DEPARTMENT OF MINES & ENERGY

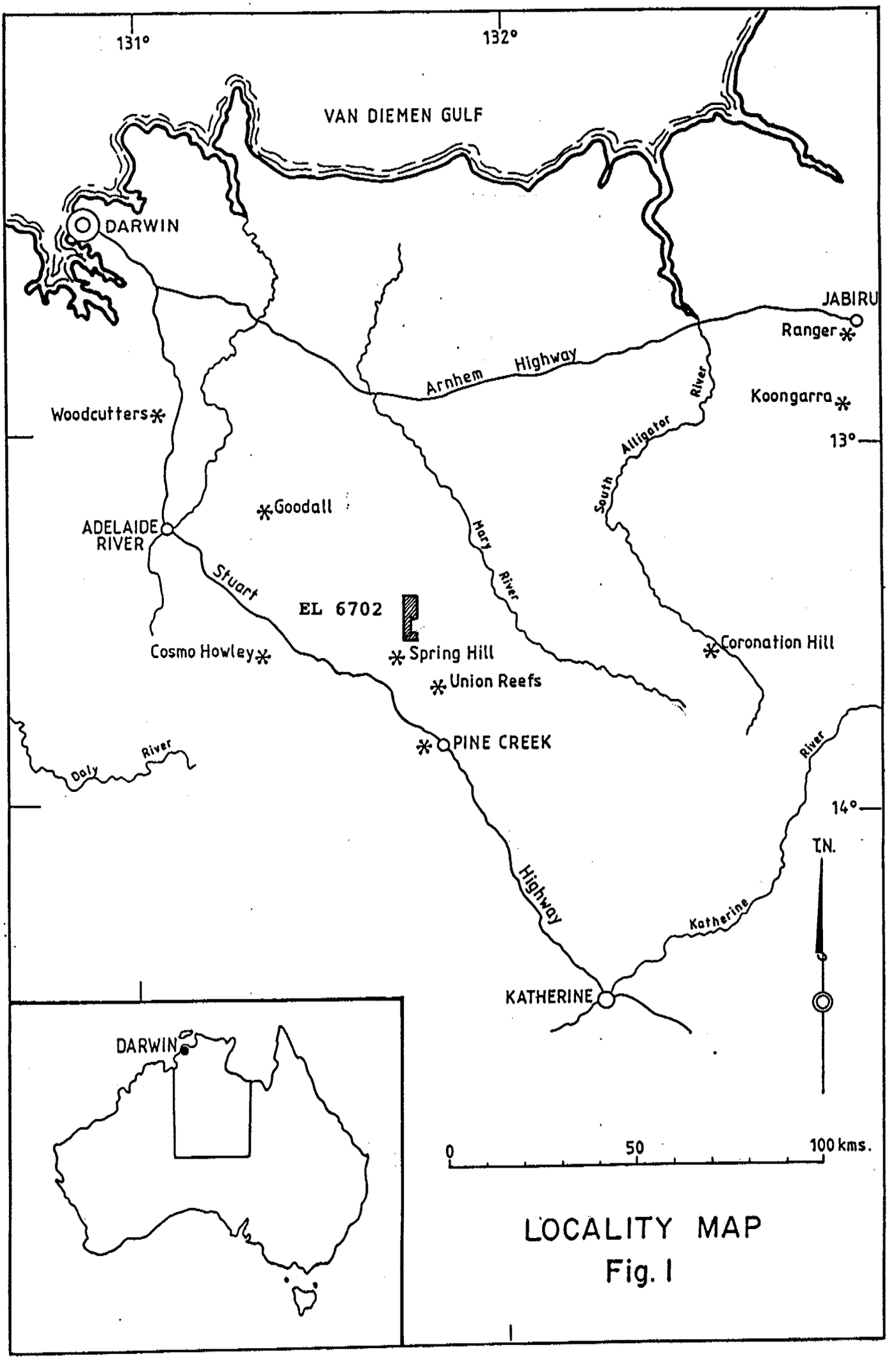
EXPLORATION LICENCE 6702, WATTS CREEK, NORTHERN TERRITORY

ANNUAL REPORT FOR YEAR ENDING 4TH APRIL, 1993

FINAL REPORT

CR93/391

RoseQuartz Mining NL



LOCALITY MAP
Fig. 1

CONTENTS

1. INTRODUCTION

Exploration Licence 6702 lies some 155 kilometres south east of Darwin, and 30 kilometres north of Pine Creek, in the Pine Creek 1:100,000 and Union Reef 1:50,000 sheet areas (Figure 1). The old Mount Wells tin mine and treatment plant lie about four kilometres to the west, and access to the area is obtained by a four wheel drive track proceeding west from Mount Wells. the area is within the Ban Ban Springs Pastoral Lease.

The Licence was granted to Rosequartz Mining NL for a period of five years commencing 5th April, 1990. It now consists of two graticular blocks.

Topographically, the area comprises moderately rugged low hill ranges up to maximum elevations of 250 m asl., some 159 m above the level of the plains. Vehicle access is not feasible to most of the hilly country. Vegetation consists of savannah woodlands typical of the region.

2. GENERAL GEOLOGY AND MINERALISATION

The Exploration Licence is in the Early Proterozoic Pine Creek Geosyncline, and the geology of the surrounding area is covered by the 1:100,000 Geological Series Pine Creek (BMR 1985). The general geology of the Pine Creek Geosyncline is well described in the literature and is not repeated here.

The main feature of the local geology is a north south elongated oval shaped intrusion of granite, known as the McKinlay Granite. This is mainly a coarse grained porphyritic pink/green granite. It occupies the southern half of the Licence area, forming a complex of fairly low rough hills with abundant bouldery outcrop.

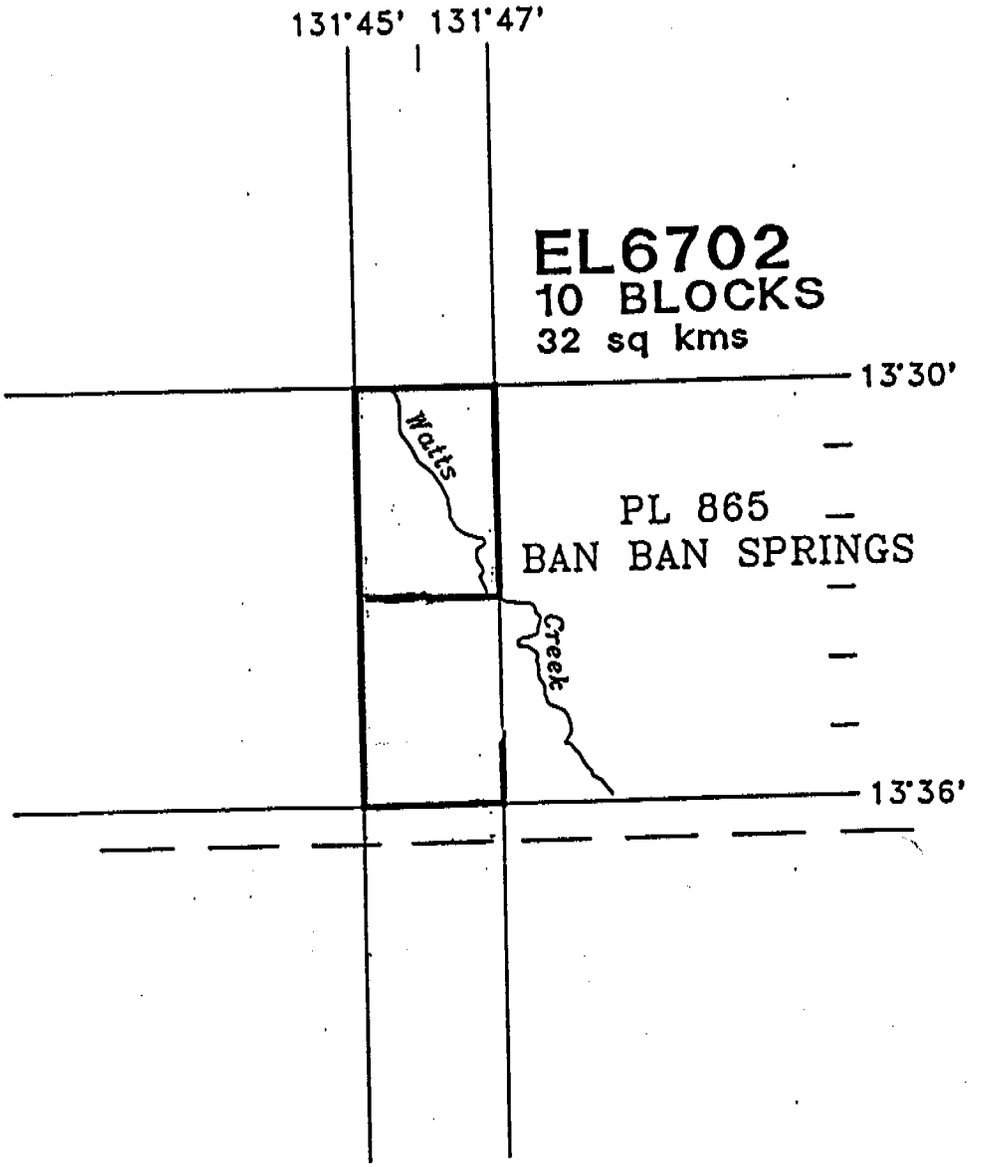
The granite intrudes metasediments assigned to the Burrell Creek Formation, which comprises metamorphosed siltstones, shales and greywackes towards the top of the local Early Proterozoic succession. Lithologies present in the Licence area include tombstone like outcrops of grey/green foliated metagreywacke, and grey to red phyllites. These rocks strike north north west, roughly conformably with the granite contacts, and generally dip steeply towards the east, although the regional facing is westerly. Within about 300 m of the granite contact the sediments are hornfelsed to a flinty, dark grey white spotted andalusite hornfelse which, because of its resistance to erosion, forms a strong sharp ridge enclosing the intrusion.

The north westerly trending ridges are formed by phyllites and metagreywackes of the Mount Bonnie Formation, and tuffaceous cherts of the Gerowie Tuff, which lie stratigraphically below the Burrell Creek Formation.

It is very likely that the metasediments are strongly folded about north north west trending axes; in particular the Mount Porter anticline, well exposed to the southeast, probably underlies the Watts creek alluvial flats.

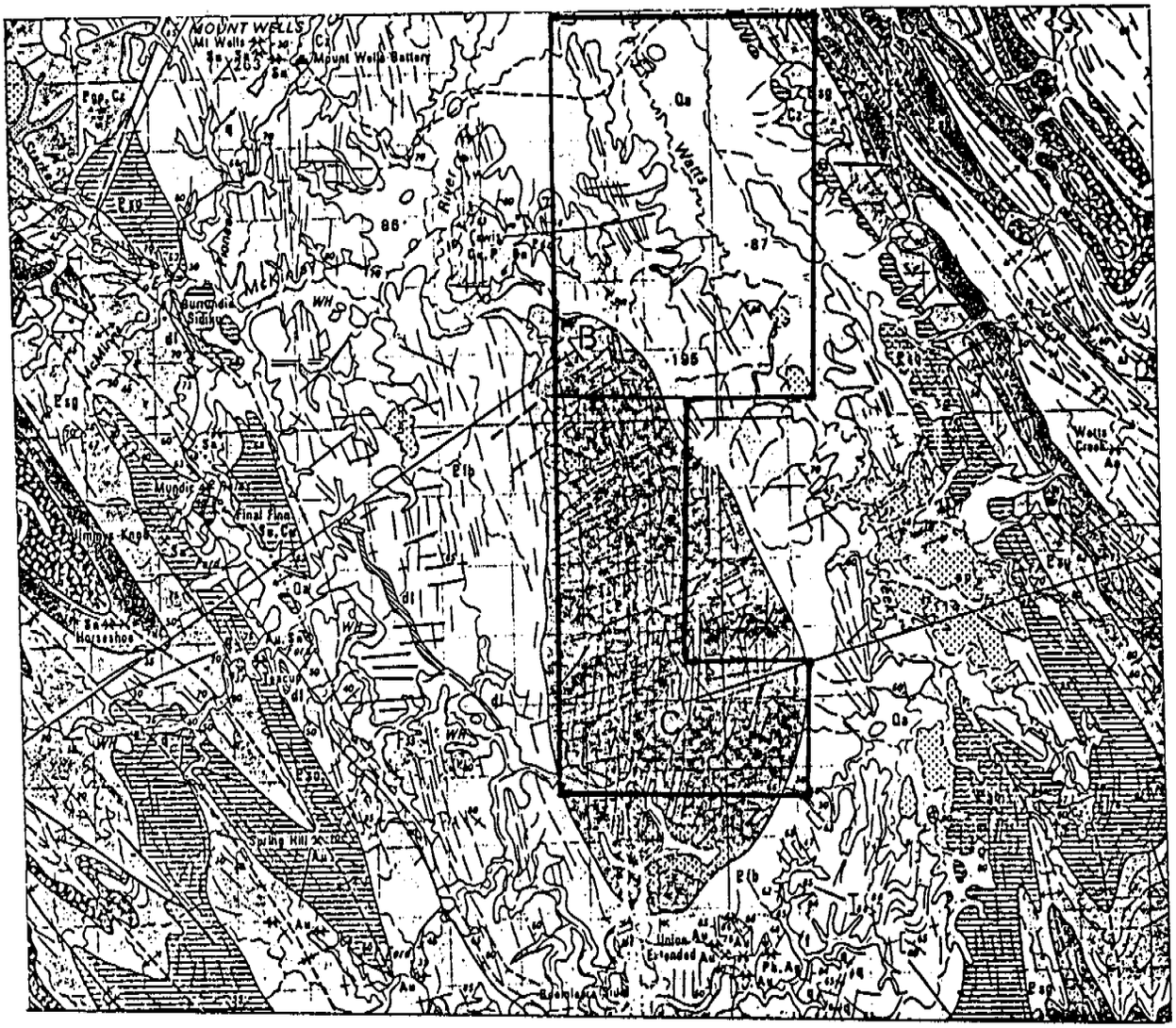
The district surrounding the Exploration Licence is well mineralised, the most notable deposits being the Mount Wells tin/tungsten/copper mine to the west, the Union Extended gold mine to the south, and the Watts creek gold prospects to the east (figure 3). No mineralisation is however recorded from within the Licence area.

Nevertheless, evidence of widespread potentially mineralising activity is prominent, in the form of ubiquitous and abundant quartz veining, and pronounced alteration of the metasediments along numerous east north east trending fractures. The quartz is mainly of a massive milky type, locally slightly iron stained or chloritic, but lacking indications of significant sulphides. It forms tabular quartz reefs, or silicious breccias, up to several metres thick, but apparently of short strike length (maybe up to 100 m). Dominant trends are apparently north north west, sub-parallel to the regional strike, and east north east parallel to the major fracture direction. In the alteration zones the metasediments are red staines, probably indicating chloritisation, and are traversed by small stringers of quartz and quartz breccia trending about 070 decrees magnetic. Again there are no indications of sulphides. These alteration zones are relatively resistant and give rise to a series of sharp east north east ridges which dominate the details of the topography.



TENEMENT MAP

Figure 2.



CAINOZOIC	Qa	Alluvium
PROTEROZOIC	Pgk	McKinlay Granite
	Pdz	Zamu Dolerite
	Pfb	Burrell Creek Formation
	Pso	Mount Bonnie Formation
	Psg	Gerowie Tuff
	Psk	Koolpin Formation

REGIONAL GEOLOGY

scale 1 : 100,000

Figure 3.

3. PREVIOUS EXPLORATION

Previous work carried out on the Licence was concentrated on the Burrell Creek Formation in the central part of the prospect. A geological reconnaissance and rock chip sampling programme was carried out concentrating on gossanous quartz stockworks and associated breccias. A total of 14 samples were collected, mainly consisting of rock chip samples, and sent for analysis, the results of which are contained in Appendix I. The results of the rock chip sampling are generally negative and back up the initial indication that the wide spread alteration features and quartz veining in the Burrell Creek Formation in the central portion of the Licence area are probably not associated with significant gold mineralisation. However, a limited number of samples of breccia in the granite contact area have returned anomalous results and have been followed up in this field season

4. EXPLORATION WORK 1993

RoseQuartz representatives collected 30 rock chip samples concentrating on any pronounced alteration to the metasedament and quartz breccias in the area previously identified, which has returned anomalous results in the previous exploration. Only one area of breccerization was identified two samples were taken from this area and one returned slightly anomalous results. The majority of sample taken in close approximation to this area and other areas of alteration have returned very poor results and will not be followed up.

5. RECOMMENDATIONS

1 It is proposed, during the forthcoming year to follow up the anomalous results from the previous work carried out, being the one area returning anomalous result that was not identified this year and also identify any similar areas. A programme of detailed mapping and further sampling of this area. It is proposed to expend in the vicinity of $3,000.00 for this work.

APPENDIX I

SAMPLE SHEET 1993

SAMPLE No	DISCRIPTION
3211	Qtz in Siltstone
3212	Qtz in Siltstone
3213	Minor Qtz veining in Greywacke
3214	" " " " "
3215	" " " " "
3216	" " " " "
3217	
3218	Qtz
3219	Qyz in Greywacke
3220	Brecciaized Qtz
3221	Qtz
3222	"
3223	"
3224	Qtz
3225	Qtz Breccia
3226	Qtz Breccia
3227	Qtz in Greywacke
3228	Qtz and Qtz Veining in Greywacke
3229	Qtz in Greywacke
3230	Qtz
3231	Iron stained Qtz
3232	Pink Qtz
3233	Greywacke with Qtz filled jointing
3234	Qtz
3235	"
3236	"
3237	"
3238	Qtz Veining in Greywacke
3239	Qtz
3240	Iron stained Qtz

amdel

Job: 3DN0424
O/N:

Final

ANALYTICAL REPORT

SAMPLE	Au	AuDup1
3211	<0.02	--
3212	<0.02	--
3213	<0.02	<0.02
3214	<0.02	--
3215	<0.02	<0.02
3216	<0.02	--
3217	<0.02	--
3218	<0.02	--
3219	<0.02	--
3220	<0.02	--
3221	<0.02	--
3222	<0.02	--
3223	<0.02	--
3224	<0.02	--
3225	<0.02	--
3226	0.08	--
3227	<0.02	<0.02
3228	<0.02	--
3229	<0.02	--
3230	<0.02	--
3231	<0.02	--
3232	0.03	--
3233	<0.02	--
3234	<0.02	--
3235	<0.02	--
3236	<0.02	--
3237	<0.02	--
3238	<0.02	--
3239	<0.02	--
3240	<0.02	--

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS8	AAS8

1992 AI

CLASSIC LABORATORIES

Job: 2DN0467
O/N: 0089

Preliminary

ANALYTICAL REPORT

SAMPLE	Au	AuDup1
318	<0.02	--
319	<0.02	--
320	<0.02	--
321	<0.02	--
322	<0.02	--
323	<0.02	--
324	0.07	--
325	<0.02	--
326	<0.02	--
327	0.16	0.17
328	<0.02	--
329	<0.02	--
330	<0.02	--
331	<0.02	--
UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7

AL

SAMPLE DESCRIPTION 1992

318 5 metre rock chip over minor quartz stockworks

319 5 metre rock chip over minor quartz stockworks

320 5 metre rock chip over minor quartz stockworks

321 5 metre rock chip over minor quartz stockworks

322 2 metre rock chip over quartz vein

323 10 metre rock chip over large quartz stockworks

324 5 metre rock chip over breccia

325 2 metre rock chip over iron enriched greywacke

326 5 metre rock chip over minor quartz vein

327 5 metre rock chip over breccia

328 5 metre rock chip over quartz and minor associated breccia

329 5 metre grab sample over quartz veining and associated breccia

330 5 metre grab sample of quartz scree

331 2 metre grab sample of quartz scree

Job: 1DN0592
O/N: 0082

CLASSIC LABORATORIES LTD

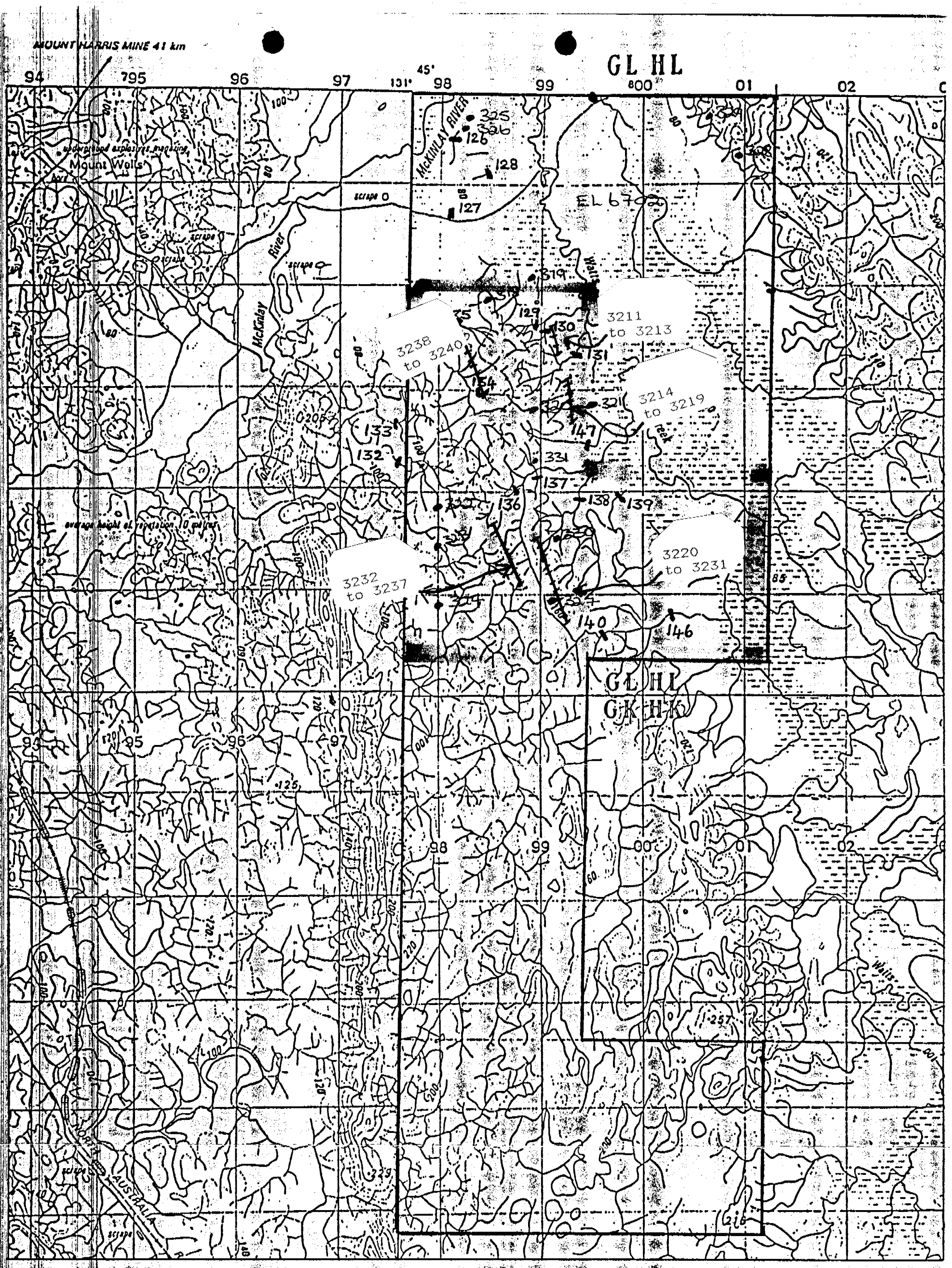
Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Au
327126	--	--	--	0.57
327127	--	--	--	3.10
327128	--	--	--	0.50
327129	--	--	--	1.43
327130	--	--	--	0.75
327131	--	--	--	0.74
327132	--	--	--	2.60
327133	--	--	--	0.69
327134	--	--	--	0.60
327135	--	--	--	0.74
327126 -80 mesh	11	14	24	--
327127 -80 mesh	4	<4	10	--
327128 -80 mesh	3	<4	10	--
327129 -80 mesh	4	21	10	--
327130 -80 mesh	9	20	18	--
327131 -80 mesh	5	7	11	--
327132 -80 mesh	11	14	25	--
327133 -80 mesh	10	16	20	--
327134 -80 mesh	9	12	12	--
327135 -80 mesh	10	4	14	--
UNITS	ppm	ppm	ppm	ppb
DET.LIM	2	4	2	0.05
SCHEME	AAS1	AAS1	AAS1	BLEG2

6. EXPLORATION EXPENDITURE

Salaries	$ 1,864
Consumables	198
Vehicle and Fuel	450
Analytical Work	820
Overheads	322
TOTAL EXPENDITURE	$3,646



139 Drainage sample location & number (prefix 327 omitted).

DRAINAGE SAMPLE LOCATIONS

scale 1 : 50,000

Figure 4.