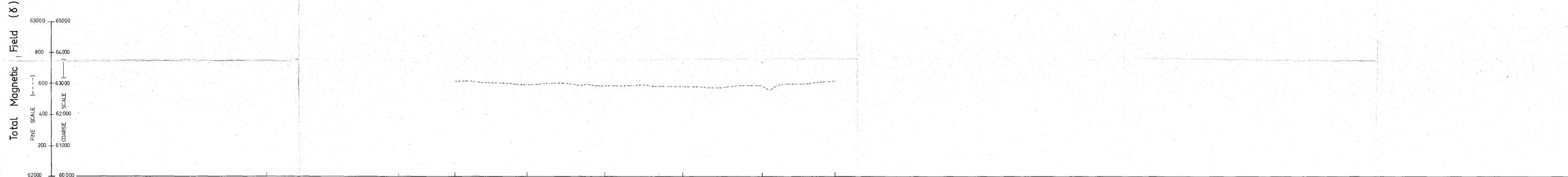
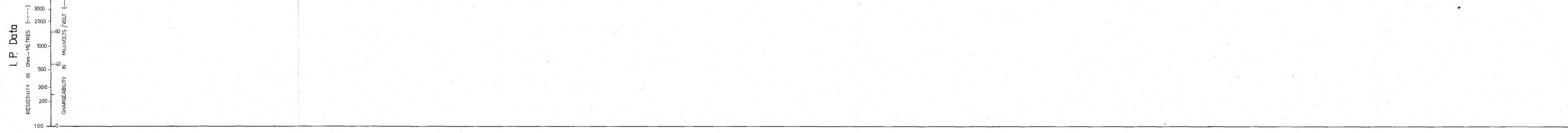
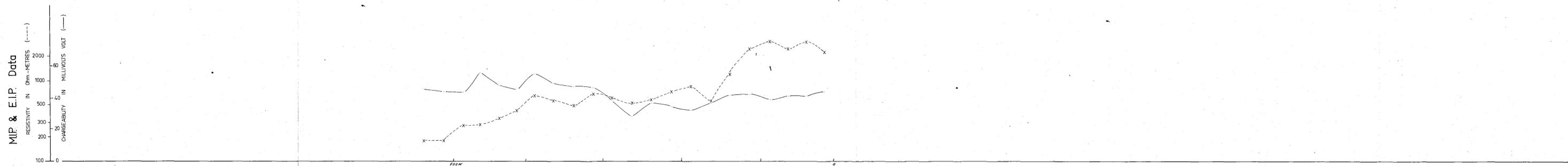
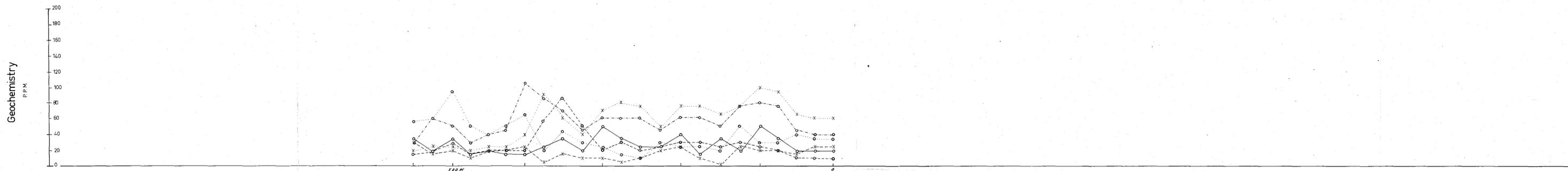
GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 Ni

I.P.
 CHARGEABILITY
 RESISTIVITY
 POLE-DIPOLE

RECENT: Alluvium
DEVONIAN: Granite
U. CAMBRIAN - DUNDAS GROUP: Conglomerate & gneiss
 Shales, buff siltites & siltstones
M.W. CAMBRIAN: Sandstones with "oolites"
L-M CAMBRIAN: Gneisses, siltites, shales
Pyroclastics and sediments: Spilitic, metaulvanitic, gabbro and buff
 Ultramafic.

LEGEND
 Geological Boundary
 Inferred Geological Boundary
 Approx. Geological Boundary
 Fault
 Inferred Fault
 Approx. Fault





291074

RENISON LIMITED	DRAWN J.P.K.
KAPI GRID	TRACED E.A.C.
LINE 500N	DATE 28/04/77
SECTION LOOKING N th	SCALE 1:2000
SCALE: 1:2,000 METRES	DRAWING No. 22c

MAGNETICS
5000 SCALE
1000 SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
Ni

I.P.
CHARGEABILITY
RESISTIVITY
POLE-DIPOLE

RECENT
Alluvium

DEVONIAN
Granite

U. CANADIAN GROUP
Black Shale (Tolofay)
Conglomerate & grit
Sands, silt & shales & siltstones

EMs
Sillites, metadolerite, gabbro and tuff
Ultramafics
Pyroclastic and sediments

LEGEND

Geological Boundary ————

Inferred Geological Boundary - - - - -

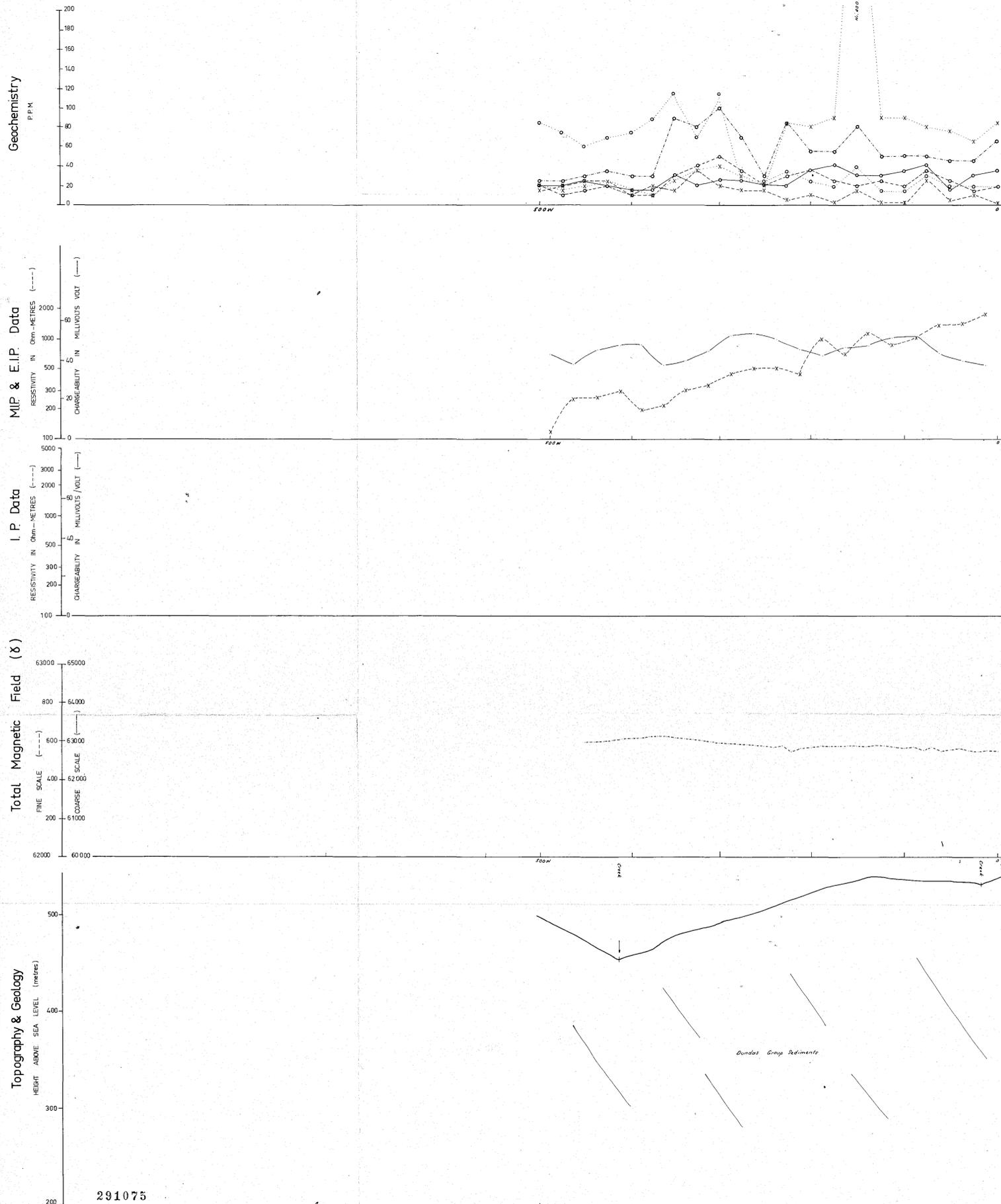
Approx. Geological Boundary - · - · -

Fault ————

Inferred Fault - · - · -

Approx. Fault - · - · -

5cm



291075

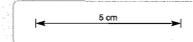
RENISON LIMITED	DRAWN J.P.E.
KAPI GRID	TRACED P.A.C.
LINE 700N	DATE March 77
SECTION LOOKING Nth	SCALE 1:2000
SCALE 1:2000 METRES	DRAWING No.
77-1234 3/3	22 d

MAGNETICS	GEO-CHEMISTRY
5000 SCALE	Sn
1000 SCALE	Cu
	Pb
	Zn
	As
	Ni

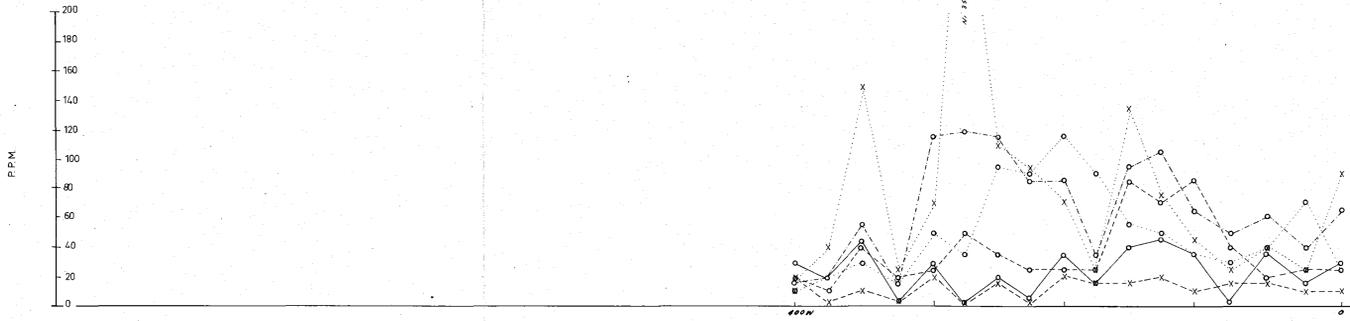
I.P.
CHARGEABILITY
RESISTIVITY
POLE-DIPOLE

RECENT	Q/A	Alluvium	Euc	Spilites, metabasite, gabbro and guff
DEVONIAN	G	Granite	Eum	Ultramafics
	Eop	Black Shale (SANDWICH)	Eod	Pyroclastic and sediments
	Eoc	U.M. CAMBRIAN KEMUN CREEK FORMATION		
	Eof	Conglomerate & gneiss		
	Eob	Shale, buff / white & white		

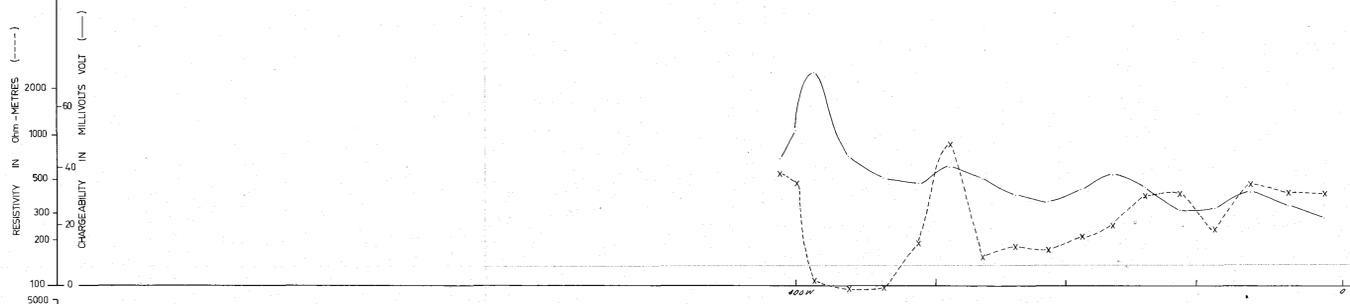
LEGEND	
Geological Boundary	— ? — ?
Inferred Geological Boundary	- - - - -
Approx. Geological Boundary	- · - · -
Fault	F — F
Inferred Fault	F ? — ? — F
Approx. Fault	F - - - F



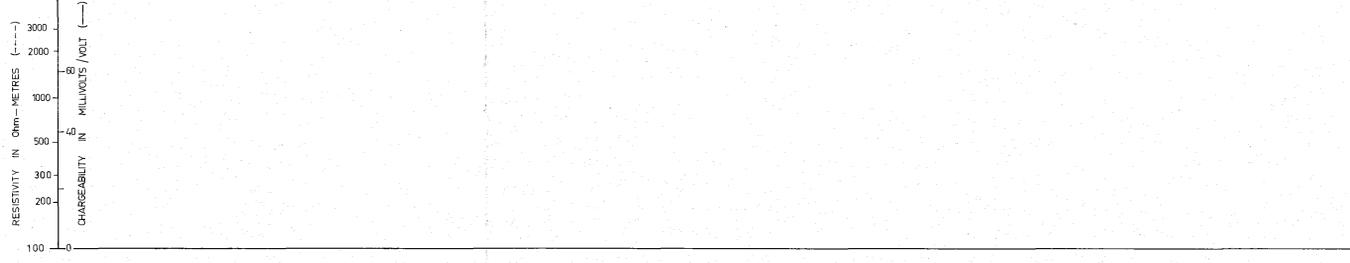
Geochemistry



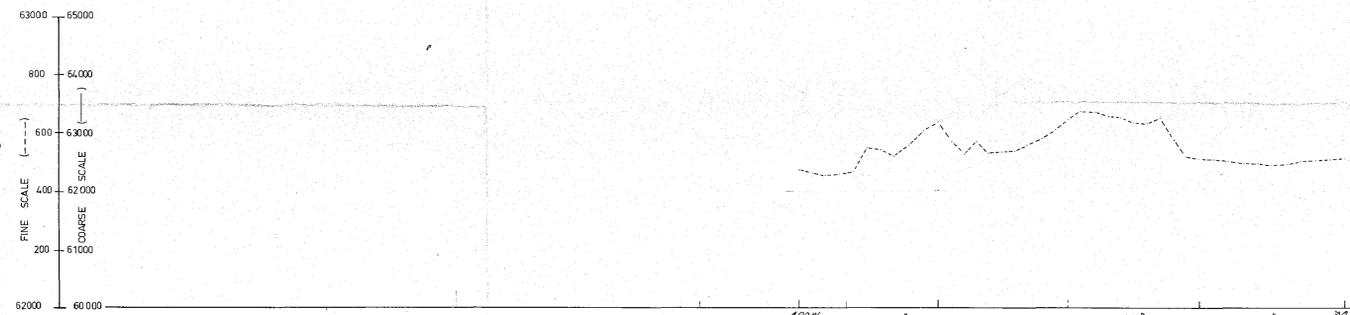
MIP & E.I.P. Data



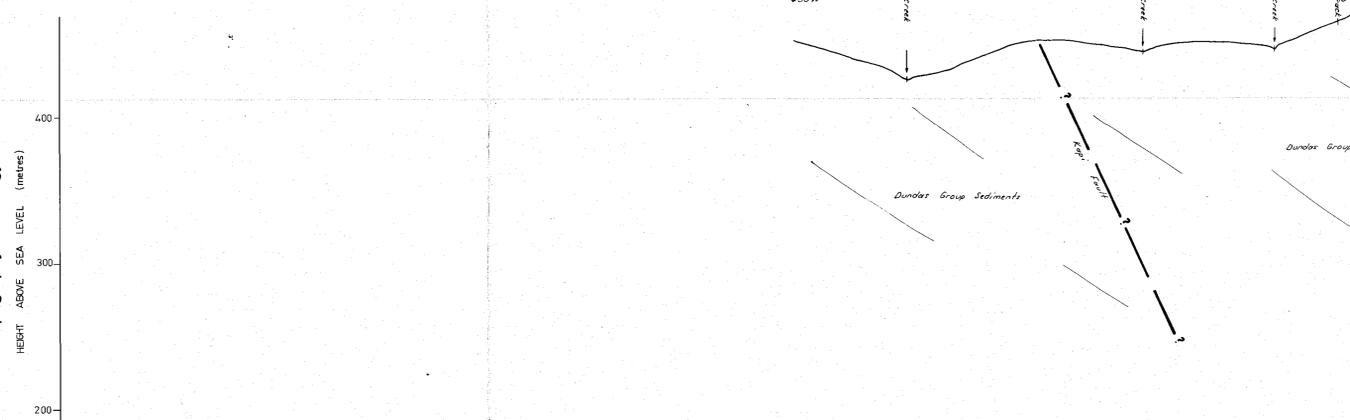
I.P. Data



Total Magnetic Field (δ)



Topography & Geology



291076

REINSON LIMITED

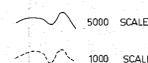
KAPI GRID
LINE 900N

SECTION LOOKING Nth
SCALE: 1:2,000 METRES

DRAWN	J.P.R.
TRACED	F.A.C.
DATE	March 1977
SCALE	1:2000
DRAWING No.	

22 e 0 1074

MAGNETICS



GEOCHEMISTRY

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

I.P.

- CHARGEABILITY
- RESISTIVITY
- POLE-DIPOLE

RECENT

- Alluvium
- Devonian Granite
- Black Shale (slaty)
- Conglomerate & grit
- Shales, silt, siltstone & siltstones

DEVONIAN

- M.-O. Cambrian sandstone with coarse conglomerate
- E-M Cambrian conglomerate with coarse conglomerate

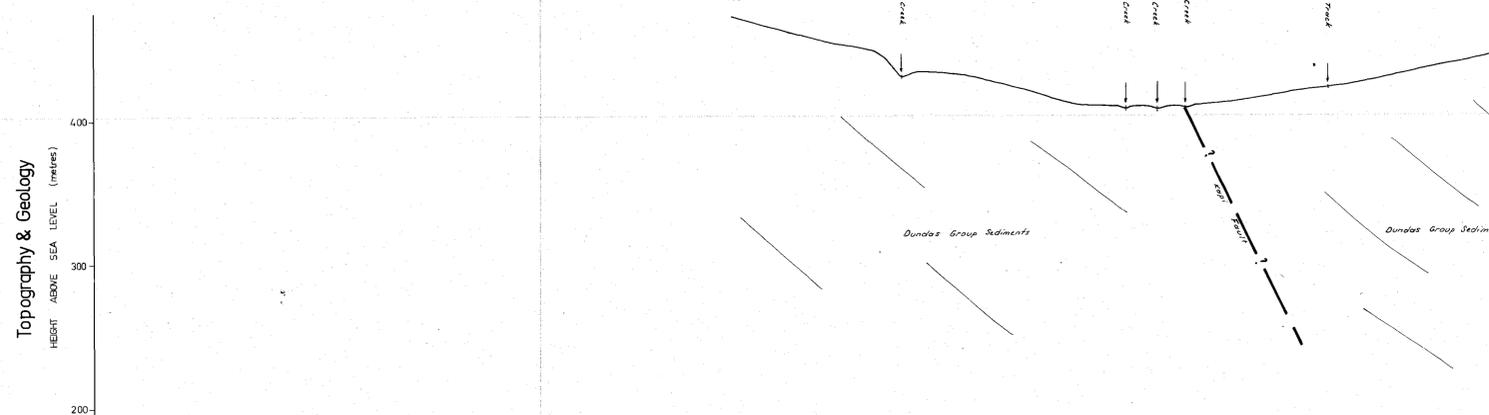
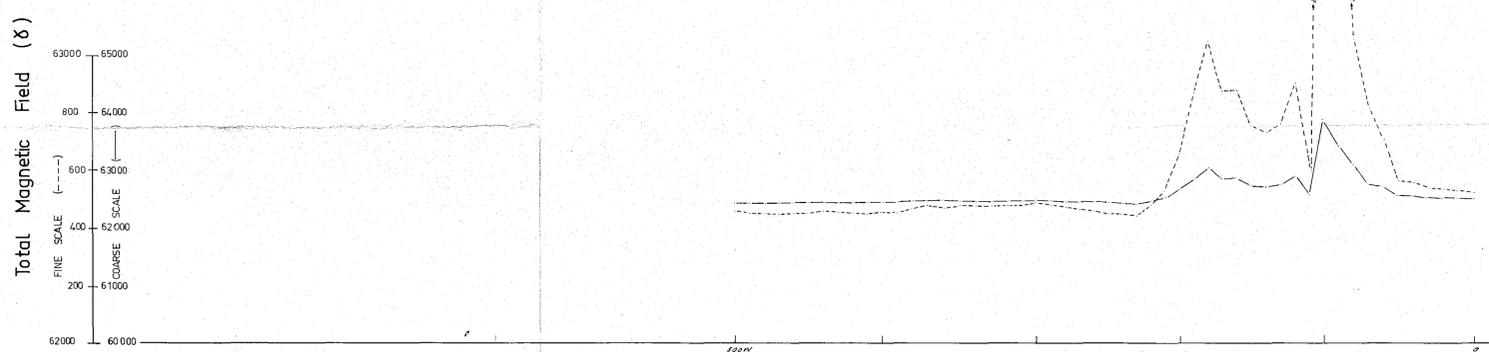
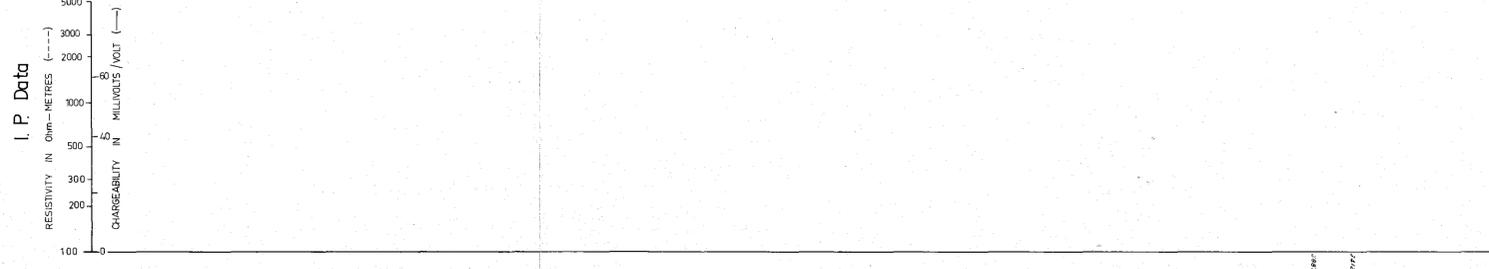
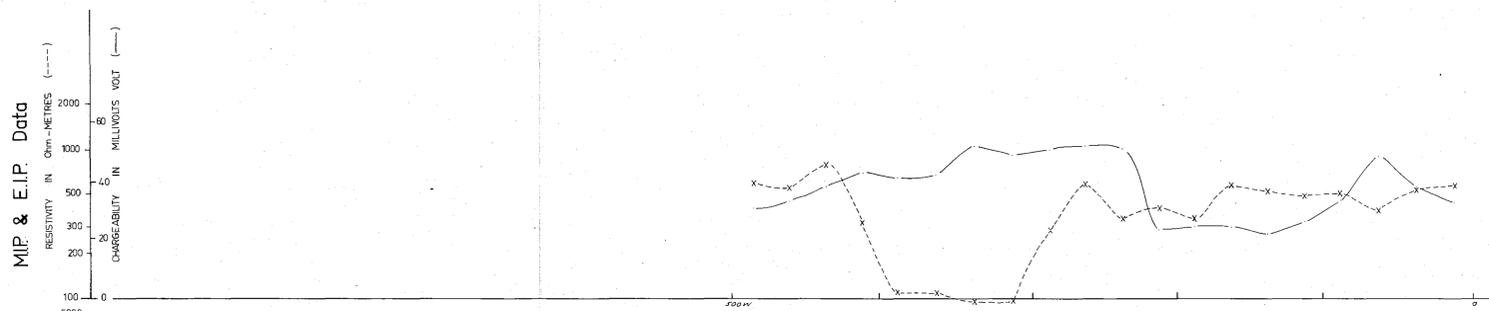
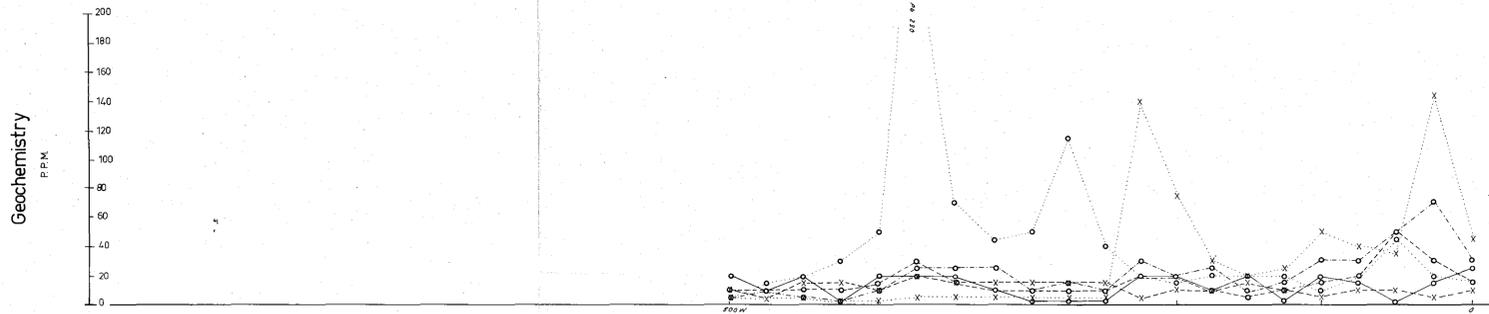
EM

- Spilites, metadiorite, gabbro and rhyolite
- Ultramafics
- Pyroxenites and sediments

LEGEND

- Geological Boundary
- Inferred Geological Boundary
- Approx. Geological Boundary
- Fault
- Inferred Fault
- Approx. Fault





291077

RENISON LIMITED

KAPI GRID
LINE 1100N

SECTION LOOKING Nth
SCALE: 1:2,000 METRES

DRAWN	J.P.K.
TRACED	F.A.C.
DATE	March '77
SCALE	1:2,000
DRAWING No.	
	22 f

MAGNETICS

5000 SCALE

1000 SCALE

GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
Ni

I.P.

CHARGEABILITY

RESISTIVITY

POLE-DIPOLE

LEGEND

Geological Boundary

Inferred Geological Boundary

Approx. Geological Boundary

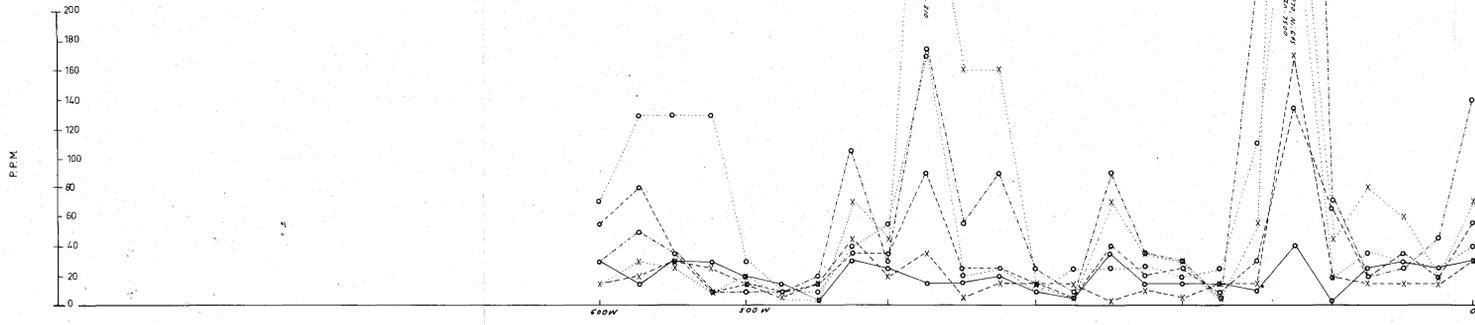
Fault

Inferred Fault

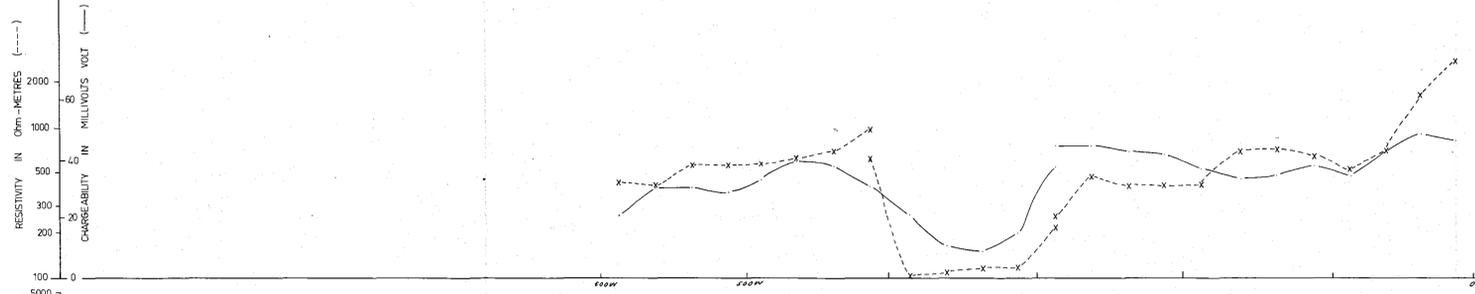
Approx. Fault

50m

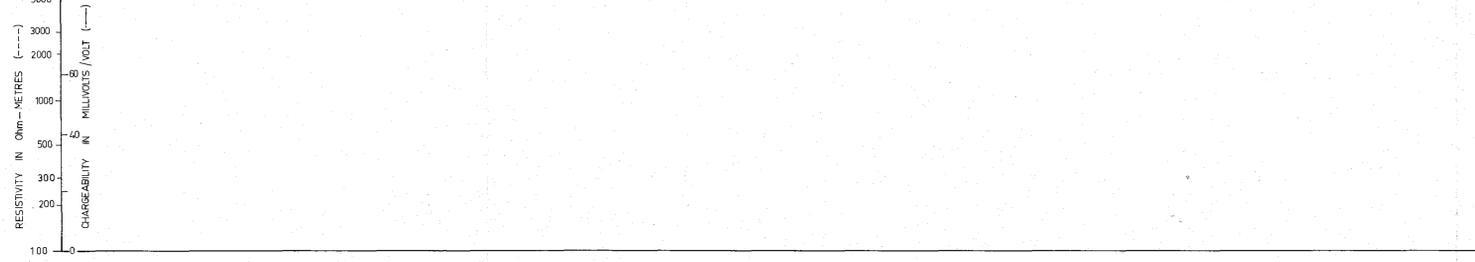
Geochemistry



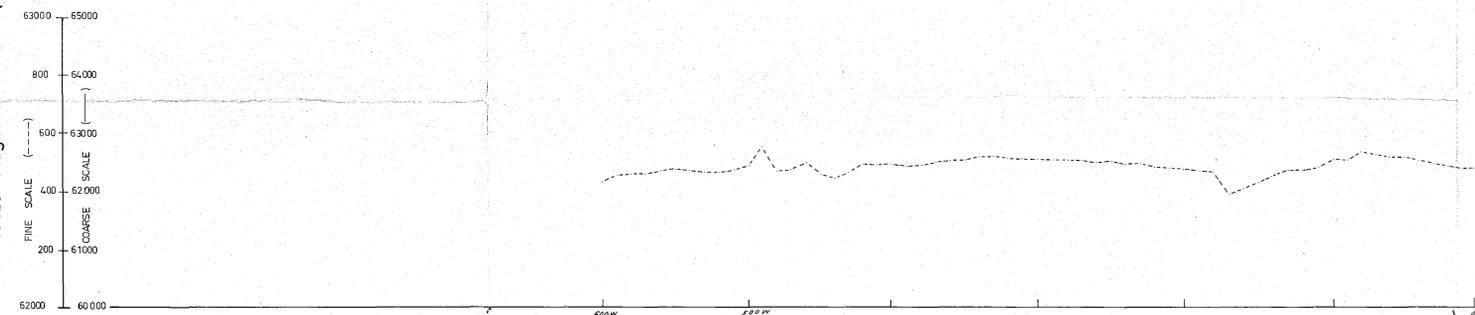
M.I.P. & E.I.P. Data



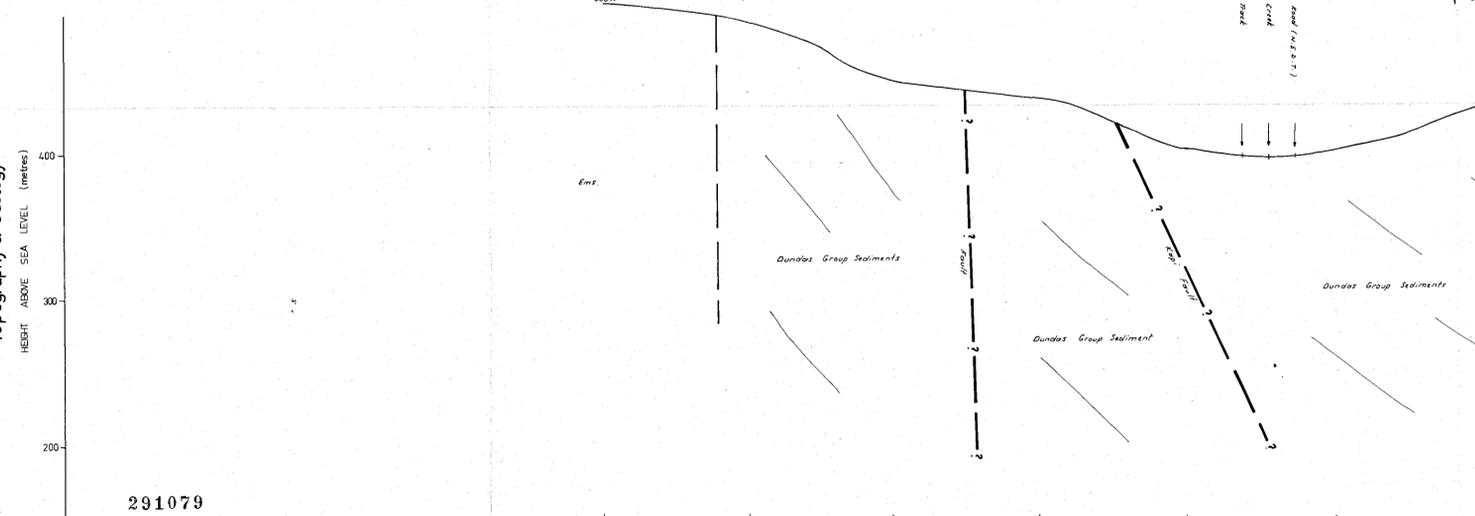
I.P. Data



Total Magnetic Field (δ)



Topography & Geology



291079

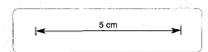
RENISON LIMITED	
DRAWN	J.P.K.
TRACED	F.A.C.
DATE	March '77
SCALE	1:2000
DRAWING No.	
	22 h

77-1234 3/3

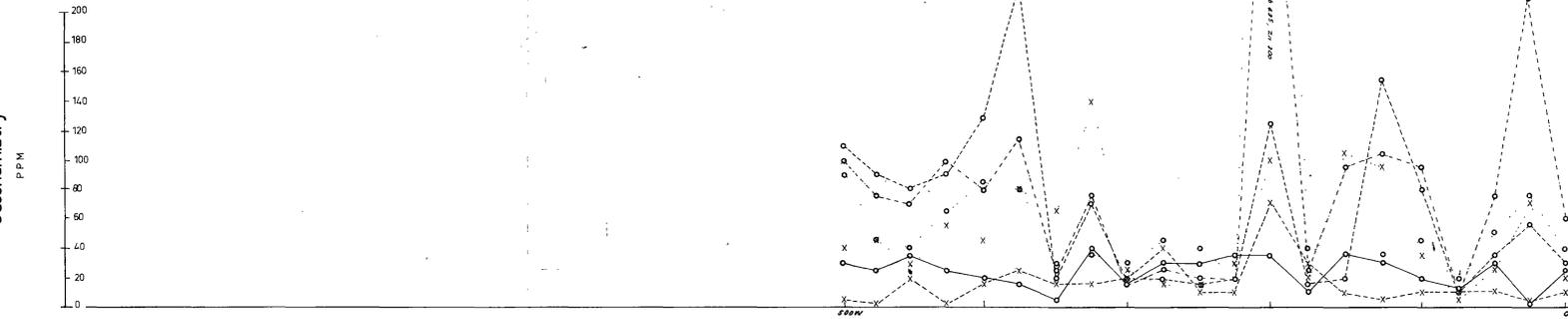
MAGNETICS	GEOCHEMISTRY	I.P.	RECENT	DEVONIAN	U. CAMBRIAN DUNDAS GROUP	EMT	EMT
5000 SCALE	Sn	CHARGEABILITY	Grw	Granite	Alloisium	Spillites, meta-sediments, gabbro and silt	Ultramafics
1000 SCALE	Cu	RESISTIVITY	Exp	Black Shale (slaty)	S-M CAMBRIAN	Pyroclastics and sediments	
	Pb	POLE-DIPOLE	Exc	CONGLOMERATE GRIT	FORMATION		
	Zn		Exc	Shales, silt/siltst. & siltstones			
	As						
	Ni						

LEGEND

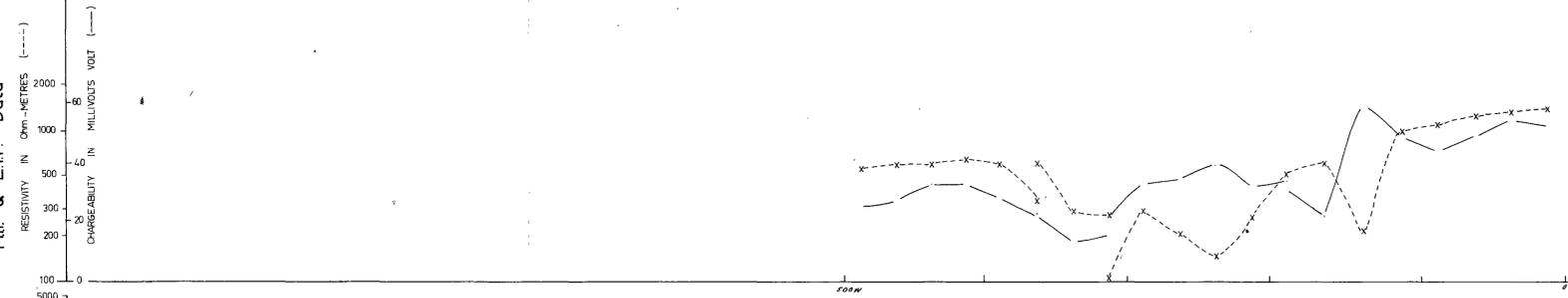
Biological Boundary	— ? — ? —
Inferred Geological Boundary	- - - - -
Approx. Geological Boundary	· · · · ·
Fault	F — F
Inferred Fault	? — ? — ? F
Approx. Fault	F — F



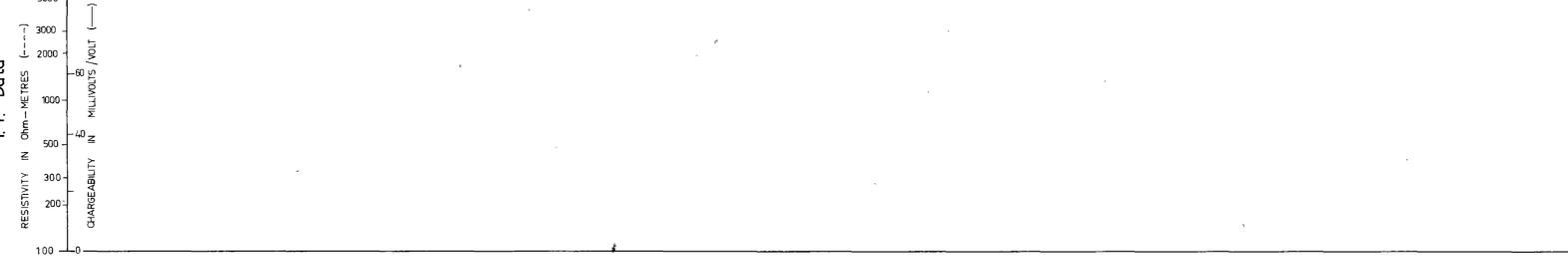
Geochemistry



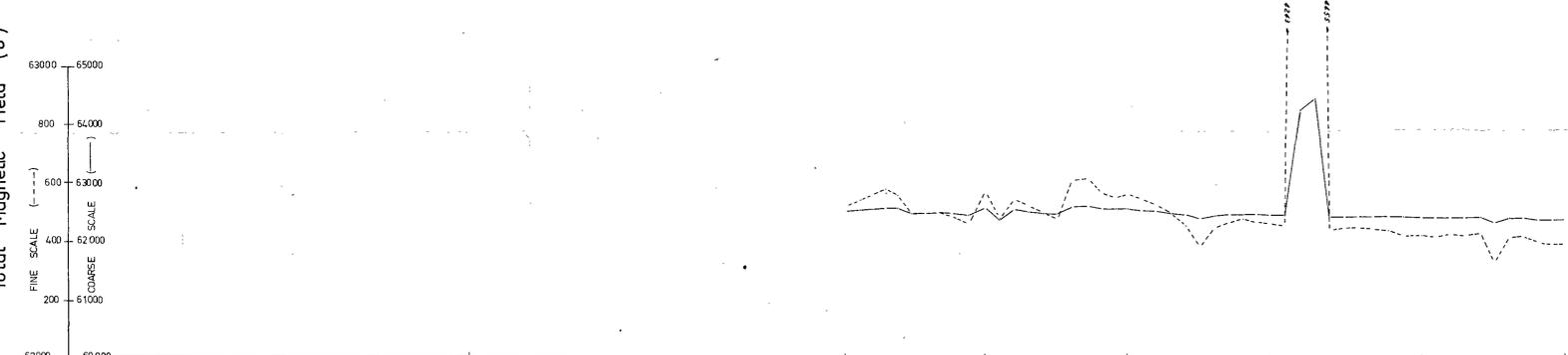
MIP & E.I.P. Data



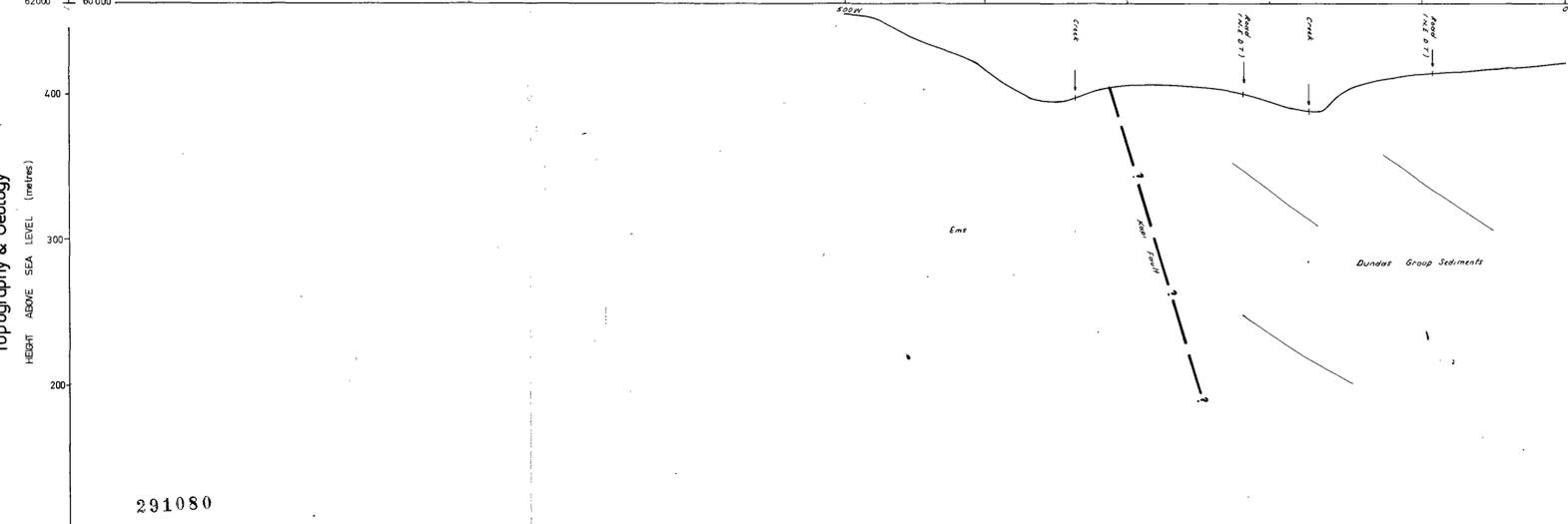
I. P. Data



Total Magnetic Field (δ)



Topography & Geology



291080

REXON LIMITED

KAPI GRID
LINE 1700N

SECTION LOOKING N

SCALE: 1:2,000 METRES

DRAWN J.P.K.

TRACED F.A.C.

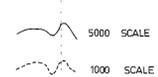
DATE March 1977

SCALE 1:2,000

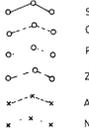
DRAWING No.

226

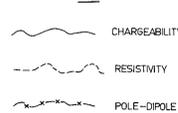
MAGNETICS



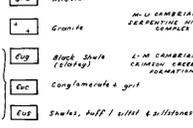
GEOCHEMISTRY



I.P.



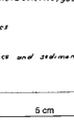
RECENT



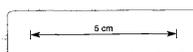
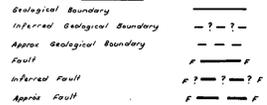
DEVONIAN



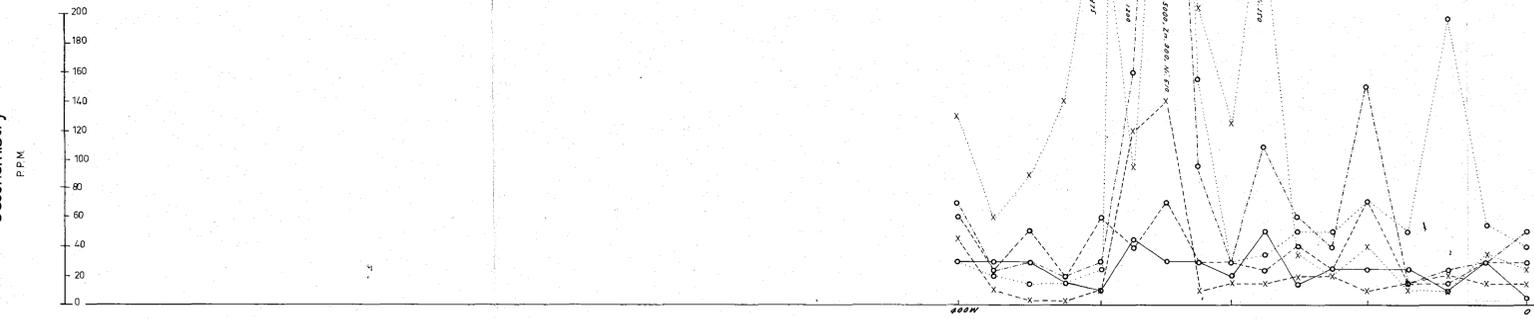
EME



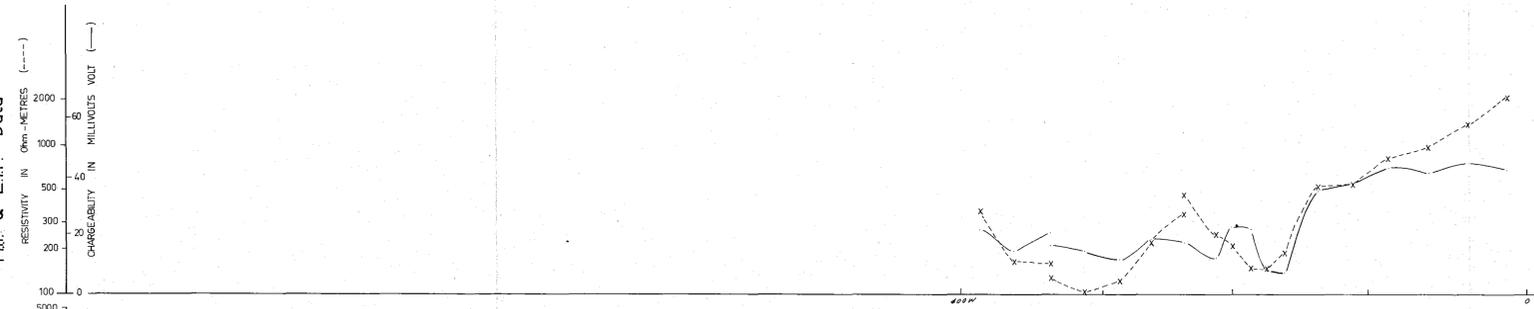
LEGEND



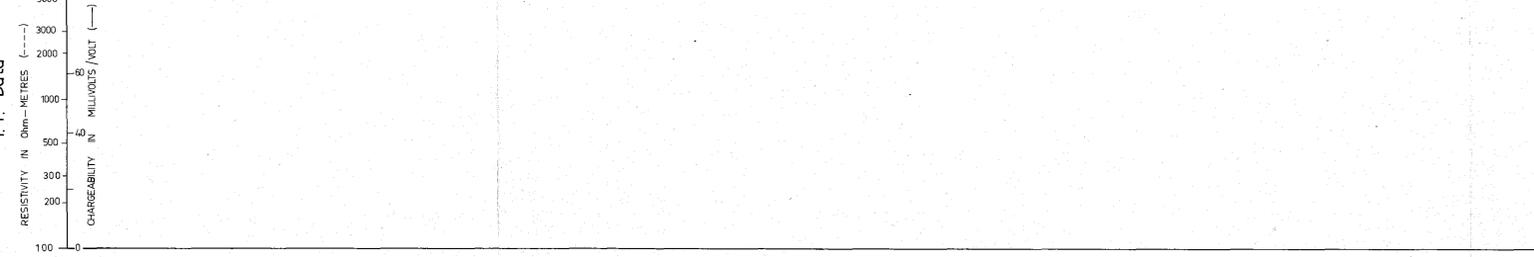
Geochemistry



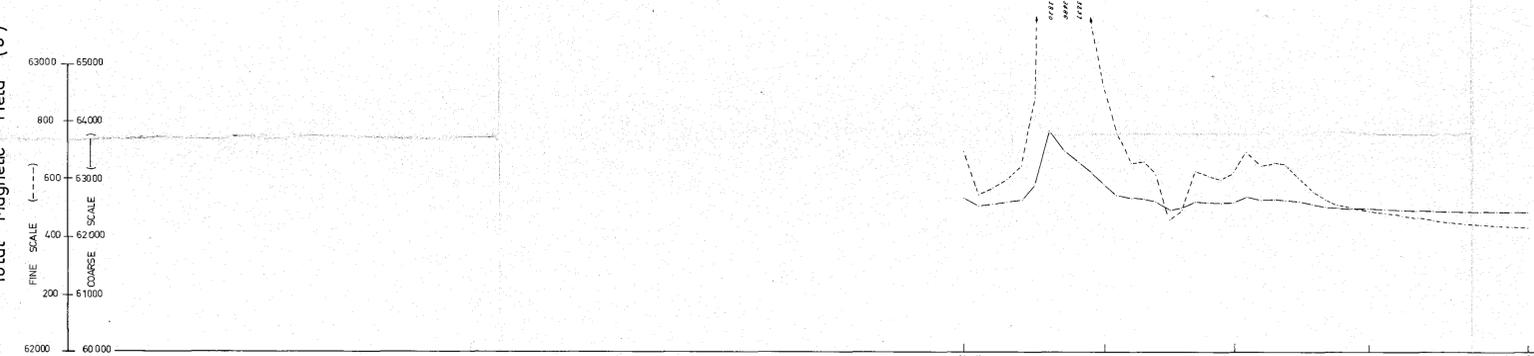
MIP & E.I.P. Data



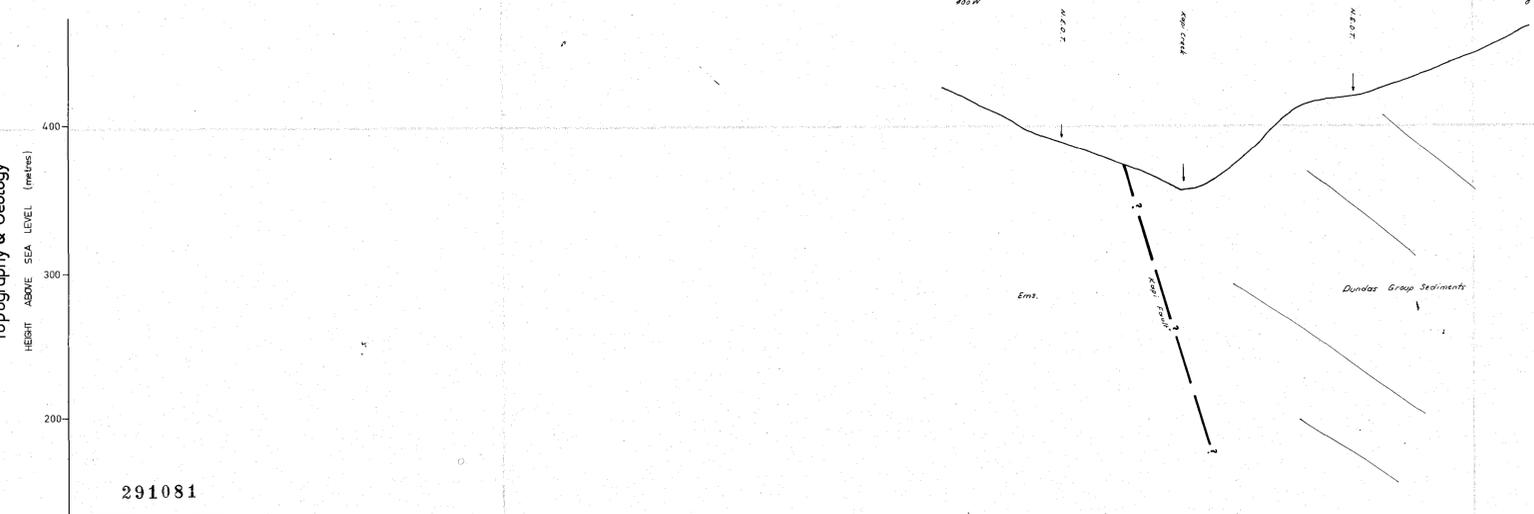
I. P. Data



Total Magnetic Field (δ)



Topography & Geology



291081

REXON LIMITED

KAPI GRID

LINE 1900N

SECTION LOOKING N

SCALE: 1:2,000 METRES

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DRAWN	J.P.K.
TRACED	P.A.C.
DATE	March 77
SCALE	1:2000
DRAWING No.	22 J

MAGNETICS
5000 SCALE
1000 SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
Ni

I.P.

CHARGEABILITY
RESISTIVITY
POLE-DIPOLE

RECENT

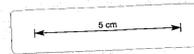
□	Alluvium
•	Granite
○	Black Shale (Stony)
□	U. CAMBRIAN: DUNDAS GROUP
□	U. CAMBRIAN: DUNDAS GROUP
□	U. CAMBRIAN: DUNDAS GROUP

U. CAMBRIAN

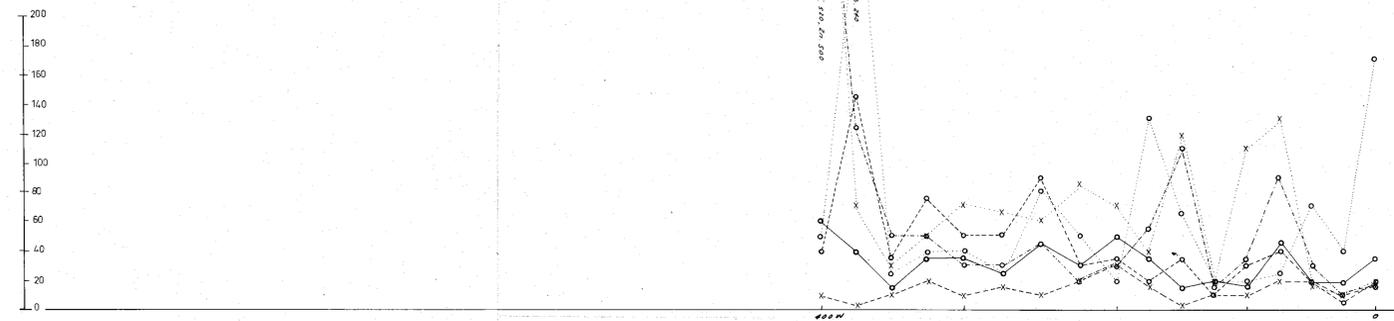
□	Spilites, metadiorites, gabbro and silt
□	Ultramafics
□	Pyroclastics and sediments
□	U. CAMBRIAN: DUNDAS GROUP
□	U. CAMBRIAN: DUNDAS GROUP
□	U. CAMBRIAN: DUNDAS GROUP

LEGEND

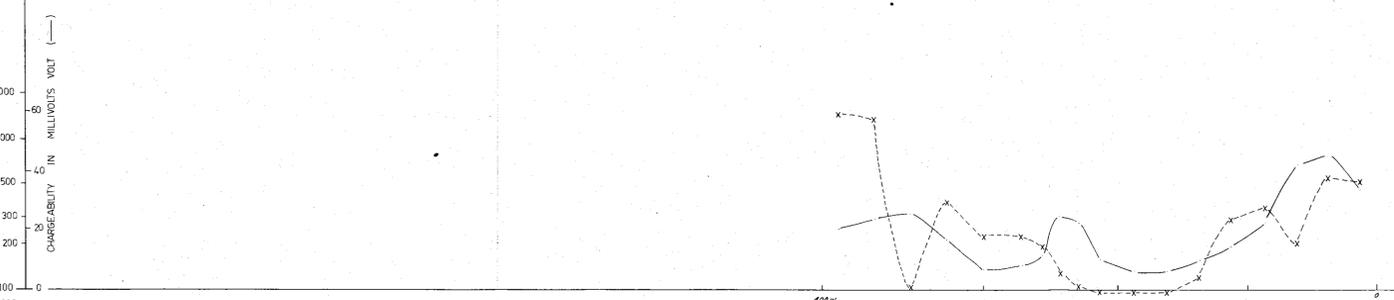
—	Geological Boundary
- - -	Inferred Geological Boundary
- · - ·	Approx. Geological Boundary
F	Fault
F ?	Inferred Fault
F - - -	Approx. Fault



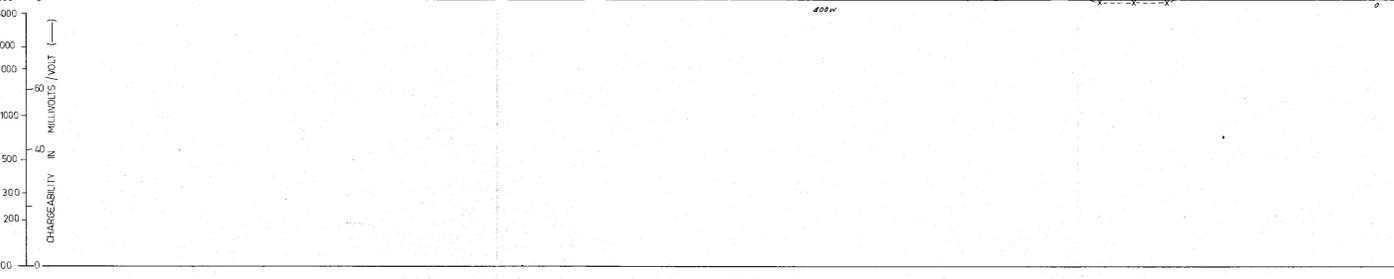
Geochemistry



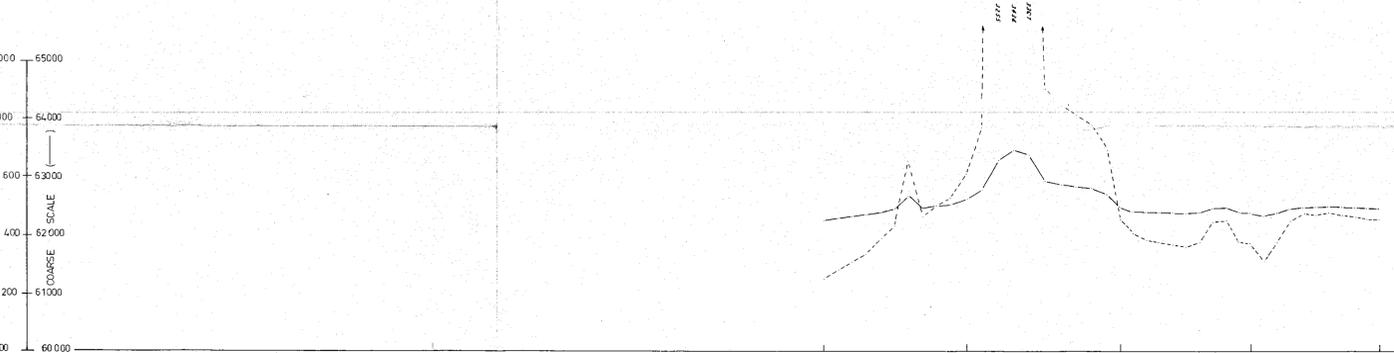
MIP & E.I.P. Data



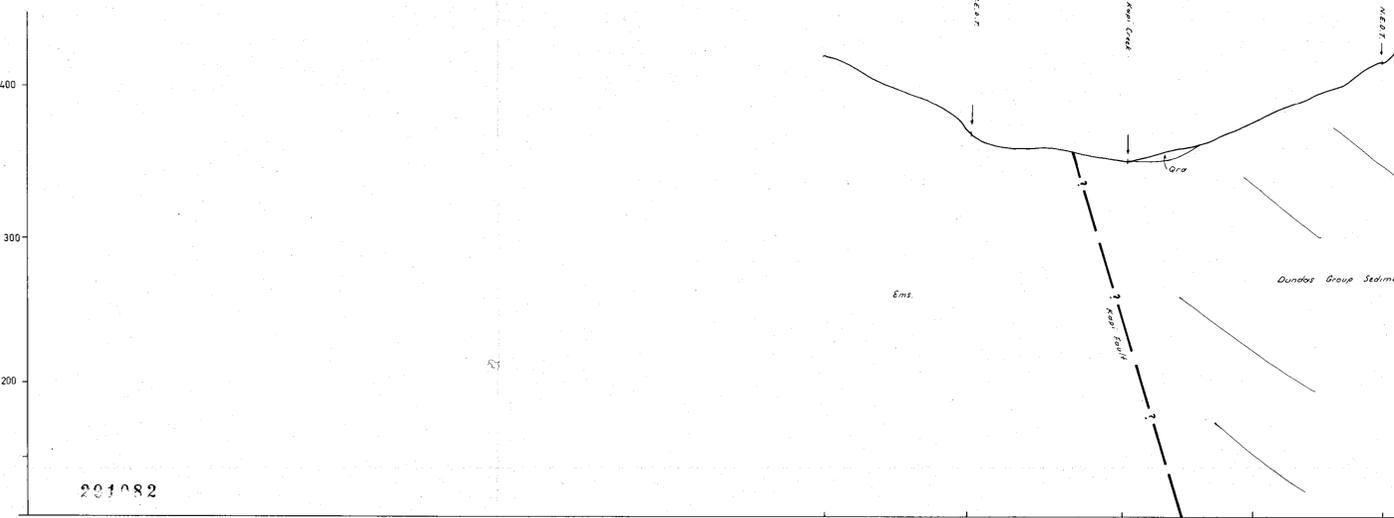
I.P. Data



Total Magnetic Field (δ)



Topography & Geology

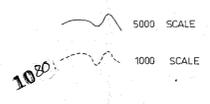


201082

REXON LIMITED

DRAWN	J.P.K.
TRACED	F.A.C.
DATE	MARCH '77
SCALE	1:2000
DRAWING No.	22 k

MAGNETICS



GEOCHEMISTRY

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

I.P.

- CHARGEABILITY
- RESISTIVITY
- POLE-DIPOLE

RECENT

- Alluvium
- Granite
- Basal Shale (Ems)
- Conglomerate & grit
- Shale, tuff / tuffite & siltstones

DEVONIAN

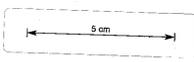
- N.U. CAMBRIAN REARFOUR WALL GROUP
- E.M. CAMBRIAN GEMSON-DEER FORMATION

Ems

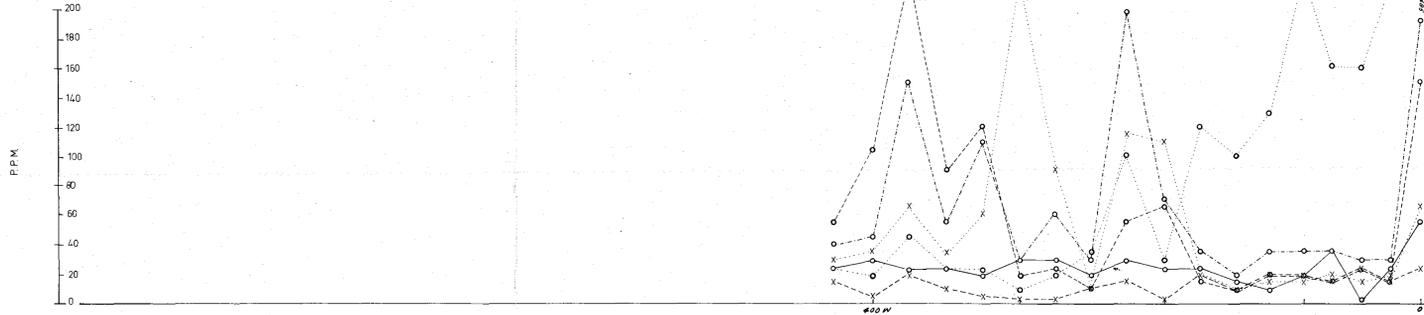
- Spillies, metabasite, gabbro and tuff
- Ultramafics
- Pyroclastics and sediment.

LEGEND

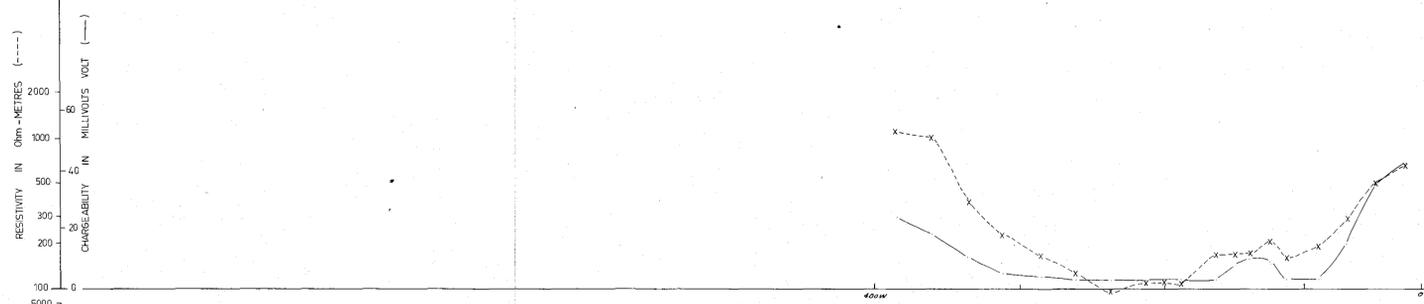
- Geological Boundary
- Inferred Geological Boundary
- Approx. Geological Boundary
- Fault
- Inferred Fault
- Approx. Fault



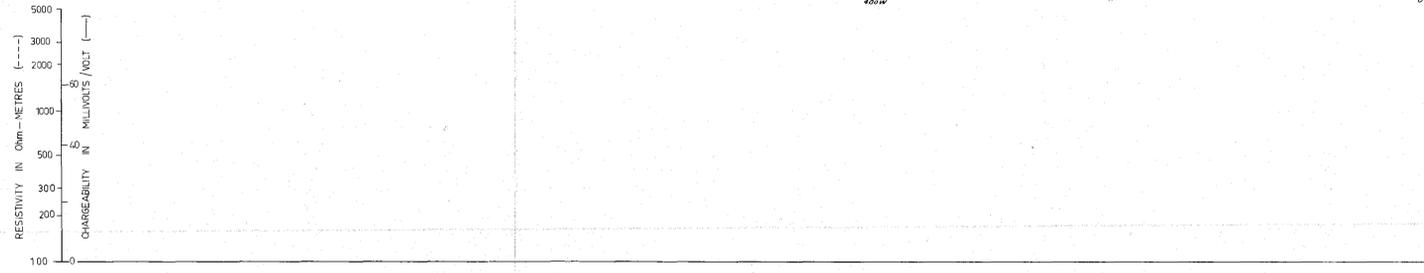
Geochemistry



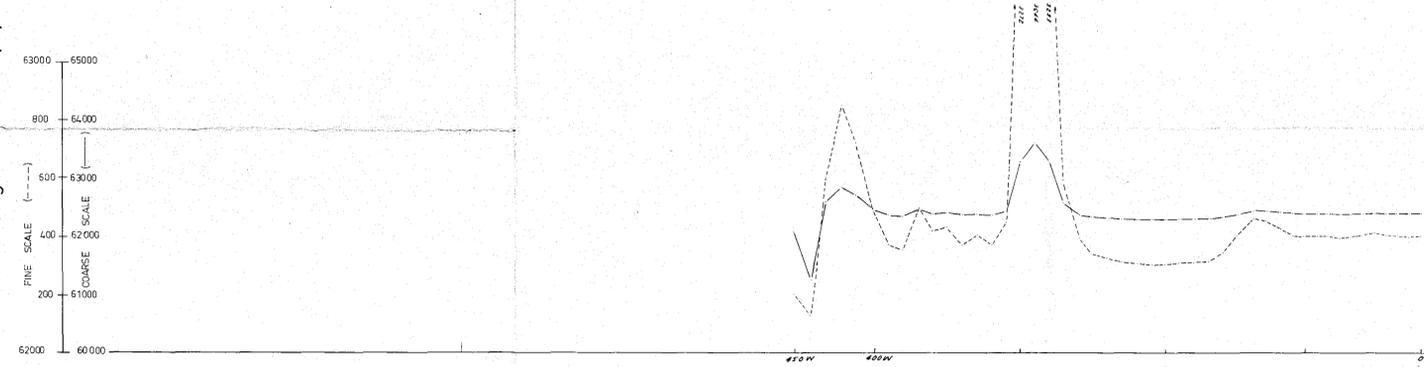
MIP & E.I.P. Data



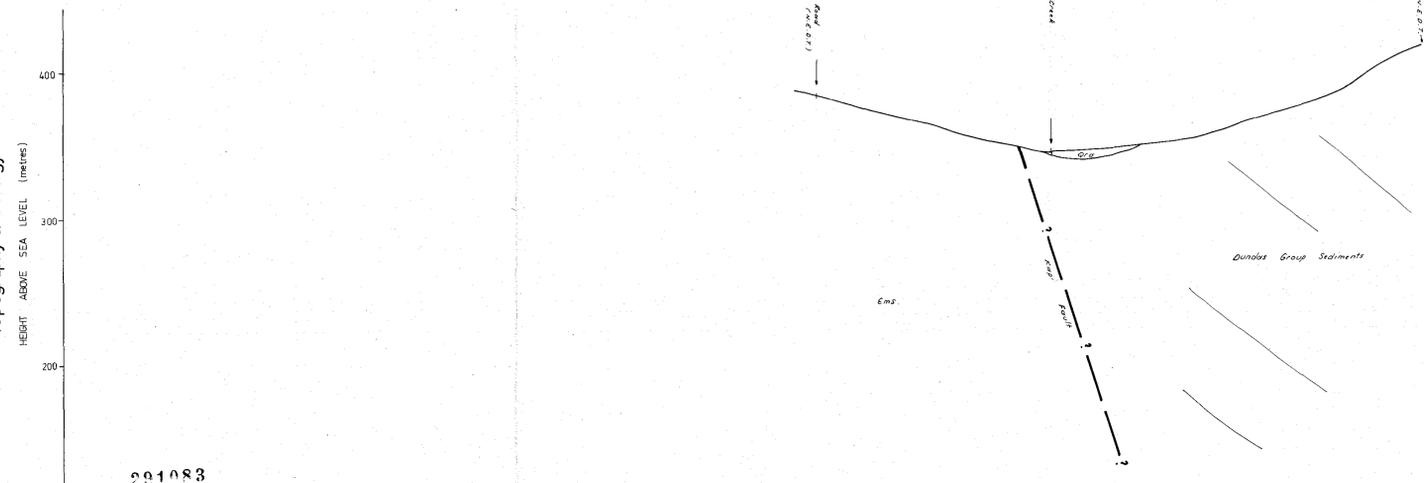
I.P. Data



Total Magnetic Field (δ)



Topography & Geology



221083

RESINON LIMITED

KAPI GRID

LINE 2300N

SECTION LOOKING Nth

SCALE: 1:2,000 METRES

77-1234 3/3

DRAWN	J.P.K.
TRACED	P.A.C.
DATE	May 77
SCALE	1:2,000
DRAWING No.	221

MAGNETICS

5000 SCALE

1000 SCALE

GEOCHEMISTRY

Sn

Cu

Pb

Zn

As

Ni

I.P.

CHARGEABILITY

RESISTIVITY

POLE-DIPOLE

LEGEND

Geological Boundary

Inferred Geological Boundary

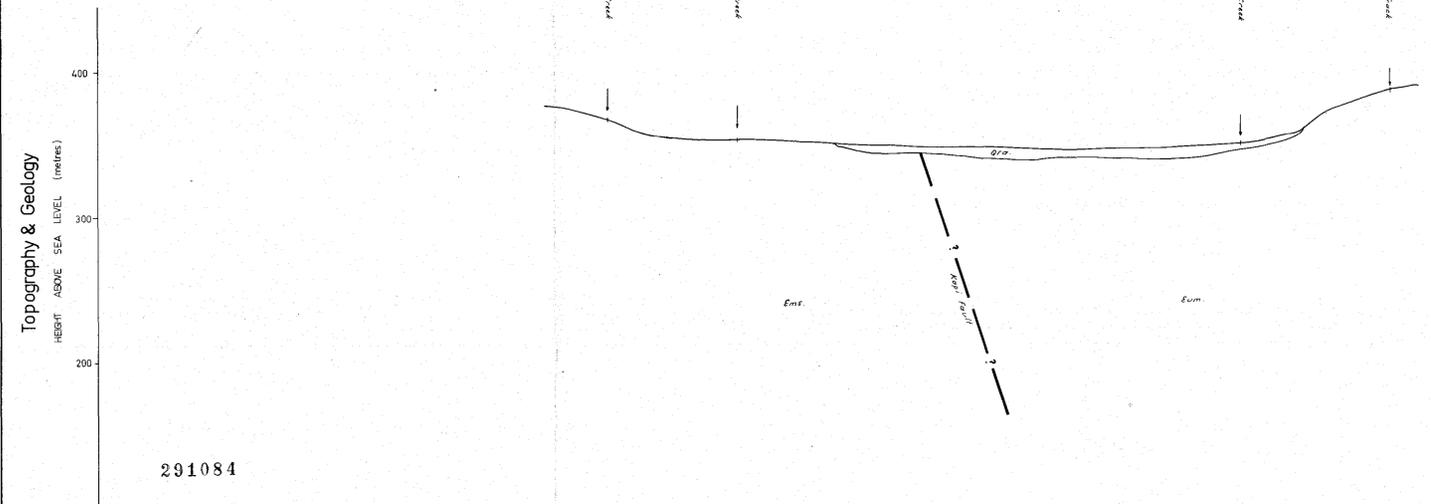
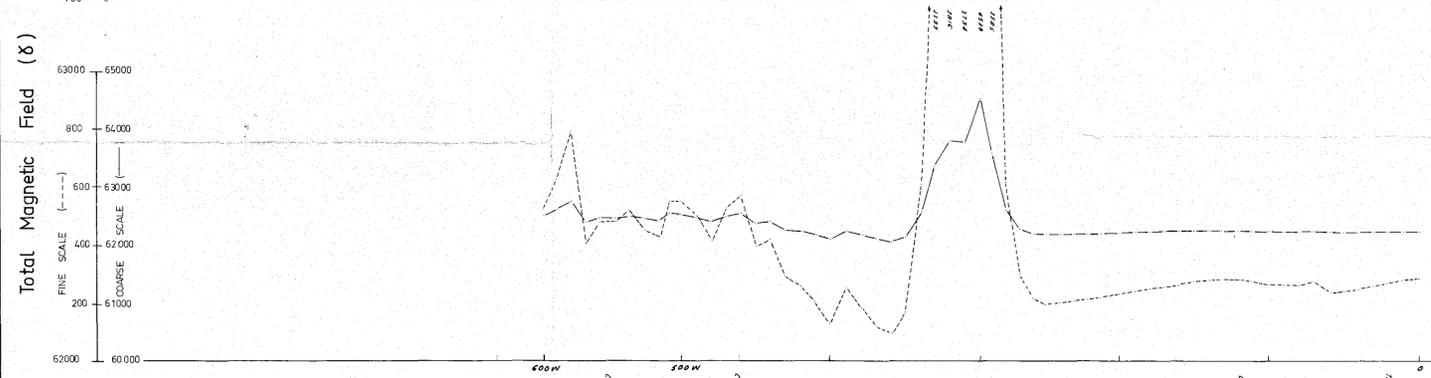
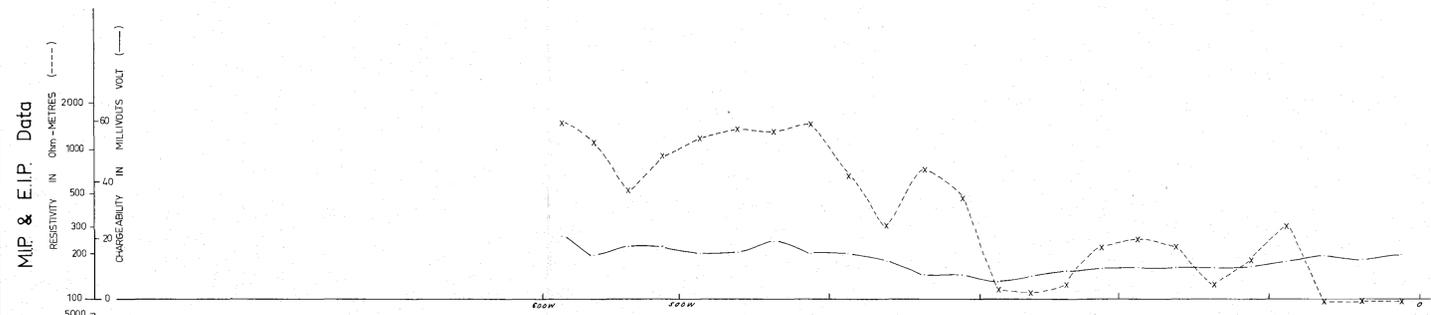
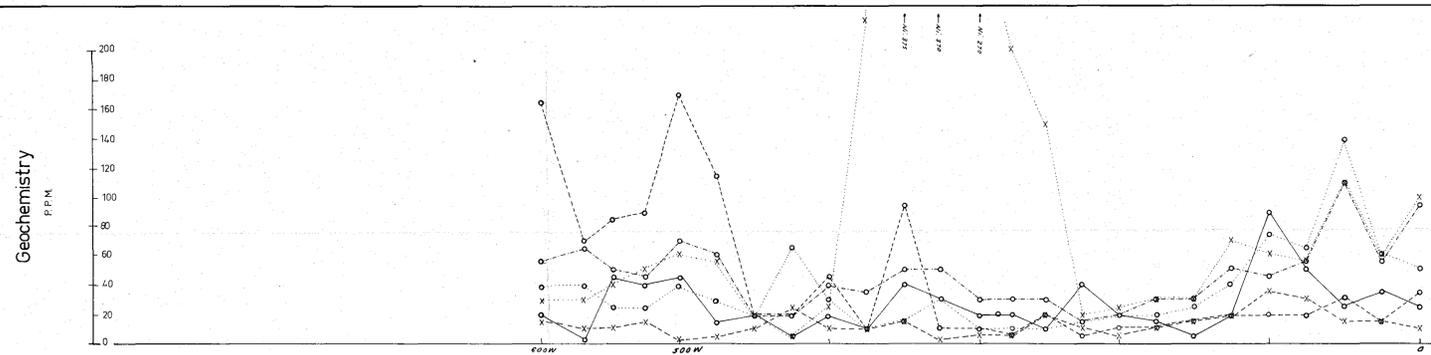
Approx. Geological Boundary

Fault

Inferred Fault

Approx. Fault

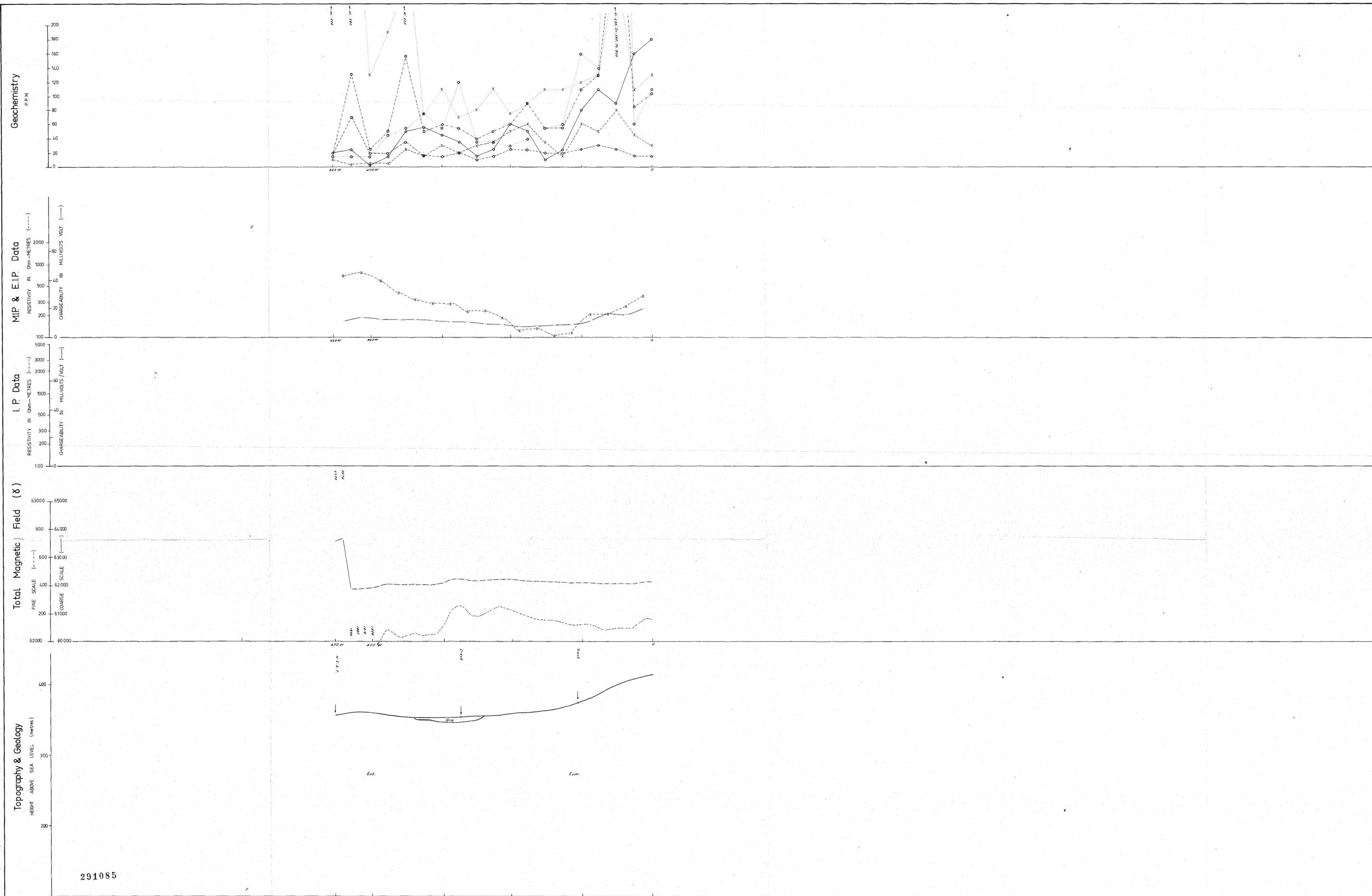
50m



291084

RENISON LIMITED	DRAWN J.P.K.
KAPI GRID	TRACED F.A.C.
LINE 2500N	DATE May 77
SECTION LOOKING Nth	SCALE 1:2,000
SCALE: 1:2,000 METRES	DRAWING No.
77-1234 3/3	22m

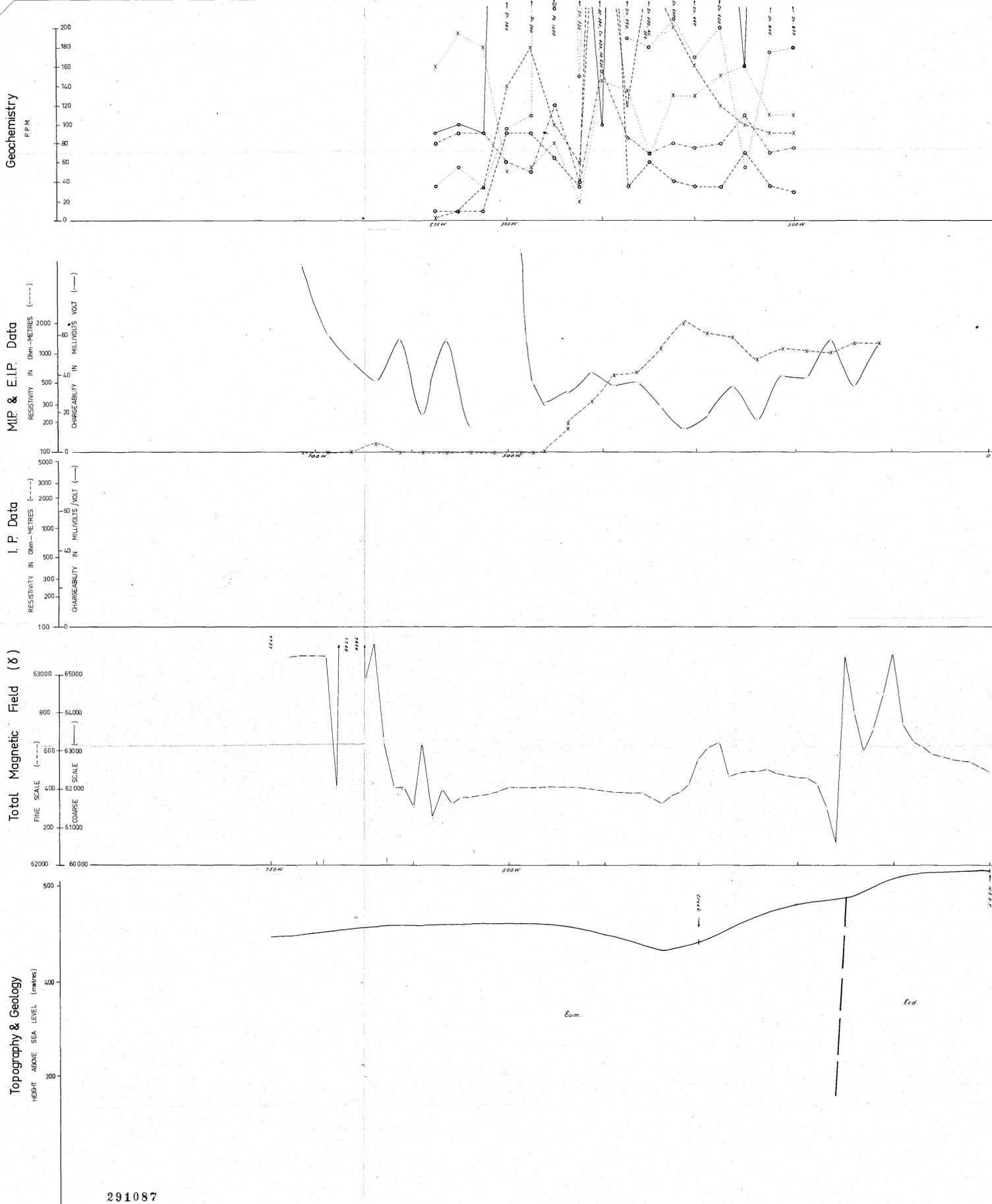
MAGNETICS	GEOCHEMISTRY	I.P.	RECENT	DEVONIAN	U. CAMBRIAN- DUNDAS GROUP	LEGEND
5000 SCALE	Sn	CHARGEABILITY	Alluvium	Granite	Spillite, metaultrite, gabbro and tuff	Geological Boundary
1000 SCALE	Cu	RESISTIVITY	U. CAMBRIAN STRATIFIED MOUNTAIN GROUP	Ultramafite	Pyroclastics and sediments.	Inferred Geological Boundary
	Pb	POLE-DIPOLE	Grass Shale (200m)	U. CAMBRIAN MOUNTAIN GROUP		Approx. Geological Boundary
	Zn		Conglomerate & grit	U. CAMBRIAN MOUNTAIN GROUP		Fault
	As		Shales, tuff, silted & millstone			Inferred Fault
	Ni					Approx. Fault



291085

RENISON LIMITED KAPI GRID LINE 2700 N SECTION LOOKING N th SCALE: 1:2,000 METRES 		DRAWN: J.P.K. TRACED: F.A.C. DATE: May 1977 SCALE: 1:2,000 DRAWING No.: 22a	MAGNETICS 5000 SCALE 1000 SCALE 108	GEOCHEMISTRY Sn Cu Pb Zn As Ni	I.P. CHARGEABILITY RESISTIVITY POLE-DIPOLE	RECENT Alluvium DEVONIAN Granite Blue Shale (Haley) U-CAMBRIAN-DIVIDER GROUP Conglomerate & gneiss Shales, silt/siltst. & siltstone	U-CAMBRIAN-REARSON HILL COMPLEX L- to M-CAMBRIAN REARSON HILL FORMATION Spilites, metakalcsite, gabbro and tuff Ultramafics Pyroclastics and sediments	LEGEND Geological Boundary Inferred Geological Boundary Approx. Geological Boundary Fault Inferred Fault Approx. Fault
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77-1234 3/3



291087

RENISON LIMITED
KAPI GRID
LINE 15900N
 SECTION LOOKING Nth
 SCALE: 1:4000 METRES

DRAWN	J.P.K.
TRACED	F.A.C.
DATE	May '77
SCALE	1:2000
DRAWING No.	
	22g

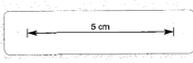
MAGNETICS
 5000 SCALE
 1000 SCALE

GEOCHEMISTRY
 Sn
 Cu
 Pb
 Zn
 As
 Ni

I.P.
 CHARGEABILITY
 RESISTIVITY
 POLE-DIPOLE

RECENT [Symbol] Alluvium
DEVONIAN [Symbol] Granite
W. CAMBRIAN - DEVONIAN [Symbol] Black shale (slaty)
W. CAMBRIAN - DEVONIAN [Symbol] Conglomerate & gneiss
W. CAMBRIAN - DEVONIAN [Symbol] Shale, buff to red & silty

Eom [Symbol] Spilitic, metabasites, gabbro and gneiss
Ecd [Symbol] Ultramafic
Ecd [Symbol] Pyroclastic and sediments



LEGEND
 Geological Boundary
 Inferred Geological Boundary
 Approx. Geological Boundary
 Fault
 Inferred Fault
 Approx. Fault

77-1234 3/3