

W.R GRACE AUSTRALIA LTD

OPEN FILE

REPORT ON

1982 - 1983 EXPLORATION PROGRAM

RELINQUISHED AREAS

E.L. 2362

YEAR 3

YEAR ENDING 16 DECEMBER 1983

by

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EL 2362

FINAL REPORT - RELINQUISHED AREAS - 1983

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SUMMARY

EL 2362 is mainly covered by alluvial flats and low ridges. Exploration in 1982 involved geochemical sampling of quartz reefs, and altered rocks, plus limited geological mapping and air photo interpretation.

No significantly anomalous results were recorded by the sampling program in the area chosen for the second relinquishment. Thus the area, shown on Figure 3 of 45 blocks, has been relinquished.

INTRODUCTION

EL 2362 was granted to W.R. Grace Australia Ltd on 17 December 1980. An extensive regional geochemical sampling program for gold was carried out in 1981 over the entire EL. Follow up of anomalous results and extension of regional exploration occurred in 1982.

Based on the results of this, a 50% reduction of 90 blocks was carried out on 16 December, 1982.

Further follow up exploration in 1983 was carried out. A second 50% reduction occurred on 17 December, 1983, and this relinquished area is covered in this report. However no exploration took place in this area during 1983.

LOCATION, ACCESS, WATER & TOPOGRAPHY

The reduced area of Licence 2362 is located partly on Mt Ringwood Pastoral Lease No. 718 and partly on Mt Bunday Pastoral Lease No. 561, and covers an area of 45 square minutes, or 150 square kilometres. The area is in approximately 100 kilometres radius of Darwin.

Access is principally via the Tortiall Flats road from the Stuart Highway and then on station tracks on Mt Ringwood and Mt Bunday Stations.

There are numerous billabongs providing water notably at Mt Ringwood Station. Creeks flow during the Wet and hence access is impossible by road. The Dry Season sees most creeks dry, and the only remaining waterholes fouled by buffaloes and cattle.

The region is dominated by floodplains and black soil plains with areas of low ridges. The biggest relief is the Ringwood Range running northwest between the Margaret and McKinlay Rivers. Numerous other tributaries flow into these rivers.

REGIONAL GEOLOGY

The Pine Creek Inlier (Plumb et al, 1981) is an Early Proterozoic basin in Northern Australia. All the Proterozoic sedimentary rocks in the vicinity of No. 1 Anomaly form part of this succession.

The sedimentation pattern is as follows:

The earliest sediments are arenites and rudites deposited directly on the Archaean. They alternate with shallow water carbonate facies. They are succeeded by (commonly carbonaceous) pelite deposition, with intercalated impure carbonates, chemical sediments of the 'banded iron formation' type, and arenite lenses. Acid pyroclastic activity becomes important later and is interbedded with the pelites as thin bands. The final preserved sediments in the Inlier are greywacke/shale assemblages which occupy the greatest outcrop area. The most recent descriptions of this sequence are published in Plumb et al (ibid) and in several papers in Ferguson (1980).

The sediments have been intruded, first by basic sills, then granites, and associated lamprophyres, and in the Late Proterozoic by post-metamorphic basic dykes.

The sediments have been strongly folded in up to three episodes, though the first was the strongest. Beds are rarely overturned. A low greenschist metamorphic facies prevails, though contact metamorphism is superimposed around the larger intrusives. The rocks have been generally undisturbed since the metamorphic/intrusive event about 1800m.y. ago which marked the end of the Early Proterozoic.

EXPLORATION PROGRAM - 1981 & 1982

Regional exploration in 1981 involved an intensive program of aerial reconnaissance by helicopter.

Prospective looking rocks such as quartz reefs, gossans, and altered rocks, were systematically sampled. Colour air photographs of 1:25,000 scale were used for plotting sample locations and navigation in the field. Locations were then transferred to geological base maps. Samples were sent to Pilbara Laboratories for assaying. Fire assay techniques were used for gold, AAS determinations for other elements. All assay results are presented on Plates 1 to 4.

1982 exploration over the area here relinquished involved an extension of the 1981 program, with extra samples being taken where anomalous metal contents were found. In all, 44 samples were collected. No prospect work was done over the area relinquished. A photogeological study of the entire EL was carried out by consultant L.G. Smith in 1982.

EXPLORATION PROGRAM - 1983

No field work was carried out in the area relinquished during 1983. Some office work involving administration and interpretation was needed.

LOCALITY MAP

NORTHERN TERRITORY

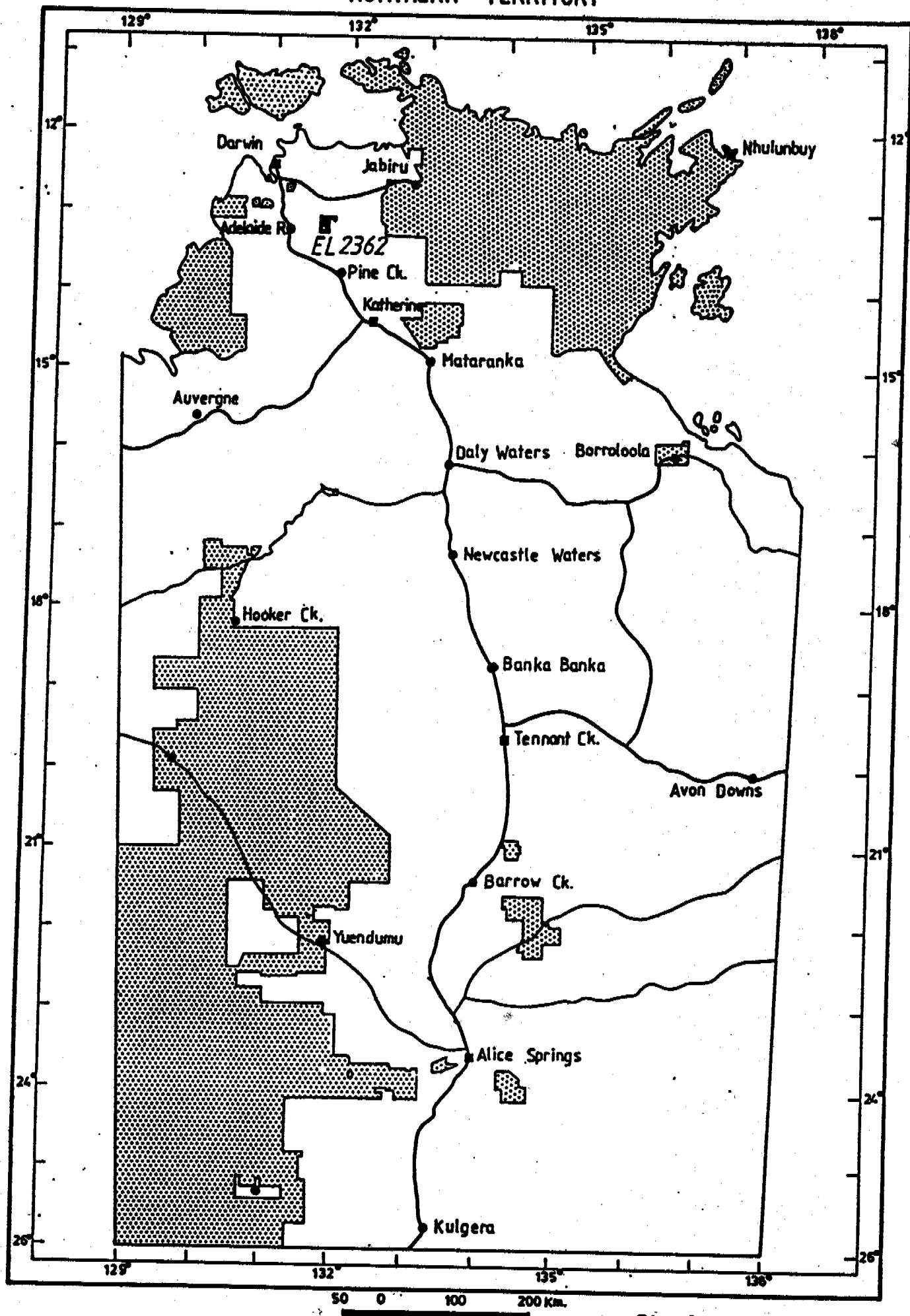


Fig. 2

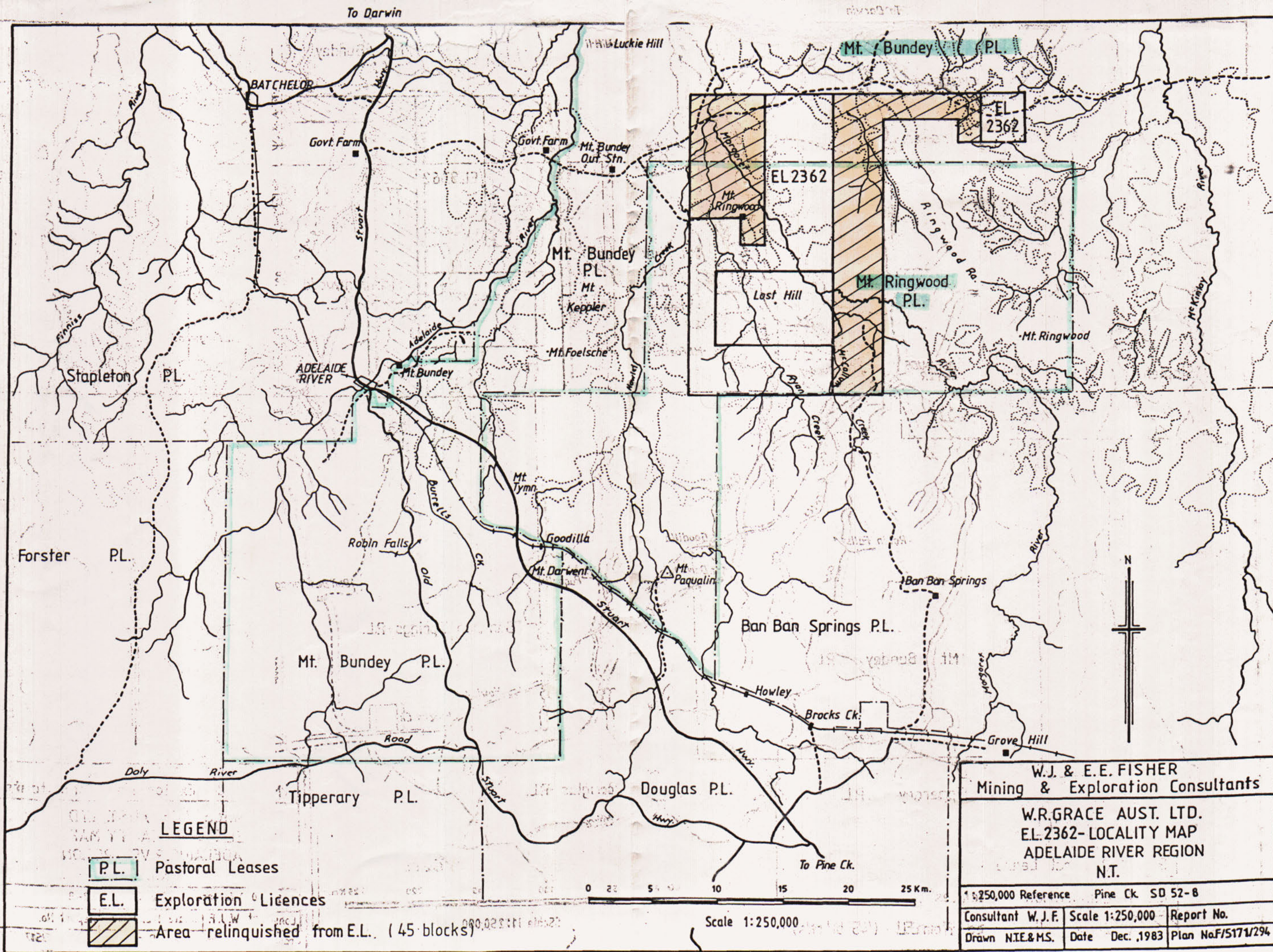
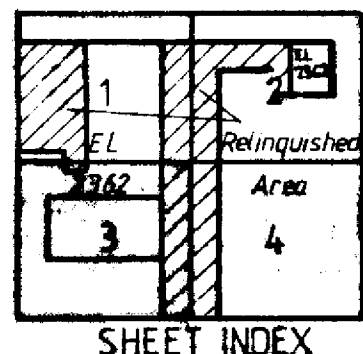
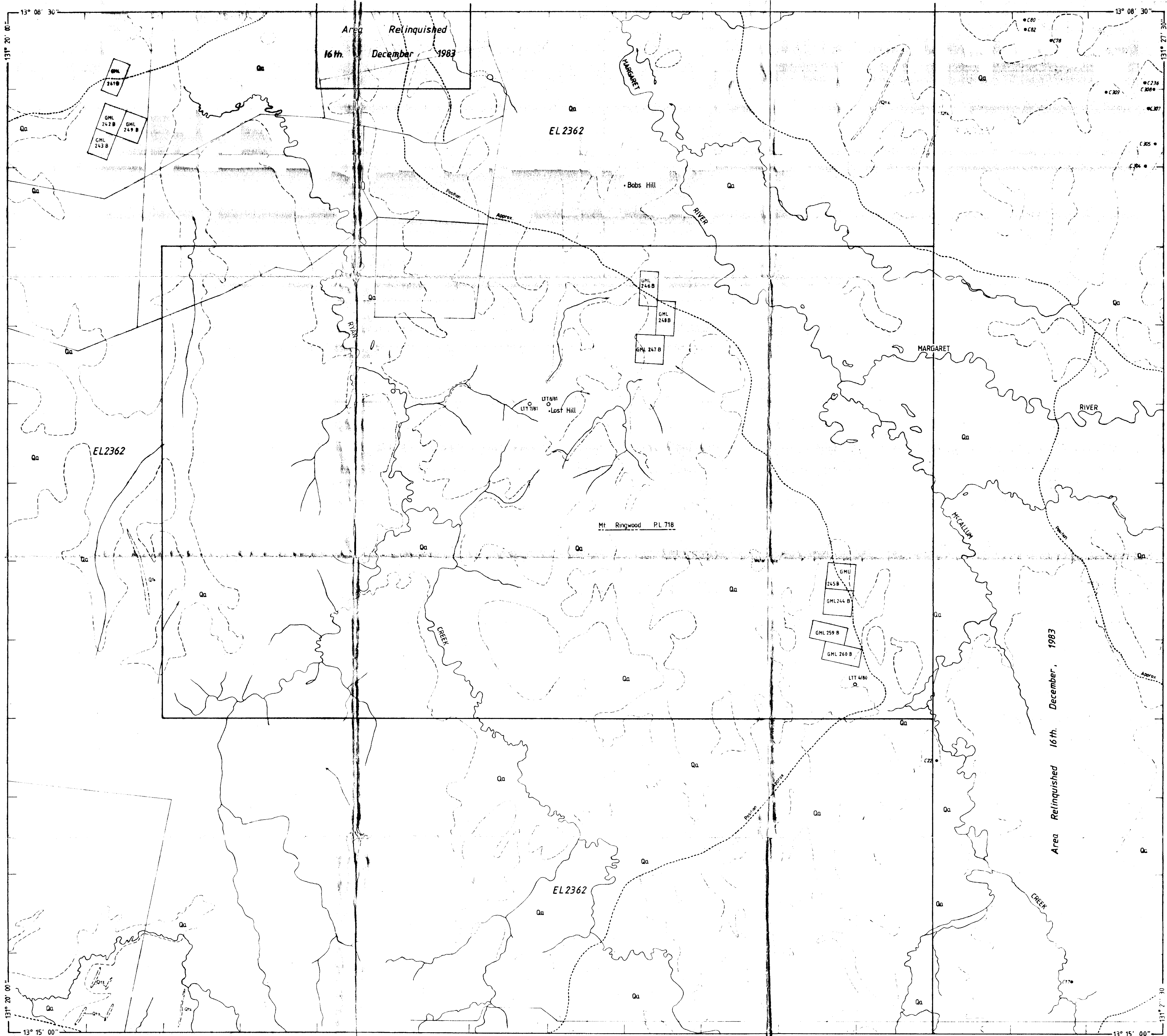


FIG. 3



Note -:

- 1981 - 82 Sample locations
- x 1983 Sample locations

ASSAY RESULTS (ppm)

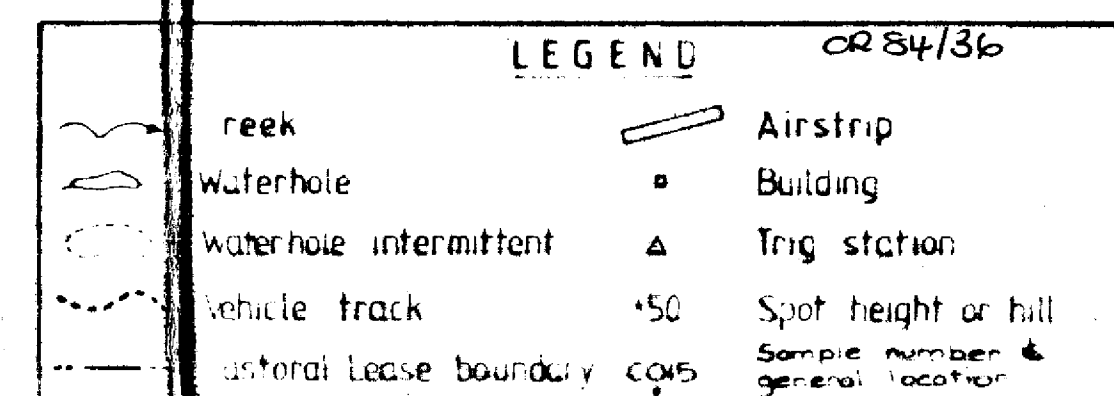
No. Element concentration is below detection limit

No.	As	Al	Pb	No.	As	Pb
17	< 0.005		304		0.013	
22	< 0.005		305		0.020	
78	< 0.005		307		0.023	
80	< 0.005		308		0.010	
82	< 0.005		309		0.317	
236	< 0.008					

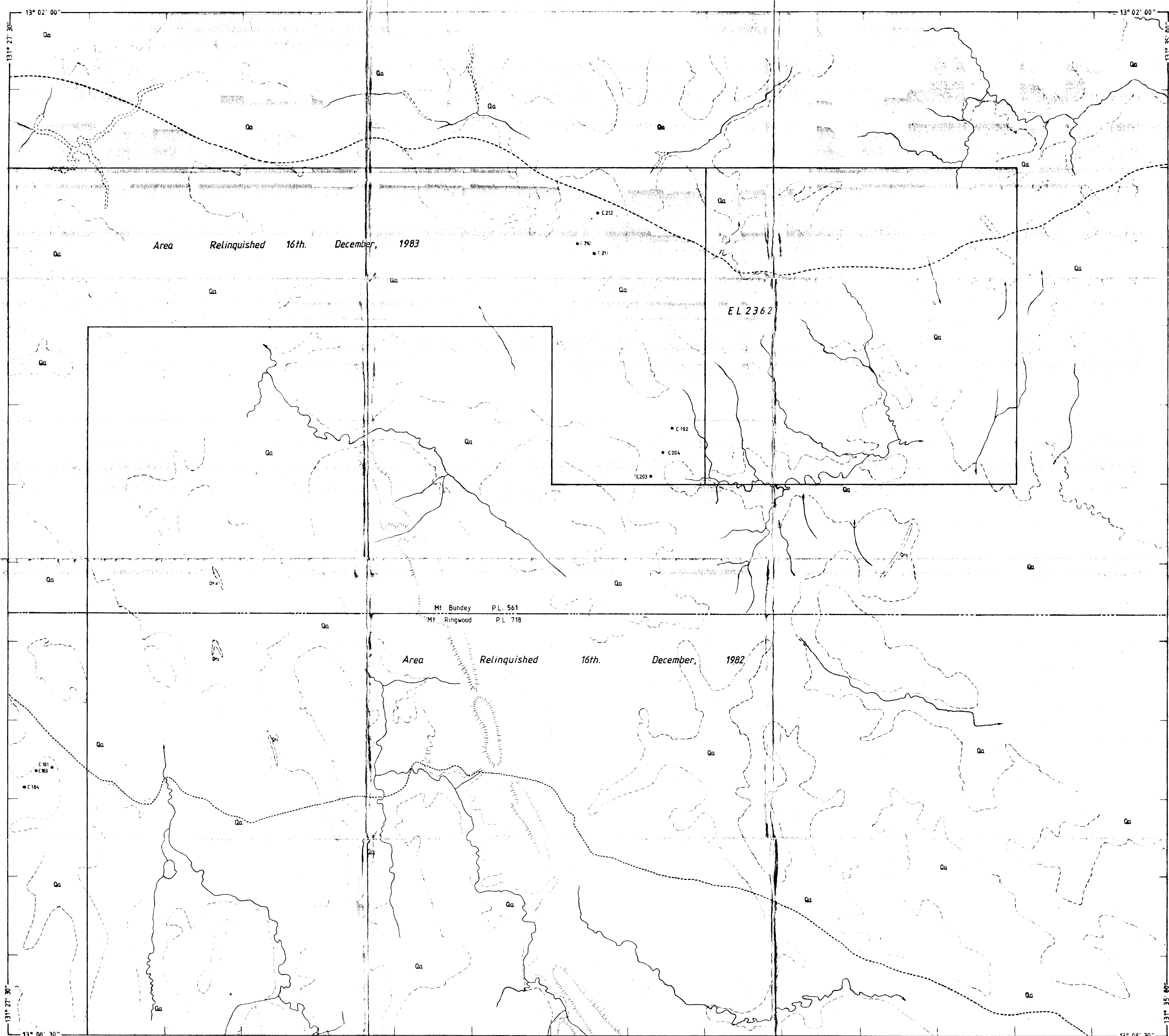
1000m. 500 0 1 2 km.

SCALE 1: 16,360

Base map prepared from 1963 aerial photography with updated information added from 1:100,000 National Mapping Topographic Series. It is to be noted locations of most tracks are approximate only. Mining Tenements are plotted from Mines Dept Tenement Maps.



W.R.GRACE AUSTRALIA LTD.
EXPLORATION LICENCE 2362
Area Relinquished December, 1983
CONSULTANT W.J. FISHER, June, 1983
Base Map compiled and drawn by N.T. Exp.
& Mining Services



ASSAY RESULTS (ppm)

No.	As	Au	Pb
181	< 0.008	< 0.175	< 0.008
183	< 0.008	< 0.175	< 0.008
184	< 0.008	< 0.175	< 0.008
192	< 0.008	< 0.175	< 0.008
203	< 0.008	< 0.175	< 0.008
204	< 0.008	< 0.175	< 0.008
210	< 0.008	< 0.175	< 0.008
211	< 0.008	< 0.175	< 0.008
212	< 0.008	< 0.175	< 0.008

Note

- 1981-82 sample locations
- x 1983 sample locations

SHEET INDEX

1 2 3 4

Area

SCALE 1:16,360

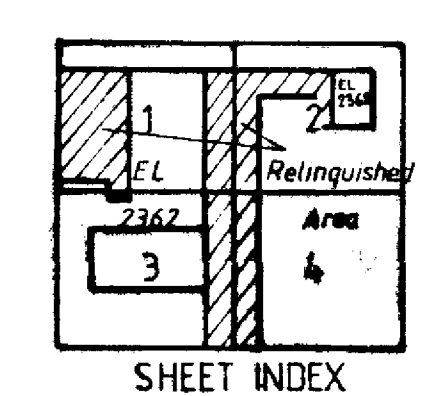
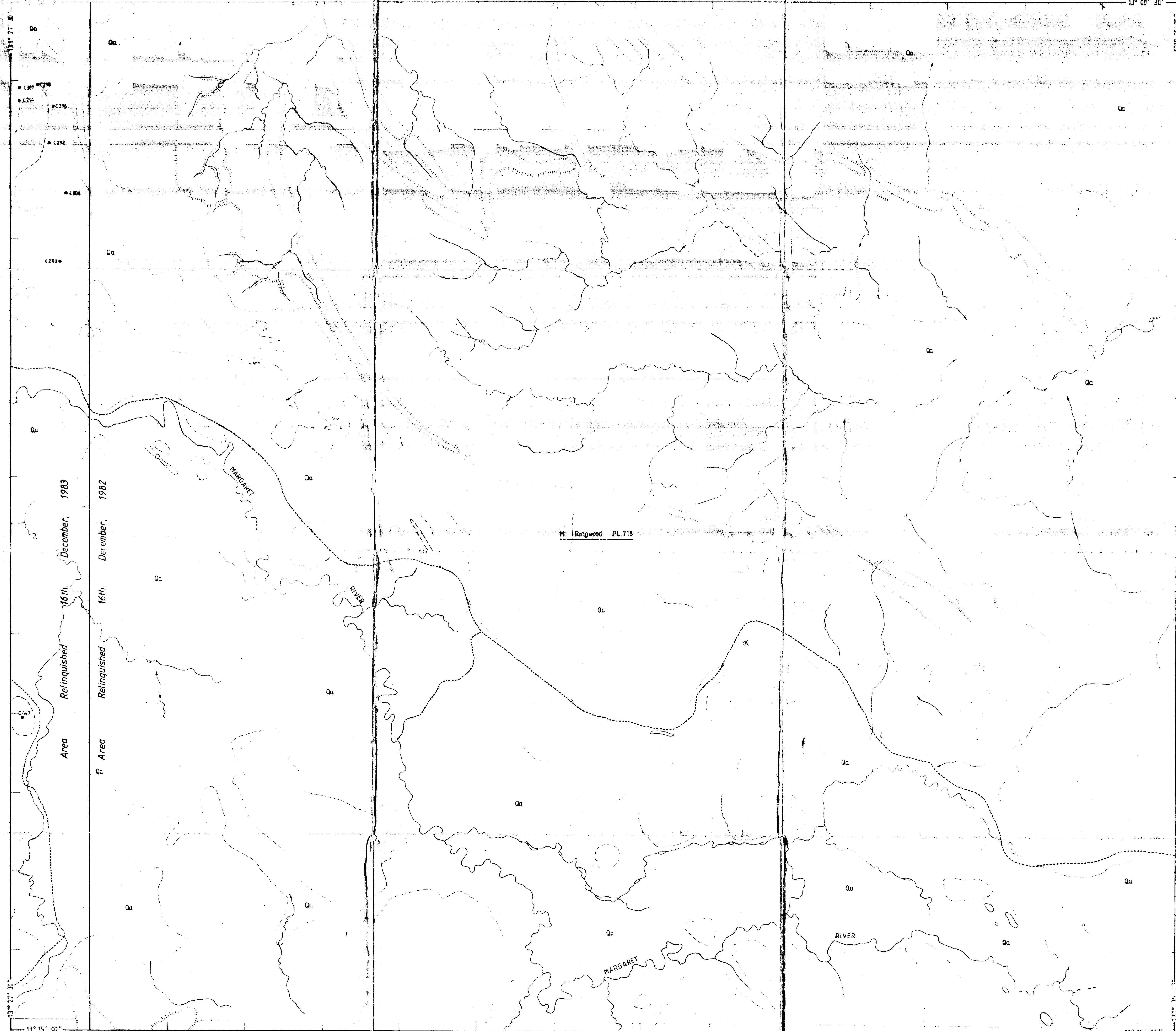
Base map prepared from 1963 aerial photography with updated information added from 1:100,000 National Mapping Topographic Series. It is to be noted locations of most tracks are approximate only. Mining Tenements are plotted from Mines Dept. Tenement Maps.

1000m 500 0 1 2 km.

LEGEND CR 84/36

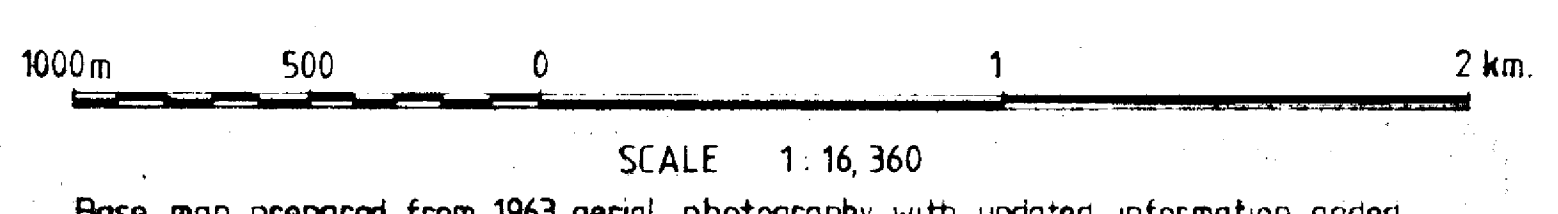
Creek	Airstrip
Waterhole	Building
Waterhole intermittent	Trig station
Vehicle track	Spot height or hill
Pastoral Lease boundary	Sample number & general location

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CONSULTANT: W.J. FISHER, June, 1983
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Plan No F/5171/36



Note:
• 1981-82 Sample locations
x 1983 Sample locations

ASSAY RESULTS (ppm)					
X = Element concentration is below detection limit					
No.	As	Au	Pb	No.	As
292	< 0.008	298	0.008	Pb	
293	0.023	306	0.008		
294	0.015	307	0.023		
296	< 0.008	447	0.008	154	



Base map prepared from 1963 aerial photography with updated information added from 1:100,000 National Mapping Topographic Series. It is to be noted locations of most tracks are approximate only. Mining Tenements are plotted from Mines Dept. Tenement Maps.

LEGEND

	Creek		Airstrip
	Waterhole		Building
	Waterhole intermittent		Trig station
	Vehicle track		Spot height
	Natural drainage boundary		General location

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CONSULTANT: W.J. FISHER, June, 1983
Base Map compiled and drawn by NT Exp. & Mining Services.
Pan No. F/5171/36