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UNION CORPORATION (AUSTRALIA) PTY. LIMITED  
E.L. 21/80  
PRELIMINARY REPORT NO. 5  
N.J.W. SEPTEMBER, 1981

81-1582

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UNION CORPORATION (AUSTRALIA) PTY. LIMITED N.J.W. NOVEMBER 1980

E.L. 21/80

PRELIMINARY REPORT NO.1

1. INTRODUCTION

Exploration Licence 21/80 was granted on 10th September, 1980 and is issued to 10th March, 1981 when it is subject to renewal or expiry. The area covered by the Licence is 910 square kilometres and is situated ~~west~~ and south ~~west~~ of the town of Scottsdale in North East Tasmania.  
EAST EAST

This report covers literature research carried out to date and briefly the results of a stream sediment orientation programme. Expenditure figures to September and October are enclosed.

2. SUMMARY OF LITERATURE RESEARCH

(a) BMI Mining Pty. Limited (S.P.L's 48 and 55 - 1971)

.....carried out an exploration drilling programme using a Gemco 5" auger drilling machine. Drilling footage was 1,886 ft. on S.P.L. 48 and 1,761 ft. on S.P.L. 55. Cassiterite was noticed sticking to the auger near the bottom of some of the holes but this was not tested for grade. An alluvial channel was located on S.P.L. 55, but the base of the channel was not located with three 198 to 200 ft. holes. It was concluded that without exceptional tin values this depth of ground would be prohibitive to work economically.

(b) Oceanic Exploration Company (E.L.'s 22/70 and 17/70 - 1976)

.....carried out a stream sediment sampling and a geological mapping programme west and south of Scottsdale. Analyses were carried out for tin, molybdenite, zinc and copper and several anomalies, of two, five and ten times the threshold values, were revealed. The threshold values were, in parts per million, tin 15, molybdenite 5, zinc 30 and copper 20. There is no record of follow-up work, conclusions or recommendations or final report only work proposals.

(c) Stannan Engineering Company Pty. Limited (E.L.'s 6/76, 7/76 and 8/76 - 1975)

.....investigated the gold belt from Branxholm to Mangana. They concluded that the Mercury site represented an outstanding opportunity to test the supposed deep-seated nature of the known lode and that the remainder of the gold belt provided good possibilities for further discoveries of worthwhile quartz-gold veins. An elaborate programme was formulated. They recommended diamond drilling to 600 ft. to test the repetitive nature of the lodes, a geochemical programme followed by geophysics and shaft sinking.

In August, 1976 after a brief field trip, a sample collected from No.1 Adit, Mercury Mine yielded 8 dwt. per ton from country rock. The sample 'was deliberately collected well away from the reef' which suggests that the Mathinna Beds slates and siltstones are auriferous.

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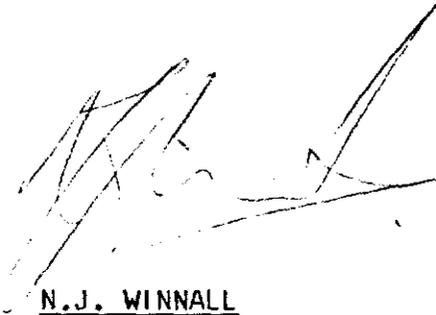
There are no records of further work carried out on these E.L.'s.

3. STREAM SEDIMENT ORIENTATION STUDY

The results of a stream sediment orientation survey have indicated that the analysis of material in the -80 mesh fraction and the panned 'heavies' gives the best response in stream sediments that drain from areas of known tin mineralisation.

4. STREAM SEDIMENT SAMPLING PROGRAMME

.....is due to commence at the beginning of December, 1980 and it is planned that approximately 1,000 samples will be collected over a three month period.



N.J. WINNALL

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UNION CORPORATION (AUSTRALIA) PTY. LIMITED, N.J.W., DECEMBER, 1980

E.L. 21/80

PRELIMINARY REPORT NO. 2

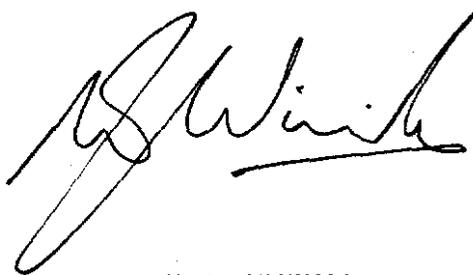
1. LITERATURE RESEARCH

Reports on 'open file' in the Mines Department library, Hobart show that Geopeko, in evaluating S.P.L. 103 near Mt. Victoria in 1973, investigated a 2 x 0.5 metre lode which yielded 31.1 dwt. gold, 2.8% lead, 2% zinc and a maximum value for tin of 100 ppm. Sulphides in the lode comprised mainly arsenopyrite, marcasite, pyrite, sphalerite and chalcocopyrite. There was no evidence to suggest an increase in the strike or width of the lode which was considered to be joint controlled. A reported occurrence of 5% tin was probably due to analytical error.

2. STREAM SEDIMENT SAMPLING SURVEY

Approximately 400 predetermined sample points have been plotted in 1:50,000 topographical maps. The sample density of approximately one sample per two square kilometres will become greater when areas of interest are delineated from the initial survey subsequent to laboratory and statistical analyses.

Some 450 Notices of Intention to Enter Private Land have been issued to all private property owners and some lessees of Crown Land in the Exploration Licence area. This involved an extensive title search at the Valuation Division, Lands Department, Hobart.



N.J. WINNALL

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Received Answered				4 MAR 1981
DEPT. OF MINES				REG. No.

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E.L. 21/80

PRELIMINARY REPORT NO. 3

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UNION CORPORATION (AUSTRALIA) PTY. LIMITED. -N.J.W. - MARCH, 1981

E.L. 21/80

PRELIMINARY REPORT NO. 3

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E.L. 21/80

PRELIMINARY REPORT NO. 3.A. INTRODUCTION

This report provides information about the geological exploratory work carried out for the period from 10th September, 1980 to 10th March, 1981, that is, the first six month period of tenure of Exploration Licence 21/80.

This report covers a summary of earlier work previously reported in Preliminary Reports 1 and 2 with a more detailed account of recent activities covering the period from December, 1980 to March, 1981.

The exploration licence area is considered prospective for mainly tin-tungsten mineralisation in veins and sub-horizontal sheets in granites and in veins in Mathinna Beds sediments. The contact between these two rock types and 'roof' zones of alkali granites are considered important sites for investigation. Molybdenum and gold are known to occur in the region.

B. SUMMARY OF EARLIER WORK

1. Literature Research - showed that several companies were interested in the area for mainly tin-tungsten and gold mineralisation. An alluvial prospect east of Scottsdale was percussion drilled with unfavourable results. A stream sediment sampling programme was carried out in 1976 east and south of Scottsdale (an area of approximately 100 sq. kilometres) in which numerous tin, molybdenite, zinc and copper anomalies were evident. There is no record of follow-up work yet available in open-file reports at the Mines Department, Hobart. A report on the Branxholm-Mangana gold belt revealed little of interest. An isolated quartz reef near Mount Victoria containing abundant sulphides and high tin values was investigated and found to have little potential.
2. Preliminary Field Reconnaissance - was undertaken in order to become familiar with the general geology, especially rock types, in the exploration licence area. The acid intrusive rocks comprise, in general, granodiorites, adamellites and muscovite-biotite, porphyritic and equigranular, fine to coarse grained granites. The Mathinna Beds sediments are largely siltstone, quartz-sandstone and metaquartzites some of which contain thin muscovite veins and may be subject to 'quartzitic' development nearer the granite contact. 'In situ' exposures of Mathinna sediments are rare and appear to be confined to mainly creek beds and road cuttings. There is abundant scree and talus on hill slopes which hampers geological mapping although soils developed over Mathinna Beds sediments are typically brown. There is little difference in texture character on aerial photographs between Mathinna sediments and granites in dense forest and scrub areas.
3. Stream Sediment Orientation - studies indicate that analysis of material in the -80 mesh fraction and panned 'heavies' gave the best response in stream sediments that drained from areas of known tin mineralisation. These results were obtained from eighteen wet-active

stream sediments which were dried and sieved into +9, -9 +32, -32 +80 and -80 mesh fraction and each fraction analysed for tin by XRF method. The sediments were collected from streams that drained from various greisen and quartz vein deposits in the Mount Paris Mass and Ben Lomond granite areas in North East Tasmania.

C. PRESENT INVESTIGATIONS

Three hundred and eighty four predetermined stream sediment samples sites were sampled over the period December, 1980 to end of February, 1981, at an average collection rate of 6 samples per day. Care was taken to collect samples from as close as possible to the stream bed centre at stream flow deceleration points. The sediment samples were dried and sieved and the coarse fraction panned to obtain a concentrate that contained heavy minerals if present. Minerals present in the panned concentrate included quartz, cassiterite, magnetite, scheelite, ?flourite, ilmenite, zircon and topaz. A batch of sixty five -80 mesh and panned 'heavy' samples were analysed for tin, tungsten, copper, lead, zinc, and molybdenite and tin respectively. Analyses of the results is presently underway which will indicate those areas that require follow-up exploratory work. Several anomalies are evident.

The stream sediment programme was carried out in order to indicate mineral distribution patterns of mainly tin in the licence area and provide a basis for future exploratory planning.

D. PROPOSED FUTURE WORK

The following programme will largely be dependent upon the interpretation and assessment of the stream sediment data. It is envisaged that the following exploratory work will be carried out :-

1. Statistical analyses and interpretation of geochemical analyses of stream sediment samples to define target areas.
2. More detailed stream sediment geochemistry followed by soil and rock-chip sampling where appropriate.
3. Geological assessment of initial target areas and detailed investigations of follow-up geochemistry.
4. Possible geophysical survey if considered useful.
5. Costeaming of specific targets delineated in the previous programme and possible shallow and deep percussion drilling.
6. Diamond drilling where warranted.

The anticipated timing of the work schedule is as follows :-

March - April - sample preparation and interpretation of geochemical data.

April - June - detailed stream sediment, soil and rock-chip sampling with geological assessment.

July - September - detailed investigations, ?geophysical survey, costeaming and drilling.

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September - Onwards - the programme hence would depend on an overall assessment of exploratory work to date.



N.J. WINNALL

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UNION CORPORATION (AUSTRALIA) PTY. LIMITED. N.J.W. JUNE, 1981

E.L. 21/80PRELIMINARY REPORT NO. 4STREAM SEDIMENT SAMPLING SURVEY

D of M	A.O.	C.G.	E.O.	D.S.M.E
				Registrar
Received Answered				15 JUN 1981
DEPT. OF MINES				E & IL
REF. No. 4844/81				

A total of 416 stream sediment samples were panned and sieved and submitted for analysis of tin, tungsten, molybdenum, copper, lead and zinc. The panned concentrates were weighed and analysed for tin by XRF. The -80 mesh samples were analysed for tin and tungsten by XRF and for copper, lead, zinc and molybdenum by  $\text{HClO}_4$  digestion and AAS. determination.

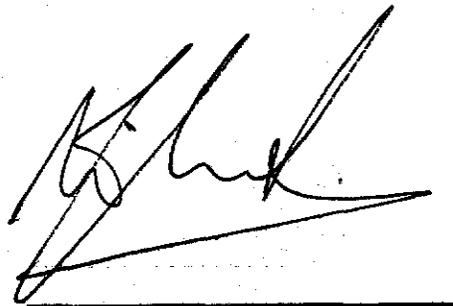
The - 80 mesh determinations were grouped into those collected in streams that drain off Mathinna Beds sediments, granodiorites and adamellites/alkali granites. Several samples drain off two rock types. Complete statistical analyses for all rock types is expected to be completed soon.

Plan No.1 (attached) shows the tin content of stream sediments which were calculated from tin values in concentrates and the concentration ratio. Clearly the higher values are closely related to the adamellite/alkali granite group and also to the contact of this group with the Mathinna Beds sediments. Here the values range up to 6ozs/cu. yd. The highest values, however, occur in streams that drain from small sluiced workings in the Scottsdale area comprising Tertiary sediment covered adamellites. Here sediments contain 6 ozs and 2lbs/cu. yd. A reconnaissance investigation showed that two samples of granite contain 15 and 20 ppm. tin whereas the overlying bedrock, contains 180 ppm. tin. Other Tertiary sediments in the area yield 70 and 5 ppm. tin.

During examination of the panned concentrates several unusual minerals were recognised. 'Blackjack', a local term for a contaminant in some panned concentrates, appears to be spinel. Several samples have high magnetite contents and these are generally located in areas of granodioritic rocks. Fine-grained yellow-white fluorescent minerals show an uneven distribution throughout the E.L. area and geochemical analyses indicates that the fluorescent minerals are likely to be zircon. Five concentrates high in fluorescent mineral content were analysed for zircon, tungsten and fluorine with results of <0.1%F, <10 ppm.W and 330 ppm. to 0.3% Zr.

The areas that require detailed follow-up stream sediment sampling will be determined by statistical treatment of a stream sediment data and from inspection of data on Plan No.1.

A Statutory Declaration of expenditure from 1st March to 31st May, 1981 is attached.



N.J. WINNALL

enc1 - Plan No. 1,  
- Statutory Declaration.

UNION CORPORATION (AUSTRALIA) PTY. LIMITED. N.J.W. SEPTEMBER, 1981E.L. 21/80PRELIMINARY REPORT NO. 5.

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Transparencies held

**OPEN FILE**

E.L. 21/80

PRELIMINARY REPORT No. 5A. ATTACHED

Appendix 1 - Table 1, figures 1a to 1f, 2a to 2f and 3a to 3f  
Appendix 2 - Table 2  
Plan No. 1.

B. INTRODUCTION

This report covers work carried out from 11th March, 1981 to 10th September, 1981. It also includes a summary of previous work reported in Preliminary Reports Nos. 1 to 4 and a detailed account of the stream sediment programme which was the main activity.

The exploration licence area is considered prospective for mainly tin and/or tungsten mineralisation in veins and sub-horizontal sheets in granites and in veins and as 'stockworks' in Mathinna Beds sediments. The contact between these two rock types, particularly in 'roof' or 'cusp' zones in alkali granites, is considered an important site for investigation. Molybdenum and gold mineralisation is known to occur in the region.

C. SUMMARY OF WORK CARRIED OUT TO DATE1. Literature Research

Mainly exploration company reports were examined. Information covered auger drilling for 'deep lead' tin deposits, some stream sediment geochemistry, gold exploration and geochemistry of rocks collected at specific prospects.

2. Stream Sediment Survey Orientation

The survey was carried out in areas of known tin mineralisation and showed that analysis of the panned concentrates and -80 mesh fractions gave the best response.

3. Notices of Intention to Enter Private Land

Approximately 450 notices were issued to all private land owners and some lessees of Crown Land.

4. Preliminary Field Investigation

Rock types, where exposed, were examined. Abundant scree occurs and aerial photography was found to be of little use in geologically mapping heavily forested areas.

5. Stream Sediment Sampling Survey

The survey comprised the collection of 416 samples and is described below in Section D.

D. STREAM SEDIMENT SURVEY1. Introduction

A total of 416 samples were collected each sample representing material that may have been shed from a catchment area of 2 to 3 square kilometres. It should be noted here that the survey was carried out in conjunction with exploration investigations in an adjacent E.L. area (E.L. 11/77) the holders with whom we have a joint venture.

2. Method

Wet, active stream sediment samples were collected at deceleration points on stream courses in plastic lined calico bags. The average weight of sample was 4 kilograms which was dried, sieved (to -80 mesh) and the residue was panned. The -80 mesh fraction was analysed for tin, tungsten, molybdenum, copper, lead, and zinc and the panned concentrates for tin only.

Analyses were carried out by Australian Laboratory Services (Pty) Limited in Brisbane, Queensland. Analytical data are tabulated below.

Element	Method	Limits of Detection (ppm)	Relative Precision (%)
Sn	XRF	5	+ 5
W	XRF	10	+ 5
Mo	HNO <sub>3</sub> /HClO <sub>4</sub> - A.A.S	2	+ 20
Cu	HClO <sub>4</sub> - A.A.S.	2	+ 10
Pb	"	5	+ 10
Zn	"	2	+ 10

Statistical treatment of the analytical results was carried out to provide threshold values that may indicate mineralisation. The -80 mesh determinations were grouped into 3 rock categories i.e. those collected in streams that drain off Mathinna Beds sediments, granodiorite and adamellite/alkali granites. Some samples were collected from streams that drained off two or more, rock types and these were noted. The input data for the statistical analysis includes stream sediment data from E.L. 11/77 which is not shown in Table 2 (Appendix 2).

The data for each element per rock category were divided into suitable class intervals. The logarithms of mid points of the intervals were plotted against cumulative frequency per cent on probability paper.

3. Results

The analytical results are shown in Table 2 in Appendix 2.

(a) Panned Concentrate

Included in Table 2 are the weights of both sediment collected and panned concentrate which gives a concentration ratio. This was then used to calculate the amount of tin in the sediment which is shown on Plan 1 (attached).

The higher values appear to be closely related to the adamellite/alkali granite group.

The occurrence of magnetite appears to be associated with the granodioritic Pyengana Pluton which occurs in the dominantly adamellite/alkali granite suite of the Blue Tier Batholith.

Zircon occurs most often in streams draining the Scottsdale Batholith.

(b) Minus 80 Mesh Fraction

The graphical plots of log (ppm) versus cumulative frequency per cent for each element per rock group are shown in Appendix 1 as follows - granodiorite (figs. 1a to 1f), adamellite/alkali granite (figs 2a to 2f) and Mathinna Beds (figs 3a to 3f). Histograms for all elements are shown

on cumulative frequency plots.

A summary of the interpretation of the data is shown on Table 1 (Appendix 1) and threshold values and higher values (shown as multiples of the threshold values) are plotted on Plan 1 (attached). Interpretative thresholds for molybdenum and tungsten are considered invalid, except for tungsten in adamellite/alkali granite, because the number of analytical groups is less than five. In these cases a visual estimate of threshold values was adopted.

Numerous anomalies are evident which are discussed below in general terms -

- about 5 kms E.N.E. of Scottsdale tin, tungsten and molybdenum anomalies are found. In this area molybdenite in veins (Mt. Stronach) and tin in Tertiary sediments are known to occur.
- all elements, except molybdenum, occur, singly or in combination, anomalously south west of Ringarooma.
- molybdenite is anomalous over a large area in the central eastern area over the Pyengana granodiorite Pluton.
- tin, tungsten and some zinc anomalies are located at the south eastern corner of the E.L. area in streams that drain off Mathinna Beds sediments.

E. PRESENT INVESTIGATIONS

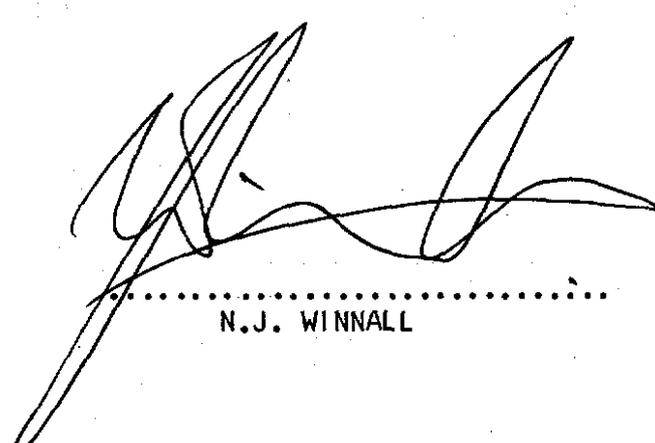
Detailed stream sediment sampling is presently underway in the south eastern areas of the E.L.

F. SUMMARY OF PROPOSED FUTURE WORK

It is proposed that the following work will be carried out on the basis of results to date.

- more detailed stream sediment sampling in anomalous areas.
- geological assessment of anomalies.
- assessment of detailed stream sediment anomalies by geological mapping, soil and rock chip sampling where appropriate.
- the on-going programme is dependent on assessment of results at this stage of the exploratory work.

A sepia transparency of Plan 1 and completed Mineral Industry Unpublished Report Data Sheet are enclosed.



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Taylor, R.G., - 1978

Tin Deposits - Geology and Exploration  
Australian Mineral Foundation Workshops  
Course 106/78.

APPENDIX 1

TABLE 1

Statistical Analysis Summary Sheet

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Granodiorite  
Adamellite/  
Alkali Granite  
Mathinna  
Beds

	Mean	Median	Mode	Standard Deviation	Coefficient of Variation	Intrepreted Threshold	Lower Limit of Class Interval	Fig	% of values Anomalous
Sn	67	10	10	334	5	270	261	1a	5
W	77	2.5	5	6	0.8	25	20	1b	10
Mo	73	5	3.5	2	0.6	10	-	1c	9
Cu	10	5	6	10	1	26	25	1d	7
Pb	26	20	22	11	0.4	62	60	1e	3
Zn	43	40	52	25	0.6	108	105	1f	4
Sn	463	55	85	1016	2.2	2975	2891	2a	4
W	18	10	8 (8)	41	2.3	104	96	2b	3
Mo	5	<5	5	2.7	0.6	9	8	2c	18
Cu	24	20	15	27	1.1	115	111	2d	3
Pb	24	25	27	13	0.5	57	55	2e	2
Zn	80	70	61	73	0.9	162	145	2f	4
Sn	42	5	2.5	93	2.2	210	191	3a	5
W	710	<10	<10	3	0.3	20	19	3b	4
Mo	73	5	5	2.3	0.7	10	9.6	3c	6
Cu	13	10	10	7	0.6	39	39	3d	2
Pb	26	25	27	15	0.6	87	85	3e	2
Zn	68	65	63	41	0.6	135	127	3f	4

Values-ppm

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2

1

(fig. 1a)  
TIN - GRANODIORITE  
- 80 mesh  
114 samples

threshold 270 ppm

Upper limits of background

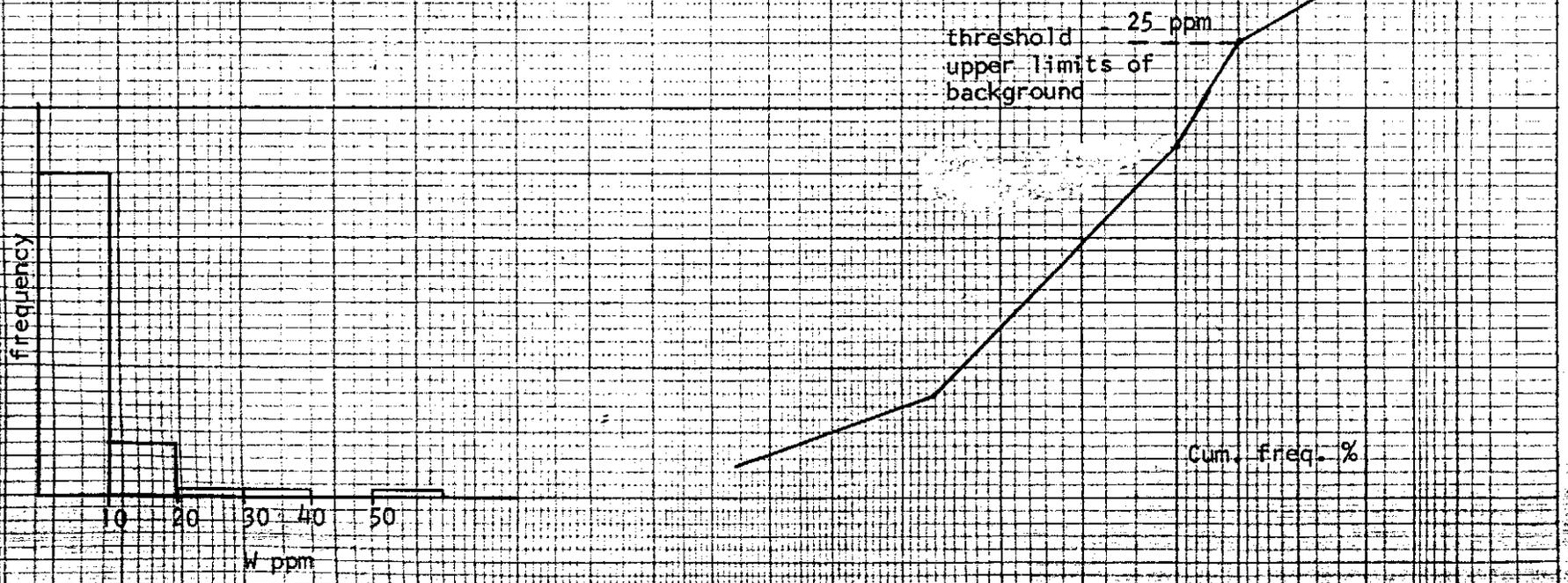
Cum. Freq. %

frequency

100 200 300 400 990 3410  
Sn ppm

5 cm

(fig. 1b)  
TUNGSTEN - GRANODIORITE  
- 80 mesh  
114 samples

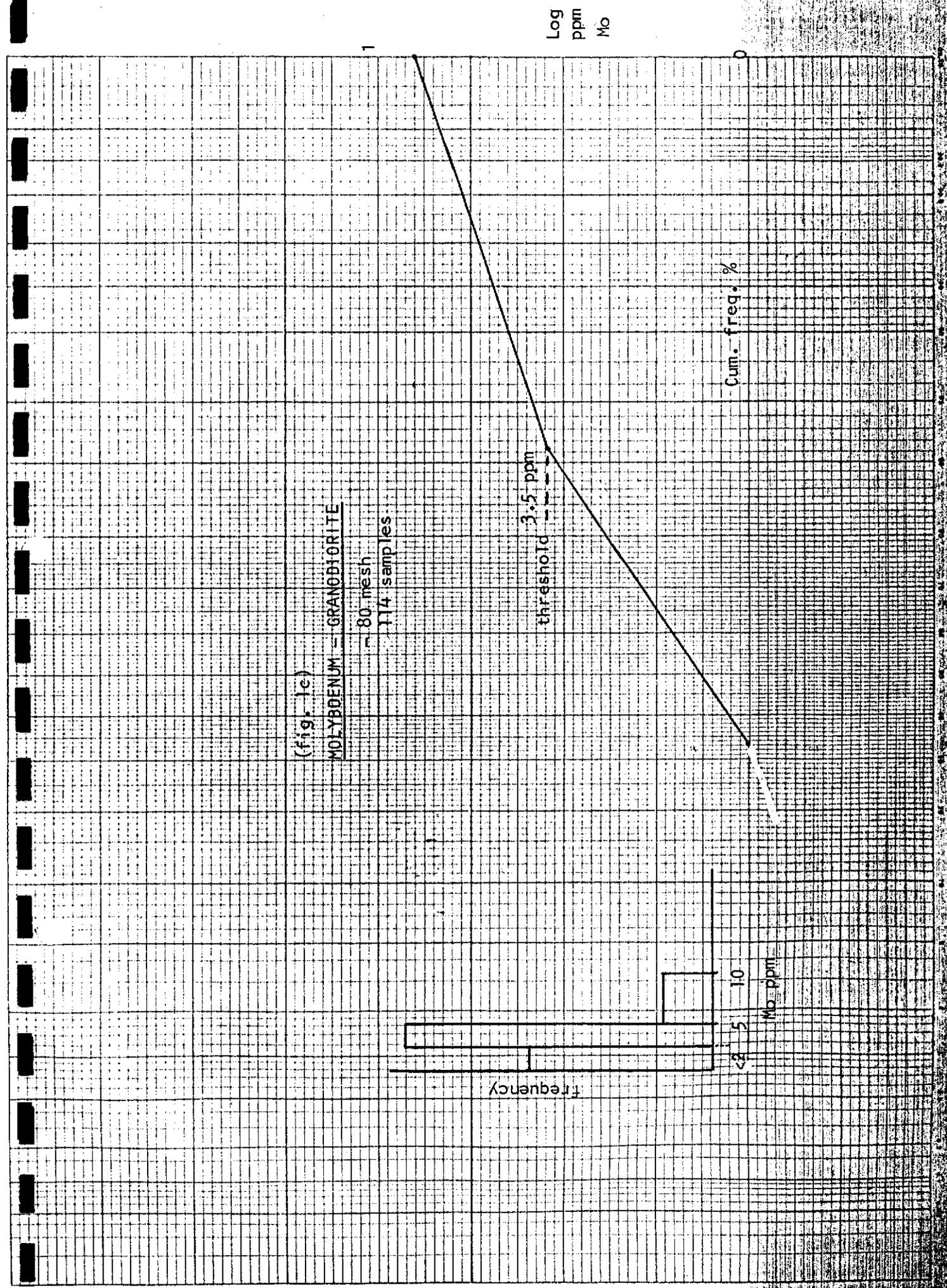


5 cm

019

CORMACK GRAPH PAPERS : CHRISTCHURCH N.Z.

P210Y Probability scale



5 cm

020

MACKERRAN PAPERS - CHRISTCHURCH 7

P210Y

Frequency

Log  
ppm  
Cu

(fig. 1d)  
COPPER - GRANODIORITE  
- 80 mesh  
114 samples

frequency

10 20 30 40 80

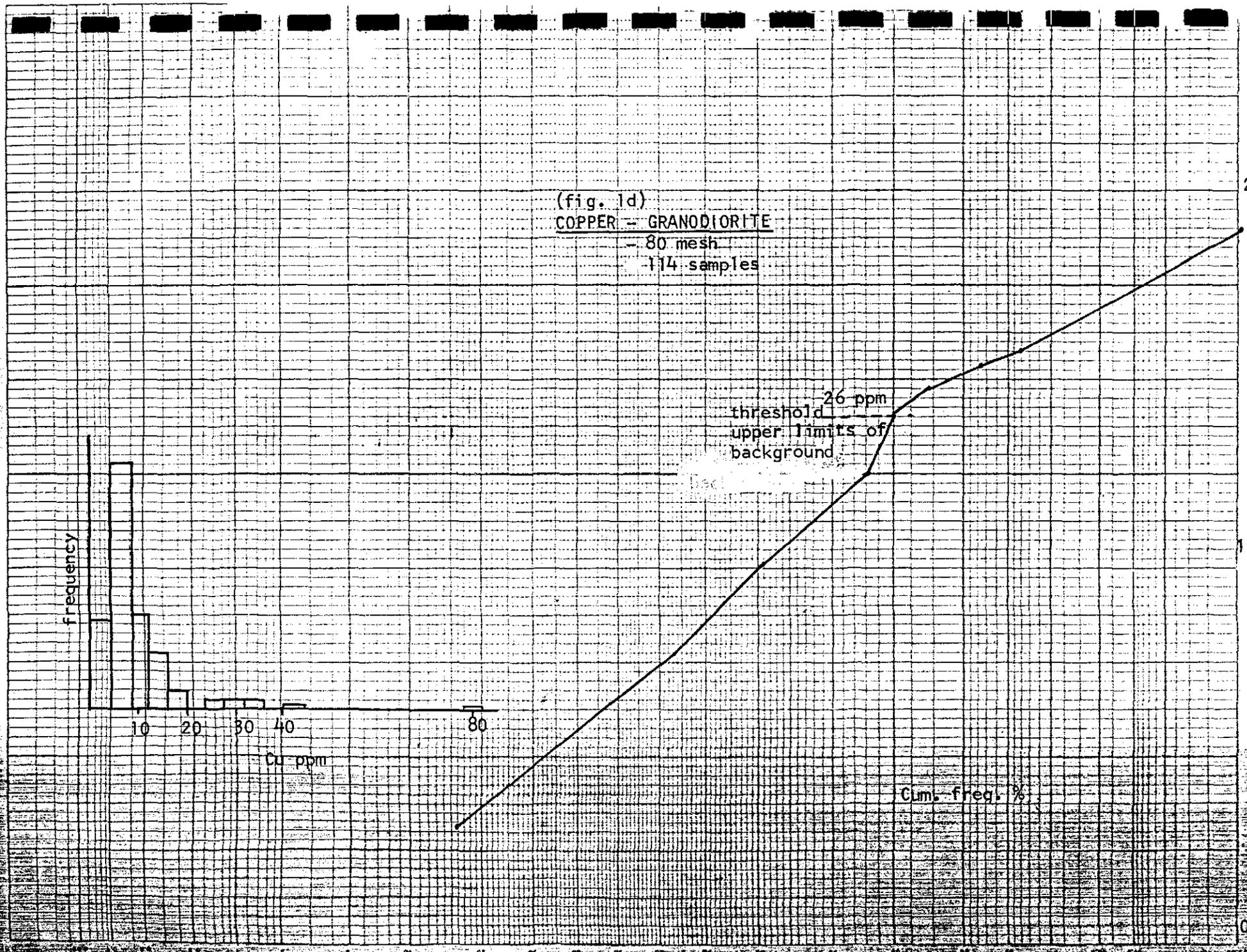
Cu ppm

26 ppm  
threshold  
upper limits of  
background

Cum. freq. %

5 cm

945022



021

Log ppm Pb

(fig. 1e)

LEAD - GRANODIORITE  
80 mesh  
114 samples

threshold 62 ppm  
upper limits  
of background

Cum. freq. %

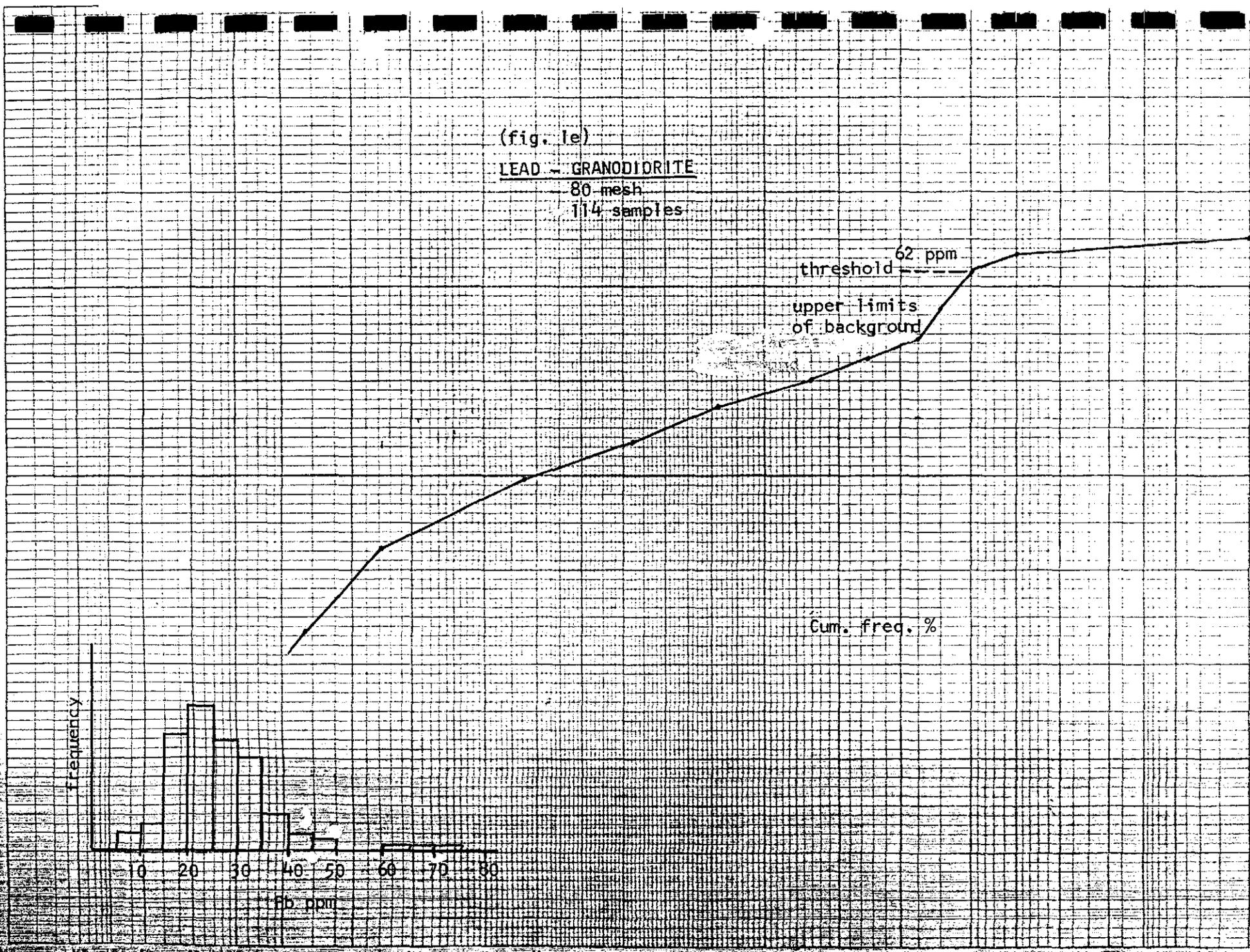
frequency

10 20 30 40 50 60 70 80

Pb ppm

5 cm

945023



022

MEMACK GRAPH PAPERS - CHRISTCHURCH N  
P210Y Probability grade

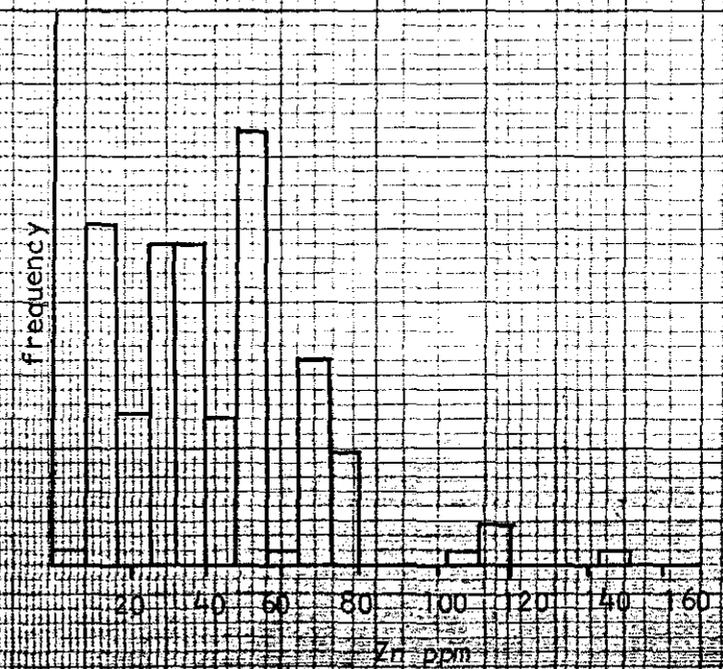
(fig. 1f)

ZINC -- GRANODIORITE  
-- 80 mesh  
-- 114 samples

threshold 108 ppm  
upper limits of  
background

Mixed population

Cum. freq. %



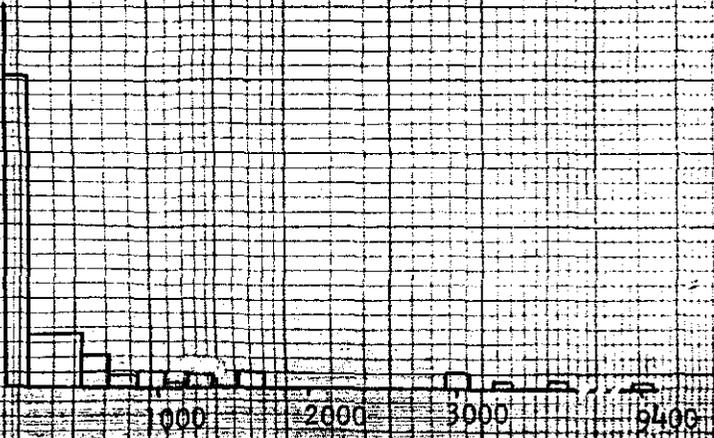
Log  
ppm  
Zn

5 cm

945024

(fig. 2a)  
TIN - ADAMELLITE/ALKALI GRANITE  
- 80 mesh  
135 samples

frequency



threshold 2975 ppm  
upper limits of background

0.1%Sn

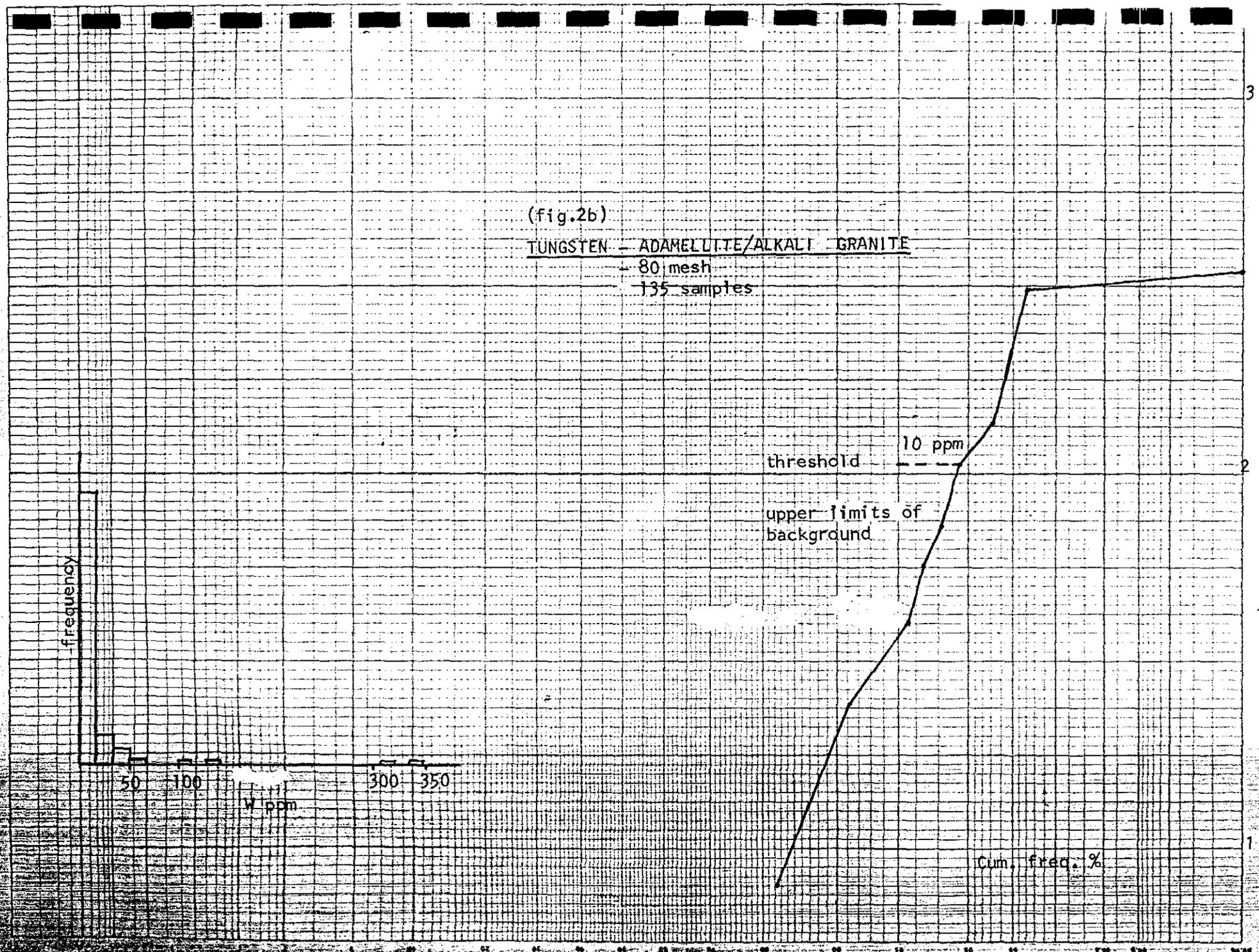
Mixed population

Log ppm Sn

Cum. freq, %

5 cm

Log ppm W.



025

SCIMITACK GRAPH PAPER NO. CHRISTCHURCH N Z

P210Y Probability scale

2

1

Log ppm Mo

(fig. 2c)  
MOLYBDENUM IN ADAMELLITE/ALKALI GRANITE

- 80 mesh  
135 samples

frequency

Mo ppm

2

5

10

15

?threshold

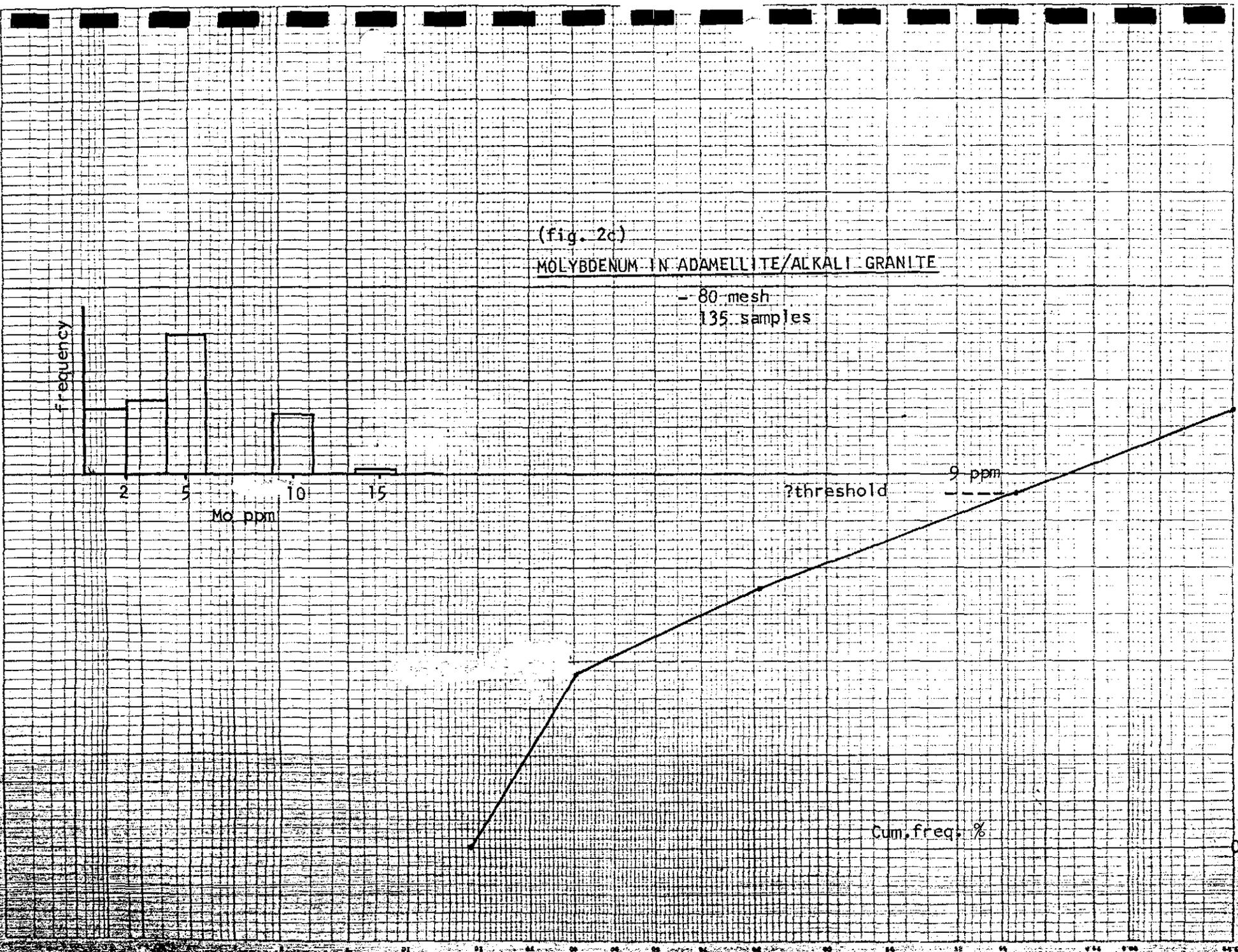
9 ppm

Cum. freq. %

0

5 cm

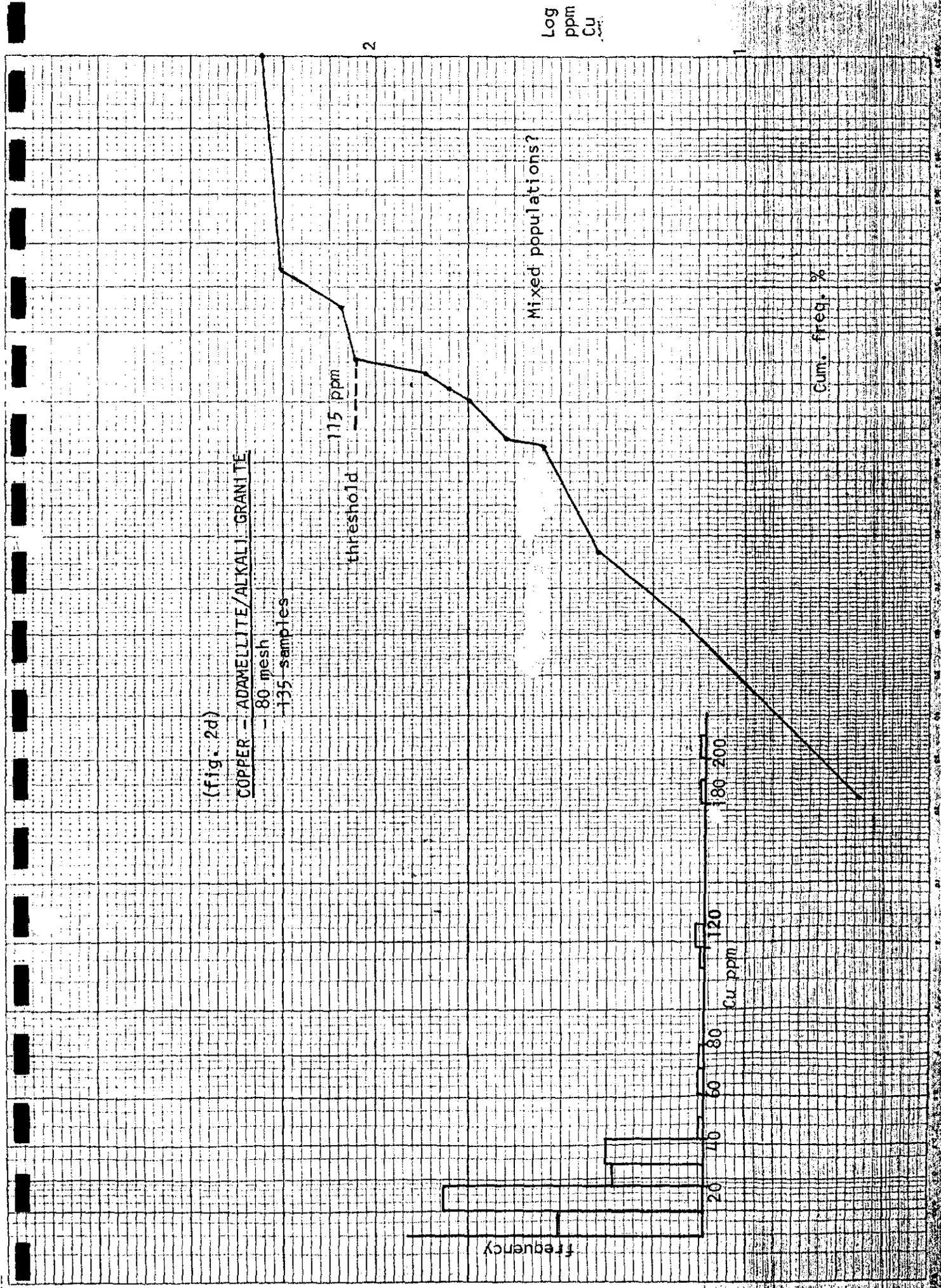
945027



026

FORBES GRAPH PAPERS - CHRISTCHURCH N.Z.

P210Y Probability scale



027

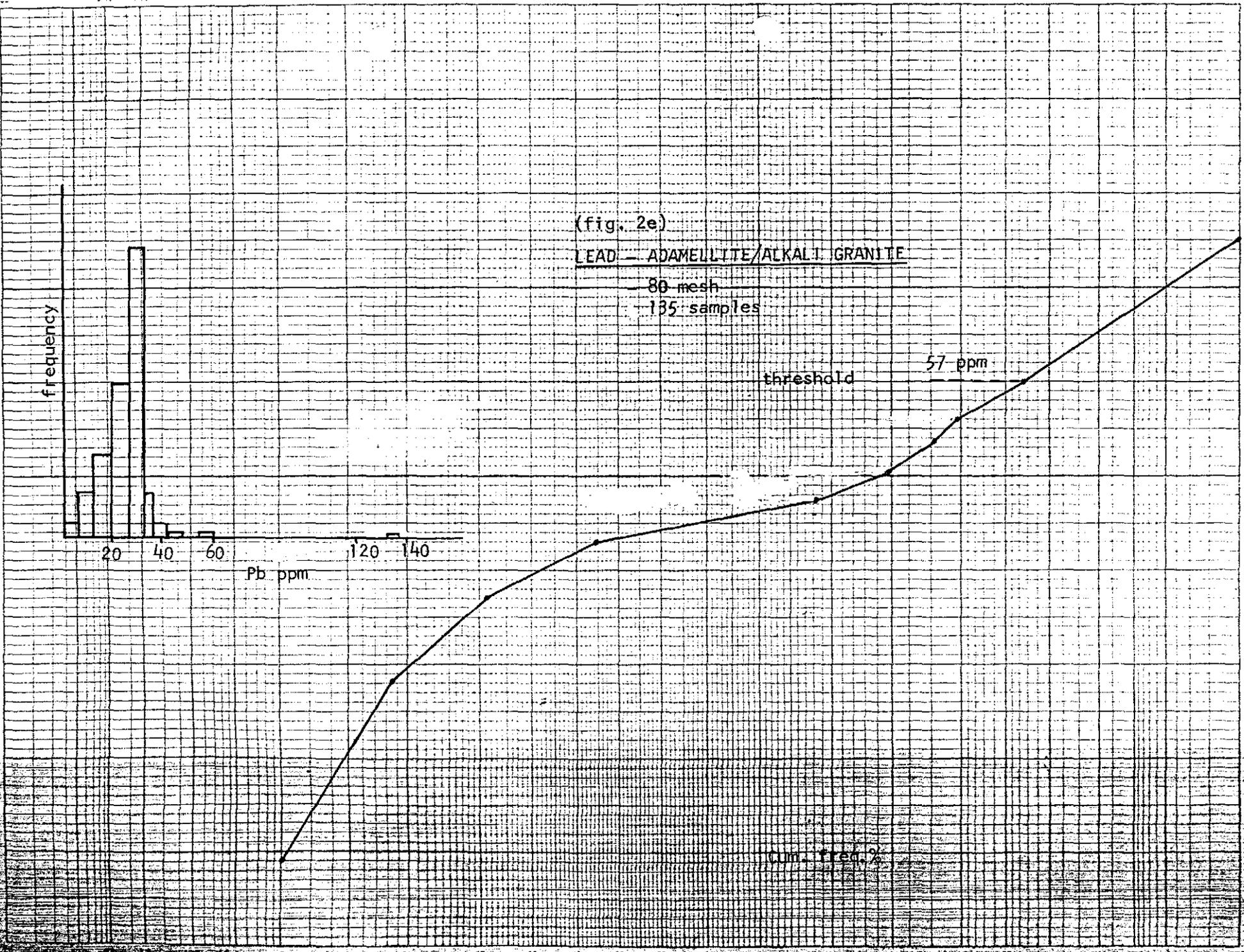
GORMACK GRAPH PAPERS - CHRISTCHURCH N.Z.

PROY. Probability

Log ppm Pb

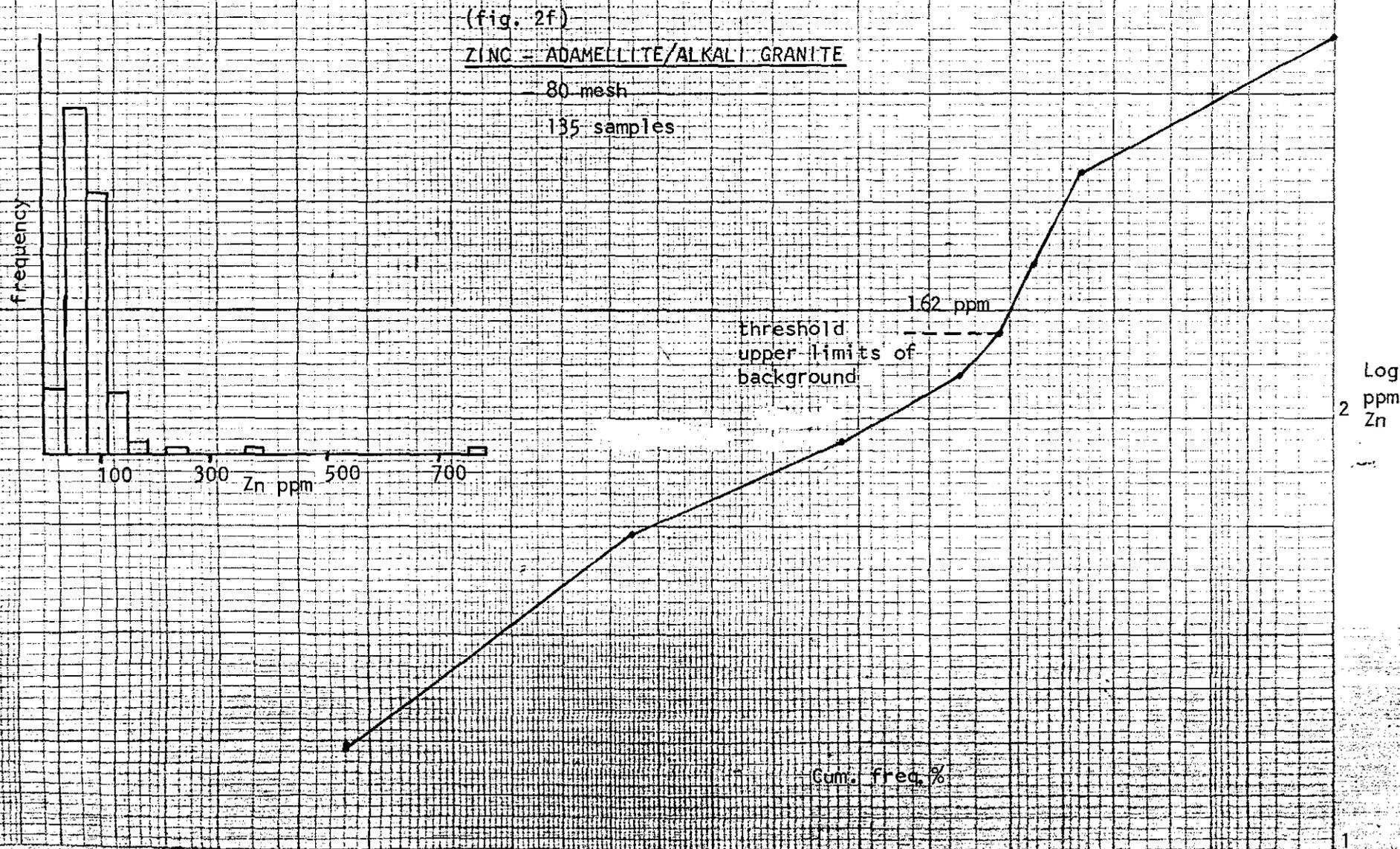
1

2



5 cm

945029



5 cm

3

2

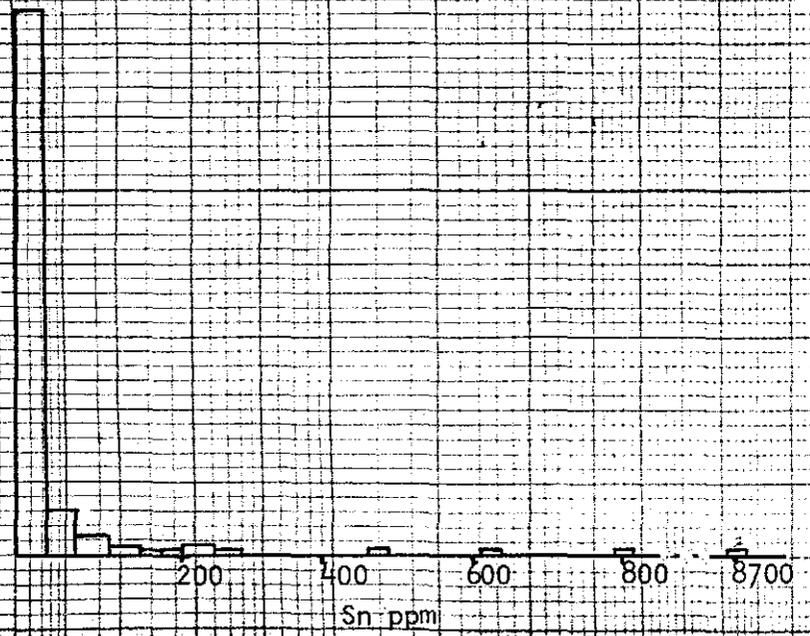
Log ppm Sn

(fig. 3a)  
TIN - MATHINNA BEDS  
- 80 mesh  
167 samples

threshold

210 ppm

frequency



Cum. Frec. %

5 cm

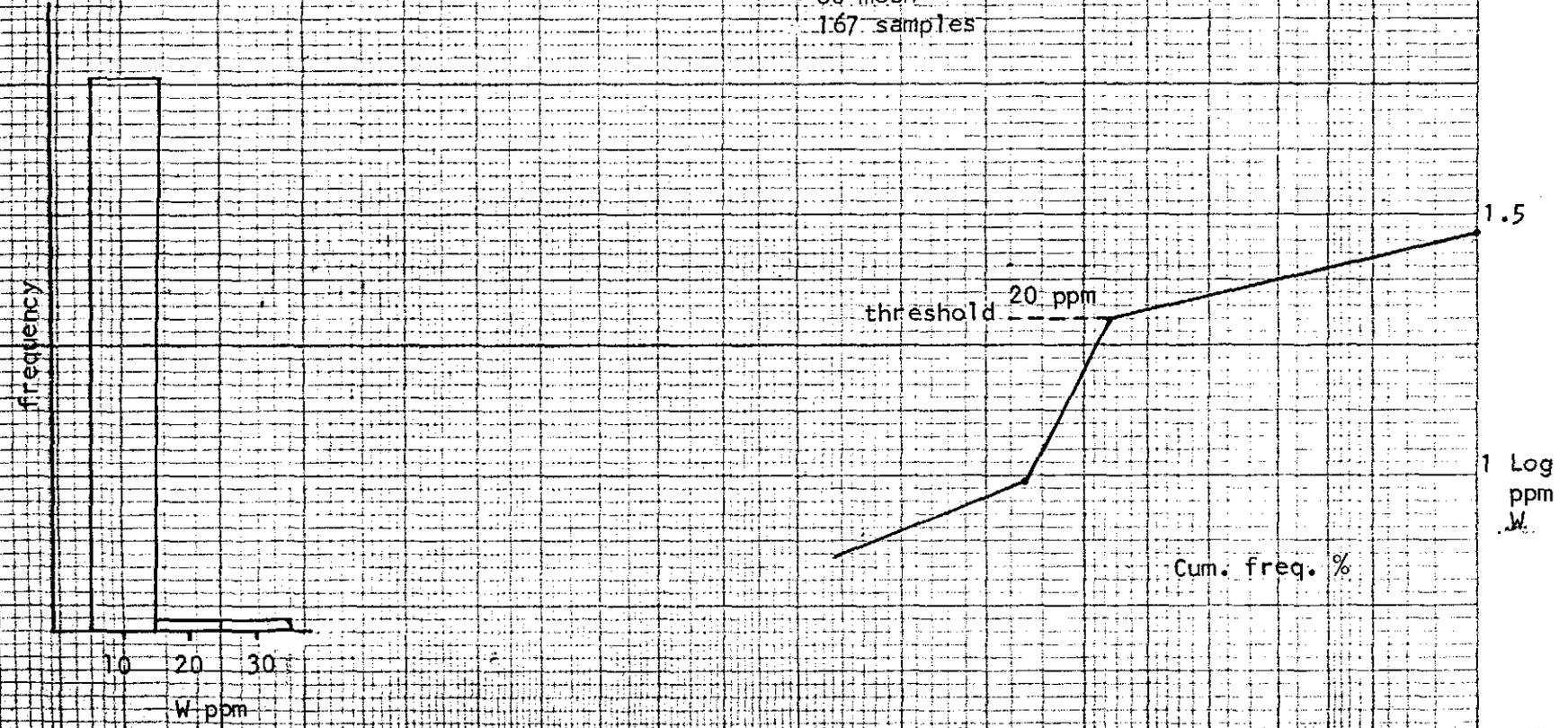
030

GORRACK GRAPH PAPERS : CHRISTCHURCH N Z

P210Y Probability scale

(Fig.3b)

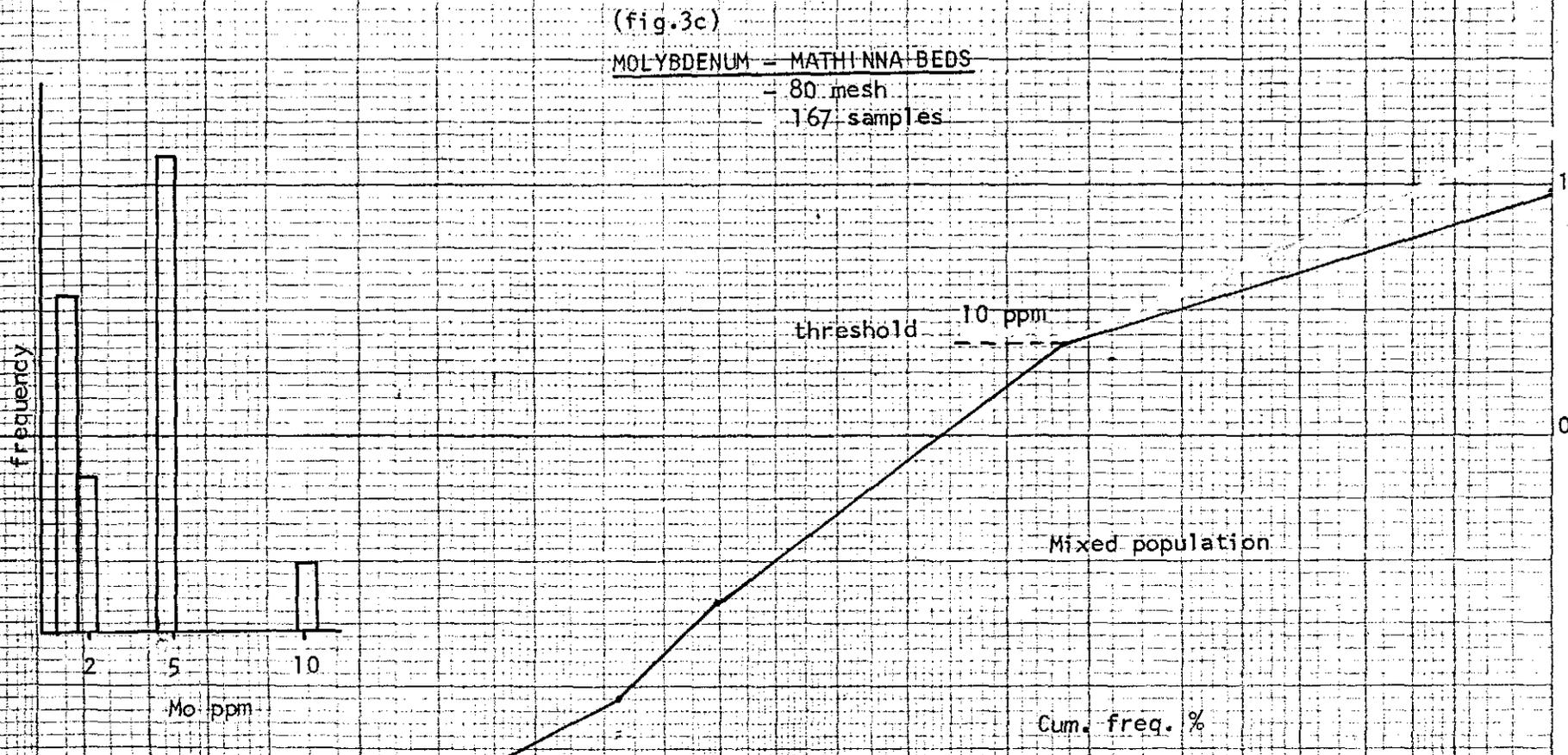
TUNGSTEN - MATHINNA BEDS  
- 80 mesh  
167 samples



5 cm

945032

Log ppm Mo



5 cm

032

IMMACKONAPPA PAPER CO. CHRISTIANBURG, VA.

P210Y

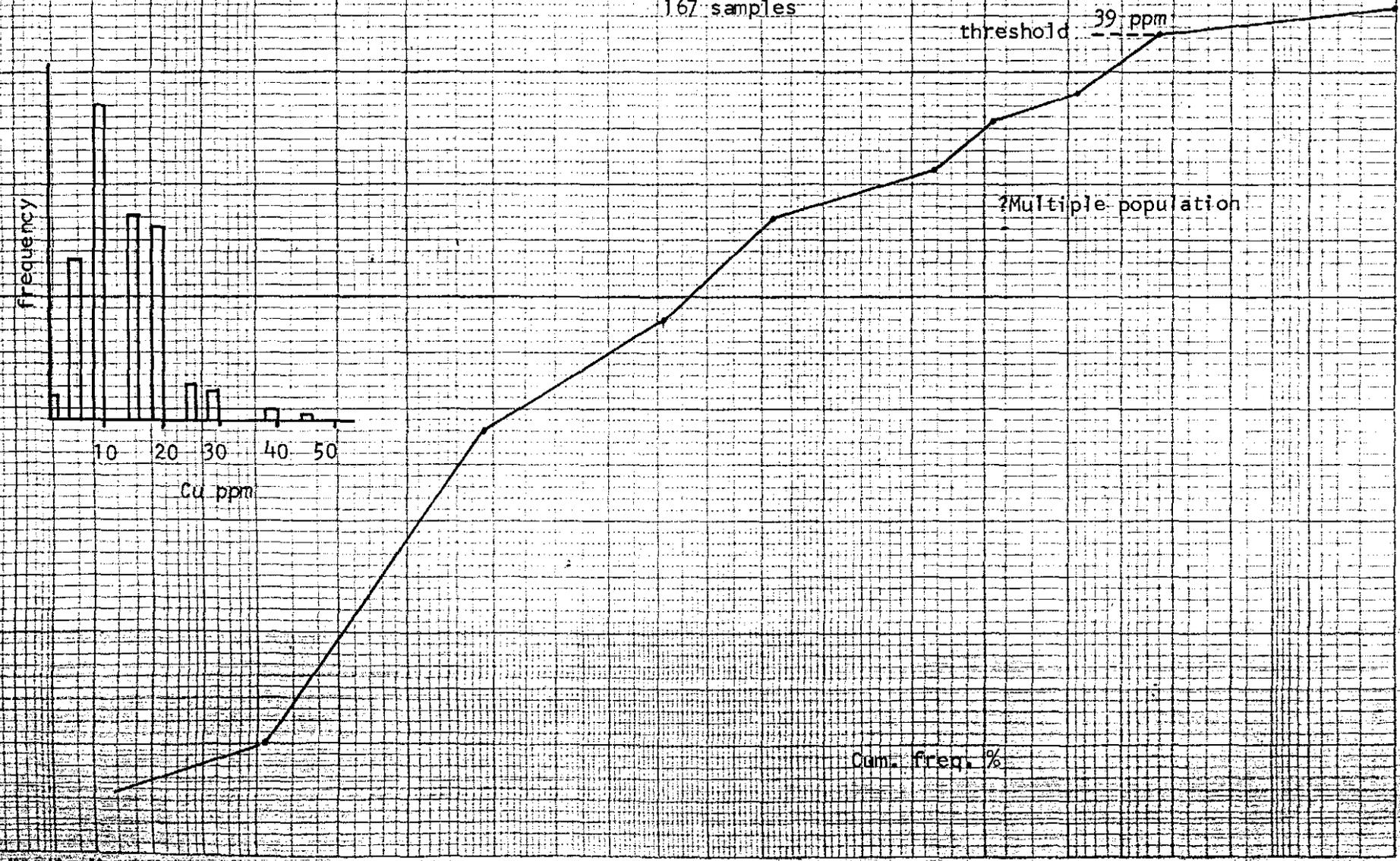
Probability scale

Log ppm Cu

(fig. 3d)

COPPER - MATHINNA BEDS

- 80 mesh  
167 samples



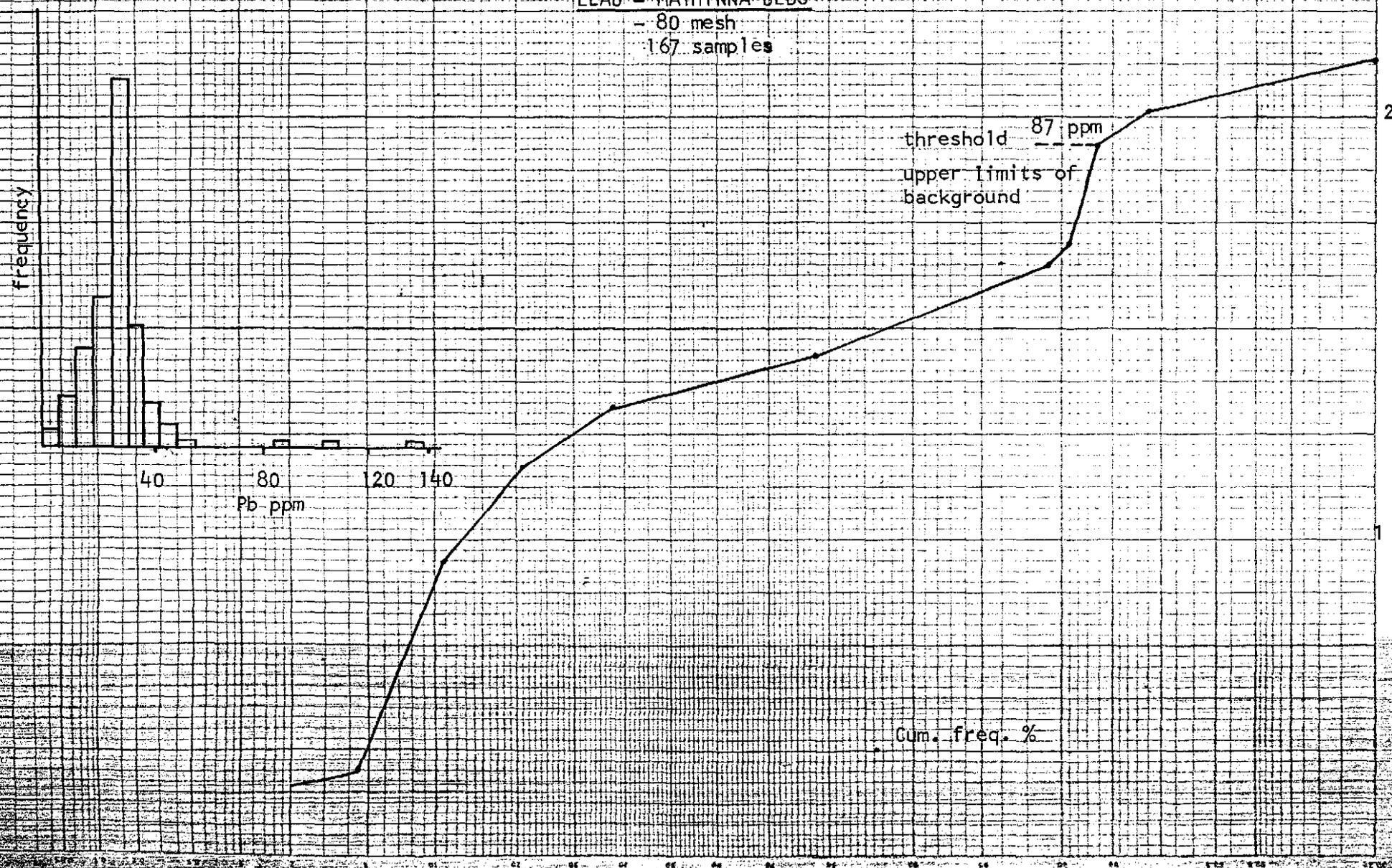
5 cm

945034

033

Log  
ppm  
Pb

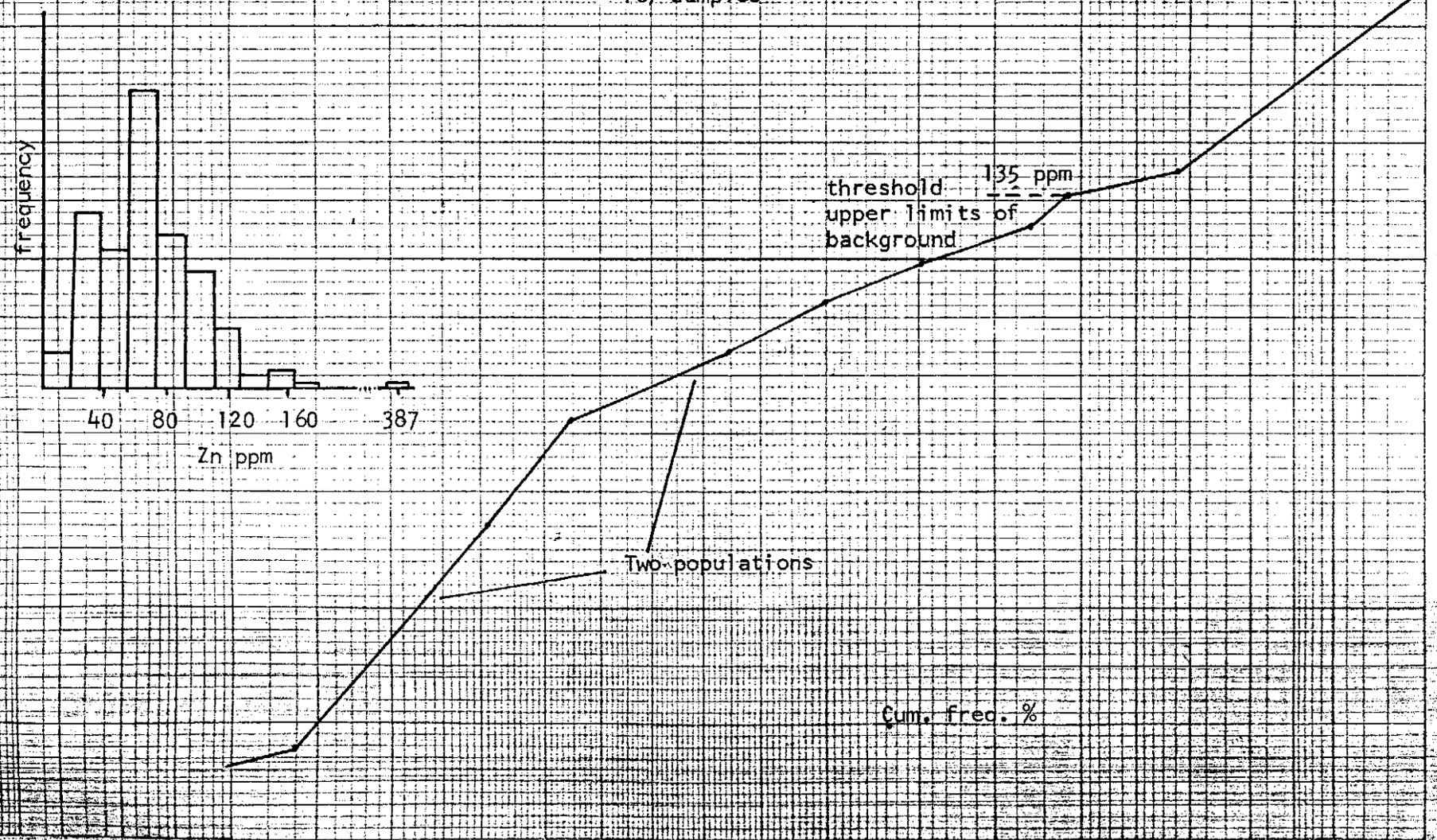
(fig. 3e)  
LEAD - MATHINNA BEDS  
- 80 mesh  
167 samples



5 cm

945035

(fig. 3f)  
 ZINC - MATHINNA BEDS  
 - 80 mesh  
 167 samples



5 cm

APPENDIX 2NOTES

- see Plan No. 1. (attached) for sample localities.
- samples prefixed UCT B are - 80 mesh fractions.
- samples prefixed UCT A are panned concentrates.



Order No.: 001107

Sample Type: STREAM SED.

No. of Samples: 65

SAMPLE NO.

Sn

ELEMENTS

UNITS

METHODS

M

XRF-1A

UCT- A 500

<5

UCT- A 501

185

UCT- A 502

<5

UCT- A 503

10

UCT- A 504

<5

UCT- A 505

<5

UCT- A 506

<5

UCT- A 507

<5

UCT- A 508

330

UCT- A 509

<5

UCT- A 510

<5

UCT- A 511

<5

UCT- A 512

<5

UCT- A 513

<5

UCT- A 514

<5

UCT- A 517

0.31 %

UCT- A 518

155

UCT- A 519

10

UCT- A 520

<5

UCT- A 521

25

UCT- A 522

<5

UCT- A 523

<5

UCT- A 524

<5

UCT- A 525

<5

UCT- A 526

<5

UCT- A 527

<5

UCT- A 528

<5

UNITS LEGEND ----- m - Parts per million

b - Parts per billion

% - percent

g - Grams

a - Absorbance

Signature: *A. F. Finlayson*



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Computer Resources ( 7 )

945039 130





Order No.: 001107

Sample Type: STREAM SED.

No. of Samples: 65

SAMPLE NO.

Sn

ELEMENTS

M

UNITS

XRF-1A

METHODS

UCT-A 567

<S

UCT-A 568

<S

UCT-A 569

<S

UCT-A 586

<S

UCT-A 587

<S

UCT-A 588

<S

UCT-A 589

<S

UCT-A 590

<S

UNITS LEGEND ----- M - Parts per million  
g - Grams

b - Parts per billion X - percent  
a - Absorbance

Signature: A. F. Furleyson



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Computer Resources Group

945042  
040



Order No.: 001107 Sample Type: STREAM SED. No. of Samples: 65

SAMPLE NO.	Cu	Pb	Zn	Mo	Sn	W	ELEMENTS
	M	M	M	M	M	M	UNITS
							METHODS
UCT- B 591	15	35	90	2	10	<10	
UCT- B 592	10	25	60	<2	25	<10	

Handwritten mark resembling a stylized 'E' or '2'.

Redacted rows of data.

UNITS LEGEND ----- M - Parts per million b - Parts per billion % - percent  
g - Grams a - Absorbance

Signature: L. F. Finlayson.



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945044 290

12 Date Completed 18/02/81

N.S.W.

14 Order No.: 001107

Sample Type: STREAM SED.

No. of Samples: 65

17 SAMPLE NO.

Sn

ELEMENTS

M

UNITS

XRF-1A

METHODS

21 UCT-A 591

10

22 UCT-A 592

5

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

53 UNITS LEGEND ----- m - Parts per million

b - Parts per billion

% - percent

54 g - Grams

a - Absorbance

Signature: *A. J. Finlayson*



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945045





11 Date Completed 24/03/81

U.S.A.

13 Order No.: ALS 001110, 001111

Sample Type: STR.SED., CONCS.

No. of Samples: 235

16 SAMPLE NO.	Sn	S.Wt.	Wt. of sediment sample	ELEMENTS
	m	g		UNITS
	XRF 1A		g	METHODS

25 UCT (A)551 1/5 51.3 4536

26 UCT (A)552 60 33.8 4082

29 UCT (A)555 1/5 71.0 3629

31 UCT (A)557 1/5 44.3 4082

32 UCT (A)558 1/5 62.9 3629

42 UCT (A)576 5 43.7 3629

44 UCT (A)578 5 44.5 3629

52 UNITS LEGEND ----- m - Parts per million b - Parts per billion % - percent  
g - Grams a - Absorbance

Signature: *A. F. Finlayson*



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Company Report Company

945048 046



















13 Order No.: ALS 001110,001111 Sample Type: STR.SED.,CONCS. No. of Samples: 235 14

15  
16 SAMPLE NO. Sn S.Wt. Wt. of sediment sample. ELEMENTS  
17 m g g UNITS  
18 XRF 1A g METHODS  
19

20	[REDACTED]				
21	UCT (A)718	<5	21.2	3175	
22	[REDACTED]				
23	UCT (A)720	<5	65.6	3175	
24	UCT (A)721	<5	73.3	3175	
25	UCT (A)722	15	42.1	3175	
26	UCT (A)723	0.10	% 57.2	3175	
27	UCT (A)724	165	47.6	3175	
28	UCT (A)725	0.20	% 28.3	3175	
29	UCT (A)726	475	39.2	3175	
30	UCT (A)727	50	44.5	3175	
31	UCT (A)728	5	40.3	3175	
32	UCT (A)729	<5	46.0	3175	
33	UCT (A)730	<5	46.8	3175	
34	[REDACTED]				
35	[REDACTED]				
36	[REDACTED]				
37	[REDACTED]				
38	[REDACTED]				
39	UCT (A)736	<5	83.5	2540	
40	UCT (A)737	<5	74.3	3175	
41	UCT (A)739	5	49.2	3175	
42	UCT (A)740	<5	8.54	2540	
43	UCT (A)741	<5	48.3	3175	
44	UCT (A)742	<5	18.8	2857	
45	UCT (A)743	5	32.8	1587	
46	UCT (A)744	<5	32.1	2857	
47	[REDACTED]				
48	[REDACTED]				
49	[REDACTED]				

51  
52 UNITS LEGEND ----- m - Parts per million b - Parts per billion % - percent  
53 g - Grams a - Absorbance

54 Signature: *A. F. Finlayson*

Computer Resources Company

945058  
050











Order No.: ALS 001113 Sample Type: STR.SED.,CONCS. No. of Samples: 114

SAMPLE NO.	Sn	S.Wt.	Wt. of sediment sample	ELEMENTS
	M	g	g	UNITS
	XRF 1A			METHODS
[REDACTED]				
[REDACTED]				
[REDACTED]				
UCT 738A	<5	71.77	3175	
UCT 804A	<5	24.90	3515	
UCT 805A	<5	39.43	3260	
UCT 806A	<5	35.28	3175	
[REDACTED]				
[REDACTED]				
UCT A810	<5	68.95	3373	
UCT A811	<5	50.86	3203	
UCT A812	<5	82.61	3628	
UCT A813	<5	58.54		
UCT A814	<5	128.55	3175	
UCT A815	<5	95.41	3203	
UCT A816	<5	116.57	3203	
UCT A817	5	126.02	3629	
UCT A818	5	110.56	3232	
UCT A819	<5	136.65	3175	
UCT A820	<5	120.66	3402	
UCT A821	<5	85.68	3175	
UCT A822	<5	146.41	3345	
UCT A823	<5	112.14	2608	
UCT A824	<5	131.31	3402	
UCT A825	<5	64.89	3402	
UCT A826	<5	167.41	3345	
UCT A827	5	53.57	2608	
UCT A828	0.59	% 136.38	3657	
UCT A829	0.60	% 136.27	3742	
UCT A830	0.14	% 137.52	3760	

UNITS LEGEND ----- m - Parts per million      b - Parts per billion      % - percent  
 g - Grams      a - Absorbance

Signature: *A.F. Finlayson*

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Computer Resources Company

230











Order No.: ALS 001113

Sample Type: STR. SED., CONCS.

No. of Samples: 114

SAMPLE NO.

Sn

S. Wt.

WT. of sediment sample

ELEMENTS

m

g

g

UNITS

XRF 1A

METHODS

UCT A895

<5

73.08

2381

UCT A896

5

97.16

2722

UCT A897

10

119.30

2722

UCT A898

15

109.32

2892

UCT A899

100

45.43

3345

UCT A900

50

48.18

3686

UCT A901

80

64.35

3402

UCT A902

40

68.00

3119

UCT A903

410

41.02

2835

UCT A908

<5

136.11

3600

UCT A909

<5

86.95

3515

UCT A910

<5

102.11

3544

UCT A911

<5

114.98

3317

UNITS LEGEND

m - Parts per million

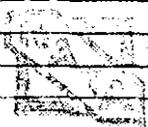
b - Parts per billion

% - percent

g - Grams

a - Absorbance

Signature: A. J. Hurleyson.



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Computer Resources Company

945070

230

Order No.: ALS 001116      Sample Type: -80#      No. of Samples: 3

SAMPLE NO.	Sn	W	Cu	Pb	Zn	Mo	ELEMENTS
	M	M	M	M	M	M	UNITS
	XRF 1A	XRF 1A	1	1	1	2	METHODS

[REDACTED]	0.33	% <10	30	30	65	5	
------------	------	-------	----	----	----	---	--

UNITS LEGEND ----- m - Parts per million      b - Parts per billion      % - percent  
 g - Grams      a - Absorbance

Signature: *A. F. Furleyson*

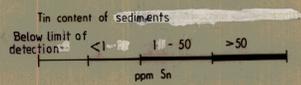


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Computer Resources Company

943071





- LEGEND**
- Mathinna Beds Sediments
  - Granodiorite
  - Adamellite And Alkali Granite

945073

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EXPLORATION LICENCE 21/80 - TASMANIA

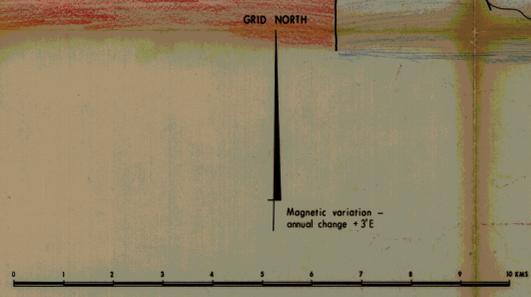
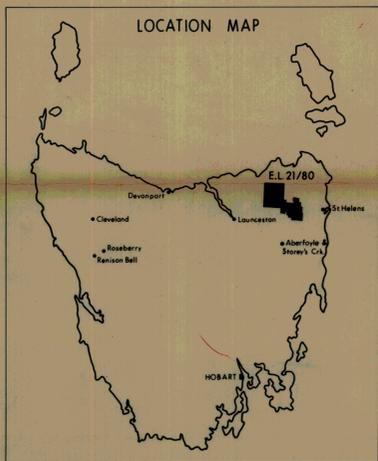
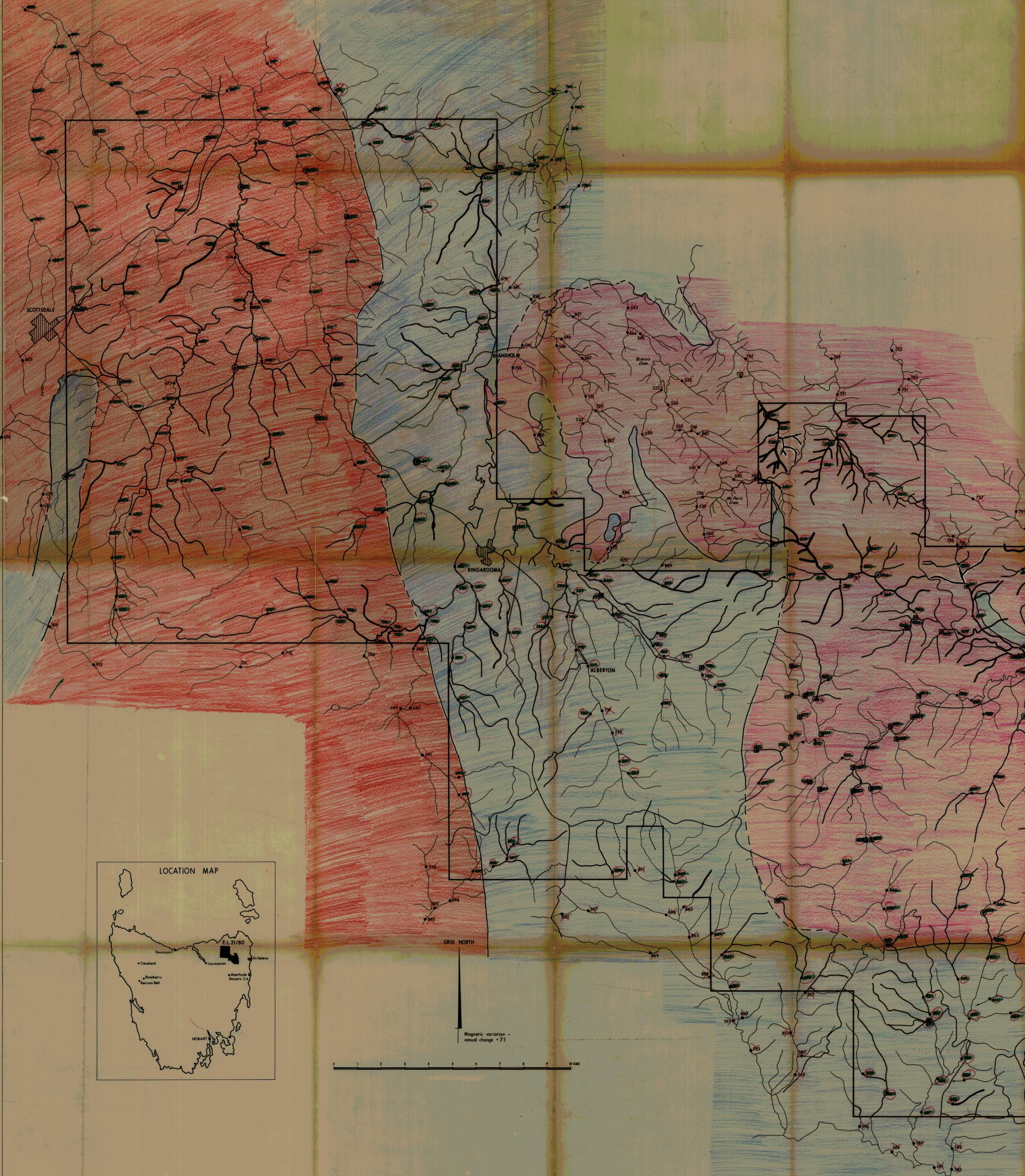
**STREAM SEDIMENT GEOCHEMISTRY**

**TIN**

2499

N.J.W.	PLAN No. 1	JUNE, 1981
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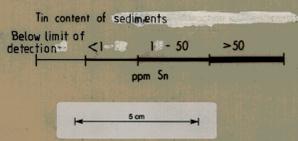
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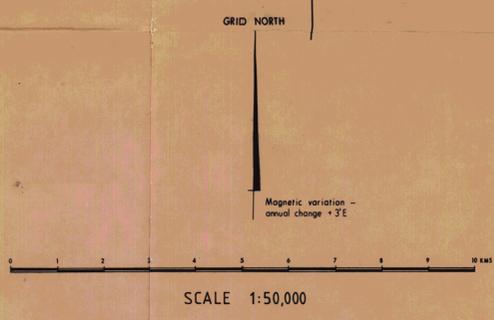
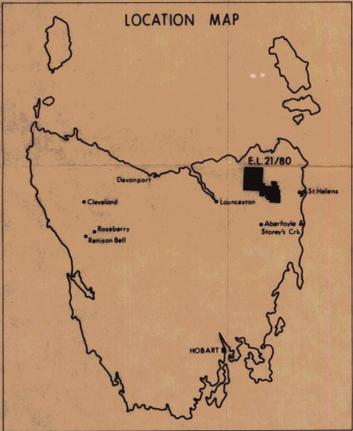
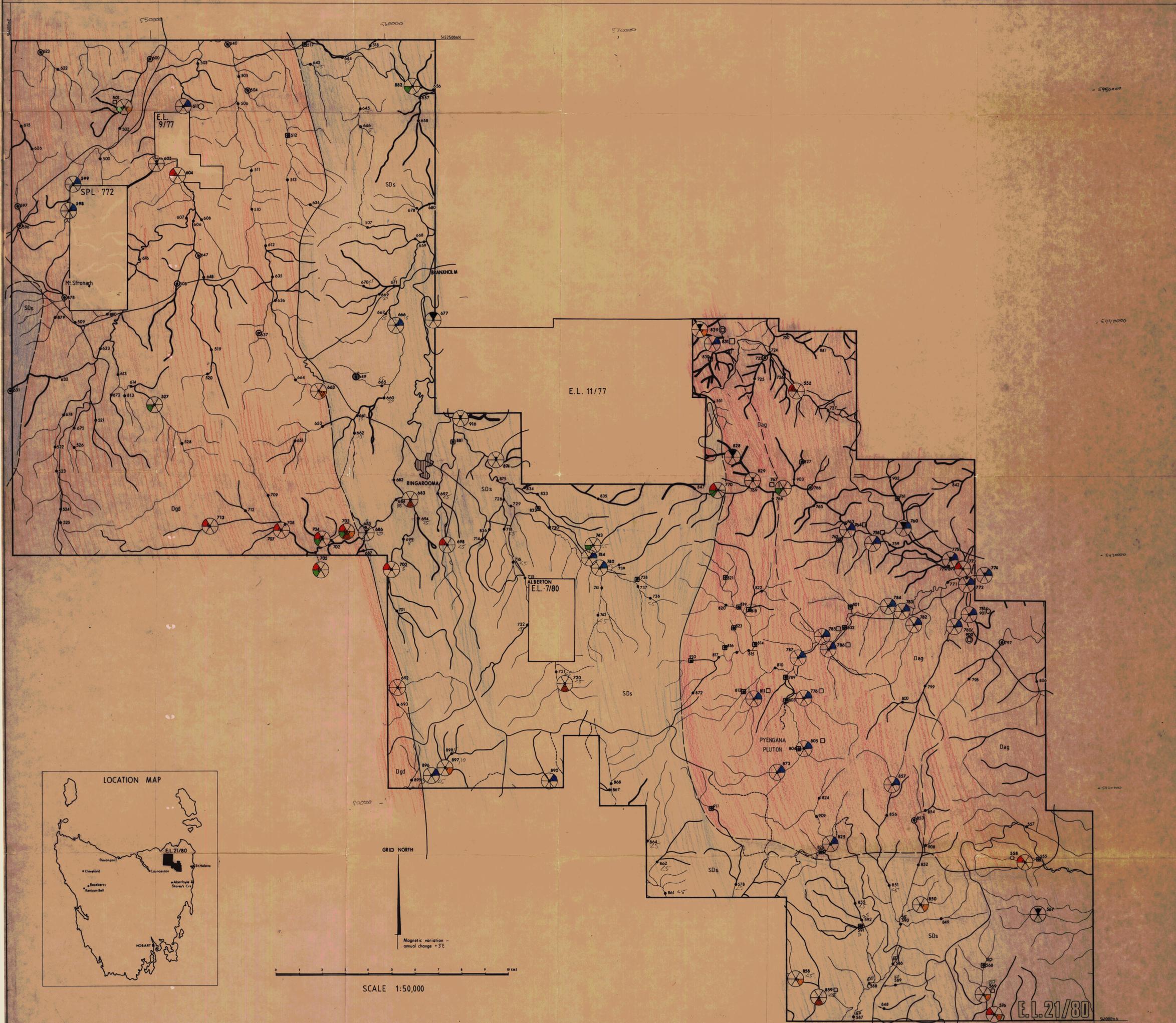
STREAM SEDIMENT  
DATA BASE NUMBERS:  
PREFIX BY 6 (eg. 720 becomes 6720)

NOTE DATA FOR SAMPLES TAKEN FROM  
OUTSIDE EL (and in minor elements  
within EL) have been suppressed

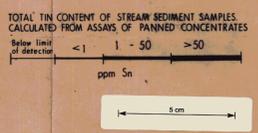
- REFERENCE**
- Stream sediment sample location with number
  - Road
  - Track
  - Exploration licence boundary
  - Sample location; magnetite in panned concentrate
  - Sample location; fluorescent minerals (probably zircon) in panned concentrate
  - Geological Contact



- LEGEND**
- Mothina Beds Sediments
  - Granodiorite
  - Adamellite And Alkali Granite



- SYMBOLS**
- 804 Stream sediment sample location with number
  - Road
  - Track
  - ▭ Exploration licence and Special Prospectors' licence boundary
  - ⊙ Sample location; magnetite in panned concentrate
  - ⊙ Sample location; fluorescent minerals (probably zircon) in panned concentrate



**MULTI-ELEMENT PLOT, MINUS 80 MESH FRACTION**

**THRESHOLD VALUES**

	MATHINNA BEDS	GRANODIORITE	ADAMELLITE/ALKALI GRANITE
Sn	210	270	2975
W	20	25	104
Mo	10	10	9
Cu	39	26	115
Pb	87	62	57
Zn	135	108	162

KEY: 1x threshold, 2x threshold, 3x threshold, 4x threshold & greater

- MAJOR ROCK GROUPS, FOR PURPOSE OF STREAM SEDIMENT INTERPRETATION**
- SDs MATHINNA BEDS (quartz sandstone, siltstone, quartzwacke, mudstone, minor schist)
  - Dgd GRANODIORITE (dominantly granodiorite with minor adamellite) - SCOTSDALE BATHOLITH
  - Dag ADAMELLITE & ALKALI GRANITE (dominantly granite/adamellite with minor granodiorite) - BLUE TIER BATHOLITH
  - Geological boundary - approximate
  - - - Geological boundary - inferred

NOTE: Geology after - Brown et al (1977)  
 - Groves et al (1977)  
 - McClenaghan et al (1974)

945074

**UNION CORPORATION (AUSTRALIA) PTY LIMITED**

EXPLORATION LICENCE 21/80 - TASMANIA

5 cm

**STREAM SEDIMENT GEOCHEMISTRY**

**TIN, TUNGSTEN, MOLYBDENUM**

**COPPER, LEAD & ZINC**

N.J.W. PLAN No. 1 JUNE, 1981

2498

31-1562