

YEARLY REPORT FOR E.L 18/91 - MANGANA

FOR 1992/93

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YEARLY REPORT FOR E.L 18/91 - MANGANA

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Prepared by Alex White

## INTRODUCTION

Work on E.L. 18/91 has concentrated on prospective alluvial deposits outlined by previous preliminary pan sampling adjacent to Richardsons Creek, East and South-East of Mangana Township.

Geological reconnaissance, mapping and sampling of outcrops in Major's Sharky's and Sailor's Gullys was also undertaken on the hardrock potential within the E.L.

## ALLUVIAL DEPOSITS

### Location

Alluvial sampling concentrated on alluvial flats 1/2km East to 1km South-East of Mangana at the base of Napkin Hill. This area had previously been outlined as a prospective zone by panning numerous samples in late 1992. This area is also significant being close to the site of early alluvial workings.

### Sampling Procedure

A total of 18 test costeans were excavated on a grid pattern over the prospective area (Refer to Figure 2). The topsoil layer (min 300mm) was removed and placed aside, following this, the total amount of wash dug constituted the bulk sample. 50kg samples were extracted from the bulk sample at every sample location, care was taken to ensure the 50kg's were extracted in a representative profile from the top to the basement. The 50kg sample was then screened and panned to establish both the presence and quantity of any contained gold.

### Results and proposals

A volume calculation was obtained by multiplying the average depth to bedrock by the area tested. The quantity of contained gold was estimated by comparing the results obtained from each sample with those of previously graded areas. From these calculations conservative estimates indicate an inferred resource of 300 000m<sup>3</sup> grading >0.2g/t. An agreement has been finalised with Chelantha Mining to process the alluvials within E.L. 18/91 under a tribute arrangement. The mining method employed by Chelantha Mining is identical to the New Zealand paddock mining method which has the advantage of both low environmental impact and excellent recovery in low grade alluvial deposits.



Plate 1. - Backhoe shown excavating bulk samples.

## HARD ROCK DEPOSITS

Reconnaissance geological mapping and interpretation by a consultant Geologist constituted the bulk of the work on the hard rock deposits. Preliminary mapping indicated that historical mines were located on North-East striking chloritic shear zones and in quartz veining strongly associated with South-East plunging fold closures. Styles of mineralization are similar to the Slate Belt styles in the Victorian Goldfields.

Preliminary mapping of exposures in Major's Gully is shown in Figure 3. A number of 5kg rock chip samples were taken in geologically prospective zones and assayed for gold, base metals, and indicator elements. (Refer to appendix 2.)

## RECOMMENDATIONS FOR FURTHER WORK

1. Bulk sampling of alluvials by Paddock Mining methods to confirm results obtained by initial costeaning. Further sampling is required to the North and South to establish economic viability of alluvial extensions.
2. Negotiations are underway with a major Mainland based gold producer for a joint venture agreement on the hardrock potential within E.L. 18/91. A detailed mapping and sampling program will be undertaken, initially concentrating on the Mangana Gold Reefs and extending to the North toward the Pincher Underlay.
3. Conduct a study into the effective alluvial sample size. To ensure that results are meaningful we need to establish the volume of sample that must be taken so that it will represent adequately the values in the alluvial deposit.

**APPENDIX 1. - Expenditure on E.L. 18/91 for the 1992/93 year.**

6 monthly Interim Report.....	\$ 1393
Backhoe hire - 2 days @ \$35/hr.....	\$ 525
Geology consultant - 8 days @ \$ 200/day.....	\$ 1600
Sample processing (gravity).....	\$ 800
Analytical costs.....	\$ 225
Wages/Research.....	\$ 1200
Report preparation and miscellaneous.....	\$ 253
TOTAL	\$ 5996

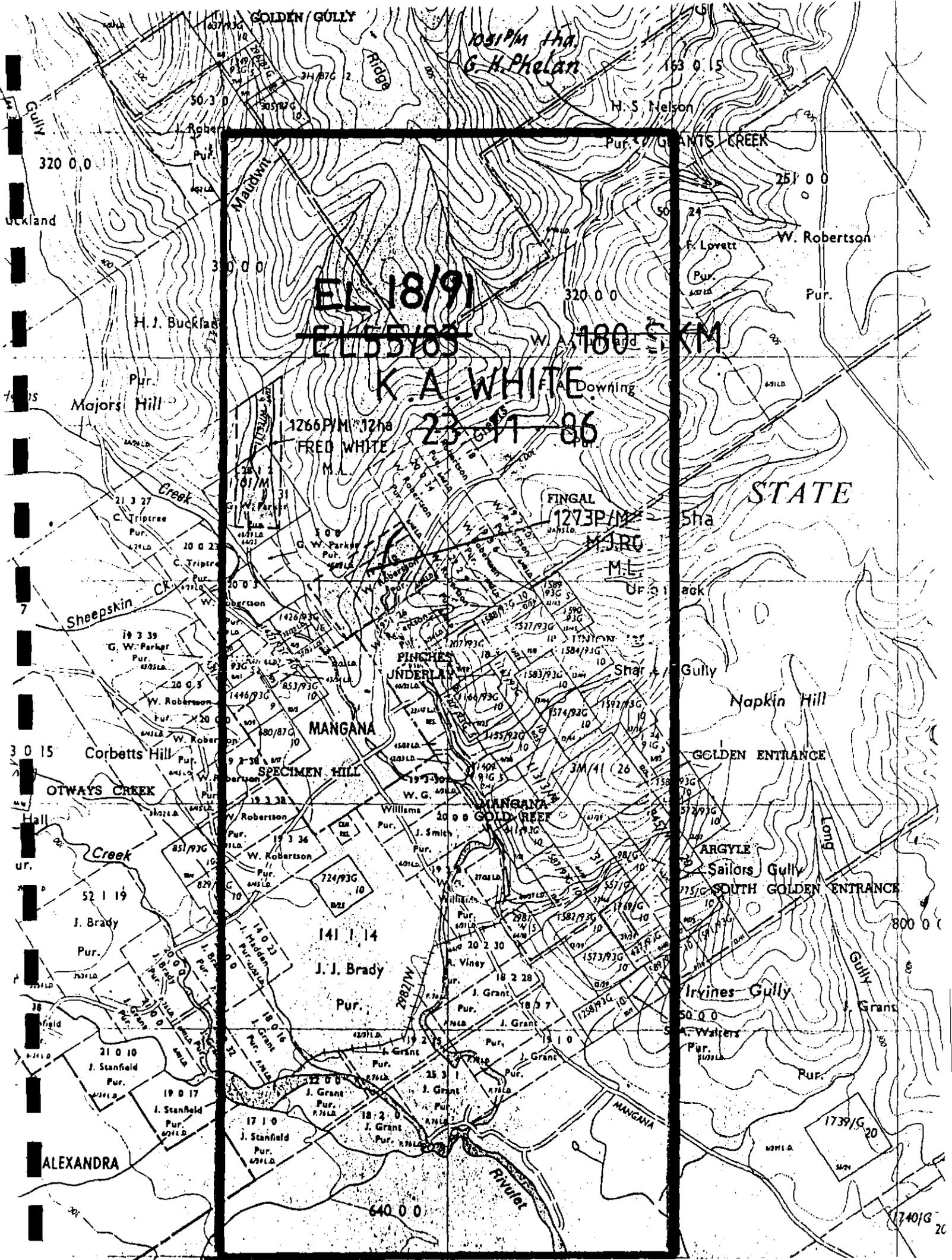


Figure 1. - Overview of E.L. 18/91

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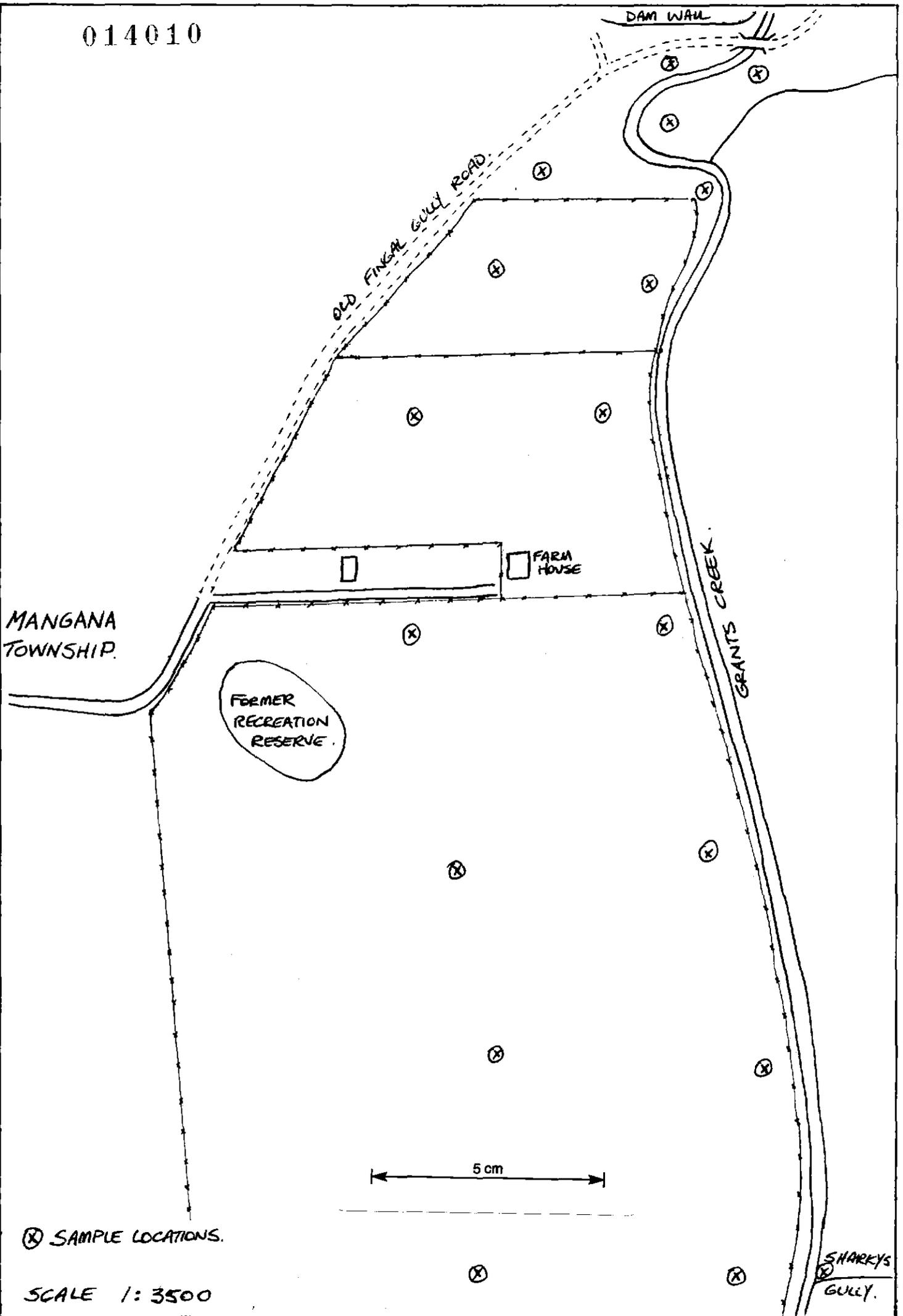
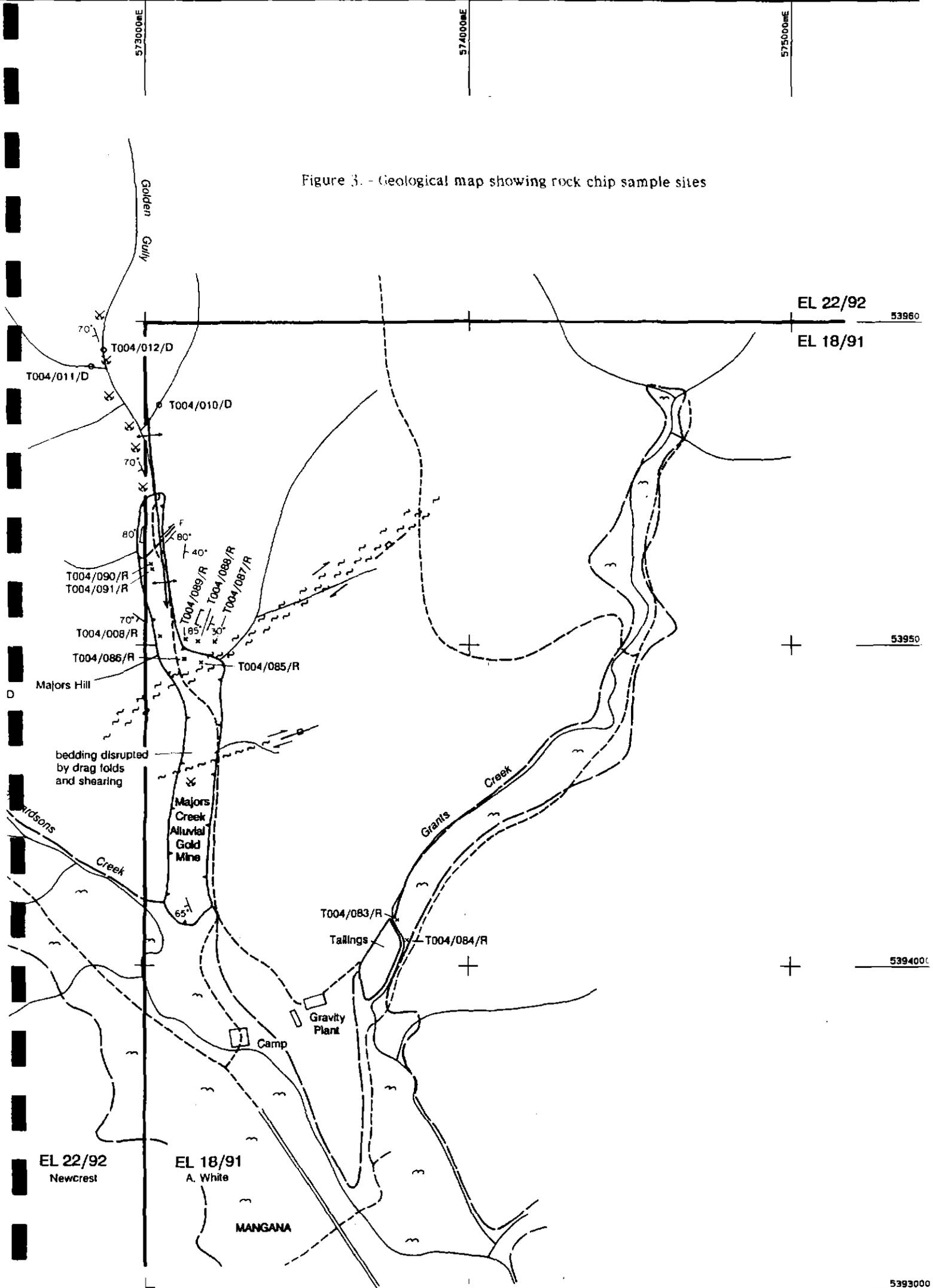


Figure 2 Alluvial coastal locations

Figure 3. - Geological map showing rock chip sample sites



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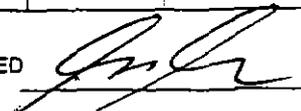
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TUBE No.	SAMPLE No.		Cu	Pb	Zn	Ag	Au	Au(R)	Au(S)	Bi
1	T004 084	R	15	14	43	<2	0.007	-	-	<1
2	T004 085	R	10	13	24	<2	0.005	-	-	<1
3	T004 086	R	15	20	32	<2	<0.005	-	-	<1
4	T004 087	R	11	16	10	<2	0.056	-	-	<1
5	T004 088	R	14	14	32	<2	0.069	-	0.076	<1
6	T004 089	R	8	12	9	<2	0.077	-	-	<1
7	T004 090	R	9	30	14	<2	0.061	-	-	<1
8	T004 091	R	16	21	37	<2	0.057	-	-	<1
25	T004 083	R	12	21	25	<2	<0.005	-	-	<1

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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TUBE No.	SAMPLE No.		Cu	Pb	Zn	Ag	As	As	Bi	Au
8	T004 008	R	10	9	18	<2	5	-	<1	<0.005
9	T004 009	R	8	8	24	<2	2	-	<1	<0.005