

GEOPEKO

A DIVISION OF PEKO WALLSEND OPERATIONS LIMITED

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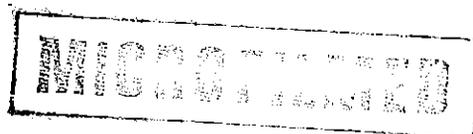
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EL 44/89 WEDGE PLAINS

REPORT ON
EXPLORATION ACTIVITY
DECEMBER 1990 TO NOVEMBER 1991

92-3332

MINES	
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Ian Mathison
December, 1991

T264

Distribution: Geopeko, Parkes
Geopeko, Devonport
DMMR, Hobart

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1.0 INTRODUCTION

1.1 Location and Access (Fig. 1)

EL 44/89, Wedge Plains, is located in NW Tasmania approximately 20 km to the south of the coastal town of Smithton.

Access within the EL is very good and is provided by a network of unsealed logging roads and by the Savage River Pipe Line Road. Secondary access is provided by 4WD and walking tracks. The Arthur River cuts across the southern half of the EL and is navigable by raft during the summer months.

1.2 Tenure and Land Usage

EL 44/89 of 250 km² was granted to Peko Exploration Ltd in January 1990. The EL was reduced to 40 km² in December 1990.

1.3 Regional Geology

Geopeko's block of Arthur River ELs lies within the Rocky Cape Region of NW Tasmania. The oldest 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.

EL 44/89 is underlain by the Rocky Cape Group.

Rocks assigned to the Oonah Formation and the Cleveland Waratah Association lie to the east of the Arthur Lineament. The Precambrian Oonah Formation is predominantly comprised of turbiditic quartz wacke and siltstone. The south eastern corner of the 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.

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 northern 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 T253 (Virgoe and Mathison, 1990), summarizes previous exploration in the area and details results of Geopeko's 1990 exploration program.

2.0 EXPLORATION ACTIVITY

2.1 Exploration Creek

Work Completed

Low level anomalous gold in water reported by the Huminex method was supported by neutron activation analysis. This anomaly was followed up by stream sediment sampling and rock chip sampling. Eight stream sediment samples and seven rock chip samples were collected.

Geochemistry - Stream Sediments (Appendix 1)

Sample 21072, taken from the site of the anomalous water sample, reported 344 ppm Cu, 211 ppm Pb, 973 ppm Zn and 0.115 ppm Au. This was apparently supported by detectable gold in rock chip samples. However, a repeat stream sediment sample 21234, was not anomalous in any element. Stream sediments taken upstream from 21072 also reported weakly anomalous gold. The reliability of these results is uncertain.

Geochemistry - Rock Chips

Four of the seven rock chips collected from Exploration Creek reported detectable gold (0.015 - 0.025 g/t). All other elements determined (Cu, Pb, Zn) were very low.

Geology

Rocks exposed in Exploration Creek comprise siliceous quartzites and siltstones of the Detention Quartzite. Quartz veining is common in some areas.

2.2 Regional Water Sampling and Follow Up

Due to major problems with the DMMR's analytical techniques for stream water geochemistry, proposed exploration for 1991 was not completed. It was felt necessary to suspend exploration until these problems were corrected and consequently a waiver of expenditure commitment was sought.

3.0 CONCLUSIONS

* This project continues to be plagued by analytical problems and laboratory errors.

* Stream sediment samples in Exploration Creek were collected by different samplers using different sampling techniques. Nevertheless, a laboratory error is the most likely explanation for the stream sediment anomaly.

4.0 RECOMMENDATIONS

Stream sediment samples should be collected from Exploration Creek and nearby drainage systems. If these are not anomalous, EL 44/89 should be relinquished.

If an effective method of water analysis is developed, repeat sampling of selected streams should be completed.

5.0 ENVIRONMENTAL DISTURBANCE AND REHABILITATION

Exploration conducted by Geopeko during 1991 has caused no environmental disturbance. Semi permanent samples markers left at sample sites are considered to be valuable reference points for future exploration. No rehabilitation has been necessary.

REFERENCE:

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

HATHISON, I.J., VIRGOE, K. (1990) - Wedge Plains EL 44/89-
Report on Exploration Activity - January 1990 to November 1990.
Unpublished Geopeko report T253.

APPENDIX 1

GEOCHEMISTRY - ANALYTICAL RESULTS

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SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

21072/79

SS Prep: 6P005,6P007

Cu,Pb,Zn,Fe,Mn/61222

21072/79

SS Prep: 6P005,6P007

Au,Au(R),Au(S)/66313,Au/RAW,Au/Wt

RESULTS

TO

Miss Katrina Virgoe
Geopeko
P.O. Box 180
Rosebery
Tasmania 7470

RESULTS

TO

RESULTS

TO

REMARKS

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SAMPLE PREFIX		REPORT NUMBER				REPORT DATE	CLIENT ORDER No.		PAGE	
		106480.60.07646				05/02/91	50070		1 OF 1	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Fe	Mn	Au			
1	21072	344.00	211.00	973.00	2970	206.00	0.115			Explosives
2	21073	29.30	72.40	196.00	1170	27.50	0.040			44/99
3	21074	9.22	18.40	50.00	453	17.10	0.015			
4	21075	7.38	13.30	31.60	317	10.30	0.015			
5	21076	6.25	3.49	19.30	375	8.52	0.015			
6	21077	10.60	15.40	37.10	259	10.50	0.050			
7	21078	3.84	3.31	23.20	433	8.92	<0.005			
8	21079	7.47	10.20	41.90	414	12.10	0.030			
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20										
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22										
23	DETECTION	2.00	3.00	2.00	100	0.50	0.005			
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm			
25	METHOD	GI222	GI222	GI222	GI201	GI222	GG313			

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure ICP
 X = element concentration is below detection limit
 -- = element not determined

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4

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

21207,21229,21232,21234

SS Prep: 6P007

Cu,Pb,Zn,Fe,Mn/6A101

21207,21229,21232,21234

SS Prep: 6P007

Au,Au(R),Au(S)/66313,Au/RAW,Au/Wt

RESULTS

TO

Mr Ian Mathison
Geopeko
P.O. Box 180
Rosebery
Tasmania 7470

RESULTS

TO

RESULTS

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21/02/91

50073

1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Fe	Mn	Au			
1	21207	75	30	115	3.70	605	<0.005		1/90	Exam. 1/90
2	21229	20	15	160	3.80	650	<0.005		"	"
3	21232	30	10	95	3.32	665	<0.005		23/89	Exam. 2/89
4	21234	25	15	10	0.16	40	<0.005		24/89	Exam. 2/89
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23	DETECTION	5	5	5	0.01	5	0.005			
24	UNITS	ppm	ppm	ppm	%	ppm	ppm			
25	METHOD	GA101	GA101	GA101	GA101	GA101	GC313			

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
21206, 21228, 21231, 21233	SS	Au/66350
21206, 21228, 21231, 21233	SS	Au(R)/66350

BLEG

RESULTS TO

Mr Ian Mathison
Geopeko
P.O. Box 180
Rosebery
Tasmania 7470

RESULTS TO

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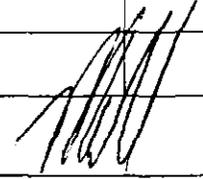
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CLIENT ORDER No.

PAGE

TUBE No.	SAMPLE No.	AU	AU(R)						
		106480.60.07731		21/02/91		50074		1 OF 1	
	21206	0.21	--					1/90	Trig Cannock
2	21228	0.17	--					1/90	Trig Cannock
3	21231	0.23	--					42/89	Cannock
4	21233	0.11	0.08					41/89	Exploration Creek
5									
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22									
23	DETECTION	0.05	0.05						
24	UNITS	ppb	ppb						
25	METHOD	GG350	GG350						

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 -- = element not determined

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7

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

21444/46,21080/83

RC Prep: 6P005,6P009,6P016

Cu,Pb,Zn/6A101

21444/46,21080/83

RC

Au,Au(R),Au(S)/66313,Au/RAW,Au/Wt

RESULTS

TO

Miss Katrina Virgoe
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P.O. Box 180
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Tasmania 7470

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Janet

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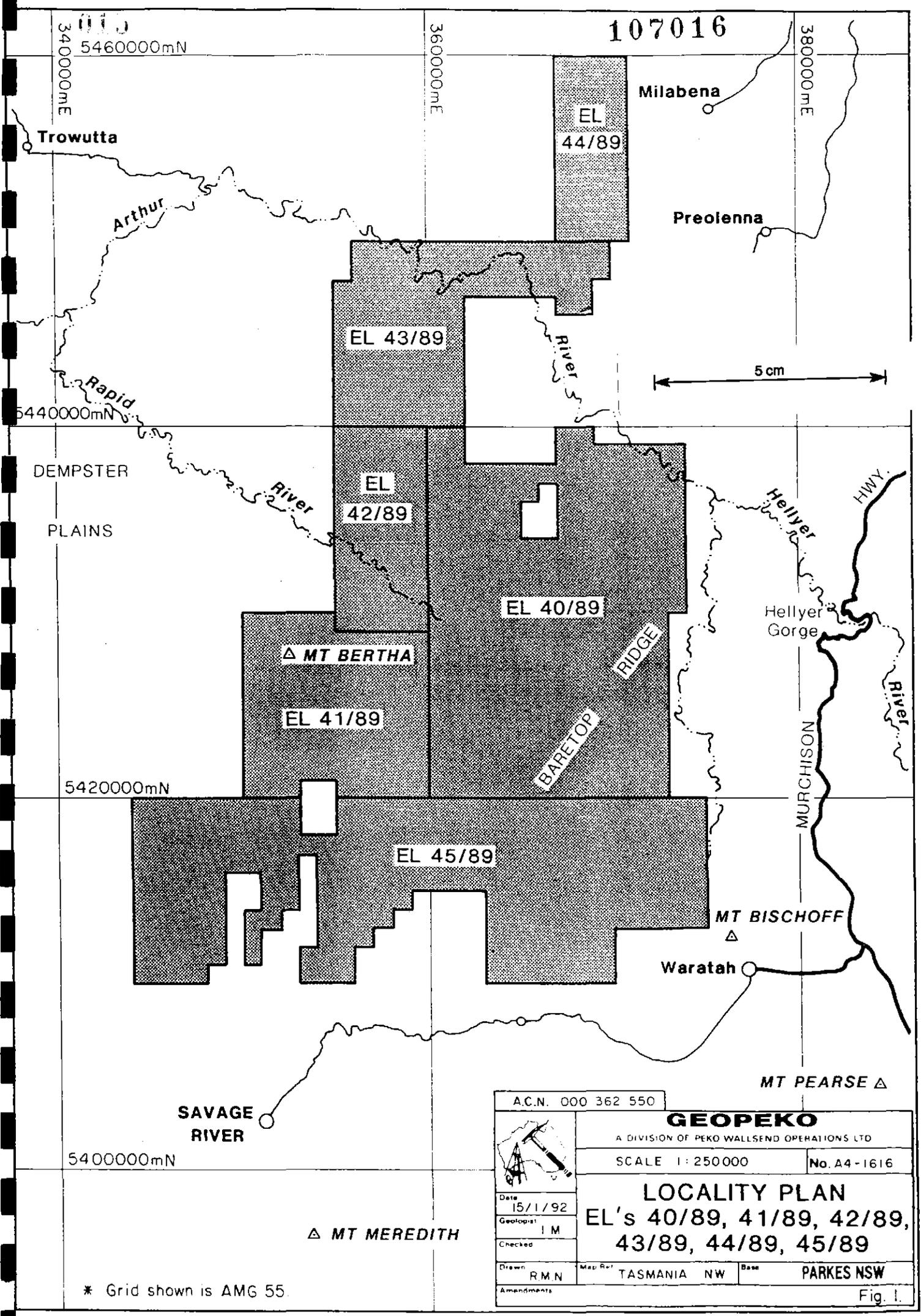
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BE No.	SAMPLE No.	Cu	Pb	Zn	Au					
1	21080	<5	25	5	0.015				Exp 10/89 Crdr	
2	21081	<5	25	<5	<0.005					
3	21082	5	10	5	<0.005					
4	21083	5	20	5	0.015					
5	21444	5	20	<5	<0.005					
6	21445	5	25	5	0.015					
7	21446	5	25	5	0.025					
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22										
23	DETECTION	5	5	5	0.005					
24	UNITS	ppm	ppm	ppm	ppm					
25	METHOD	GA101	GA101	GA101	GG313					

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 -- = element not determined

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107016

340000mE
5460000mN

360000mE

380000mE

Trowutta

Milabena

Preolenna

Arthur River

EL 44/89

EL 43/89

5 cm

DEMPSTER PLAINS

EL 42/89

EL 40/89

Δ MT BERTHA

RIDGE

EL 41/89

BARETOP

Hellyer Gorge

5420000mN

EL 45/89

MT BISCHOFF

Waratah

MT PEARSE Δ

SAVAGE RIVER

5400000mN

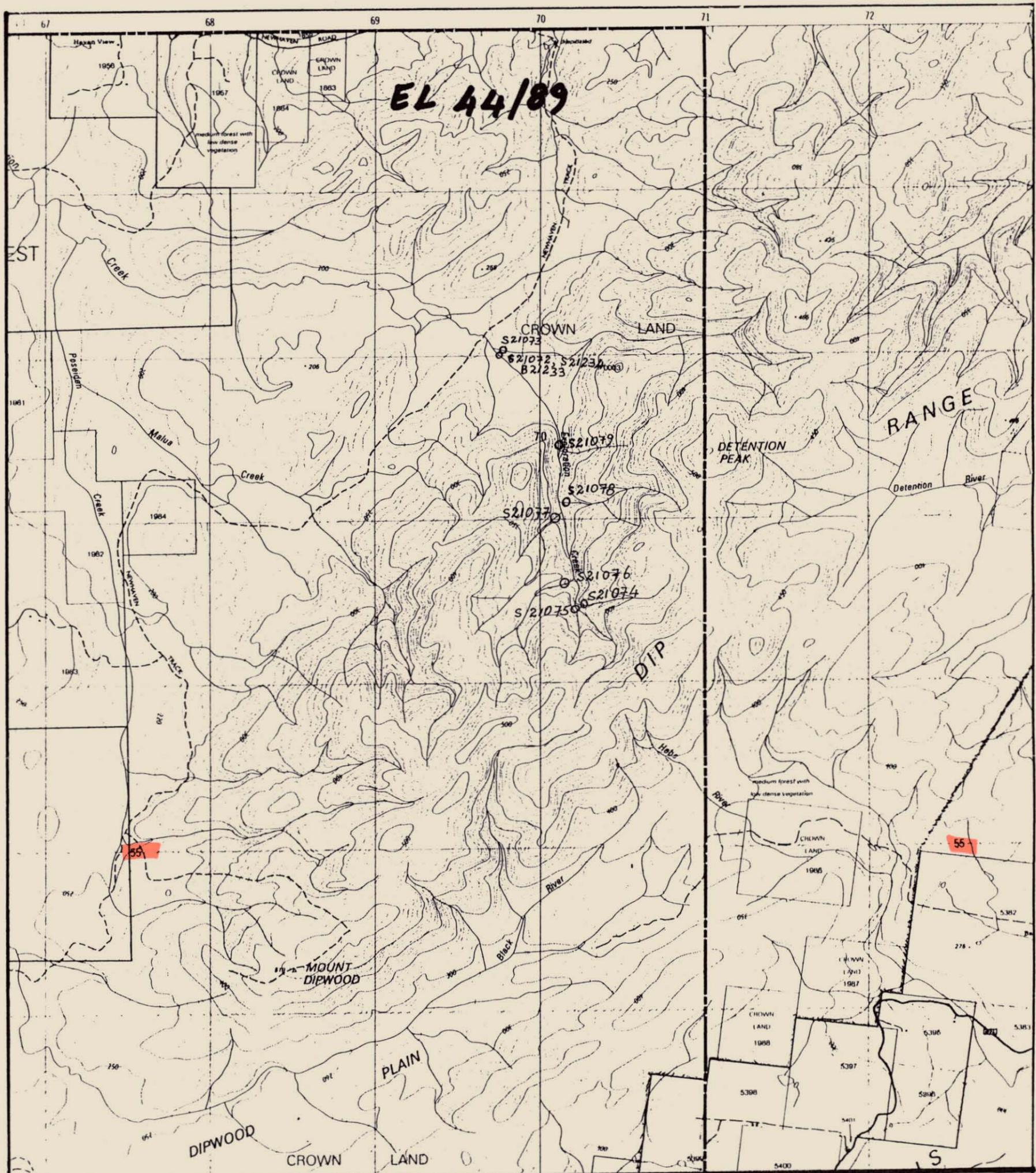
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EL's 40/89, 41/89, 42/89, 43/89, 44/89, 45/89			
Date	15/1/92	Geologist	I M
Checked		Drawn	R M N
Map Ref	TASMANIA NW	Base	PARKES NSW
Amendments			

* Grid shown is AMG 55

Fig. 1.

107017



5 cm

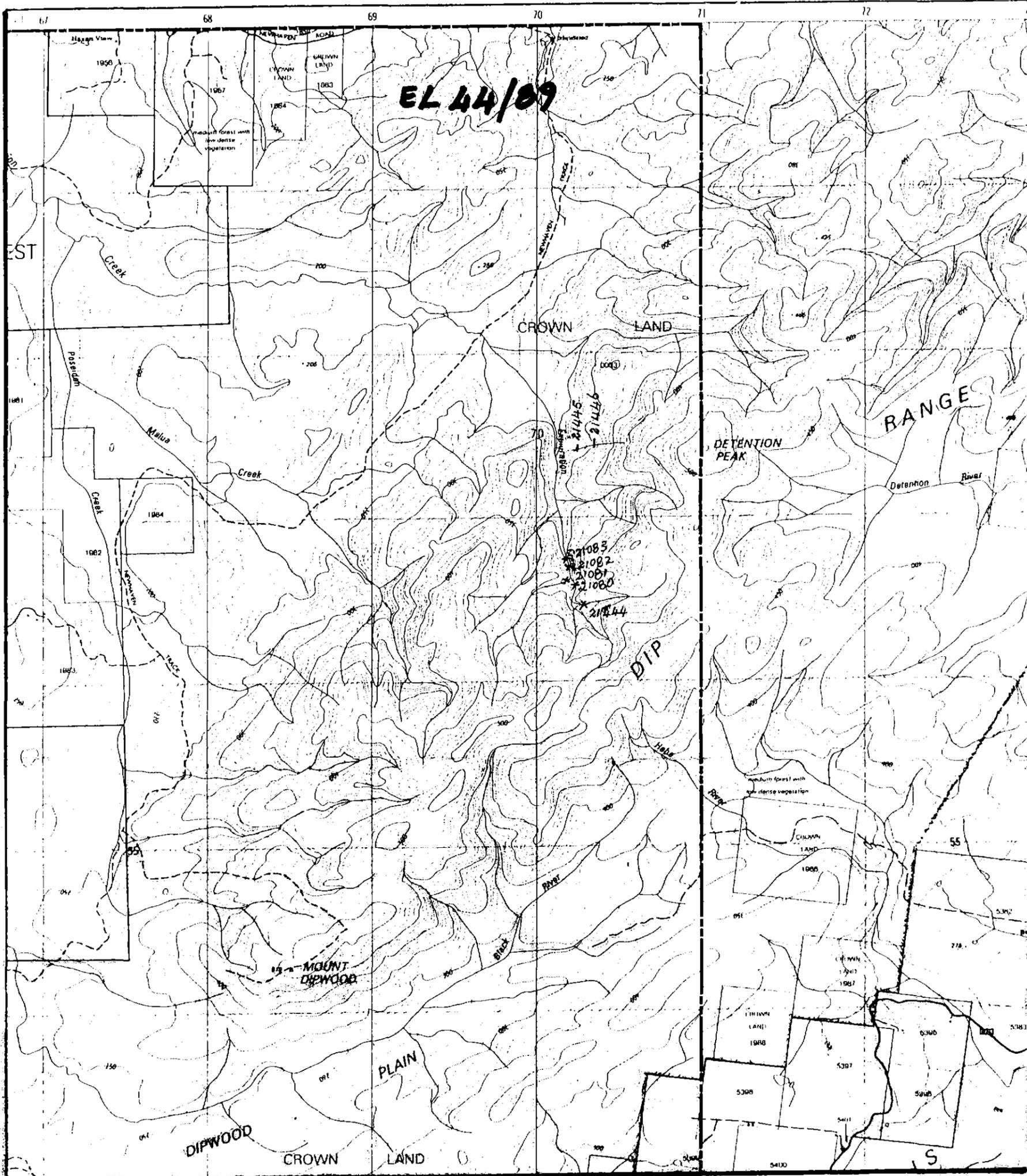
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S21075 -80# sample
 B21233 BLEG sample

92-3332.

	GEOPEKO	
	A DIVISION OF PEKO WALLSEND OPERATIONS LTD	
	EL 44/89 WEDGE	No FIG 2
	EXPLORATION CREEK STREAM SEDIMENT SAMPLING.	
Date: 13/1/92		
Geologist: MAT		
Checked:		
Drawn:	Map Ref:	Base: Milabena 25 000
Amendments:		

107018



5 cm

Scale 1 : 25 000

92 - 3332.

	GEOPEKO	
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Date: 13/1/92	EL 44/89 WEDGE	No FIG 3
Geologist: MAT	EXPLORATION CREEK	
Checked:	ROCK CHIP SAMPLING	
Drawn:	Map Ref:	Base: Milabena 25 000
Amendments:		