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CRA EXPLORATION PTY.LIMITED.

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ROCKY CAPE EL 1/77 GEOCHEMICAL

COMPUTER STUDY - PANNED CONCENTRATES

OPEN FILE

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1. SUMMARY

Panned concentrate data was obtained from all available information, collated and coded on to computer as separate data files according to Company. Each data file was statistically examined using the MICROGAS package program to determine their comparability. Gross transformation was considered unnecessary and the data files were merged into a single file labelled NWTASPC (North West Tasmania Panned Concentrates). The eight most common analytical variables were statistically examined using the DSTATS sub routine and population breaks selected. The file was reprocessed using the MAPLOT sub-routine to produce geochemical symbol maps at a scale of 1:100 000 from which anomalies were identified.

2. INTRODUCTION

A computer oriented evaluation of all available drainage panned concentrate data was undertaken to define areas of tin and tungsten potential within the Rocky Cape licence areas. This report deals solely with panned concentrate data and is intended as a follow on from the lead-zinc stream sediment study.

3. CONCLUSIONS

- (a) Insufficient data is available to present an overall view of the tin potential within the Rocky Cape licence areas.
- (b) The main potential for tin and tungsten mineralisation occurs at the margins of the Devonian granites.

4. RECOMMENDATIONS

- (a) A limited orientation survey to attempt to distinguish between detrital tin and tin derived from a mineralising source.
- (b) The following anomalies warrant further explanation, and are shown on Plan TASH 1280.

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- (i) Tungsten in the Salmon River area.
- (ii) Bottle Creek - tin at granite margin.
- (iii) Hunt, Rocky and Foam Creeks - tin at margin of the Interview granite.
- (iv) Symes Creek - Tin
- (v) Thornton River - tin, tungsten.
- (vi) Daisy River - tin, tungsten.

(c) Low Priority targets.

- (i) Little Sundown Creek.
- (ii) Frankland River.
- (iii) Dark Creek.
- (iv) Lindsay River.
- (v) Corinna Creek.

5. GEOLOGY

The majority of the Rocky Cape licence areas remain virtually unmapped. Mines Department mapping has been limited to the more accessible areas in the north and south whilst the geology of the central part has been identified by photo-interpretation and extrapolation.

The oldest rocks within the licence areas consist of a relatively unmetamorphosed sequence of mudstones and orthoquartzites supposedly overlain by stromatolite bearing rocks - the Smithton dolomite and its equivalents. It is uncertain whether the Smithton Dolomite precedes or post dates the Penquin orogeny. During Cambrian times a number of troughs were formed and infilled by greywackes and basalts generally regarded as equivalent to the Crimson Creek formation of the Dundas trough. Cambrian tectonics are dominated by basin development and localised faulting.

Minor Ordovician and Devonian sediments crop out in the southern part of the EL and these unconformably overlie the older rocks. Sedimentation during the mid-Devonian was interrupted by the Tabberabberan orogeny which involved at least two phases of folding and the intrusion of Sand I type granites.

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Intrusion of dolerite swarms occurred within the Jurassic whilst Tertiary basaltic sills and erosional sediments dominate the more recent geological activity. Diagrammatic relationships are shown in fig. 1.

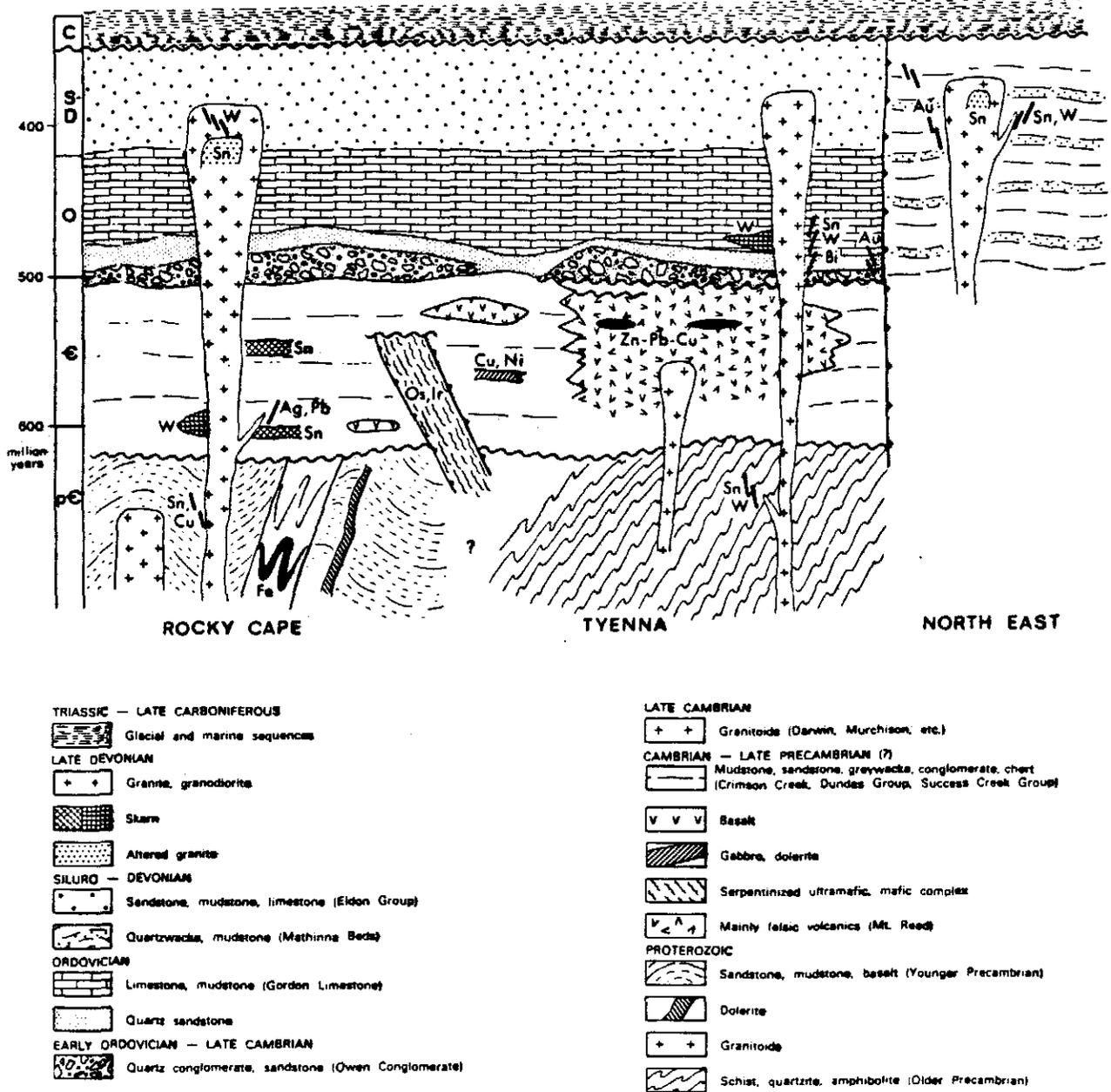


Fig. 1 Diagram displaying major pre-Carboniferous rock relationships in Tasmania.
 (After M. Solomon 1981)

after Collins 1978 after Williams 1976

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5.1 Photo-Interpretation

A photogeological interpretation of the country between the Arthur and Pieman Rivers was completed by Professor Carey of the University of Tasmania in 1981, Plan TASH680. The interpretation was at the scale of 1:40 000 and based on a fracture analysis study. Photo-geological formations were proposed but appear to be somewhat questionable owing to very limited follow-up.

Carey interpreted the Mt. Lyell-Rosebery trend of mineralisation as being bounded by a system of deep faults. Subsequent trans-current faulting by the Henty fault and the Arthur Lineament has offset this trend, the continuation of which is represented by the Balfour trend of deep faults whose signature is defined by significant linear aeromagnetic highs.

Carey rated the Balfour trend of aeromagnetic anomalies as having significant potential for Tin mineralisation as well as the margin of the Pieman Heads granite for skarn type mineralisation.

6. IMPLICATIONS FOR TIN-TUNGSTEN EXPLORATION

The tin and tungsten deposits of Tasmania can be classified as follows:

(a) Replacement - type

Cassiterite - Stannite - pyrrhotite + magnetite lenses derived from replacement of carbonate horizons and associated with large or small scale fissure lodes. Certain features in some of these deposits are indicative of a possible syngenetic origin for the tin.

(b) Quartz-wolframite ± cassiterite veins lying within country rocks overlying granite cupolas.

(c) Disseminated cassiterite within altered greisenised granite intruded either as sills or dykes.

(d) Scheelite in streams without cassiterite.

different?

(e) Alluvial. *what?*

Exploration - what

Economically, the most important of these is the replacement type. *not necessarily*

The pyrrhotite-magnetite assemblages give rise to substantial aeromagnetic signatures which immediately provide an exploration target. Possible occurrences might exist at the margins of the Pieman Heads, Interview and Heemskirk granites.

7. HISTORY OF PREVIOUS INVESTIGATIONS

Limited panned concentrate sampling has been undertaken within the Rocky Cape EL's.

Two reconnaissance surveys have been completed, one at a density of approximately 1 per 50 sq.km, the other, solely for tungsten at a much lower density.

The remaining programs have been limited to small areas with a resulting higher density of sampling.

7.1 CRA Exploration - EL 1/77

In reponse to a concept of the possible stratabound nature of some major Tasmanian tin deposits, a helicopter borne reconnaissance drainage sampling programme was initiated to determine areas of possible tin potential. The survey was completed in 1977 and a total of 200 panned concentrates were collected at an average density of 1 per 50 sq.km.

*Revision Cleveland
Buckoff are
stratabound.*

Anomalies obtained were divided into two groups:

- (a) Frankland River (reflecting Balfour), Nelsons Bay and associated rivers.
- (b) Lagoon River to Granville Harbour. (reflecting tin bearing Devonian granites).

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The majority of these anomalies were followed up by subsequent rock chip, soil sampling and ground magnetics, and are in the process of further investigations outside the scope of this report.

7.2 CRA Exploration - Scheelite Survey

A reconnaissance scheelite survey was initiated during 1971-72 subsequent to a literature search. Samples were collected at the mouths of major river systems along the north and west coasts of Tasmania. Concentrates were examined under UV light and a proportion of them analysed for WO_3 by colorimetry. A few samples were collected within the Rocky Cape EL's but none contained scheelite.

7.3 ANZECO EL 8/72

Exploration in this area was confined to the search for King Island type tungsten skarns, and also for vanadium potential in the Nelson River deposit because of its supposed ultrabasic affinity.

Panned concentrates were collected from tributaries draining the Arthur and Frankland Rivers and analysed for tungsten only. No sample numbers were recorded in the report and have therefore been assigned CRAE numbers. One sample draining the Salmon River copper workings returned an assay of 150 ppm Tungsten. Sampling and mapping precluded the possibility of King Island type skarns and the area was relinquished.

7.4 ANZECO EL 6/72

EL 6/72 covers the majority of Smithton Dolomite outcrop north of the Arthur River.

Exploration was designed to test the dolomite for King Island type skarn mineralisation. Approximately 100 panned concentrates were collected and analysed for copper, lead, zinc, molybdenum, tin, tungsten, chromium. High values of zinc, chromium and tin were obtained and attributed to a Tertiary gravel source.

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Minor tungsten anomalies in the Trowutta district were noted for follow-up but the area was relinquished.

7.5 ANZECO EL 10/75

EL 10/75 was taken out to inspect the skarn and base metal potential of the area between Granville Harbour and Duck River which is overlain by a significant aeromagnetic anomaly defined by R.T.Z. in 1956. A programme of panned concentrate sampling, ground magnetics and mapping was initiated. The aeromagnetic anomaly was located on the ground and the source attributed to a quartz-magnetite-pyrite zone with little base metal potential. Panned concentrate sampling elsewhere in the EL failed to obtain anomalous tungsten, copper, lead, or zinc values and the area was subsequently relinquished.

8. COMPUTER CODING

All panned concentrate data was obtained from open file reports held at the Tasmanian Department of Mines, as well as CRA Exploration internal reports. Sample locations were plotted on to 1:100 000 topographic sheets and digitised into AMG co-ordinates. Analytical and geological data were manually prepared and coded onto disc into individual company files. Full details of all variables is given in Appendix I.

9. MICROGAS

MICROGAS is a computer package of 13 user interactive programs to allow for management and statistical evaluation by geochemical data. A summary of the programs is given in Appendix II whilst a fuller description is given by Lavin and Nichol, 1981.

10. METHODOLOGY

Since a variety of companies have collected panned concentrates in the Rocky Cape EL, variability between data files was thought to be considerable owing to:

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(a) Variability in collection of the sample.

(b) Samples were not 'weight corrected'.

Some attempt to overcome this is indicated by some companies, by taking a constant amount of material to be panned. This does not appear to be the answer as the actual weight of concentrate will affect the assay substantially.

(c) Analytical method.

Analytical methods vary from colorimetry to AAS to XRF and will thus account for considerable variance in analysis.

(d) Improvements to analytical techniques.

(e) Detection limits.

Little can be done to quantify these errors except by comparing the statistics of each element within a data file with the remaining files. However, in some cases, insufficient data exists to obtain any meaningful statistical comparison. Details of these statistics are given in Appendix III.

On the whole it was considered that the variability between data files would not prevent an interpretation.

Each company's data file was merged into a single file labelled NWTASPC which contains the eight most frequently analysed elements. NWTASPC was processed through the DSTATS sub routine and suitable cut points were selected from the histograms. Histograms for file NWTASPC are listed in Appendix IV. File NWTASPC was reprocessed using the MAPLOT sub-routine to produce geochemical symbol maps at a scale of 1:100 000. Samples not plotted owing to coincidence of locations are listed in Appendix V.

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11. STATISTICS FOR FILE NWTASPC

Tin and tungsten were considered the most important elements in this study whilst copper, lead, zinc, nickel, bismuth and chromium are also included. Histograms for individual elements are shown in Appendix V.

11.1 Tin Plan TASH 1281

Mean : 2.02 log units
Standard Deviation : 1.10
Mean + 2SD : 4.22

Cut points

0 0.8 1.2 1.55 1.85 2.25 2.9 3.5 4.7 log units
6.3 15.8 35.5 70.8 177.8 794 3162 5% ppm

	log units	ppm
Anomalous	> 3.5	> 3162
Possibly Anomalous	2.90-3.5	794-3162
High Background	2.25-2.90	178-794

11.2 Tungsten Plan TASH 1282

Mean: : 0.996 log units
Standard Deviation : 0.71
Mean + 2SD : 2.42
No samples : 525

Cut points

0 0.5 0.9 1.25 1.57 1.85 2.25 log units
3.2 7.9 17.8 37.2 70.8 177.8 ppm

	log units	ppm
Anomalous	> 2.25	>178
Possibly Anomalous	1.85-2.25	70.8-178 ppm
High Background	1.57-1.85	37.2-70.8

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11.3 Copper Plan TASH 1283

Mean : 1.066 log units
 Standard Deviation : 0.499
 Mean+2SD : 2.06
 No.Samples : 432

Cut points

0 0.5 0.85 1.25 1.55 2.15 2.5 log units
 3.1 7.1 17.8 35.5 141.2 316 ppm

	log units	ppm
Anomalous	> 2.15	> 141
Possibly Anomalous	1.55-2.15	35.5-141
?High Background	1.25-1.55	17.8-35.5

11.4 Lead Plan TASH 1284

Mean : 1.198 log units
 Standard Deviation : 0.639
 Mean + 2SD : 2.47
 No. Samples : 432

Cut points

0 0.8 1.25 1.55 1.85 2.15 3.0 log units
 6.3 17.8 35.5 70.8 141.3 1000 ppm

	log units	ppm
Anomalous	>2.15	>141
Possibly Anomalous	1.85-2.15	70.8-141.3
High Background	1.55-1.85	35.5-70.8

11.5 Zinc Plan TASH 1285

Mean : 1.803 log units
 Standard Deviation : 0.793

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Mean + 2SD : 3.39
No.Samples : 434

Cut points

0 0.8 1.22 1.85 2.15 2.45 2.6 3.3 log units
6.3 16.6 70.8 141 282 398 2000

	log units	ppm
Anomalous	> 2.6	> 398
Possibly Anomalous	2.45-2.6	282-398
High Background	2.15-2.45	141-282

11.6 Nickel Plan TASH 1286

Mean : 1.113 log units
Standard Deviation : 0.591
Mean + 2SD : 2.30
No.Samples : 242

Cut points

0 0.85 1.25 1.55 1.95 log units
7.0 18 35 95 ppm

	log units	ppm
Anomalous	> 1.95	> 95
Possibly Anomalous / High Background	1.55-1.95	35-95

11.7 Bismuth Plan TASH 1287

Mean : 0.882
Standard Deviation : 0.659
Mean + 2SD : 2.19
No.Samples : 286

Cut points

0 0.9 1.2 1.9 log units
7.9 15.8 79.4 ppm

	log units	ppm
Anomalous	> 1.9	> 79
Possibly Anomalous/High Back- ground	1.2-1.9	16-79

11.8 Chromium Plan TASH 1288

Mean : 3.45 log units
 Standard Deviation : 0.979
 Mean + 2SD : 5.41
 No. Samples : 195

Cut points

0 2.15 2.9 3.25 4.0 4.5 5.15 log units
 141 794 1778 10000 3.1% 14% ppm

	log units	ppm
Anomalous	> 4.5	> 31600
Possibly Anomalous	4.0-4.5	10 000-31 600
High Background	3.25-4.0	1778-10 000

12. INTERPRETATION

Geochemical anomalies were rated on the following basis:

(a) Size of anomaly -

Whether samples have been categorised into anomalous, possibly anomalous or high background groups. The anomalous categories warrant further follow-up whilst the high background samples are of low priority but may warrant further explanation depending on other factors.

(b) Multiplicity of Elements

(c) Coherence of anomaly -

Whether the anomaly can be traced downstream or if it is reflected by two or more samples within the same catchment area.

(d) Geological setting.

(e) Sample density.

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(f) Coincidence with geophysical anomalies.

(g) Contamination.

12.1 Major anomalies

These are classified as either being regionally extensive or alternatively comprise a number of anomalous samples within a catchment area.

12.1.1. Salmon River Area

Regionally extensive anomalous values of tin, zinc and chromium with minor tungsten, copper, nickel and lead occur in a sequence of Precambrian dolomites overlain by Cambrian siltstones, basalts and substantial Tertiary Cover. The area also contains regionally high background lead.

The tin and chromium values have been attributed to Tertiary sands in the past which is feasible since alluvial chromite workings are recorded in the Montagu River. The zinc values have been linked with chromium as being derived from spinels, though this requires further petrographic examination.

The minor copper, nickel anomalies can be attributed to the Cambrian basalt outcrop.

Of note is the single tungsten value of 150 ppm draining the Salmon River copper workings and should be followed up.

12.1.2. Trowutta District

Anomalous copper is the most predominant element in this area and reflects the substantial basalt outcrop. Minor chromium and nickel also occurs which may also be derived from the basalts and might explain a source of the substantial chromium anomalies in the Salmon River area. Minor lead, zinc, anomalies occur and have been followed up by -80# stream sediment sampling. No further work in this area is required.

12.1.3 Granville Harbour

A multiple element situation occurs in this area draining the northern margin of the Heemskirk granite with coincident aeromagnetic anomalies. The most predominant element is tungsten though ANZECO considered the values to be too low to indicate potential mineralisation. The lack of tin in this area is due to its omission from routine assaying by ANZECO, though significant tin values have been obtained by Geopeko during 1982.

This area is under intensive exploration and is outside the scope of this report.

12.1.4 Bottle Creek

Anomalous tin and tungsten values occur in Bottle Creek in conjunction with anomalous tin in Tiger and Alert Creeks to the north. The creeks drain an area of Precambrian undifferentiated sediments and Tertiary gravels. No aeromagnetic signature is present and this downgrades its potential. However, the anomalies warrant checking.

12.2 Minor Anomalies

These tend to be single spot anomalies and should be followed up unless otherwise stated.

12.2.1 Coastal Plain between Lagoon River and Granville Harbour

Numerous single spot anomalies occur along this stretch of coast draining Devonian tin bearing granites. Most of the anomalies between Pieman Heads and Granville Harbour have been subjected to limited follow-up.

Anomalies at Pieman Heads have coincident aeromagnetic anomalies and are under current investigation.

Tin anomalies at Hunt Creek, Rocky Creek and Foam Creek warrant explanation.

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12.2.2. Symes Creek

A single spot tin anomaly drains a small aeromagnetic high located 2km inland. Mines Department mapping indicates undifferentiated Precambrian sediments and a small Tertiary basaltic remnant which may be the source of the aeromagnetic anomaly. Field checking is required.

12.2.3 Thornton River

A single tungsten anomaly occurs in the lower reaches of the river which drains undifferentiated Precambrian sediments.

12.2.4 Daisy River

A single tin, tungsten anomaly with high background zinc and nickel values draining undifferentiated Precambrian sediments.

12.3 High Background Anomalies

12.3.1 Little Sundown Creek

Two tin values occur approximately 2 km apart in Precambrian sediments.

12.3.2 Frankland River

A single tungsten value which probably reflects Balfour.

12.3.3 Dark Creek

A single tungsten value within Precambrian sediments.

12.3.4 Lindsay River

A single tungsten value within a large catchment area draining Precambrian sediments.

12.3.5 Corinna Creek

A single tin anomaly draining a complex suite of basic rocks and volcanics of the Bernafai Ridge.

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12.4 Discussion

The majority of the tin and tungsten anomalies in the EL occur along the coastal plain draining the Devonian granites, though this may in part be due to the sampling density. Much controversy exists whether the tin and tungsten anomalies have an actual granitic or primary source or whether they are derived from the Tertiary gravels. Sub-economic alluvial tin workings are known in the vicinity of St.Dizier but whether this can be extrapolated in general is conjectural. It is proposed that a limited orientation programme to determine whether the two sources can be distinguished readily be conducted.

13. REFERENCES

1. R.T. Brandt 1973
Summary report on exploration licence 8/72, Tasmanian ANZECO unpub. report.
2. S.W.Carey 1981
Notes to accompany the photo-interpretation of the country between the Arthur and Pieman Rivers. CRAE memorandum.
3. J.C.Davis 1973
Statistics and data analysis in geology. Pub. John Wiley and Sons.
4. N.R. Kinnane 1972
Report on the geological reconnaissance and stream sediment sampling programme, N.W.TAS, EL6/72. ANZECO unpub. report.
5. O.P.Lavin and I.Nichol, 1981
Q'Gas: A Minicomputer-based system to aid in the interpretation of exploration - oriented geochemical data. Journal Geochem. Explor. Vol. 15 No. 1-3 pp 521-539
6. J.D.Lockhart, 1975
Final report on exploration Licence No. 10/75, Granville Harbour, Tas. ANZECO unpub. report.
7. T.M.Porter, 1971
Preliminary report on W. Tasmania scheelite reconnaissance. CRAE unpub. report No. 3801.
8. T.M.Porter, 1972
Additional results from Western Tasmania scheelite reconnaissance CRAE unpub. report No. 3802.
9. T.M.Porter, 1972
The Western Tasamanian Scheelite reconnaissance - Final Report.
10. T.M.Porter, 1977
N.W.Tasmania tin progress report CRAE unpub. report No. 9031
11. M.Solomon , 1981
An introduction to the geology and metallic ore deposits of Tas. Econ. Geol. Vol. 76 pp 194-208.

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14. KEYWORDS

Geochem - drainage, panned concentrates, regional geology,
computer - MICROGAS.

15. LOCATION

Burnie SK 55-3, Queenstown SK 55-5

16. LIST OF PLANS

<u>Plan No.</u>	
TASH 680	Photo-interpretation of the country between the Arthur and Pieman Rivers.
TASH 1280	Geochemical targets warranting further exploration.
TASH 1281	Rocky Cape EL's Regional stream geochemistry, panned concentrates - tin.
TASH 1282	Rocky Cape EL's Regional stream geochemistry, panned concentrates - tungsten.
TASH 1283	Rocky Cape EL's Regional stream geochemistry, panned concentrates - copper.
TASH 1284	Rocky Cape EL's Regional stream geochemistry, panned concentrates - lead.
TASH 1285	Rocky Cape EL's Regional stream geochemistry, panned concentrates - zinc.
TASH 1286	Rocky Cape EL's Regional stream geochemistry, panned concentrates - nickel.
TASH 1287	Rocky Cape EL's Regional stream geochemistry, panned concentrates - bismuth.
TASH 1288	Rocky Cape EL's Regional stream geochemistry, panned concentrates - chromium.

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17. LIST OF APPENDICES

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|--------------|---|
| Appendix I | Archival information for file NWTASPC. |
| Appendix II | Summary of programs available within MICROGAS |
| Appendix III | Summary statistics for individual company's data files. |
| Appendix IV | Statistics for file NWTASPC. |

APPENDIX I

LISTING AND ARCHIVAL INFORMATION FOR FILE NWTASPC

 ARCHIVAL INFORMATION

FILE NWTASPC CONTAINS PANNED CONCENTRATE DATA COLLATED FROM INFORMATION HELD AT THE TASMANIAN MINES DEPT. AS WELL AS CRA'S INTERNAL REPORTS, SOME OF WHICH ARE ON OPEN FILE AT THE MINES DEPT.

THIS INFORMATION WAS COLLATED BY D.J. WEIR AS PART OF THE ROCKY CAPE EL 1/77 PROGRAMME DURING 1981-1982.

THIS FILE RESULTS FROM THE MERGE OF THE FOLLOWING FILES:

- | | |
|-------------|-------------|
| 1. 177PC | 4. AZ672MCU |
| 2. SCHEEL | 5. AZ1075 |
| 3. AZ872MCU | 6. ANZ376P |

THESE FILES CONTAIN DIFFERING ANALYTICAL VARIABLES THE MOST COMMON OF WHICH HAVE BEEN UTILISED

FOR FURTHER INFORMATION REFER TO LIST OF REFERENCES OR TO INDIVIDUAL FILES

 NOTES ON VARIABLES USED

VARIABLES USED WITHIN THIS FILE (I.E. GEOLOGICAL) ARE COMMON TO THE AFOREMENTIONED FILES.

 STRMORD (STREAM ORDER)

STREAM ORDER WILL GIVE AN INDICATION OF CATCHMENT SIZE.

STREAM ORDERS HAVE BEEN CALCULATED ON THE BASIS OF:

STREAM SOURCES ARE ASSIGNED 1ST. ORDER; WHEN TWO 1ST. ORDER STREAMS JOIN TOGETHER, THE STREAM BECOMES 2ND. ORDER ETC. ETC.

GEOLOGY

THREE GEOLOGICAL VARIABLES HAVE BEEN ASSIGNED AS FOLLOWS:

1. SITEGEOL (SITE GEOLOGY)
2. FORMGEOL (FORMATIONAL GEOLOGY)
3. PROFCAR (PROF. CAREY GEOLOGY)

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SITEGEOLOG

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THIS VARIABLE REPRESENTS THE GEOLOGY OBSERVED AT EACH SAMPLE SITE AND IS A COMBINATION OF OUTCROP AND FLOAT GEOLOGY.

28 ROCK TYPES HAVE BEEN USED AS FOLLOWS:

1 SAND DUNES	15 CHERT
2 GRAVELS	16 SLATES
3 BASALT	17 CARBONACEOUS SLATES
4 GREYWACKE	18 CONGLOMERATE
5 DOLOMITE	19 GRANITE
6 QUARTZITE	20 VOLCANICS
7 GREYWACKE	21 SCHISTS
8 BLACK SILTSTONE	22 TILLITE
9 SILTSTONE	23 LIMESTONE
10 SHALE	24 AMPHIBOLITE
11 MICACEOUS QUARTZITE	25 DOLERITE
12 MUDSTONE	26 BLACK SLATES
13 SANDSTONE	27 SERPENTINITE
14 BLACK SHALE	28 HORNFELS

VALUES OF -1 REPRESENT EITHER NO OUTCROP OR THIS INFORMATION WAS NOT INCLUDED IN THE ORIGINAL REPORT.

FORMGEOLOG

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THIS CONSISTS OF BROAD FORMATIONAL DIVISIONS AS RECOGNISED BY THE TASHMANIAN DEPT. OF MINES AND PUBLISHED ON THE 1:250 000 GEOLOGICAL ATLAS SHEETS ENTITLED BURNIE AND QUEENSTOWN. 20 FORMATIONS HAVE BEEN USED.

SEDIMENTARY ROCKS

1 UNCONSOLIDATED SEDIMENTS	RECENT AND TERTIARY
2 GLACIO-MARINE SEQUENCES	CARBONIFEROUS/PERMIAN
3 SILTSTONE-SHALE SEQUENCES	DEVONIAN
4 QUARTZ SANDSTONE SEQUENCES	
5 LIMESTONE SEQUENCES	ORDOVICIAN
6 CONGLOMERATES, SANDSTONES, SILTSTONES	
7 GREYWACKE-TURBIDITE SEQUENCES	CAMBRIAN
8 DOMINANTLY VOLCANIC SEQUENCES	

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- 9 UNDIFFERENTIATED, UNMETAMORPHOSED SEQUENCES : PRECAMBRIAN
 10 DOMINANTLY MUDSTONES AND TURBIDITES
 11 DOMINANTLY ORTHOQUARTZITE AND
 CONGLOMERATES
 12 DOMINANTLY DOLOMITE
 13 UNDIFFERENTIATED METAMORPHIC SEQUENCES
 14 META-PELITIC SEQUENCES
 15 META-QUARTZITE SEQUENCES

IGNEOUS ROCKS

- | | |
|-------------------------------|----------------|
| 16 BASALT | TERTIARY |
| 17 DOLERITE | JURASSIC |
| 18 GRANITE | CARB.-DEVONIAN |
| 19 SERPENTINITES, PERIDOTITES | CAMBRIAN |
| 20 DOLERITE | PRECAMBRIAN |

PROFCAR
 =====

THIS VARIABLE RESULTS FROM A PHOTO-INTERPRETATIONAL STUDY OF PART OF N.W. TASMANIA CONDUCTED BY PROF. CAREY OF TAS. UNIV. FOR FURTHER INFORMATION SEE UNPUBLISHED REPORT: 'NOTES TO ACCOMPANY THE PHOTO-INTERPRETATION OF THE COUNTRY BETWEEN THE ARTHUR AND PIEMAN RIVERS, TASMANIA' BY S. WARREN CAREY.

15 ROCK GROUPINGS HAVE BEEN UTILISED

SEDIMENTS

- | | |
|-------------------------|---------------------------|
| 1 QUATERNARY DUNES | 7 PRECAMBRIAN SIGMA GROUP |
| 2 TERTIARY GRAVELS | 8 " PHI GROUP |
| 3 PERMIAN TILLITE | 9 " EPSILON GROUP |
| 4 ORD.-SIL. JUNEE GROUP | 10 " ALPHA GROUP |
| 5 CAMBRIAN NU GROUP | 11 " RHO GROUP |
| 6 " UPSILON GROUP | |

IGNEOUS

- | | |
|----------------------|---------------------------|
| 12 TERTIARY BASALT | 14 DEVONIAN GRANITE |
| 13 JURASSIC DOLERITE | 15 EOCAMBRIAN KAPPA GROUP |

027

VALUES OF -1 REPRESENT SAMPLES OUTSIDE OF
THE AREA OF PHOTO-INTERPRETATION

TOPO
====

A TOPOGRAPHICAL INDEX HAS BEEN ESTIMATED FROM OBSERVATIONS OF CONTOURS
ON THE 1:100 000 TOPOGRAPHICAL SHEETS AS FOLLOWS:

- 1 SWAMPY/MARSHY AREAS
- 2 LOW LYING
- 3 MODERATE TOPOGRAPHY
- 4 STEEP TOPOGRAPHY
- 5 VERY STEEP TOPOGRAPHY

SMPTYP
=====

DISTINGUISHES BETWEEN TYPES OF SAMPLE

- 1 -80# STREAM SEDIMENTS
- 2 PANNED CONCENTRATE

EAST NORTH
=====

COORDINATES FOR ALL SAMPLES WERE DIGITISED USING A CALCOMP TABLE BY
TECHNICAL COMPUTER SYSTEMS IN ADELAIDE. ALL COORDINATES ARE IN A.M.G.
METRIC UNITS.

ANALYTICAL VARIABLES
=====

ALL VALUES THAT ARE BELOW DETECTION LIMITS HAVE BEEN ENTERED AS
HALF OF DETECTION LIMIT

VALUES OF -1 INDICATE THAT A SAMPLE WAS NOT ANALYSED FOR A PARTICULAR
ELEMENT

590028

29-APR-74

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*      *****
*      *      *      *      *      *
*      *      *****      *      *      *
*      *      *      *      *      *
***** *****

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A PROGRAM IN THE MICRO-GAS SYSTEM TO
 PRINT A LISTING OF A DATA SET
 VERSION 3.2 FEB 1980.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPD	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 300000.000 AND 342000.000
 AND
 NORTH BETWEEN 5421000.000 AND 5460000.000
 WILL BE SELECTED.

030

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	CU	PS	ZN
210273	340824	5445953	5	3	-	12	-	2	-	-	-
933348	306631	5437567	4	3	1	1	1	2	-	-	-
933347	306041	5441859	3	2	1	9	1	2	-	-	-
933334	305474	5443821	4	2	1	9	1	2	-	-	-
933327	305363	5447752	3	2	1	1	1	2	-	-	-
933328	305773	5447532	2	2	1	9	1	2	-	-	-
933329	305901	5447120	3	2	1	9	1	2	-	-	-
933330	305482	5445644	1	2	1	9	1	2	-	-	-
933331	305259	5445500	3	2	1	9	1	2	-	-	-
933332	306032	5444997	3	2	1	9	1	2	-	-	-
933333	307067	5444339	3	2	1	9	2	2	-	-	-
933335	306531	5443601	4	2	1	9	1	2	-	-	-
933336	307196	5443599	4	2	1	9	2	2	-	-	-
933337	307801	5443210	4	2	9	9	1	2	-	-	-
933338	309666	5442455	3	2	9	9	1	2	-	-	-
933339	309851	5442481	4	2	9	9	8	2	-	-	-
933346	306830	5441946	1	2	1	9	1	2	-	-	-
933345	306782	5441450	3	2	1	9	1	2	-	-	-
933343	307514	5441187	2	2	1	9	1	2	-	-	-
933344	307439	5440808	3	2	1	9	1	2	-	-	-
933342	311225	5441567	2	2	1	9	7	2	-	-	-
933341	311576	5442037	4	2	9	9	7	2	-	-	-
933349	308287	5437891	4	2	1	9	1	2	-	-	-
933350	310501	5437318	4	2	3	3	2	2	-	-	-
933301	305512	5454433	3	2	1	9	1	2	-	-	-
933302	306480	5453604	2	2	1	9	8	2	-	-	-
933304	308542	5453161	3	2	8	9	7	2	-	-	-
933303	308208	5453337	1	2	1	9	8	2	-	-	-
933305	310993	5452565	3	2	7	9	7	2	-	-	-
933306	311651	5451912	1	2	7	9	7	2	-	-	-
933307	311158	5451423	2	2	8	9	7	2	-	-	-
933308	313304	5451534	2	2	7	9	7	2	-	-	-
933309	314158	5452208	2	2	7	9	7	2	-	-	-
933310	315039	5452824	2	2	7	9	7	2	-	-	-
933311	315267	5451636	4	2	7	9	7	2	-	-	-
933312	314818	5450132	1	2	7	9	7	2	-	-	-
933314	313496	5450205	1	3	7	9	7	2	-	-	-
933316	312373	5450098	2	3	7	9	7	2	-	-	-
933315	313182	5449909	6	2	7	9	7	2	-	-	-
933321	314181	5449027	1	2	7	9	7	2	-	-	-
933322	314653	5448839	1	2	7	9	7	2	-	-	-
933326	315754	5449160	1	2	7	9	7	2	-	-	-
933325	316609	5448901	1	3	7	9	7	2	-	-	-
933323	315551	5448516	2	2	7	9	7	2	-	-	-
933324	316656	5448524	1	3	7	9	7	2	-	-	-
933320	314105	5447366	1	2	8	9	7	2	-	-	-
933319	314274	5447039	6	2	8	9	7	2	-	-	-
933318	313661	5447062	2	2	9	9	7	2	-	-	-
933317	312807	5447801	2	2	9	9	7	2	-	-	-
NRK/69	337868	5447640	2	3	-	12	-	2	30	30	340
NRK/68	340759	5446332	3	2	-	12	-	2	20	50	20
NRK/70	338813	5450595	2	2	-	12	-	2	20	300	150
NRK/65	337445	5451188	3	3	-	8	-	2	40	40	480
NRK/63	339726	5452307	2	2	-	8	-	2	100	60	65
NRK/83	341584	5453041	2	2	-	7	-	2	10	20	35
NRK/66	341203	5458234	3	3	-	7	-	2	35	40	870
NRK/64	339044	5454051	3	2	-	7	-	2	70	400	670
NRK/81	338913	5451936	3	3	-	7	-	2	55	20	260
NRK/82	335521	5451496	3	3	-	7	-	2	25	30	140
NRK/19	332278	5451515	2	2	-	7	-	2	65	10	110
NRK/78	333223	5454089	4	3	-	12	-	2	65	30	130
NRK/20	334529	5453394	3	3	-	8	-	2	60	10	120

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NRK/21	334706	5455396	3	3	-	8	7	2	90	10	110
NRK/77	337622	5458696	4	3	-	8	-	2	30	30	190
NRK/36	311896	5453938	2	3	-	9	7	2	10	30	40
NRK/35	313208	5454467	1	2	-	9	7	2	10	50	150
NRK/34	314121	5454157	1	2	-	9	7	2	10	25	60
NRK/30	315284	5453980	2	2	-	9	7	3	10	75	35
NRK/31	317042	5453154	2	2	-	9	7	2	20	40	90
NRK/48	315128	5451679	4	2	-	9	7	2	20	40	420
NRK/32	316649	5451747	2	2	-	9	7	2	5	50	15
NRK/50	317788	5453532	3	2	-	12	7	2	10	50	350
NRK/51	318275	5453817	3	2	-	12	7	2	15	45	570
NRK/43	319977	5455524	1	2	-	12	7	2	25	60	510
NRK/44	320648	5458995	1	1	-	1	5	2	70	25	40
NRK/37	320380	5455173	2	2	-	12	7	2	10	55	510
NRK/40	320831	5454166	2	3	-	7	7	2	15	55	770
NRK/28	320049	5453550	3	2	-	12	7	2	15	20	1300
NRK/23	320726	5452985	3	2	-	12	7	2	35	10	620
NRK/42	322202	5452912	1	3	-	12	7	2	35	55	470
NRK/55	323095	5453296	1	2	-	7	7	2	90	40	90
NRK/41	321138	5452667	2	2	-	12	7	2	10	55	500
NRK/27	319266	5451543	2	2	-	12	7	2	20	20	1400
NRK/46	319816	5450987	2	2	-	12	7	2	15	45	620
NRK/25	320845	5449860	2	2	-	9	7	2	15	20	1200
NRK/60	323133	5449711	1	2	-	12	7	2	15	40	440
NRK/53	323258	5449480	2	2	-	12	7	2	15	40	380
NRK/49	322846	5448017	3	2	-	12	7	2	15	40	330
NRK/59	323865	5447677	1	2	-	7	7	2	15	50	640
NRK/61	324004	5446371	6	2	-	12	7	2	90	110	530
NRK/56	325938	5448775	3	2	-	7	5	2	55	40	610
NRK/57	325340	5450265	2	3	-	7	7	2	10	50	480
NRK/18	331900	5450612	1	3	-	7	7	2	65	50	150
NRK/17	331943	5450026	2	3	-	7	7	2	65	20	110
NRK/16	331856	5449836	2	3	-	7	7	2	80	10	120
NRK/15	331376	5450079	2	3	-	12	5	2	50	10	110
NRK/14	330750	5448754	3	3	-	12	7	2	60	20	130
NRK/10	331256	5446401	6	3	-	7	7	2	640	520	930
NRK/26	316798	5453855	4	2	-	11	7	2	15	20	1200
NRK/1	330734	5446533	6	2	-	7	7	2	530	390	690
NRK/2	330598	5446546	6	2	-	7	7	2	160	100	220
NRK/3	330415	5446593	1	2	-	7	7	2	620	480	590
NRK/4	330275	5446725	6	2	-	7	7	2	600	450	610
NRK/5	330719	5446661	1	2	-	7	7	2	50	20	110
NRK/6	330747	5446896	1	3	-	7	7	2	55	10	110
NRK/7	330986	5447073	1	3	-	7	7	2	55	10	100
NRK/8	331024	5446814	1	3	-	7	7	2	25	10	65
NRK/9	331325	5446891	1	3	-	7	7	2	55	20	160
NRK/11	330967	5446500	6	3	-	7	7	2	620	440	680
NRK/12	330826	5446532	6	3	-	7	7	2	730	550	850
NRK/24	319292	5450446	2	2	-	9	7	2	15	10	180
NRK/33	315964	5450419	-	-	-	12	-	2	5	40	30
NRK/52	316317	5450520	-	-	-	1	-	2	15	30	20
188545	335276	5422918	4	2	10	9	-	2	8	20	8
188564	334294	5427208	2	3	15	9	-	2	12	5	200
188546	340130	5425240	5	2	-	9	-	2	8	22	12
188681	333226	5432745	2	3	20	11	-	2	30	5	410
188544	335264	5432541	5	2	6	11	-	2	8	20	8
188542	335161	5433167	4	2	4	11	-	2	12	5	10
188647	340482	5441601	3	3	13	9	-	2	5	2.5	5
188560	341441	5442243	5	3	4	9	-	2	5	25	8
188557	335844	5445552	3	3	14	7	-	2	38	18	300
188559	336604	5445392	3	3	15	7	-	2	5	10	20
188558	336584	5446729	3	3	12	7	-	2	38	12	180
188556	335597	5447462	2	2	12	7	-	2	42	20	240

188508	333839	5459747	5	1	1	1	-	2	75	2.5	610
188509	334769	5459463	4	1	1	1	-	2	15	8	670
188520	309471	5428121	2	2	12	9	1	2	8	10	190
188521	309668	5427384	3	2	6	9	1	2	2	2.5	2
188522	310921	5424047	3	2	10	9	1	2	2	2.5	5
188523	315511	5421722	3	2	9	9	1	2	2	28	30
128531	315002	5422174	4	2	9	9	12	2	2	2.5	10
188652	317343	5425571	3	3	6	9	8	2	5	2.5	5
188649	317969	5425182	3	3	6	9	12	2	8	2.5	5
188653	318650	5424437	4	3	9	9	12	2	8	15	5
188654	318759	5423500	2	3	9	9	12	2	5	5	8
188656	320902	5423172	2	3	6	9	9	2	9	5	5
188655	320814	5422281	3	2	6	9	9	2	2	5	5
188673	325301	5422701	2	2	6	9	9	2	2	8	2
188672	326899	5423200	2	3	6	9	8	2	5	5	2
188671	327247	5423340	3	3	6	9	8	2	5	18	2
188537	329697	5425537	5	3	9	9	9	2	6	28	12
188536	329248	5425746	4	3	13	9	8	2	10	10	8
188535	330251	5428918	5	2	-	9	7	2	5	8	58
188534	330783	5429189	4	2	-	9	8	2	10	15	18
188513	305751	5450019	3	2	12	1	1	2	2	10	18
188514	305589	5447170	3	2	12	9	1	2	5	15	160
188515	305386	5445598	3	2	6	9	1	2	2	10	45
188516	306228	5444121	4	2	6	9	1	2	8	3170	8
188518	306148	5441877	3	2	1	9	1	2	2	18	18
188517	308059	5437958	4	2	6	9	1	2	2	2.5	12
188519	307739	5431815	3	2	13	9	1	2	5	2.5	12
188547	305704	5454902	3	2	12	9	1	2	5	2.5	5
188675	307608	5450325	2	2	6	9	8	2	5	2.5	50
188676	308078	5448230	2	2	-	9	7	2	5	5	65
188677	308168	5447585	2	2	-	9	7	2	5	15	95
188678	308292	5447186	2	2	6	9	8	2	5	5	32
188679	308135	5446099	2	2	9	9	8	2	5	5	25
188680	312090	5444072	3	2	6	9	7	2	5	15	12
188539	315422	5439147	4	3	12	9	8	2	5	5	8
188550	309223	5453680	3	2	6	9	7	2	10	5	15
188538	313277	5447781	6	2	9	9	7	2	12	15	32
188551	313605	5447506	6	2	14	9	7	2	8	8	15
188529	318393	5444476	3	2	12	9	8	2	8	25	60
188552	316671	5453696	4	2	12	11	7	2	6	12	350
188553	317657	5447490	2	2	6	9	8	2	5	2.5	15
188554	319451	5447737	1	2	14	9	7	2	8	2.5	5
188674	324556	5442886	4	2	14	9	7	2	10	5	65
188644	328034	5445599	3	2	5	12	5	2	50	5	320
188555	327810	5448899	4	2	-	12	5	2	80	15	80

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SAMPLE NO.	NI	SN	W	CR	BI
210273	-	-	5	-	-
933348	-	-	5	-	-
933347	-	-	5	-	-
933334	-	-	5	-	-
933327	-	-	5	-	-
933328	-	-	10	-	-
933329	-	-	5	-	-
933330	-	-	5	-	-
933331	-	-	20	-	-
933332	-	-	20	-	-
933333	-	-	5	-	-
933335	-	-	5	-	-
933336	-	-	5	-	-
933337	-	-	5	-	-
933338	-	-	10	-	-
933339	-	-	5	-	-
933346	-	-	5	-	-
933345	-	-	5	-	-
933343	-	-	5	-	-
933344	-	-	5	-	-
933342	-	-	10	-	-
933341	-	-	5	-	-
933349	-	-	5	-	-
933350	-	-	5	-	-
933301	-	-	1	-	-
933302	-	-	1	-	-
933304	-	-	1	-	-
933303	-	-	1	-	-
933305	-	-	1	-	-
933306	-	-	1	-	-
933307	-	-	2	-	-
933308	-	-	1	-	-
933309	-	-	5	-	-
933310	-	-	1	-	-
933311	-	-	1	-	-
933312	-	-	5	-	-
933314	-	-	2	-	-
933316	-	-	1	-	-
933315	-	-	1	-	-
933321	-	-	1	-	-
933322	-	-	1	-	-
933326	-	-	150	-	-
933325	-	-	1	-	-
933323	-	-	1	-	-
933324	-	-	1	-	-
933320	-	-	1	-	-
933319	-	-	10	-	-
933318	-	-	1	-	-
933317	-	-	2	-	-
NRK/69	-	200	2	16000	-
NRK/68	-	2.5	1	3500	-
NRK/70	-	20	1	5200	-
NRK/65	-	10	1	39000	-
NRK/63	-	230	10	2600	-
NRK/83	-	2.5	5	700	-
NRK/66	-	10	15	45000	-
NRK/64	-	50	30	42000	-
NRK/B1	-	10	2	17000	-
NRK/82	-	10	2	6600	-
NRK/19	-	470	1	2500	-
NRK/73	-	10	1	5200	-
NRK/20	-	60	1	1300	-
NRK/21	-	40	1	6600	-

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NRK/77	-	30	30	5800	-
NRK/36	-	290	1	17900	-
NRK/35	-	1830	1	71700	-
NRK/34	-	100	1	18300	-
NRK/30	-	80	1	22700	-
NRK/31	-	60	2	25700	-
NRK/48	-	680	1	138000	-
NRK/32	-	10	1	480	-
NRK/50	-	840	1	124000	-
NRK/51	-	1800	1	247000	-
NRK/43	-	930	1	224000	-
NRK/44	-	25	1	9500	-
NRK/37	-	2130	1	240600	-
NRK/40	-	60	1	316000	-
NRK/28	-	20	1	334000	-
NRK/23	-	530	1	250000	-
NRK/42	-	60	1	196000	-
NRK/55	-	2.5	1	12900	-
NRK/41	-	2030	1	230000	-
NRK/27	-	1860	1	282000	-
NRK/46	-	720	1	272000	-
NRK/25	-	420	1	267000	-
NRK/60	-	1570	5	62000	-
NRK/53	-	1840	1	183000	-
NRK/49	-	1180	1	148000	-
NRK/59	-	2300	2	65000	-
NRK/61	-	10800	10	40000	-
NRK/56	-	5	1	261000	-
NRK/57	-	2.5	1	300000	-
NRK/18	-	240	1	1200	-
NRK/17	-	110	1	4000	-
NRK/16	-	170	1	2900	-
NRK/15	-	180	1	7900	-
NRK/14	-	170	1	17000	-
NRK/10	-	30000	100	420	-
NRK/26	-	2000	1	303000	-
NRK/1	-	25500	80	3600	-
NRK/2	-	4980	15	13000	-
NRK/3	-	38000	100	940	-
NRK/4	-	18600	60	390	-
NRK/5	-	550	2	7000	-
NRK/6	-	210	1	6600	-
NRK/7	-	260	1	16000	-
NRK/8	-	2020	5	19000	-
NRK/9	-	830	1	4000	-
NRK/11	-	16500	90	1000	-
NRK/12	-	24500	150	2500	-
NRK/24	-	90	1	43000	-
NRK/33	-	90	1	11300	-
NRK/52	-	280	1	810	-
188545	2.5	20	65	-	2
188544	60	6	15	-	2
188546	2.5	8	30	-	4
188481	-	6	5	-	-
188544	2.5	2	30	-	2
188542	2.5	250	15	-	2
188447	-	4	10	-	2
188560	5	8	25	-	2
188557	130	30	5	-	2
188559	5	320	5	-	2
188553	60	600	5	-	4
188556	170	110	5	-	2
188508	160	40	5	-	5
188509	190	50	10	-	5
188520	48	1350	70	-	5
188521	2	2	5	-	5

188522	2.5	80	5	-	5
188523	2.5	140	430	-	5
188531	2.5	90	25	-	5
188452	-	8	5	-	2
188649	-	12	5	-	2
188453	-	12	5	-	2
188454	-	38	5	-	4
188456	-	22	10	-	2
188455	-	12	5	-	2
188473	-	8	5	-	2
188472	-	2	10	-	2
188471	-	2	10	-	4
188537	2.5	26	55	-	4
188536	2.5	6	10	-	24
188535	2.5	130	6	-	4
188534	2.5	50	35	-	2
188513	8	1700	10	-	5
188514	45	11000	85	-	5
188515	10	390	40	-	5
188516	8	160	5	-	5
188518	5	400	10	-	5
188517	5	55	5	-	5
188519	8	150	10	-	5
188547	2.5	130	10	-	2
188675	-	540	5	-	2
188676	-	2050	30	-	4
188677	-	2850	50	-	2
188678	-	360	15	-	2
188679	-	230	20	-	2
188680	-	80	5	-	2
188539	2.5	520	20	-	2
188550	2.5	680	5	-	2
188538	18	4800	45	-	2
188551	2.5	1500	15	-	2
188529	2.5	230	70	-	2
188552	100	640	5	-	2
188553	5	350	5	-	2
188554	2.5	240	5	-	2
188474	-	1450	15	-	2
188444	-	60	5	-	8
188555	28	640	5	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEO	FORMGEO	PROFCAR	SMPTYP	W	CR
NI	RI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
EAST BETWEEN 300000.000 AND 320000.000
AND
NORTH BETWEEN 5417000.000 AND 5421000.000
WILL BE SELECTED.

037

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEO	FORMGEO	PROFCAR	SMPTYP	CU	PB	ZN
188526	316513	5418325	4	2	6	9	8	2	5	2.5	8
188524	315372	5420350	3	2	12	9	12	2	5	20	240
188657	319893	5420693	3	3	9	9	12	2	2	5	2

590038

SAMPLE NO.	NI	SN	W	CR	BI
188526	2.5	28	20	-	5
188524	65	2200	270	-	5
188657	-	32	6	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 325000.000 AND 342000.000
 AND
 NORTH BETWEEN 5416650.000 AND 5421000.000
 WILL BE SELECTED.

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEO	FORNGEOL	PROFCAR	SMPTYP	CU	PB	ZN
188540	331269	5418031	4	3	10	9	9	2	5	2.5	5
188541	331196	5418527	4	3	13	9	9	2	5	5	5
188642	329208	5418612	3	3	9	9	9	2	5	2.5	2
188641	330041	5419110	3	3	9	9	9	2	5	12	5

SAMPLE NO.	NI	SN	W	CR	BI
188540	2.5	10	5	-	2
188541	2.5	28	10	-	2
188642	-	2	5	-	2
188641	-	2	20	-	6

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.
 A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPD	SITEGEO	FORMGEO	PROFCAR	SMPTYP	W	CR
NI	RI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 325000.000 AND 337000.000
 AND
 NORTH BETWEEN 5411000.000 AND 5416650.000
 WILL BE SELECTED.

SAMPLE NO.	EAST	NORTH	STRMORD	TOPD	SITEGEO	FORMGEO	PROFCAR	SMPTYP	CU	PB	ZN
188651	328956	5416411	2	4	9	9	9	2	5	2.5	2
188650	329505	5416457	4	4	9	9	9	2	8	2.5	2

SAMPLE NO.	NI	SN	W	CR	BI
188651	-	2	5	-	4
188650	-	4	5	-	4

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOFD	SITEGEO	FORMGEO	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGRI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 327000.000 AND 337000.000
 AND
 NORTH BETWEEN 5408000.000 AND 5411000.000
 WILL BE SELECTED.

043

SAMPLE NO.	EAST	NGRTH	STRMORD	TOFO	SITEGEOL	FORMGEOL.	PROFCAR	SMPTYP	CU	P2	ZN
198669	330768	5410298	3	3	6	9	9	2	5	2.5	1

590044

SAMPLE NO.	NI	SN	W	CR	BI
188669	-	4	10	-	4

NUMBERS THAT ARE CODED - REPRESENT "SPECIAL VALUES",
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PR	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 329000.000 AND 337000.000
 AND
 NORTH BETWEEN 5402000.000 AND 5408000.000
 WILL BE SELECTED.

045

SAMPLE NO.	EAST	NORTH	STRMORD	TOPD	SITEGEO	FORMGEO	PROFCAR	SMPTYP	CU	PB	ZN
188470	331636	5405792	2	3	6	9	9	2	2	2.5	1
188548	331945	5406101	3	3	6	9	9	2	8	2.5	2

590046

SAMPLE NO.	NI	SN	W	CR	BI
188670	-	4	15	-	2
188548	2.5	18	5	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	W	CR
NI	BI	CU	FB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 300000.000 AND 337000.000
 AND
 NORTH BETWEEN 5400000.000 AND 5402000.000
 WILL BE SELECTED.

047

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEO	FORMGEO	PROFCAR	SMPTYP	CU	PB	ZN
188606	321295	5400261	3	2	19	1	1	2	2	5	25
188611	321470	5401318	5	2	19	18	1	2	190	60	140

590048

SAMPLE NO.	NI	SN	W	CR	BI
188606	8	2250	10	-	2
188611	28	5300	45	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEO	FORMGEO	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 329750.000 AND 337000.000
 AND
 NORTH BETWEEN 5394200.000 AND 5400000.000
 WILL BE SELECTED.

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFDAR	SMPTYP	CU	P8	ZN
188629	336810	5394674	2	2	10	10	8	2	3	25	15

049

590050

SAMPLE NO.	NI	SN	W	CR	BI
188628	8	22	10	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMFTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 300000.000 AND 337000.000
 AND
 NORTH BETWEEN 5390000.000 AND 5394000.000
 WILL BE SELECTED.

051

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEO	FORMGEO	PROFCAR	SMPTYP	CU	PB	ZN
188617	325130	3391889	4	2	9	18	14	2	5	22	180

590052

SAMPLE NO.	NI	SN	W	CR	BI
188617	45	36500	220	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
 THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
 MICRO-GAS SYSTEM.

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

A NEW SET OF TRANSFORMATIONS AND SELECTIONS WILL BE SPECIFIED.

DATA TITLE: NWTASPC ALL PAN CON DATA FOR N W TASMANIA

THE FOLLOWING VARIABLES ARE IN THE DATA SET:

EAST	NORTH	STRMORD	TOPO	SITEGEDL	FORMGEOL	PROFCAR	SMPTYP	W	CR
NI	BI	CU	PB	SN	ZN	LOGW	LOGCR	LOGNI	LOGBI
LOGCU	LOGPB	LOGSN	LOGZN						

** THE FOLLOWING SELECTION CRITERIA WILL BE SATISFIED IN THIS RUN. **

SAMPLES WITH
 EAST BETWEEN 300000.000 AND 343660.000
 AND
 NORTH BETWEEN 5370110.000 AND 5390000.000
 WILL BE SELECTED.

SAMPLE NO.	EAST	NORTH	STRMORD	TOPO	SITEGEOL	FORMGEOL	PROFCAR	SMPTYP	CU	PB	ZN
213336	327405	5385366	7	2	-	10	8	2	-	-	-
933351	334488	5374100	3	1	1	1	4	2	-	-	75
933352	336685	5374674	2	2	23	16	4	2	20	100	410
933353	337052	5374966	3	2	23	4	4	2	25	80	520
933354	337229	5374865	1	2	23	4	4	2	30	100	520
933355	337461	5375131	2	2	23	4	4	2	5	60	330
933356	337519	5374868	2	2	21	1	4	2	10	100	390
933357	337809	5374858	3	2	23	4	4	2	20	60	300
933358	337939	5374197	2	2	2	1	4	2	20	25	190
933359	338285	5374104	1	2	2	1	4	2	2.5	35	360
933360	338254	5373977	2	2	3	16	4	2	3.5	45	400
933361	338097	5373988	1	2	2	16	4	2	40	55	750
933362	339376	5373925	2	2	2	1	11	2	10	40	400
933363	340559	5374276	2	2	1	1	4	2	30	55	1700
933364	340568	5374396	2	2	23	1	4	2	25	65	960
933365	340878	5374788	2	2	23	1	4	2	70	40	140
933366	341211	5375073	1	2	23	4	4	2	35	60	800
933367	341320	5374975	2	2	2	1	4	2	15	60	740
933368	341509	5374496	1	2	2	6	11	2	2.5	30	120
933369	341515	5374361	1	2	2	6	11	2	20	50	470
933370	341875	5374023	1	2	2	1	11	2	25	30	720
933371	341869	5373893	2	2	2	1	11	2	35	20	100
933372	341444	5373981	2	2	1	16	11	2	25	60	480
933373	341415	5373794	1	2	18	6	11	2	20	40	130
933374	341333	5374102	2	2	1	6	11	2	55	80	2900
933375	338455	5373123	1	2	3	16	12	2	10	55	700
933376	336747	5372486	1	2	3	16	11	2	20	70	1140
933377	337226	5372310	1	2	3	16	12	2	40	60	770
933378	336505	5371936	2	2	3	9	12	2	10	110	900
933379	334555	5373159	3	1	1	1	11	2	-	-	100
933380	335670	5370985	2	1	1	1	11	2	10	80	320
933381	337127	5371271	2	2	3	9	11	2	30	60	660
933382	337051	5371036	1	2	3	9	11	2	20	50	400
933383	337576	5371135	1	2	3	6	12	2	10	60	140
933384	338276	5371357	1	2	3	6	12	2	20	30	240
933385	337936	5370172	2	2	3	16	12	2	35	70	600
933387	339154	5370255	2	2	3	16	12	2	15	80	240
933388	339285	5370963	1	2	2	16	12	2	5	35	380
933389	339123	5370997	1	2	2	16	12	2	5	25	100
933390	340505	3372236	2	2	1	1	11	2	2.5	30	80
933391	340771	5372282	1	2	1	1	11	2	35	40	120
933392	340754	5372432	1	2	16	1	12	2	45	60	140
933393	340469	5372364	1	2	1	1	11	2	20	40	280
933394	341829	5371716	2	2	16	9	11	2	2.5	60	190
933395	341352	5371462	2	2	16	9	11	2	15	60	95
933396	340542	5370938	2	2	2	1	12	2	10	40	130
933397	340658	5370710	3	2	14	18	11	2	15	40	75
933398	340098	5370694	2	2	2	1	12	2	30	100	440
933399	341940	5370952	2	2	2	9	12	2	20	40	180
933400	342157	5370898	2	2	2	9	12	2	10	60	220
933401	343289	5370776	2	1	3	16	12	2	15	90	300
933402	343397	5370295	1	2	3	9	12	2	2.5	40	150
933403	337407	5374986	3	2	23	4	4	2	30	100	460
933404	340323	5372263	1	2	1	1	11	2	15	35	320
933340	337407	5374986	9	2	9	9	7	2	-	-	-
188623	332379	5378981	3	2	3	1	15	2	5	8	160
188622	330287	5380793	3	2	10	1	10	2	5	12	110
188621	327714	5383535	3	2	6	10	8	2	8	15	750
188620	328840	5384197	4	3	9	10	8	2	5	10	20
188619	326205	5386999	2	2	21	10	9	2	5	28	95
188618	326007	5388037	2	2	6	11	9	2	2	10	55

188614	326007	5388042	4	2	19	18	14	2	5	10	22
188684	338237	5386958	3	2	-	12	7	2	5	5	15
188683	339312	5386278	3	3	15	10	7	2	5	5	60
188682	343379	5381004	3	3	21	13	11	2	10	8	35
188624	334372	5375875	3	2	21	13	11	2	2	5	140
188625	335165	5374348	3	2	6	1	4	2	5	2.5	260
188626	335641	5371079	2	1	6	1	11	2	5	12	190

SAMPLE NO.	NI	SN	W	CR	RI
213336	-	-	9.5	-	-
933351	-	-	40	-	-
933352	-	-	70	-	-
933353	-	-	55	-	-
933354	-	-	80	-	-
933355	-	-	10	-	-
933356	-	-	100	-	-
933357	-	-	40	-	-
933358	-	-	30	-	-
933359	-	-	80	-	-
933360	-	-	130	-	-
933361	-	-	20	-	-
933362	-	-	90	-	-
933363	-	-	100	-	-
933364	-	-	90	-	-
933365	-	-	30	-	-
933366	-	-	50	-	-
933367	-	-	150	-	-
933368	-	-	30	-	-
933369	-	-	70	-	-
933370	-	-	60	-	-
933371	-	-	20	-	-
933372	-	-	75	-	-
933373	-	-	110	-	-
933374	-	-	50	-	-
933375	-	-	220	-	-
933376	-	-	10	-	-
933377	-	-	20	-	-
933378	-	-	40	-	-
933379	-	-	55	-	-
933380	-	-	100	-	-
933381	-	-	80	-	-
933382	-	-	70	-	-
933383	-	-	35	-	-
933384	-	-	30	-	-
933385	-	-	50	-	-
933387	-	-	75	-	-
933388	-	-	60	-	-
933389	-	-	40	-	-
933390	-	-	90	-	-
933391	-	-	55	-	-
933392	-	-	45	-	-
933393	-	-	100	-	-
933394	-	-	120	-	-
933395	-	-	110	-	-
933396	-	-	70	-	-
933397	-	-	110	-	-
933398	-	-	210	-	-
933399	-	-	270	-	-
933400	-	-	110	-	-
933401	-	-	140	-	-
933402	-	-	580	-	-
933403	-	-	50	-	-
933404	-	-	50	-	-
933340	-	-	2	-	-
188623	42	560	20	-	2
188622	28	270	20	-	4
188621	16	23500	130	-	2
188620	8	2650	15	-	2
188619	15	22500	95	-	2
188618	15	6500	25	-	2

188614	8	1900	65	-	2
188684	-	46	5	-	1
188683	-	560	15	-	1
188682	-	80	5	-	1
188624	30	500	5	-	2
188625	38	2500	25	-	2
188626	38	150	25	-	2

NUMBERS THAT ARE CODED - REPRESENT 'SPECIAL VALUES'.
THESE VALUES WILL BE EXCLUDED FROM ALL CALCUALTIONS IN THE
MICRO-GAS SYSTEM.

APPENDIX II

MICROGAS

MICROGAS

The programme available to MICROGAS can be divided into two categories data management and statistical.

(a) Data Mangement

1. CRUNCH Converts data from its original form (ASCII) into a binary form suitable for use with the remaining programs.
2. UNCRUNCH Converts a binary file back into ASCII format.
3. SORT Sorts a binary file with reference to sample number.
4. MERGES Merges two data file that contain the same variables for different samples.
5. MERGEV Merges two data files that contain different variables.
6. LISTER Produces a listing on the printer for a data set or selected portions of it.

(b) Statistical

1. DSTATS Calculates simple univariate statistical parameters and plots a histogram on the terminal screen and printer.
2. XYPLOT Constructs XY plots or "scatter diagrams" on the screen and printer and calculates a correlation matrix.
3. MAPLOT Constructs a geochemical symbol map on the printer at any scale.
4. PROFILE Plots geochemical values against distance for one or more variables.
5. FACTOR Determines the principal relationships between variables and calculates factor scores, (R-Mode analysis).

6. MULREG Determines a functional relationship between dependant and independant variables. (Stepwise multiple regression).
7. DISCRIM Calculates a function that will discriminate between different groups of samples on the basis of a weighted combination of variables; (Discriminant analysis) and calculates discriminant scores.

Most programs within MICROGAS allow for data management in the form of transformations and/or selections. Up to 25 transformations are allowed except in the program CRUNCH which allows 200.

The types of transformations used are simple arithmetic statements; more complex calculations can be performed by a series of simple, sequential arithmetic statements. Up to 15 selection criteria can be made within any one program.

These criteria must be met for a sample to be included in the ensuing analysis.

APPENDIX III

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES.

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

061

ELEMENT: TIN

COMPANY	$\log \bar{x}$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177 PC)	1.65	2.69	3.73	< 281	281 - 1000	1000 - 4000	> 4000
ANZECO EL (AZ 872 MCU)	NOT ANALYSED						
CRAE Rec. Scheelite (Scheel)	NOT ANALYSED						
ANZECO EL10/75 (AZ1075)	NOT ANALYSED						
ANZECO EL 6/72 (ANZ 672MC)	2.00	3.26	4.52	< 125	125 - 1000	1000 - 4600	> 4600

590062

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

062

ELEMENT: TUNGSTEN

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177 PC)	1.02	1.42	1.82	< 31		31 - 100	> 100
ANZECO EL 8/72 (AZ 872 MCU)	0.49	0.96	1.43	< 20		20 - 125	> 125
CRAE Rec.Scheelite (Scheel)	0.96	1.50	2.04	< 28	28 - 67	67 - 250	> 250
ANZECO EL 10/75 (AZ 1075)	1.81	2.13	2.45	< 68		68 - 190	> 190
ANZECO EL 6/72 (AZ 672MC)	0.34	0.94	1.54	< 44		44 - 90	> 90

590063

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

063

ELEMENT: COPPER

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177 PC)	0.83	1.22	1.61	< 15	15 - 50	50 - 125	> 125
ANZECO EL 8/72 (AZ 872 MCU)	NOT ANALYSED						
CRAE Rec.Scheelite (Scheel)	NOT ANALYSED						
ANZECO EL 10/75 (AZ 1075)	1.18	1.56	1.94	< 20	20 - 50	50	
ANZECO EL 6/72 (AZ 672MC)	1.53	2.04	2.55	< 35	35 - 110	110 - 250	> 250

590064

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

064

ELEMENT: LEAD

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177 PC)	0.85	1.29	1.73	< 18	18 - 35	35 - 80	> 80
ANZEKO EL 8/72 (AZ 872 MCU)	NOT ANALYSED						
CRAE Rec.Scheelite (Scheel)	NOT ANALYSED						
ANZEKO EL 10/75 (AZ 1075)	1.72	1.90	2.08	< 35		35 - 63	> 63
ANZEKO EL 6/72 (AZ 672MC)	1.60	2.12	2.64	< 41		41 - 120	> 120

590065

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

065

ELEMENT: ZINC

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177PC)	1.24	1.95	2.66	< 25	25 - 110	110 - 440	> 440
ANZECO EL 8/72 (AZ 782 MCU)	NOT ANALYSED						
CRAE Rec. Scheelite (Scheel)	NOT ANALYSED						
ANZECO EL 10/75 (AZ 1075)	2.49	2.85	3.21	< 300	300 - 500	560 - 1400	> 1400
ANZECO EL 6/72 (ANZ 672MC)	2.16	2.78	3.40	< 70	70 - 250	250 - 1600	> 1600

590066

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

066

ELEMENT: NICKEL

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
CRAE EL 1/77 (177 PC)	0.93	1.45	1.97	< 40		40 - 100	> 100
ANZECO EL 8/72 (AZ 872 MCU)	NOT ANALYSED						
CRAE Rec.Scheelite (Scheel)	NOT ANALYSED						
ANZECO EL 10/75 (AZ 1075)	NOT ANALYSED						
ANZECO EL 6/72 (AZ 672MC)	NOT ANALYSED						

590067

SUMMARY STATISTICS FOR INDIVIDUAL COMPANY'S DATA FILES

ELEMENT: BISMUTH

COMPANY	$\log \Sigma$	$\log \Sigma + 1SD$	$\log \Sigma + 2SD$	ppm LBG	ppm HBG	ppm P.A.	ppm A.
RAE EL 1/77 177 PC)	0.46	0.66	0.86	< 4	4 - 8	8 - 12.5	> 12.5
NZECO EL 8/72 AZ 872 MCU)	NOT ANALYSED						
RAE Rec.Scheelite Scheel)	NOT ANALYSED						
NZECO EL 10/75 AZ 1075)	NOT ANALYSED						
NZECO EL 6/72 AZ 672MC)	NOT ANALYSED						

590068

APPENDIX IV

STATISTICS FOR FILE NWTASPC

590070

690

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.3000	5.0	41	10.8	0.0	0.300
0.4000	10.0	8	0.0	10.8	0.400
0.5000	15.0	6	0.0	10.8	0.500
0.6000	20.0	20	5.3	16.1	0.600
0.7000	25.0	8	2.1	18.2	0.800
0.8000	30.0	9	2.4	20.6	1.000
0.9000	35.0	21	5.5	26.1	1.100
1.0000	40.0	2	0.5	26.6	1.200
1.1000	45.0	8	2.1	28.7	1.300
1.2000	50.0	15	2.9	32.6	1.400
1.3000	55.0	14	3.7	36.3	1.500
1.4000	60.0	6	1.6	37.9	1.600
1.5000	65.0	18	4.8	42.1	1.700
1.6000	70.0	14	3.7	45.8	1.800
1.7000	75.0	8	1.3	47.1	1.900
1.8000	80.0	9	2.4	49.5	2.000
1.9000	85.0	14	3.7	53.2	2.100
2.0000	90.0	7	1.8	55.0	2.200
2.1000	95.0	6	1.6	56.6	2.300
2.2000	100.0	12	3.2	60.8	2.400
2.3000	5.0	12	3.2	64.6	2.500
2.4000	10.0	7	1.8	66.4	2.600
2.5000	15.0	19	5.0	69.8	2.700
2.6000	20.0	8	2.1	71.4	2.800
2.7000	25.0	4	1.0	72.2	2.900
2.8000	30.0	4	1.1	74.2	3.000
2.9000	35.0	35	9.2	83.4	3.100
3.0000	40.0	5	1.3	84.7	3.200
3.1000	45.0	4	1.0	86.3	3.300
3.2000	50.0	12	3.2	89.8	3.400
3.3000	55.0	12	3.1	92.9	3.500
3.4000	60.0	0	0.0	92.9	3.600
3.5000	65.0	9	2.4	95.2	3.700
3.6000	70.0	1	0.2	95.5	3.800
3.7000	75.0	1	0.2	95.8	3.900
3.8000	80.0	1	0.2	96.1	4.000
3.9000	85.0	2	0.5	96.6	4.100
4.0000	90.0	2	0.5	97.1	4.200
4.1000	95.0	2	0.5	97.6	4.300
4.2000	100.0	2	0.5	98.4	4.400
4.3000	5.0	2	0.5	98.9	4.500
4.4000	10.0	2	0.5	99.5	4.600
4.5000	15.0	0	0.0	99.5	4.700
4.6000	20.0	1	0.2	99.7	4.800
4.7000	25.0	1	0.2	100.0	4.900
4.8000	30.0	1	0.2	100.0	5.000

PERCENT OF THE TOTAL SAMPLES
 DATA ABOVE RANGE OF HISTOGRAM

VARIABLE:	LOGSN
NUMBER OF OBSERVATIONS:	379
MINIMUM:	0.301
MAXIMUM:	4.796
MEAN:	2.017
STANDARD ERROR OF MEAN:	0.056
STANDARD DEVIATION:	1.099
COEFFICIENT OF VARIATION:	54.512
SKEWNESS:	0.138
KURTOSIS:	-0.897

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

DATA TITLE : NWTASPC ALL PAN COM DATA FOR N W TASMANIA

VARIABLE : LOGM

0.70

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000+	*****	91	17.3	0.0	0.000
0.100+	I	1	0.2	17.3	0.100
0.200+		0	0.0	17.5	0.200
0.300+	*****	21	4.0	17.5	0.300
0.400+	***	9	1.7	21.5	0.400
0.500+		0	0.0	23.2	0.500
0.600+	*****	130	24.8	23.2	0.600
0.700+	**	4	0.8	48.0	0.700
0.800+	***	9	1.7	48.8	0.800
0.900+	I	2	0.4	50.5	0.900
1.000+	*****	50	9.5	50.9	1.000
1.100+	*****	26	5.0	60.4	1.100
1.200+	**	3	0.6	65.3	1.200
1.300+	*****	33	6.3	65.9	1.300
1.400+	*****	15	2.9	72.2	1.400
1.500+	**	4	0.8	75.0	1.500
1.600+	*****	24	4.4	75.8	1.600
1.700+	*****	18	3.4	80.4	1.700
1.800+	****	10	1.9	83.8	1.800
1.900+	*****	20	3.8	85.7	1.900
2.000+	*****	27	5.1	89.5	2.000
2.100+	***	7	1.3	94.7	2.100
2.200+		0	0.0	96.0	2.200
2.300+	***	9	1.7	96.0	2.300
2.400+	**	3	0.6	97.7	2.400
2.500+		0	0.0	98.3	2.500
2.600+	I	2	0.4	98.3	2.600
2.700+	I	2	0.4	98.7	2.700
2.800+	I	1	0.2	99.0	2.800
2.900+	I	1	0.2	99.2	2.900
3.000+		0	0.0	99.4	3.000
3.100+	I	2	0.4	99.4	3.100
3.200+		0	0.0	99.8	3.200
3.300+		0	0.0	99.8	3.300
3.400+		0	0.0	99.8	3.400
3.500+		0	0.0	99.8	3.500
3.600+	I	1	0.2	99.8	3.600
3.700+				100.0	3.700

PERCENT OF THE TOTAL SAMPLES

VARIABLE: LOGW
NUMBER OF OBSERVATIONS: 525
MINIMUM: 0.000
MAXIMUM: 3.643
MEAN: 0.996
STANDARD ERROR OF MEAN: 0.031
STANDARD DEVIATION: 0.710
COEFFICIENT OF VARIATION: 71.306
SKEWNESS: 0.424
KURTOSIS: -0.279

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

0.73

DATA TITLE : NMTASPC ALL PAN CON DATA FOR N W TASMANIA
 VARIABLE : LOGCU

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000				0.0	0.000
0.100		3	0.7	0.7	0.100
0.200		0	0.0	0.7	0.200
0.300		0	0.0	0.7	0.300
0.400	*****	41	9.5	10.2	0.400
0.500	***	4	1.4	11.6	0.500
0.600		0	0.0	11.6	0.600
0.700	*****	92	21.3	32.9	0.700
0.800	**	3	0.7	33.6	0.800
0.900		0	0.0	33.6	0.900
1.000	*****	41	9.5	43.1	1.000
1.100	*****	74	17.1	60.2	1.100
1.200	*****	25	5.8	66.0	1.200
1.300	**	3	0.7	66.7	1.300
1.400	*****	48	11.1	77.8	1.400
1.500	*****	23	5.3	83.1	1.500
1.600	*****	12	2.8	85.9	1.600
1.700	*****	19	4.4	90.3	1.700
1.800	*****	10	2.3	92.6	1.800
1.900	****	9	2.1	94.7	1.900
2.000	***	5	1.2	95.8	2.000
2.100	***	7	1.6	97.5	2.100
2.200	**	0	0.0	97.5	2.200
2.300	**	3	0.7	98.1	2.300
2.400	I	1	0.2	98.4	2.400
2.500		0	0.0	98.4	2.500
2.600		0	0.0	98.4	2.600
2.700		0	0.0	98.4	2.700
2.800	**	4	0.9	99.3	2.800
2.900	**	3	0.7	100.0	2.900

VARIABLE:	LOGCU
NUMBER OF OBSERVATIONS:	432
MINIMUM:	0.000
MAXIMUM:	2.863
MEAN:	1.066
STANDARD ERROR OF MEAN:	0.024
STANDARD DEVIATION:	0.499
COEFFICIENT OF VARIATION:	46.795
SKEWNESS:	0.760
KURTOSIS:	1.107

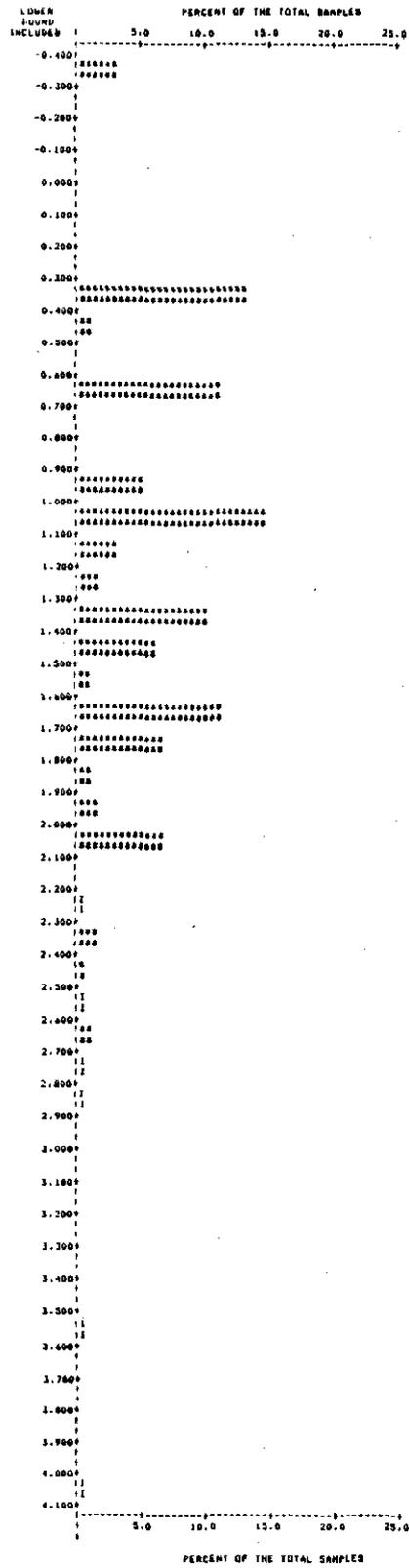
we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

075

590076

DATA TITLE : MUTASPC ALL PAN CON DATA FOR N W TARRAMIA
VARIABLE : LOOP3



LOWER BOUND INCLUDES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
-0.400			0.0	-0.400
-0.300	12	3.0	3.0	-0.300
-0.200	0	0.0	3.0	-0.200
-0.100	0	0.0	3.0	-0.100
0.000	0	0.0	3.0	0.000
0.100	0	0.0	3.0	0.100
0.200	0	0.0	3.0	0.200
0.300	0	0.0	3.0	0.300
0.400	57	12.2	14.2	0.400
0.500	3	1.2	17.4	0.500
0.600	0	0.0	17.4	0.600
0.700	48	11.1	28.5	0.700
0.800	0	0.0	28.5	0.800
0.900	0	0.0	28.5	0.900
1.000	22	9.1	33.6	1.000
1.100	62	14.6	47.9	1.100
1.200	13	5.0	50.9	1.200
1.300	6	1.4	52.4	1.300
1.400	43	16.0	62.3	1.400
1.500	26	4.0	68.3	1.500
1.600	4	0.9	69.2	1.600
1.700	47	10.9	80.1	1.700
1.800	27	4.2	84.3	1.800
1.900	4	0.9	87.3	1.900
2.000	6	1.4	88.7	2.000
2.100	27	4.2	94.9	2.100
2.200	0	0.0	94.9	2.200
2.300	1	0.2	95.1	2.300
2.400	7	1.4	96.8	2.400
2.500	3	0.7	97.5	2.500
2.600	1	0.2	97.7	2.600
2.700	3	1.7	98.8	2.700
2.800	2	0.5	99.1	2.800
2.900	1	0.2	99.3	2.900
3.000	0	0.0	99.3	3.000
3.100	0	0.0	99.3	3.100
3.200	0	0.0	99.3	3.200
3.300	0	0.0	99.3	3.300
3.400	0	0.0	99.3	3.400
3.500	0	0.0	99.3	3.500
3.600	1	0.2	99.6	3.600
3.700	0	0.0	99.6	3.700
3.800	0	0.0	99.6	3.800
3.900	0	0.0	99.6	3.900
4.000	0	0.0	99.6	4.000
4.100	1	0.2	100.0	4.100

PERCENT OF THE TOTAL SAMPLES

VARIABLE: LOGPB
NUMBER OF OBSERVATIONS: 432
MINIMUM: -0.301
MAXIMUM: 4.041
MEAN: 1.198
STANDARD ERROR OF MEAN: 0.031
STANDARD DEVIATION: 0.639
COEFFICIENT OF VARIATION: 53.362
SKEWNESS: 0.243
KURTOSIS: 0.748

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

DATA TITLE : NNTASPC ALL PAN CON DATA FOR N W TASMANIA
 VARIABLE : LOGZN

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.000	----->			0.0	0.000
0.100	*****	10	2.3	2.3	0.100
0.200	*****	0	0.0	2.3	0.200
0.300	*****	0	0.0	2.3	0.300
0.400	*****	19	4.4	6.7	0.400
0.500	*****	0	0.0	6.7	0.500
0.600	*****	0	0.0	6.7	0.600
0.700	*****	28	6.5	13.1	0.700
0.800	*****	0	0.0	13.1	0.800
0.900	*****	0	0.0	13.1	0.900
1.000	*****	19	4.4	17.5	1.000
1.100	*****	24	5.5	23.0	1.100
1.200	*****	12	2.8	25.8	1.200
1.300	*****	7	1.6	27.4	1.300
1.400	*****	22	5.1	32.5	1.400
1.500	*****	19	4.4	36.9	1.500
1.600	*****	9	2.1	38.9	1.600
1.700	*****	17	3.9	42.9	1.700
1.800	*****	8	1.8	44.7	1.800
1.900	*****	14	3.2	47.9	1.900
2.000	*****	13	3.0	50.9	2.000
2.100	*****	35	8.1	59.0	2.100
2.200	*****	16	3.7	62.7	2.200
2.300	*****	17	3.9	66.6	2.300
2.400	*****	14	3.2	69.8	2.400
2.500	*****	37	8.5	78.3	2.500
2.600	*****	12	2.8	81.1	2.600
2.700	*****	38	8.8	89.9	2.700
2.800	*****	14	3.2	93.1	2.800
2.900	*****	13	3.0	96.1	2.900
3.000	*****	7	1.6	97.7	3.000
3.100	*****	4	0.9	98.6	3.100
3.200	*****	3	0.7	99.3	3.200
3.300	*****	1	0.2	99.5	3.300
3.400	*****	0	0.0	99.5	3.400
3.500	----->	2	0.5	100.0	3.500

PERCENT OF THE TOTAL SAMPLES

077

VARIABLE: LOGZM
NUMBER OF OBSERVATIONS: 434
MINIMUM: 0.000
MAXIMUM: 3.462
MEAN: 1.803
STANDARD ERROR OF MEAN: 0.038
STANDARD DEVIATION: 0.793
COEFFICIENT OF VARIATION: 43.991
SKEWNESS: -0.381
KURTOSIS: -0.772

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

DATA TITLE : NWTASPC ALL PAN CON DATA FOR N W TASMANIA
 VARIABLE : LOGBI

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES	NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
0.300	*****	118	41.3	0.0	0.300
0.400	*****	0	0.0	41.3	0.400
0.500		0	0.0	41.3	0.500
0.600	*****	65	22.7	64.0	0.600
0.700	***	7	2.4	66.4	0.700
0.800		0	0.0	66.4	0.800
0.900		0	0.0	66.4	0.900
1.000		1	0.3	66.8	1.000
1.100		3	1.0	67.8	1.100
1.200		0	0.0	67.8	1.200
1.300		0	0.0	67.8	1.300
1.400		4	1.4	69.2	1.400
1.500	*****	14	4.9	74.1	1.500
1.600	*****	0	0.0	74.1	1.600
1.700	*****	39	13.6	87.8	1.700
1.800		0	0.0	87.8	1.800
1.900		0	0.0	87.8	1.900
2.000	*****	0	0.0	87.8	2.000
2.100	*****	31	10.8	98.6	2.100
2.200		0	0.0	98.6	2.200
2.300		0	0.0	98.6	2.300
2.400		0	0.0	98.6	2.400
2.500		4	1.4	100.0	2.500

079

VARIABLE:	LOGBI
NUMBER OF OBSERVATIONS:	284
MINIMUM:	0.301
MAXIMUM:	2.477
MEAN:	0.882
STANDARD ERROR OF MEAN:	0.039
STANDARD DEVIATION:	0.659
COEFFICIENT OF VARIATION:	74.710
SKEWNESS:	0.735
KURTOSIS:	-1.014

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.

VARIABLE:	LOGNI
NUMBER OF OBSERVATIONS:	242
MINIMUM:	0.176
MAXIMUM:	2.477
MEAN:	1.113
STANDARD ERROR OF MEAN:	0.038
STANDARD DEVIATION:	0.591
COEFFICIENT OF VARIATION:	53.036
SKEWNESS:	0.240
KURTOSIS:	-1.097

we will now make another pass through the data.

the same transformations and selections as last run will be used in this run.



083

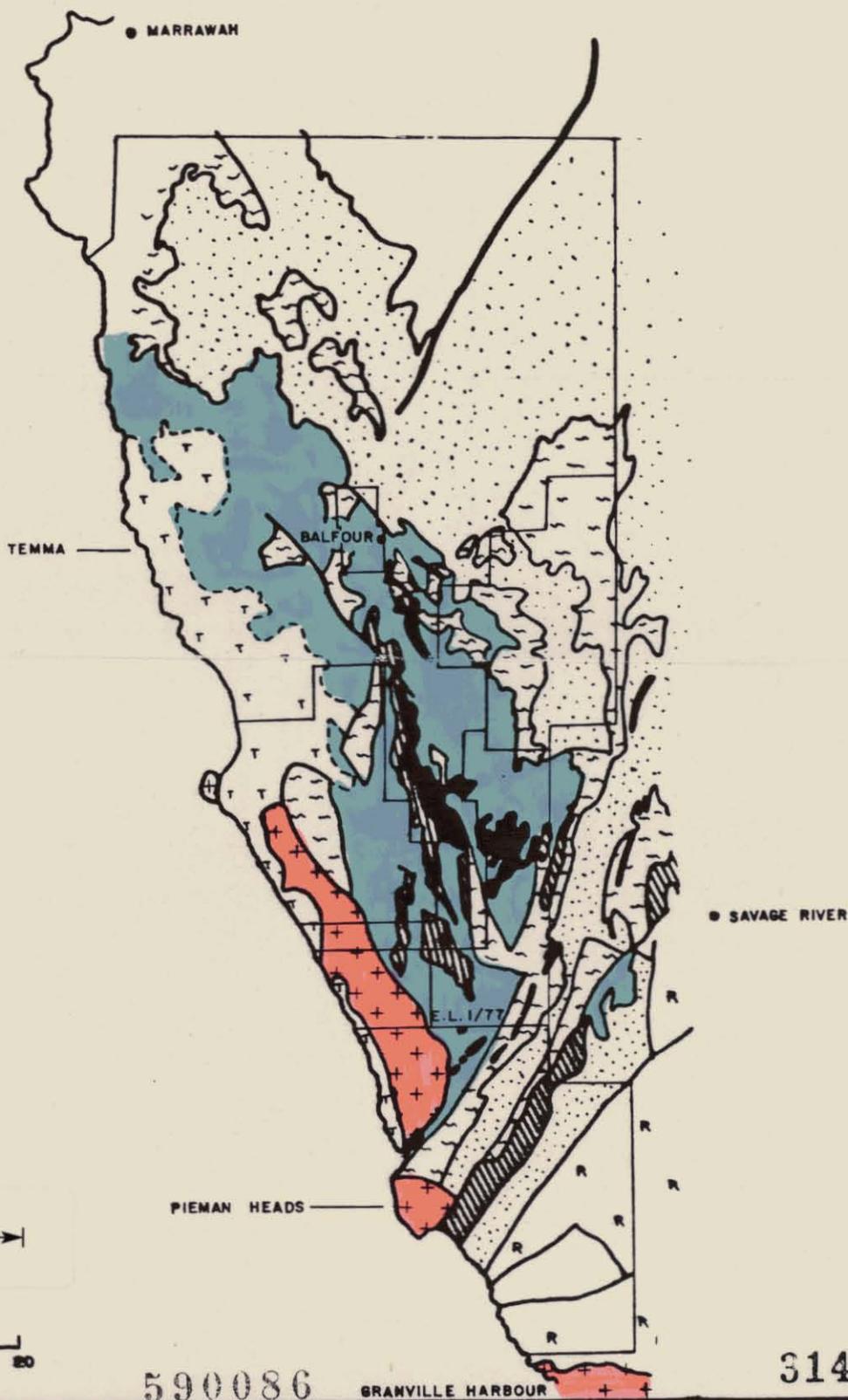
590084

DATA TITLE : NEARBY ALL PAN CON DATA FOR N W TASHANIA
VARIABLE : LOGGR

LOWER BOUND INCLUDED	PERCENT OF THE TOTAL SAMPLES					NUMBER OF SAMPLES IN THIS CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
	5.0	10.0	15.0	20.0	25.0				
1.100								0.0	1.100
1.200						1	0.5	0.5	1.200
1.300						1	0.5	1.0	1.300
1.400						1	0.5	1.5	1.400
1.500						0	0.0	1.5	1.500
1.600						0	0.0	1.5	1.600
1.700						4	2.1	3.6	1.700
1.800						1	0.5	4.1	1.800
1.900						1	0.5	4.6	1.900
2.000						0	0.0	4.6	2.000
2.100						0	0.0	4.6	2.100
2.200						0	0.0	4.6	2.200
2.300						1	0.5	5.2	2.300
2.400						7	3.6	8.8	2.400
2.500						13	6.7	15.5	2.500
2.600						2	1.0	16.5	2.600
2.700						14	7.2	23.7	2.700
2.800						2	1.0	24.7	2.800
2.900						3	1.5	26.2	2.900
3.000						5	2.6	28.8	3.000
3.100						10	5.1	33.9	3.100
3.200						2	1.0	34.9	3.200
3.300						1	0.5	35.4	3.300
3.400						10	5.1	40.5	3.400
3.500						19	9.7	50.2	3.500
3.600						3	1.5	51.7	3.600
3.700						32	16.4	68.1	3.700
3.800						4	2.1	70.2	3.800
3.900						8	4.1	74.3	3.900
4.000						1	0.5	74.8	4.000
4.100						1	0.5	75.3	4.100
4.200						3	1.5	76.8	4.200
4.300						7	3.6	80.4	4.300
4.400						1	0.5	80.9	4.400
4.500						1	0.5	81.4	4.500
4.600						1	0.5	81.9	4.600
4.700						3	1.5	83.4	4.700
4.800						1	0.5	83.9	4.800
4.900						2	1.0	84.9	4.900
5.000						2	1.0	85.9	5.000
5.100						1	0.5	86.4	5.100
5.200						3	1.5	87.9	5.200
5.300						5	2.6	90.5	5.300
5.400						7	3.6	94.1	5.400
5.500						7	3.6	97.7	5.500
5.600						1	0.5	98.2	5.600
								98.7	
								99.2	
								99.7	
								100.0	

PERCENT OF THE TOTAL SAMPLES

VARIABLE:	LOGCR
NUMBER OF OBSERVATIONS:	195
MINIMUM:	1.146
MAXIMUM:	5.524
MEAN:	3.450
STANDARD ERROR OF MEAN:	0.070
STANDARD DEVIATION:	0.979
COEFFICIENT OF VARIATION:	28.362
SKEWNESS:	0.234
KURTOSIS:	-0.273



3142

LEGEND:

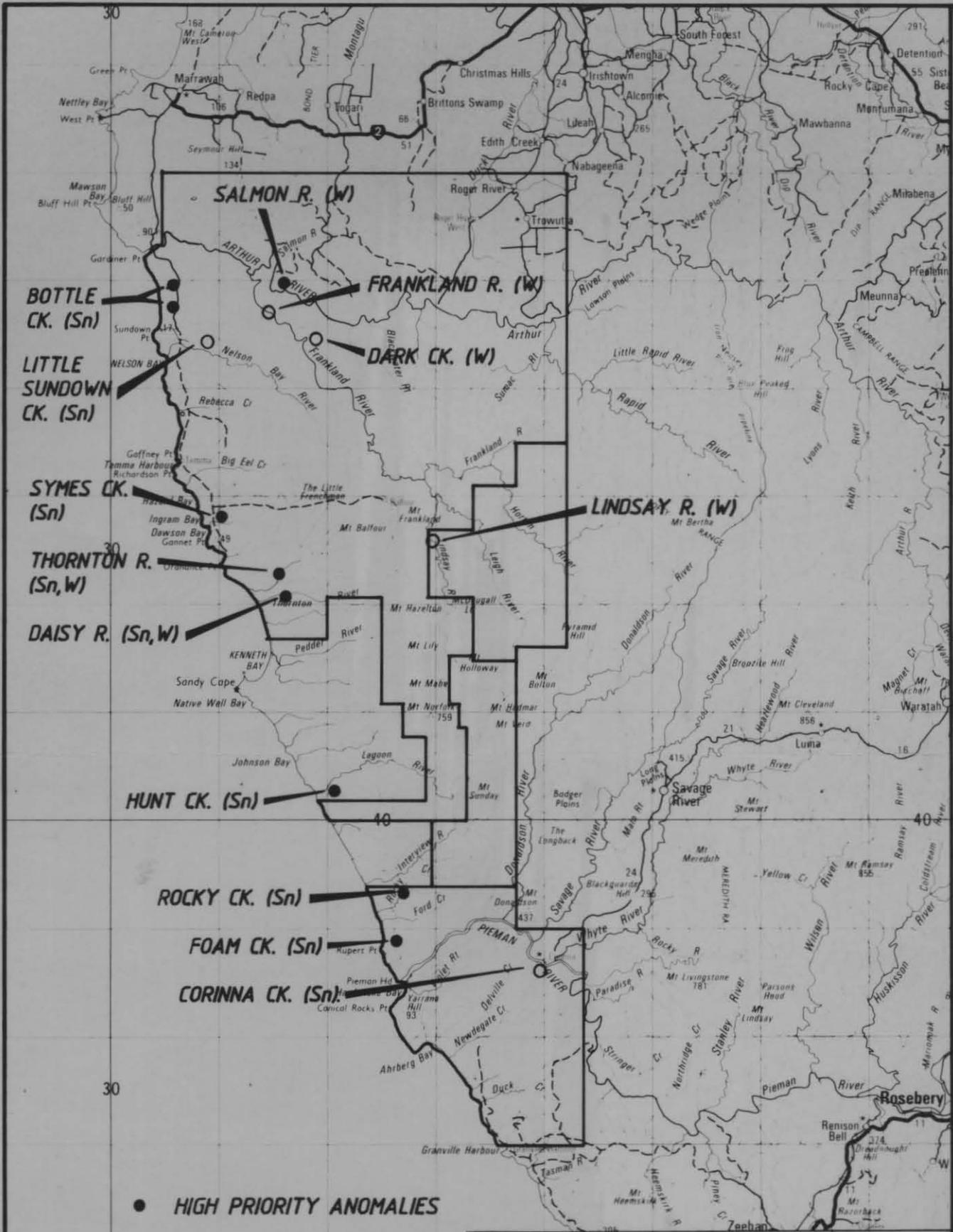
Quaternary, Tertiary	Protazozoic Alpha Group
Eocambrian, Sigma Group	Rho Group
Protazozoic Phi Group	Devonian Granite
Epishia Group	Eocambrian: Kappa Group

83-1960 GEOPEKO

ROCKY CAPE E.L. 1/77
SUMMARY REGIONAL GEOLOGY

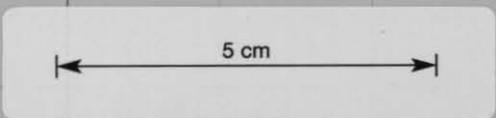
LOCATION MAP

FIG.1 TASH 680

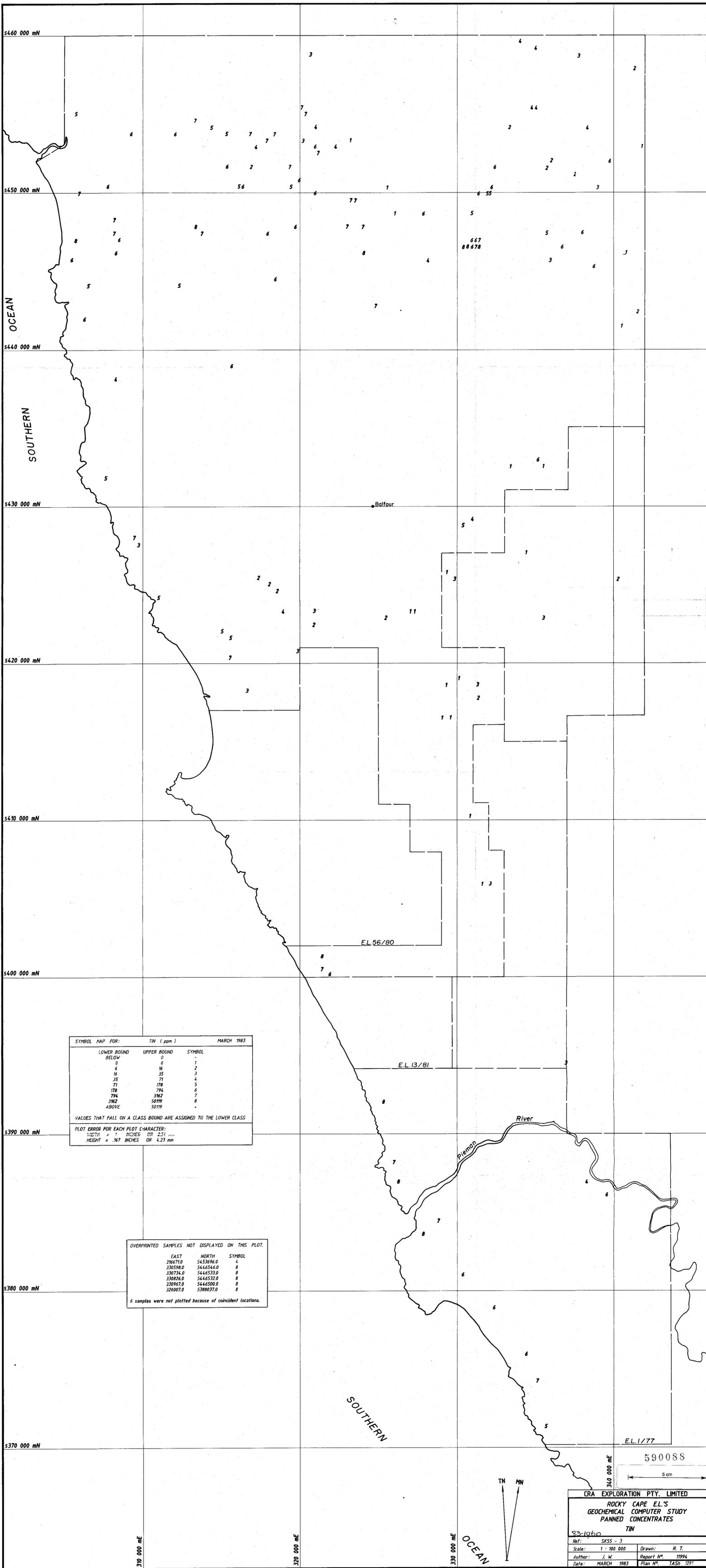


- HIGH PRIORITY ANOMALIES
- LOW PRIORITY ANOMALIES

590087



CRA EXPLORATION PTY. LIMITED	
ROCKY CAPE E.L.'S Geochemical Targets Warranting Further Exploration	
Ref:	SK55 - 3
Scale:	1 : 100 000
Author:	J. W.
Date:	15 - 3 - 1983
Drawn:	R. T.
Report N°:	
Plan N°:	TASH 1280



SYMBOL MAP FOR: TIN (ppm) MARCH 1983

LOWER BOUND	UPPER BOUND	SYMBOL
BELOW 0	0	-
0	6	1
6	16	2
16	35	3
35	71	4
71	178	5
178	794	6
794	3162	7
3162	50119	8
ABOVE	50119	*

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

PLOT ERROR FOR EACH PLOT CHARACTER:
 LENGTH = 1 INCHES OR 25.4 mm
 HEIGHT = .167 INCHES OR 4.23 mm

OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.

EAST	NORTH	SYMBOL
316671.0	5453696.0	4
330598.0	5446546.0	8
330734.0	5446533.0	8
330826.0	5446532.0	8
330967.0	5446500.0	8
326007.0	5388037.0	8

6 samples were not plotted because of coincident locations.

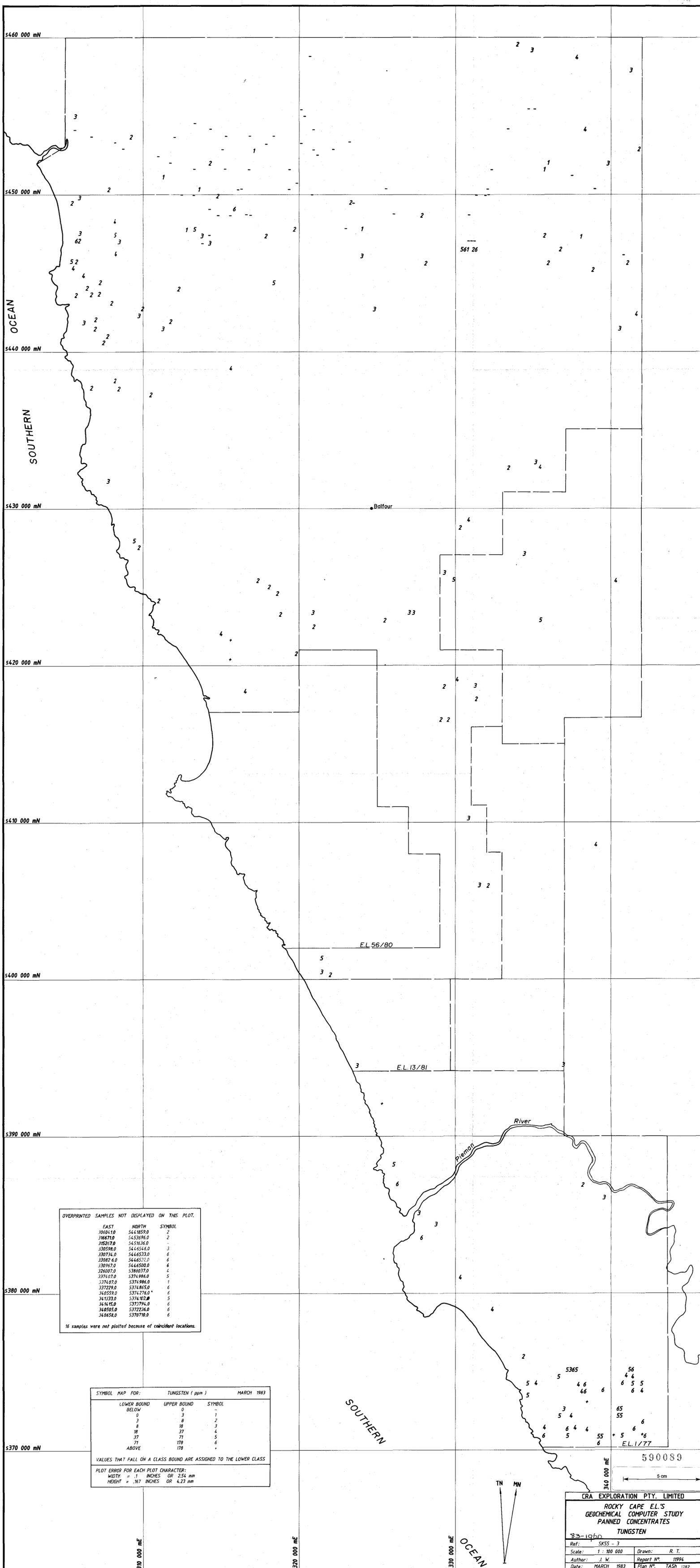
590088

5 cm

CRA EXPLORATION PTY. LIMITED
 ROCKY CAPE EL'S
 GEOCHEMICAL COMPUTER STUDY
 PANNEED CONCENTRATES
 TIN

93-1960

Ref: SK55-3	Drawn: R. T.
Scale: 1 : 100 000	Report No: 11994
Author: J. W.	Date: MARCH 1983
Plan No: TASH 1281	



OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.

EAST	NORTH	SYMBOL
306041.0	5441859.0	2
316671.0	5453696.0	2
318267.0	5457636.0	-
330594.0	5446546.0	3
330734.0	5446533.0	6
33082.6.0	5446532.0	6
330967.0	5446500.0	6
326007.0	5386037.0	4
337407.0	5374986.0	5
337497.0	5374986.0	1
337229.0	5374865.0	6
340559.0	5374276.0	6
341232.0	5374102.0	5
341415.0	5373794.0	6
340505.0	5372236.0	6
340658.0	5370710.0	6

16 samples were not plotted because of coincident locations.

SYMBOL MAP FOR: TUNGSTEN (ppm) MARCH 1983

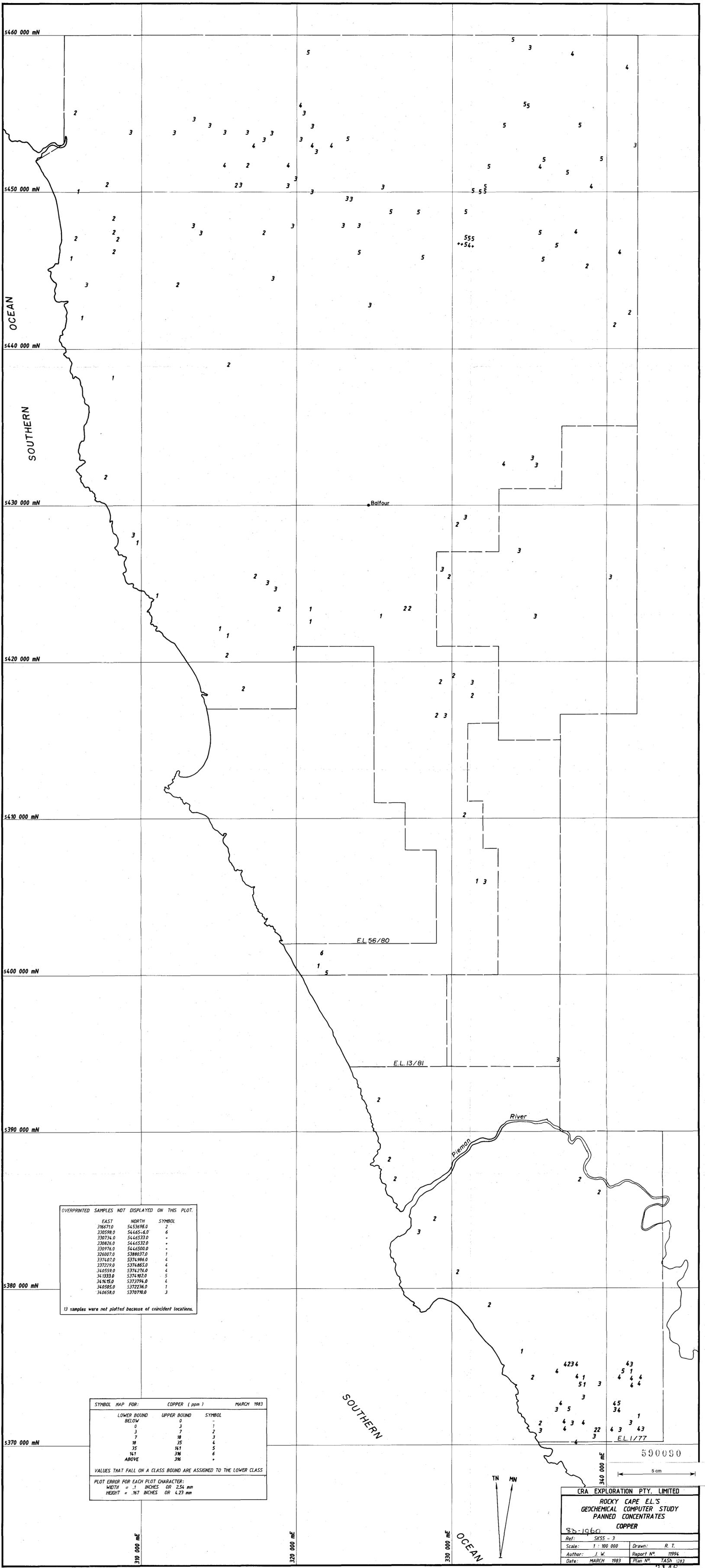
LOWER BOUND	UPPER BOUND	SYMBOL
BELOW	0	-
0	3	1
3	8	2
8	18	3
18	37	4
37	71	5
71	178	6
ABOVE	178	+

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

PLOT ERROR FOR EACH PLOT CHARACTER:
 WIDTH = .1 INCHES OR 2.54 mm
 HEIGHT = .167 INCHES OR 4.23 mm

CRA EXPLORATION PTY. LIMITED
 ROCKY CAPE E.L.'S
 GEOCHEMICAL COMPUTER STUDY
 PANNED CONCENTRATES
 TUNGSTEN
 83-1980

Ref: SK55-3	Drawn: R. T.
Scale: 1 : 100 000	Report N°: 11994
Author: J. W.	Plan N°: TASH 1282
Date: MARCH 1983	



OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.

EAST	NORTH	SYMBOL
38671.0	5453696.0	2
330598.0	54465-6.0	6
330734.0	5446533.0	+
330826.0	5446532.0	+
330974.0	5446500.0	+
326007.0	5388037.0	1
337407.0	5374986.0	4
337229.0	5374865.0	4
340559.0	5374276.0	4
341333.0	5374902.0	5
341415.0	5373794.0	4
340505.0	5372236.0	1
340658.0	5370760.0	3

13 samples were not plotted because of coincident locations.

SYMBOL MAP FOR: COPPER (ppm) MARCH 1983

LOWER BOUND	UPPER BOUND	SYMBOL
BELOW 0	0	-
0	3	1
3	7	2
7	18	3
18	35	4
35	141	5
141	316	6
ABOVE 316	316	+

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

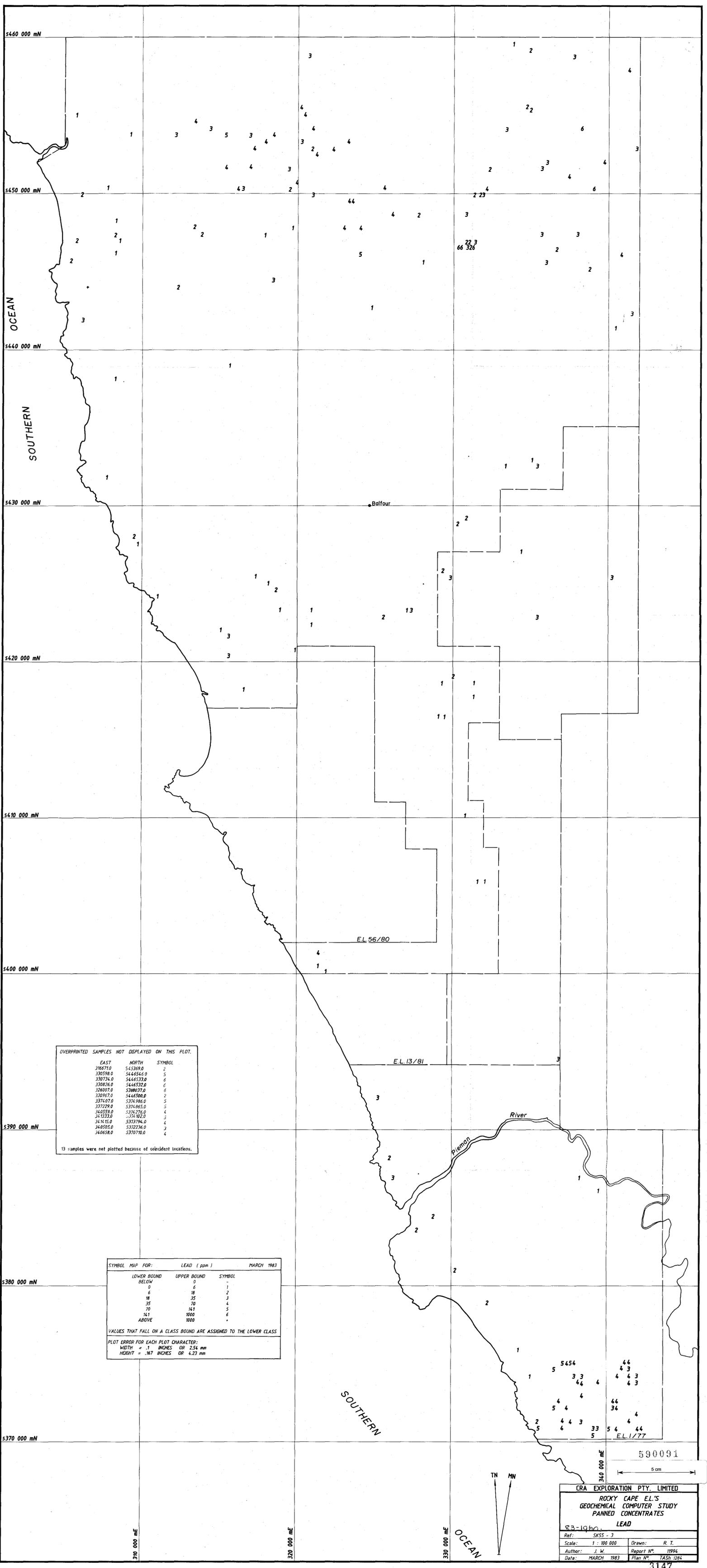
PLOT ERROR FOR EACH PLOT CHARACTER:
 WIDTH = .1 INCHES OR 2.54 mm
 HEIGHT = .167 INCHES OR 4.23 mm

590090

5 cm

CRA EXPLORATION PTY. LIMITED
 ROCKY CAPE E.L.'S
 GEOCHEMICAL COMPUTER STUDY
 PANNED CONCENTRATES
 COPPER
 83-1960

Ref: SK55-3	Drawn: R. T.
Scale: 1 : 100 000	Report N°: 11994
Author: J. W.	Plan N°: TASH 1283
Date: MARCH 1983	



OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.

EAST	NORTH	SYMBOL
316671.0	545369.0	2
330598.0	544654.0	5
330774.0	544653.0	6
330826.0	544653.0	6
326007.0	5388037.0	6
330967.0	5446500.0	2
337407.0	5374986.0	5
337229.0	5374865.0	5
340559.0	5374276.0	4
341333.0	5374182.0	3
341415.0	5373796.0	4
340505.0	5372236.0	3
340658.0	5370710.0	4

13 samples were not plotted because of coincident locations.

SYMBOL MAP FOR:			LEAD (ppm)	MARCH 1983
LOWER BOUND	UPPER BOUND	SYMBOL		
BELOW	0	1		
6	18	2		
18	35	3		
35	70	4		
70	141	5		
141	1000	6		
ABOVE	1000	-		

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

PLOT ERROR FOR EACH PLOT CHARACTER:
 WIDTH = .1 INCHES OR 2.54 mm
 HEIGHT = .167 INCHES OR 4.23 mm

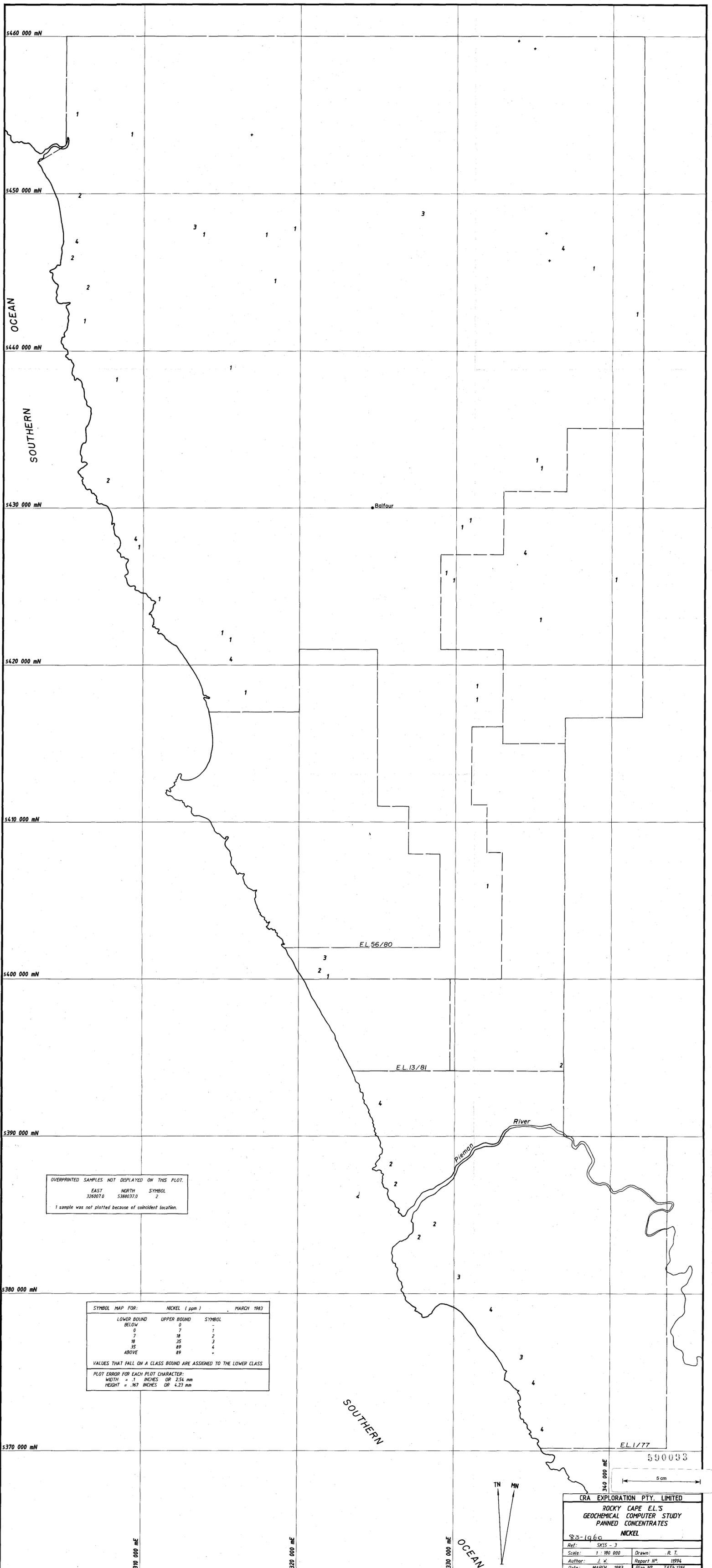
590091

5 cm

CRA EXPLORATION PTY. LIMITED
 ROCKY CAPE E.L.'S
 GEOCHEMICAL COMPUTER STUDY
 PANNED CONCENTRATES
 LEAD

83-1960

Ref: SK55-3	Drawn: R. T.
Scale: 1 : 100 000	Report N°: 11994
Author: J. W.	Plan N°: TASH 1284
Date: MARCH 1983	



OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.
 EAST 326007.0 NORTH 5384037.0 SYMBOL 2
 1 sample was not plotted because of coincident location.

SYMBOL MAP FOR:		NICKEL (ppm)	MARCH 1983
LOWER BOUND	UPPER BOUND	SYMBOL	
BELOW	0	1	
7	18	2	
18	35	3	
35	49	4	
ABOVE	89	*	

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

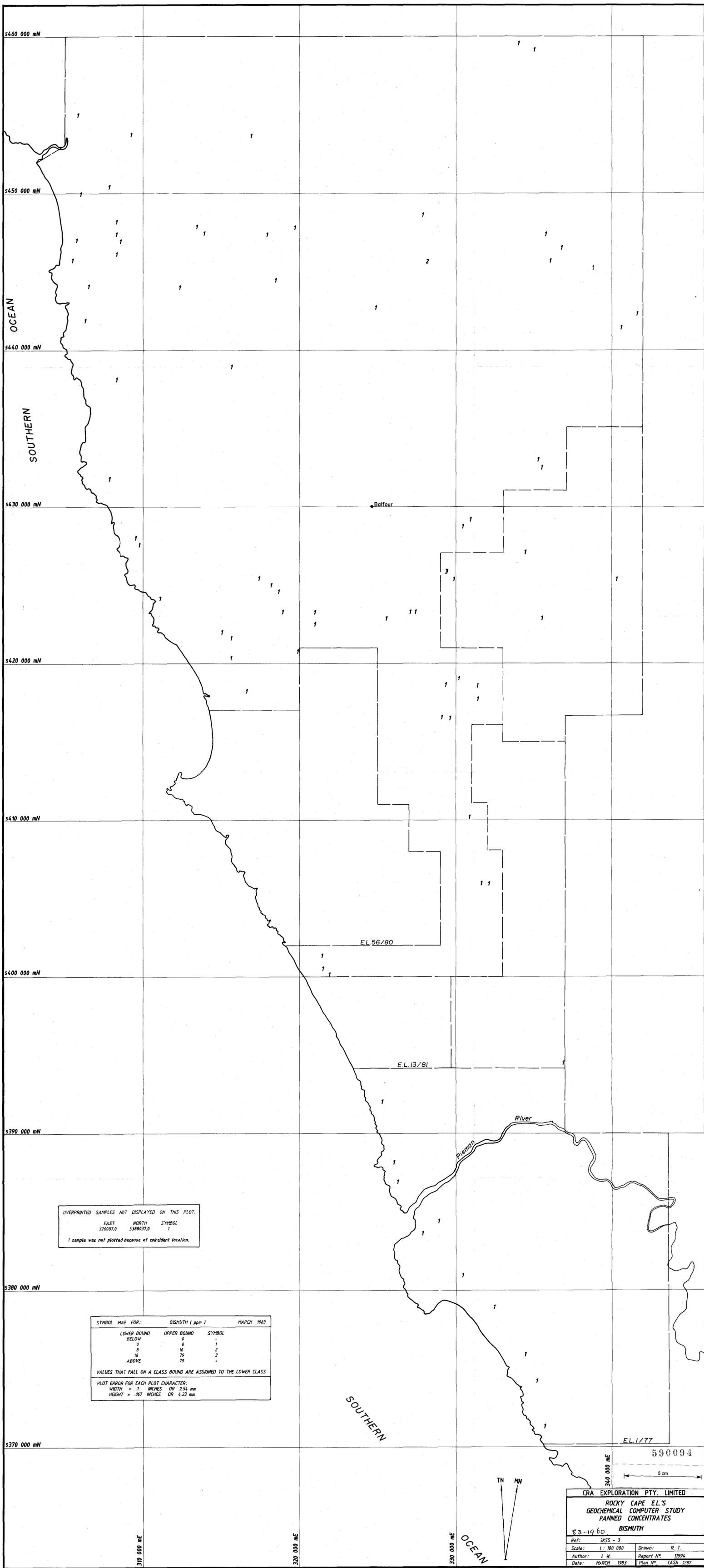
PLOT ERROR FOR EACH PLOT CHARACTER:
 WIDTH = .1 INCHES OR 2.54 mm
 HEIGHT = .167 INCHES OR 4.23 mm

590093

5 cm

CRA EXPLORATION PTY. LIMITED
 ROCKY CAPE E.L.'S
 GEOCHEMICAL COMPUTER STUDY
 PANNED CONCENTRATES
 83-1969
 NICKEL

Ref: SK35 - 3	Drawn: R. T.
Scale: 1 : 100 000	Report No: 11994
Author: J. W.	Plan No: TASH 1286
Date: MARCH 1983	



5460 000 mN
5450 000 mN
5440 000 mN
5430 000 mN
5420 000 mN
5410 000 mN
5400 000 mN
5390 000 mN
5380 000 mN
5370 000 mN

OCEAN
SOUTHERN
SOUTHERN
OCEAN

Balfour

EL.56/80

EL.13/81

Pieman River

EL.1/77

590094

5 cm

TN MN

310 000 mE
320 000 mE
330 000 mE
340 000 mE

OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.
EAST NORTH SYMBOL
326007.0 5388037.0 1
1 sample was not plotted because of coincident location.

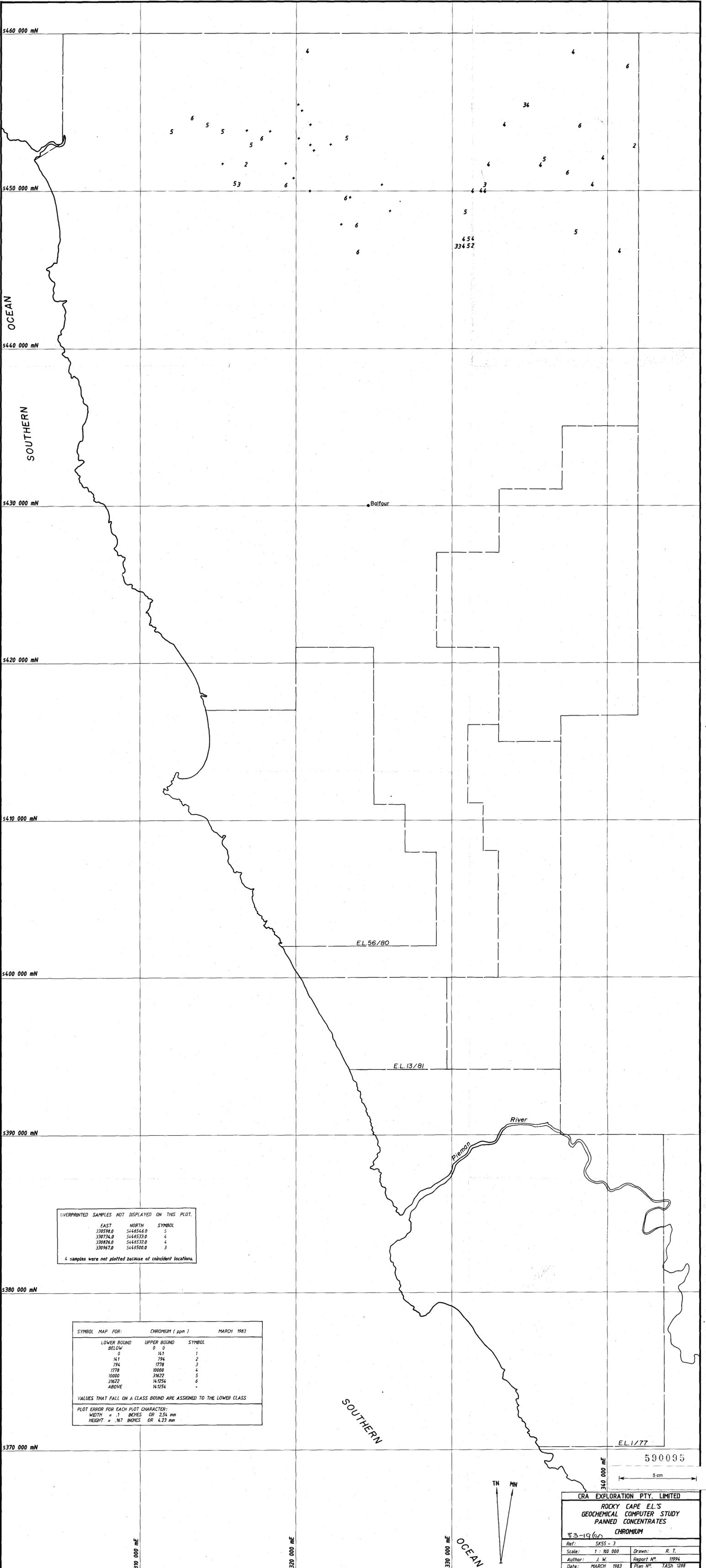
SYMBOL MAP FOR: BISMUTH (ppm)			MARCH 1983
LOWER BOUND	UPPER BOUND	SYMBOL	
BELOW 0	0	-	
0	8	1	
8	16	2	
16	79	3	
ABOVE 79	79	+	

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

PLOT ERROR FOR EACH PLOT CHARACTER:
WIDTH = .1 INCHES OR 2.54 mm
HEIGHT = .167 INCHES OR 4.23 mm

CRA EXPLORATION PTY. LIMITED
ROCKY CAPE EL.'S
GEOCHEMICAL COMPUTER STUDY
PANNEED CONCENTRATES
BISMUTH

Ref: SK55 - 3
Scale: 1 : 100 000 Drawn: R. T.
Author: J. W. Report No: 11994
Date: MARCH 1983 Plan No: TASH 3287



5460 000 mN
5450 000 mN
5440 000 mN
5430 000 mN
5420 000 mN
5410 000 mN
5400 000 mN
5390 000 mN
5380 000 mN
5370 000 mN

370 000 mE
320 000 mE
300 000 mE

OCEAN
SOUTHERN

OCEAN

Balfour

E.L. 56/80

E.L. 13/81

Pieman River

SOUTHERN

590095

5 cm



OVERPRINTED SAMPLES NOT DISPLAYED ON THIS PLOT.

EAST	NORTH	SYMBOL
330598.0	5446546.0	5
330774.0	5446533.0	4
330826.0	5446532.0	4
330967.0	5446500.0	3

4 samples were not plotted because of coincident locations.

SYMBOL MAP FOR:		CHROMIUM (ppm)	MARCH 1983
LOWER BOUND	UPPER BOUND	SYMBOL	
BELOW	0	-	
0	141	1	
141	794	2	
794	1778	3	
1778	10000	4	
10000	31622	5	
31622	141254	6	
ABOVE	141254	+	

VALUES THAT FALL ON A CLASS BOUND ARE ASSIGNED TO THE LOWER CLASS

PLOT ERROR FOR EACH PLOT CHARACTER:
 WIDTH = .1 INCHES OR 2.54 mm
 HEIGHT = .167 INCHES OR 4.23 mm

CRA EXPLORATION PTY. LIMITED

ROCKY CAPE E.L.'S
GEOCHEMICAL COMPUTER STUDY
PANNELED CONCENTRATES

83-1960 CHROMIUM

Ref: SK55-3	Drawn: R. T.
Scale: 1 : 100 000	Report No: 11994
Author: J. W.	Plan No: TASH 1208
Date: MARCH 1983	