

GEOPEKO

A DIVISION OF PEKO WALLSEND OPERATIONS LIMITED
A.C.N. 000 081 434



EL 40/89 KEITH RIVER

PARTIAL RELINQUISHMENT REPORT

REPORT ON AREA RELINQUISHED IN

JUNE 1992

TCR 92-3369

MINES	
File No. EL 40/89	
- 8 JUL 1992	
Eco. Act.	
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LETTER	
3. 7. '92	
REFERS	
Folio 28	
Author	Date

Ian Mathison
June, 1992

T267

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Geopeko, Devonport
Department of Mines, Hobart

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Figure 1 Location and Access

Figure 2 Area Relinquished - June 1992

PLATES (In pockets)

Drawing	Title	Scale
2316A	Baretop - Comstaff Stream Sediment Sampling - Copper	25,000
2316B	Baretop - Comstaff Stream Sediment Sampling - Lead	25,000
2316C	Baretop - Comstaff Stream Sediment Sampling - Zinc	25,000

1.0 INTRODUCTION

1.1 Location and Access (Fig. 1)

EL 40/89, Keith River, is located in NW Tasmania approximately 15 km north of the township of Luina.

Access within the EL is very poor and is restricted to the Savage River Pipe Line Road and unsealed logging roads along the western and eastern EL boundaries respectively.

The central portion of the EL is largely inaccessible and access requires the use of cut walking tracks and helicopter support.

1.2 Tenure and Land Usage

EL 40/89 of 250 km² was granted to Peko Exploration Ltd in January 1990.

The EL consists predominantly of Crown Land with approximately 50 km² of State Forest in the northwest corner. The EL area includes part of the Savage River, Australian Heritage Commission Act, Registered Entry.

Vegetation is generally comprised of wet eucalypt forest with a thick undergrowth. Buttongrass-tea tree plains occur along north-east trending ridge tops in the centre of the EL.

1.3 Regional Geology

EL 40/89 lies within the Rocky Cape Region of NW Tasmania. The most interesting rocks in the area are those of the Precambrian Arthur Lineament. The Arthur Lineament is a north-east trending metamorphic belt consisting of highly deformed sediments, basic volcanics and dolomite. To the west of this belt lies the Rocky Cape Group, a thick shallow marine shelf sequence. The Rocky Cape Group contains Precambrian dolerite/gabbro dykes which have been emplaced into north-north west trending faults. Rocks assigned to the Precambrian Burnie Formation outcrop east of the Arthur Lineament. Within EL 40/89, interbedded siltstone and quartz wacke predominate with at least one dolomitic siltstone unit mapped. Close to the Arthur Lineament, these rocks have been metamorphosed to schistose metasediments and phyllitic metasiltsstone.

The south eastern corner of the Arthur River Project Area is underlain by rocks of the Cleveland-Waratah Association that lie within the Dundas Trough. These rocks have been correlated with the Crimson Creek Formation and consist of basaltic, andesitic and tholeiitic lavas and volcaniclastic sediments of Eo-cambrian to Cambrian age.

The Precambrian-Cambrian rocks along the eastern edge of the area are in places overlain by Permian fluvio-glacial sediments and/or Tertiary basalt.

1.4 Known Mineral Deposits/Occurrences

There are a number of metallic mineral occurrences adjacent to the western, eastern and southern EL boundaries of Geopeko's Arthur River Project. (Green et Al 1988).

The deposits range from small, relatively insignificant workings, e.g. Victory Mine, Atlas Leases to large world class ore bodies e.g. Mt Bischoff, Savage River. In most cases, extensions of the prospective host formations can be continued into Geopeko's Arthur River EL's.

1.5 Previous Exploration

Geopeko report T250 (Virgoe and Mathison, 1990), summarizes previous exploration and details the results of Geopeko's 1990 exploration. Report T260 (Mathison, 1991) reports 1991 exploration.

1.6 Scope of this report

The aim of Geopeko's exploration of EL 40/89, was to use water sampling, rock chip sampling, geological mapping and the results of previous exploration to delineate prospective and geochemically anomalous areas within the EL. Areas worthy of further investigation were to be followed up with more detailed exploration.

Due to major problems with the DMR's analytical techniques for stream water geochemistry, little work was carried out in EL 40/89 in 1991. It was felt necessary to suspend exploration until these problems were corrected and consequently a waiver of expenditure commitment was sought and granted. Reconnaissance water sampling recommenced in December 1991 and was completed in February 1992. A temporary extension of the licence was negotiated to allow the results of 1992 sampling to be evaluated. A large part of the Arthur River Project area was selected for relinquishment after this interpretation. This report summarizes Geopeko's exploration activity in the relinquished portion of EL 40/89 from January 1990 to June 1992. The area to be relinquished is shown by figure 2

2.0 GEOPEKO'S EXPLORATION ACTIVITY IN THE RELINQUISHED AREA

2.1 January 1990 to November 1990 (Virgoe & Mathison 1990)

Previous regional exploration in the area was reviewed. Dr. D. Leaman completed an interpretation of public domain aeromagnetic and gravity data. Several magnetic features were identified as worthy of further exploration. No field work was attempted in EL 40/89.

2.2 December 1990 to November 1991 (Mathison 1991)

Because of the problems with water analyses, no water sampling was attempted. Stream samples (-80#) were collected from accessible areas and rock chip samples were collected from selected traverses. This work was undertaken in the part of EL 40/89 retained and is not reported here.

2.3 December 1991 to June 1992

Water Geochemistry

Water sampling was conducted in that part of the area retained. No field work was attempted in the relinquished area.

Comstaff Stream Sediment Geochemistry (Drawings 2316A, B, C)

Results of Comstaff's regional stream sediment (-80#) and panned concentrate sampling were obtained from the Mines Department, computerized and plotted on 1:25000 bases. Because of the different bases used by Comstaff and Geopeko there is a systematic shift of sample locations from the stream sampled of 200-300 metres. Rectification has not yet been attempted. The existing maps are quite useful and major drainage systems can be identified easily.

Fifteen of the fifty-six stream sediment samples collected by Comstaff from the Baretop sheet lie within the relinquished portion of EL 40/89.

Copper (2314A) Fifteen stream sediments were assayed from the Baretop 1:25000 sheet. None is anomalous (Range 2-25ppm).

Lead (2314B) No samples were assayed.

Zinc (2314C) None of the 15 samples is anomalous for Zn (Range 2-100ppm).

3.0 CONCLUSIONS

- * Geopeko's exploration has not tested the area relinquished.
- * Further exploration in this area will require helicopter support and the cutting of several walking tracks.
- * Available funds do not permit the exploration of all parts of EL 40/90.
- * Stream sediment sample coverage of the relinquished area is inadequate.

4.0 RECOMMENDATIONS

The size of EL 40/89 should be reduced by over 50%. Further field work should concentrate on those areas already tested.

5.0 ENVIRONMENTAL DISTURBANCE AND REHABILITATION

Exploration conducted by Geopeko between 1990 and 1992 has caused minimal environmental disturbance. Semi permanent samples markers left at sample sites are considered to be valuable reference points for future exploration. Walking tracks were cut to DMMR guidelines and should regenerate naturally. No rehabilitation has been necessary.

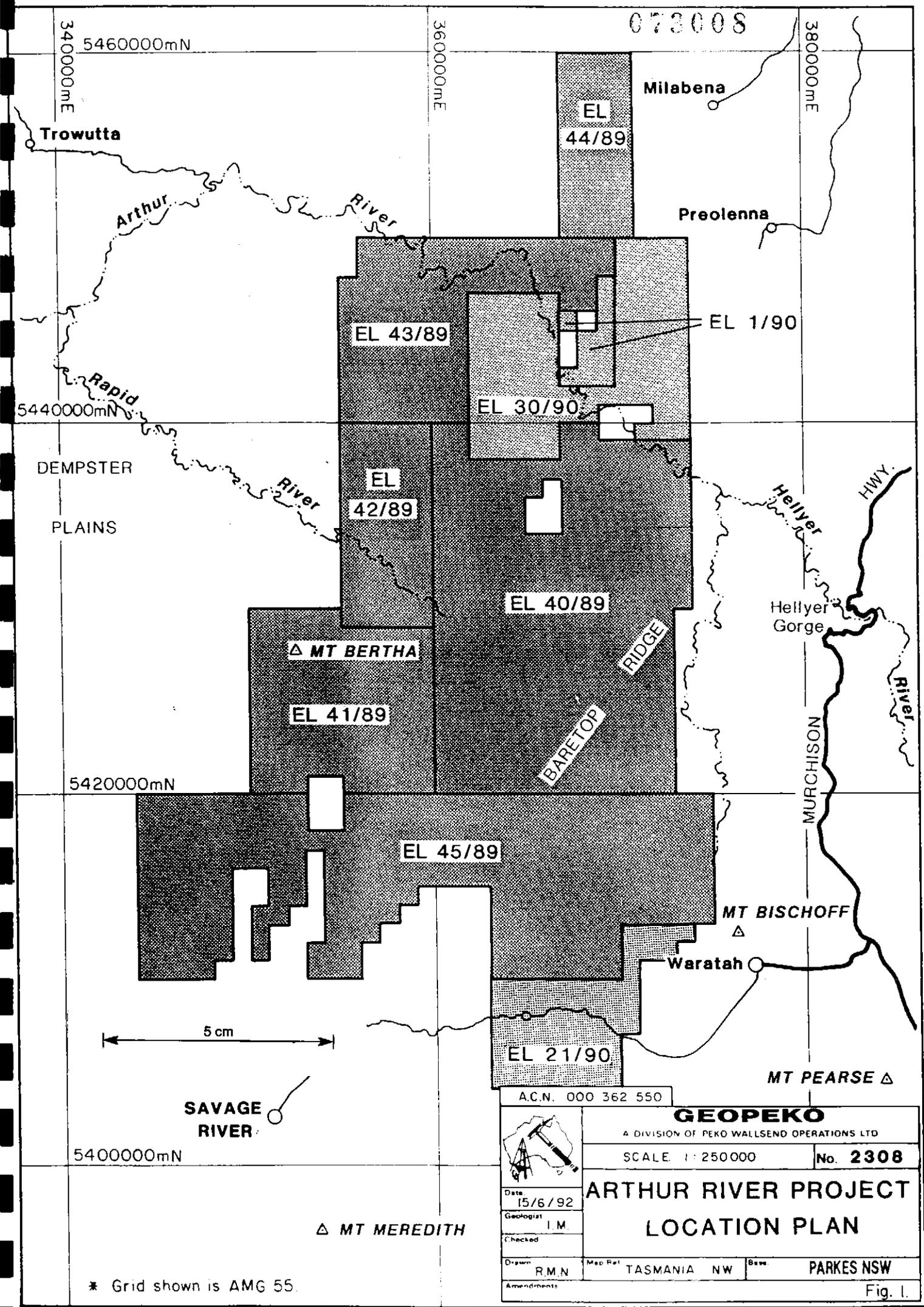
Jan Mathison

REFERENCES

GREEN, G.R., BOTTRILL, R.S., BACON, C.A., TURNER, N.J. (1988) - Mineral Deposits and Metallogenic Map of Tasmania 1:50 000, Tas. DMMR

MATHISON, I.J., VIRGOE, K. (1990) Keith River - Report on Exploration Activity - January 1990 to November 1990. Unpublished Geopeko report T250.

MATHISON, IAN (1991) EL 40/89 - Keith River - Report on Exploration Activity December 1990 to November 1991. Unpublished Geopeko report T260.



073008

340000mE
5460000mN

360000mE

380000mE

Trowutta

Milabena

EL 44/89

Arthur River

Preolenna

EL 43/89

EL 1/90

5440000mN

EL 30/90

DEMPSTER PLAINS

EL 42/89

EL 40/89

△ MT BERTHA

RIDGE

Hellyer Gorge

EL 41/89

BARETOP

MURCHISON HWY

5420000mN

EL 45/89

MT BISCHOFF △

Waratah

5 cm

EL 21/90

MT PEARSE △

SAVAGE RIVER

A.C.N. 000 362 550

GEOPEKO

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SCALE 1:250000

No. 2308



**ARTHUR RIVER PROJECT
LOCATION PLAN**

Date 15/6/92

Geologist I M

Checked

Drawn R.M.N

Map Ref TASMANIA NW

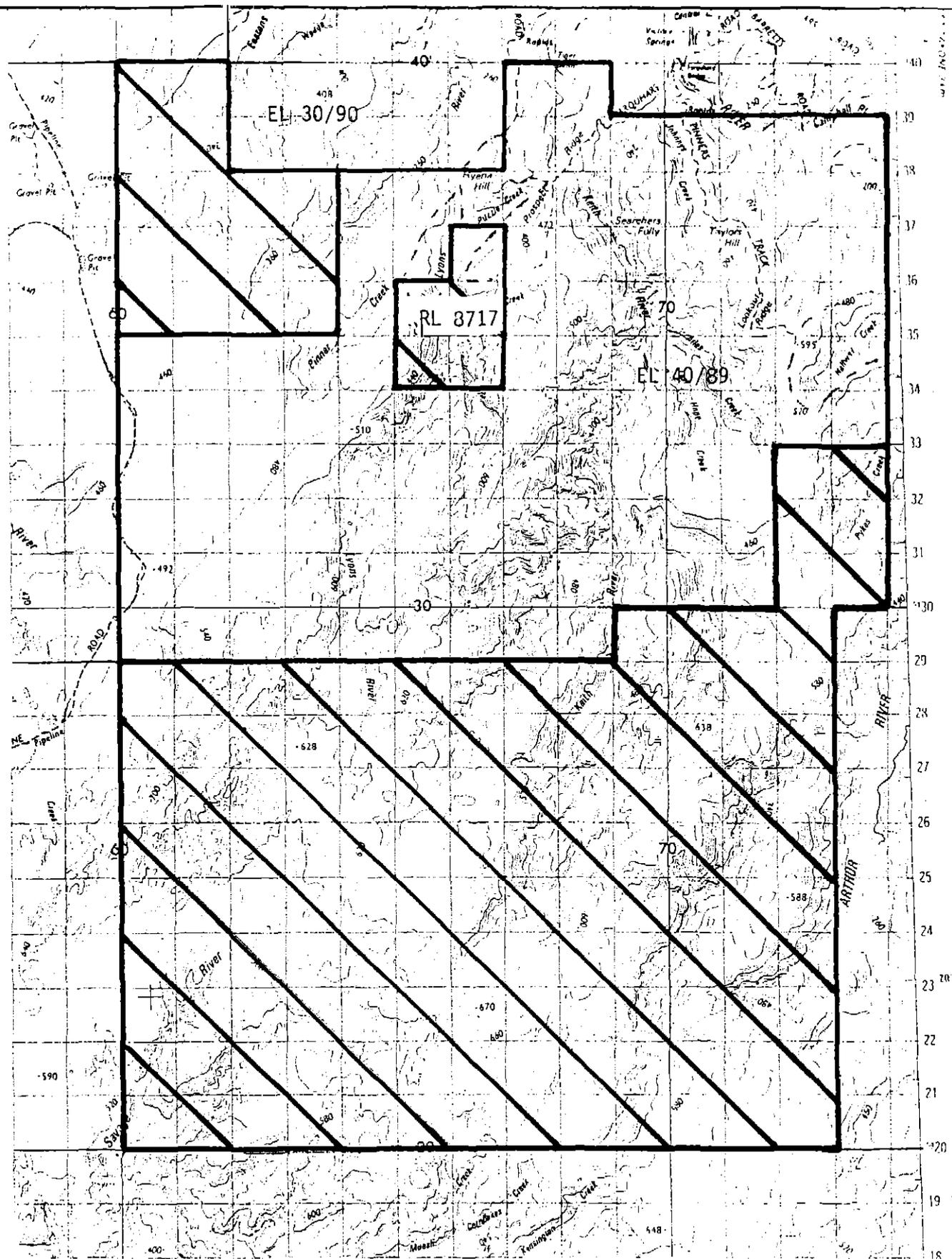
Base PARKES NSW

Amendments

Fig. 1.

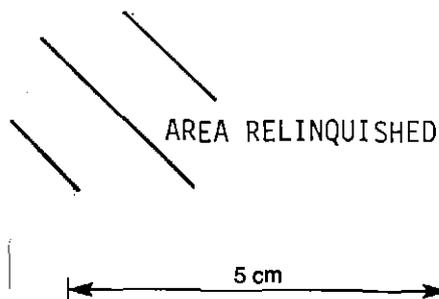
* Grid shown is AMG 55

△ MT MEREDITH

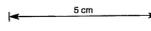
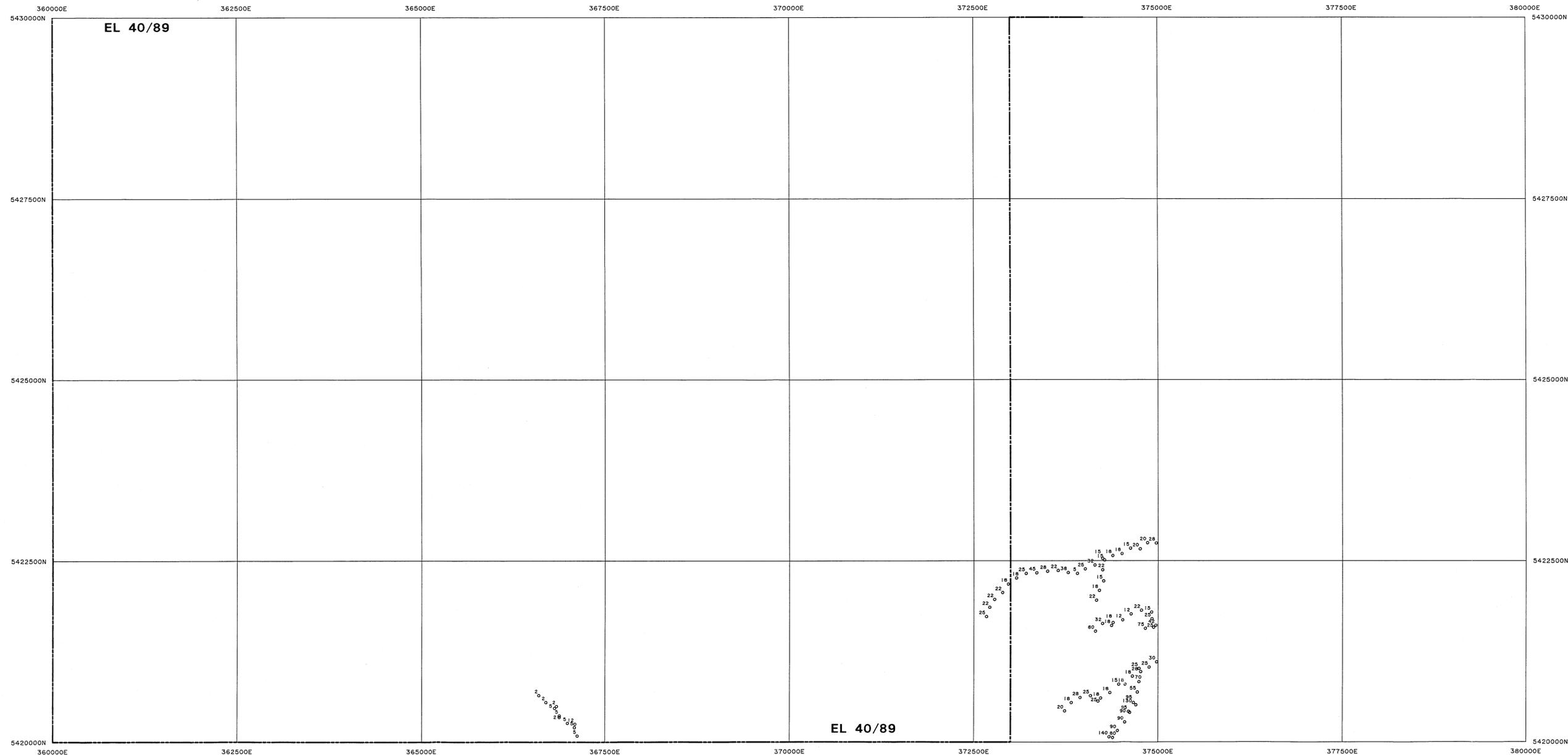


Scale 1: 100 000

073009



	GEOPEKO A DIVISION OF PEKO	
	A.C.N. 000 081 434 WALLSEND OPERATIONS LTD	
EL 40/89 - KEITH RIVER		
AREA RELINQUISHED		
JUNE 1992		
Geo.		
Date.		
App.		
Drawn.	Base DEVONPORT TAS.	No Fig. 2



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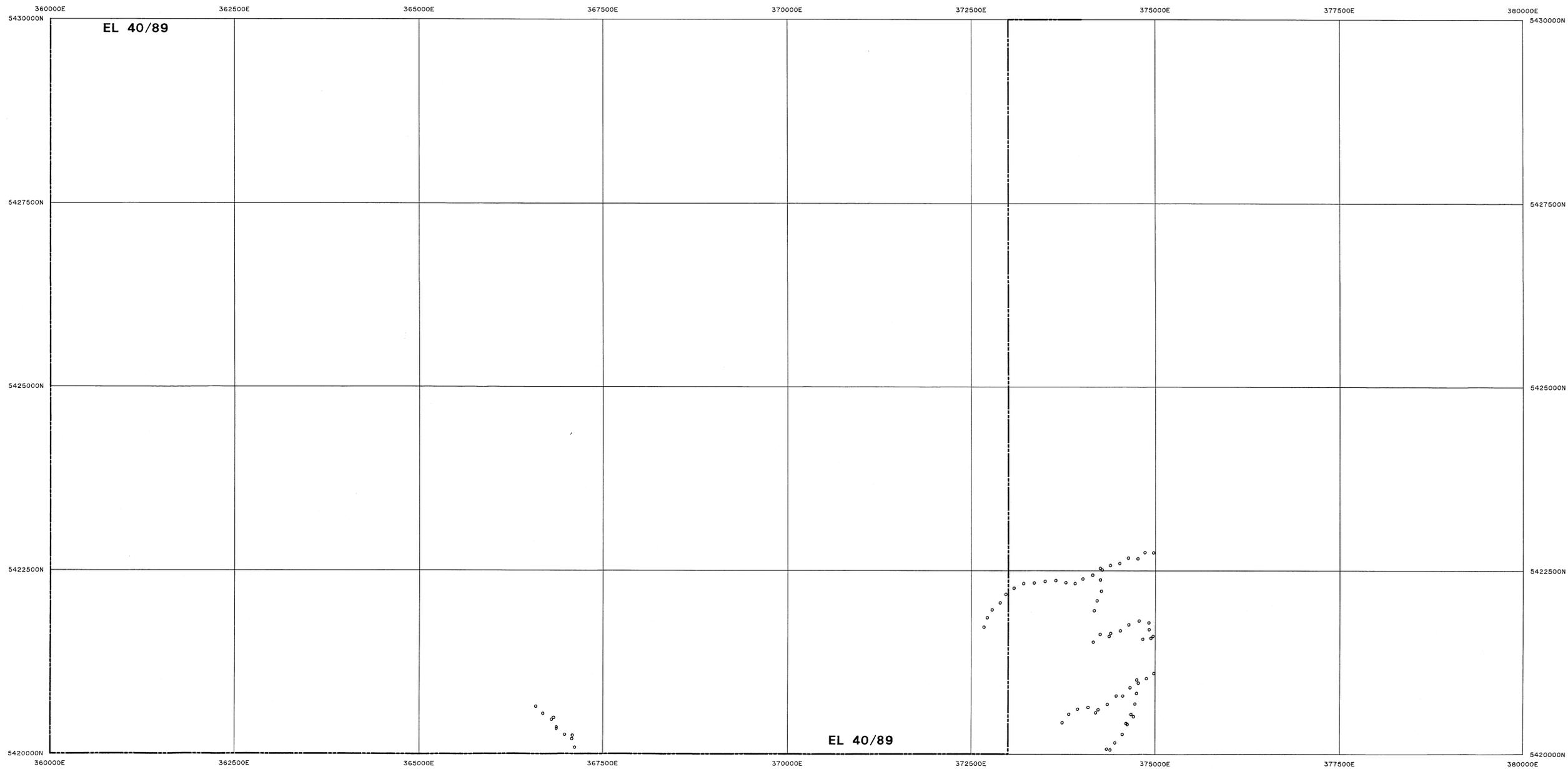
SAMPLE LEGEND

- Location of Panned Concentrate sample
 - Location of Stream Sediment sample
- Note: 9999 equals >10000ppm

1:25000 SHEET LAYOUT

3443	3643	3843
3442	3642	3842
3441	3641	3841

		GEOPEKO		<small>A DIVISION OF PEKO WALLSEND OPERATIONS LTD A.C.N. 000 081 434</small>
		Scale 1:25000 		Project / Towns
Gen. Client. Carto.	D. G. R. M. N.	BARETOP 3642 COMSTAFF STREAM SEDIMENT SAMPLING COPPER (ppm)		
Checked Date Appended	25/6/92	Job No. 201_92 100% Sheet 7915	DWG No. 2316A	



073010
5cm

92-3369

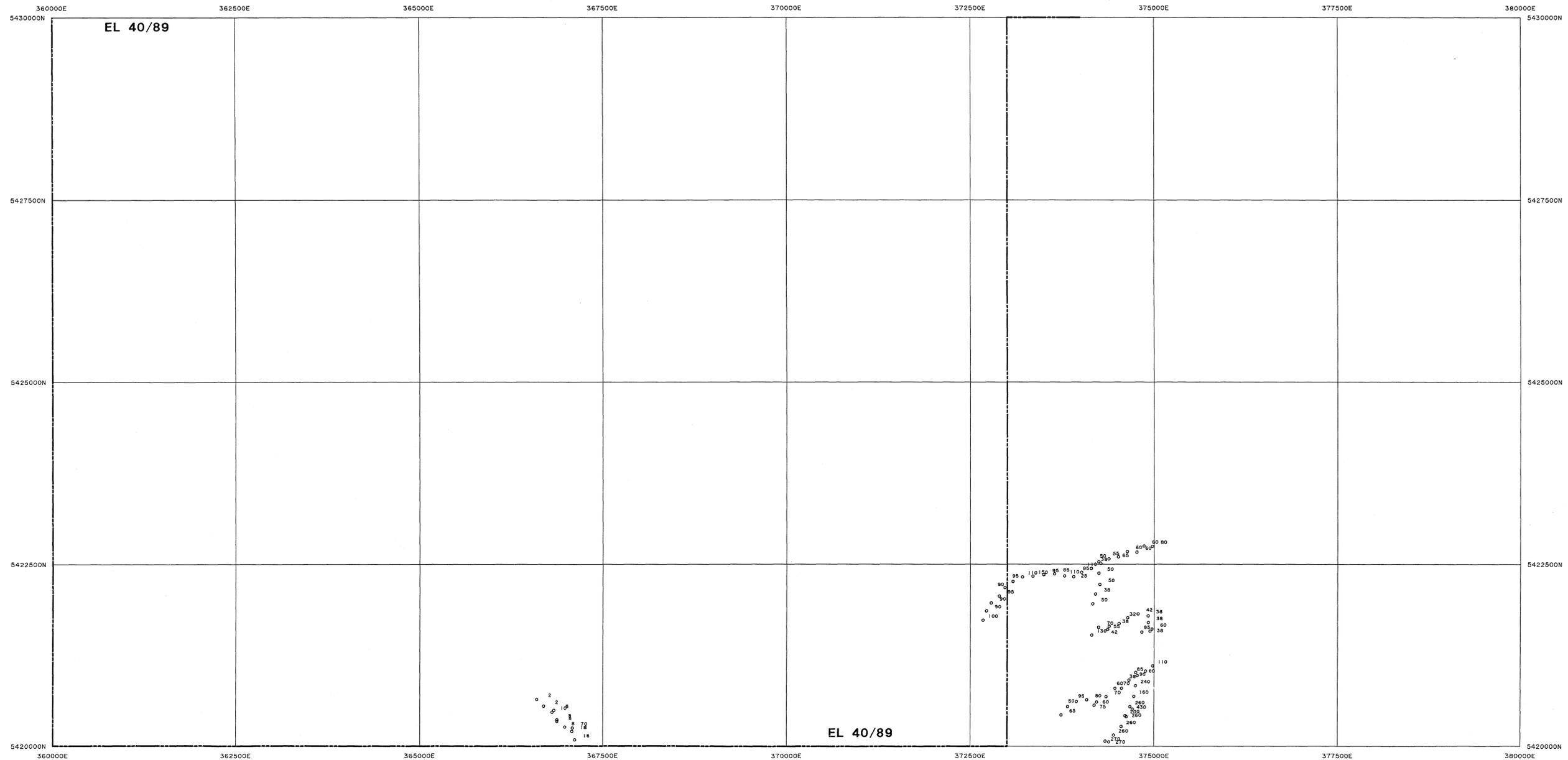
SAMPLE LEGEND

- Location of Panned Concentrate sample
 - Location of Stream Sediment sample
- Note: 9999 equals >10000ppm

1:25000 SHEET LAYOUT

3443	3643	3843
3442	3642	3842
3441	3641	3841

		GEOPEKO	
		A DIVISION OF PEKO WALLSEND OPERATIONS LTD A.C.N. 000 086 434	
Scale		1:25000	
Project / Tenure			
Geo. Client	D. G.		
Carto.	R. M. N.		
Checked		BARETOP 3642	
Date	25/6/92	COMSTAFF STREAM SEDIMENT SAMPLING	
Appended		LEAD (ppm)	
Job No.	201_92	Book Sheet	7915
		DWG No. 2316B	



073012

92-3369

SAMPLE LEGEND

- Location of Panned Concentrate sample
 - Location of Stream Sediment sample
- Note: 9999 equals >10000ppm

1:25000 SHEET LAYOUT

3443	3643	3843
3442	3642	3842
3441	3641	3841

		GEOPEKO	
		Scale 1:25000 500 0 500 1000 1500 2000 2500m	
Geo. Client.	D. G.	Project / Tenure	
Carto.	R. M. N.	BARETOP 3642 COMSTAFF STREAM SEDIMENT SAMPLING ZINC (ppm)	
Checked			
Date	25/6/92		
Appended			
Job No.	201_92	IOO: Sheet	7915
		DWG No.	2316C