

# **BLUE GUM INTERNATIONAL PTY. LTD.**

ABN 41 076 09 933

## **FINAL REPORT**

**ON**

**EXPLORATION LICENCE 22381**

**NORTHERN TERRITORY, AUSTRALIA**

**To** : Principal Registrar  
Northern Territory Department of Mines and Energy  
Darwin, Northern Territory, 0800  
Australia

**From** : Mr. Robert Meade  
Director  
Blue Gum International Pty. Ltd.  
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Australia

**Date** : 19<sup>th</sup> August 2003

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## 1. INTRODUCTION

This report is the Final Report for Exploration Licence (EL) 22381 of the Northern Territory, Australia, and includes all exploration activities undertaken during the period 9<sup>th</sup> October 2001 to 18<sup>th</sup> August 2003.

EL 22381 was granted to Blue Gum International Pty. Ltd. (formerly Brachina Exploration Pty. Ltd.) on 9<sup>th</sup> October 2001, for a period of six (6) years. In accordance with the provisions of the *Mining Act*, the exploration licence was granted with the expectation that Blue Gum International Pty. Ltd. (BGI) would diligently explore for Group One minerals. Principal metal commodities sought include gold, copper, lead, zinc, and silver.

EL 22381 is centred approximately 350 km east of the township of Alice Springs in the Northern Territory, Australia, and incorporates a total area of approximately 510 square kilometres. EL 22381 is located within the Tobermorey (SF 53 – 12) and Hay River (SF 53 – 16) 1:250,000 scale map sheets.

Situated at the northern end of the Simpson Desert, EL 22381 straddles the southern regions of 'Marqua' Pastoral Station (N.T. Portion 368) and 'Tarlton Downs' Pastoral Station (N.T. Portion 367). The southern boundary of EL 22381 coincides with the southern boundaries of both Pastoral Stations, and loosely approximates the adjoining northern boundary of the 'Atnetye' Aboriginal Reserve (N.T. Portion 4333).

Figure 1 indicates the geographical location of EL 22381.

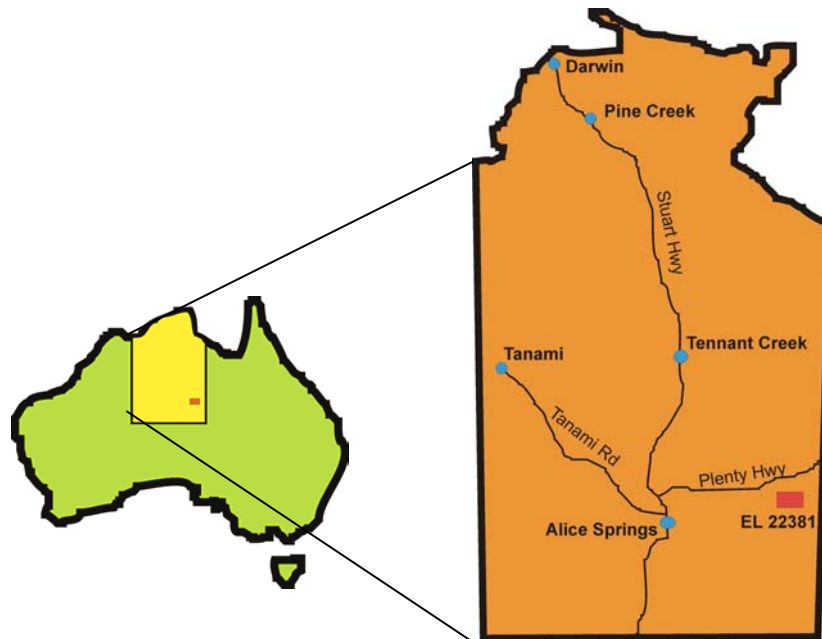


Figure 1. EL 22381 Location Plan.

Access to EL 22381 is via the Plenty Highway within the Northern Territory, and Donohue Highway within Queensland. Both Highways vary in conditions from extremely corrugated with minor 'pot-holes' and 'wash-aways' to bitumen sealed. Dry-weather-only access tracks within the Tarlton Downs and Marqua Pastoral properties intersect the Plenty Highway east of the Arthur Creek.

Access within EL 22381 is possible via Two-Wheel-Drive (2WD) vehicles throughout most of the flatter portions, however drifting sand, and sand-dune geomorphology often limit this mode of transport. The most reliable mode of transport is Four-Wheel-Drive (4WD). Steep rocky tracks with abundant scree material, and sand dunes to 10m provided no obstacle during the field season.

Climatic conditions within EL 22381 are typical of 'desert-type' environments, and may be summarized as extreme. The Bureau of Meteorology quote temperature variations for Jervois (approximately 100km west of EL 22381) as ranging from  $-5^{\circ}\text{C}$  to  $32^{\circ}\text{C}$  in July to  $10^{\circ}\text{C}$  to  $48^{\circ}\text{C}$  in December. Rainfall statistics for the same area range from 6mm in September to 60mm in February.

Topographic variation throughout EL 22381 ranges from open and slightly undulating sweeping sandy plains at approximately 260m a.s.l. to an un-named peak hilltop elevation of 285m a.s.l.

Vegetation throughout EL 22381 is dominated by spinifex and other bladed grasses across the plains and hillsides, and stunted eucalypts and acacias adjacent to surface and inferred buried water-courses.

## 2. TENURE

EL 22381 was granted to Blue Gum International Pty. Ltd. (formerly Brachina Exploration Pty. Ltd.) on 9<sup>th</sup> October 2001, for a period of six (6) years. At that time EL 22381 comprised a total of 175 graticules / sub-blocks, totaling approximately 510 sq. km (Appendix 1).

Granted graticules at the 9<sup>th</sup> October 2001 were as follows.

1:250k Sheet Designator	1:100k Sheet Designator	Block Prefix	Blocks	No. Blocks
SF 53 –12	72 / 4	19	65	1
		20	63 64 65 66	4
		21	63 64 65 66	4
		22	63 64 65 66	4
		23	63 64 65 66	4
		24	63 64 65 66 67 68	6
		25	64 65 66 67 68 69	6
		26	64 65 66 67 68 69 70	7
		27	64 65 66 67 68 69 70	7
		28	65 66 67 68 69 70	6
		29	66 67 68 69 70	5
		30	67 68 69 70	4
		31	67 68 69 70	4
		32	67 68 69 70	4
		33	68 69 70	3
		34	68 69 70	3

		35	69	70								2
		36	69	70								2
		37	69	70								2
		38	70									1
		39	70									1
		40	70									1
SF 53 – 12	72 / 5	11	70									1
		12	70									1
		13	70									1
		14	70									1
		15	70									1
SF 53 – 16	78 / 2	15	41	42	48	49	50	51	52	53		8
		16	42	48	49	50	51	52	53			7
		17	42	48	49	50	51	52	53			7
		18	42	48	49	50	51	52	53			7
		19	42	48	49	50	51	52	53			7
		20	42	43	47	48	49	50	51	52	53	9
		21	43	47	48	49	50	53				6
		22	43	44	45	47	48	49	50	53		8
		23	43	44	45	46	47	48	49	53		8
		24	43	44	45	46	48	49	53			7
		25	43	44	45	46	53					5
		26	43	44	45	46	47					5
		27	43	44	45	46	47					5
Total												175

On the 1<sup>st</sup> September 2001, Blue Gum International Pty. Ltd. applied for a voluntary reduction in tenement area pursuant with Section 31 of the *Mining Act*. This voluntary reduction in tenement area followed the completion of extensive reconnaissance exploration programs across the entire exploration licence area. As a result of these activities, the mineral potential status for the mineral commodities sought over a portion of EL22381 was re-assessed as low. The voluntary reduction requested the retention of 54 graticules in one coherent parcel of land, and the relinquishment of 121 graticules.

The following graticules were requested for retention and subsequently granted.

1:250k Sheet Designator	1:100k Sheet Designator	Block Prefix	Blocks	No. Blocks
SF 53 – 12	72 / 4	24	63 64 65	3
		25	64 65 66 67 68 69	6
		26	64 65 66 67 68 69 70	7
		27	64 65 66 67 68 69 70	7
		28	65 66 67 68 69 70	6
		29	66 67 68 69 70	5
		30	67 68 69 70	4
		31	67 68 69 70	4
		32	67 68 69 70	4
		33	68 69 70	3
		34	68 69 70	3
		35	69 70	2
Total				54

The following graticules were requested for relinquishment and subsequently relinquished.

1:250k Sheet Designator	1:100k Sheet Designator	Block Prefix	Blocks										No. Blocks		
SF 53 – 12	72 / 4	19	65										1		
		20	63	64	65	66							4		
		21	63	64	65	66							4		
		22	63	64	65	66							4		
		23	63	64	65	66							4		
		24	66	67	68								3		
		36	69	70									2		
		37	69	70									2		
		38	70										1		
		39	70										1		
		40	70										1		
SF 53 – 12	72 / 5	11	70										1		
		12	70										1		
		13	70										1		
		14	70										1		
		15	70										1		
SF 53 – 16	78 / 2	15	41	42	48	49	50	51	52	53					8
		16	42	48	49	50	51	52	53					7	
		17	42	48	49	50	51	52	53					7	
		18	42	48	49	50	51	52	53					7	
		19	42	48	49	50	51	52	53					7	
		20	42	43	47	48	49	50	51	52	53			9	
		21	43	47	48	49	50	53						6	
		22	43	44	45	47	48	49	50	53				8	
		23	43	44	45	46	47	48	49	50				8	
		24	43	44	45	46	48	49	53					7	
		25	43	44	45	46	53						5		
		26	43	44	45	46	47						5		
		27	43	44	45	46	47						5		
		Total												121	

Appendix 2 illustrates the graticules retained for the second year of tenure.

### 3. WORK COMPLETED

Exploration activities undertaken and completed within EL 22381 during the period 9<sup>th</sup> October 2001 and 18<sup>th</sup> August 2003 included the following:

- A literature search review of all previous exploration and prospecting within the area defined as EL 22381.
- A review of the regional geological environment.
- A review and interpretative account of the geological setting within EL 22381.
- Analysis of satellite platform and airborne remote sensing datasets.
- Reconnaissance mineral exploration traversing across the entire licence.

- Rock chip sampling and assaying
- Landowner liaison

These exploration activities will now be discussed.

### 3.1 PREVIOUS EXPLORATION

A thorough literature search was completed to determine all previous exploration activities undertaken throughout EL 22381. This process involved review of all Open-file Company Reports held on file at the Northern Territory Department of Mines and Energy, in Darwin, Australia.

This search determined that no thorough investigation of the precious mineral potential within EL 22381 had been undertaken. The most significant previous exploration effort across EL 22381 had been performed by Normandy Exploration Limited (A Division of the Normandy Poseidon Group) within Exploration Licence 6994. This work was conducted during the period 9<sup>th</sup> November 1990 to 28<sup>th</sup> October 1994, and included reconnaissance soil sampling, bedrock auger drilling, airborne electromagnetic and magnetic surveying, and rotary air-blast (RAB) drilling (Cozens, 1995). Much of the soil and bedrock sampling was of a reconnaissance nature. Exploration programs were designed to locate 'Broken Hill' type base metal deposits. Cozens (1995) reports that whilst no encouraging mineralisation was identified, the soil sampling program failed to adequately test the chosen target areas. Airborne remote sensing data was interpreted to be non-representative of 'Broken Hill' type mineralisation. Minor RAB traversing and ground-based Electromagnetic surveying failed to identify any anomalous mineralisation.

Other mineral exploration initiatives conducted within the region were not located over EL 22381, and will not be detailed within this report. Worthy of comment though is that of these, the following companies explored for base metal deposits within the broader region surrounding EL 22381.

- Agip Australia Limited within EL 3142, during 1982 - 1983
- Jones Mining / BHP Joint Venture within ELs 4320, and 4321, during 1983 – 1984
- Ashcourt Corporation within EL 9604, during 1996 - 1997

### 3.2 REGIONAL GEOLOGY

The Arunta Orogenic Domain is composed of three distinctly different tectonic regions (Freeman, 1986). These are the Northern (NTZ), Central (CTZ), and Southern (STZ) Tectonic Zones. An accumulated sequence of intercalated sedimentary and volcanogenic rocks, deposited in an east-west trending trough comprise the CTZ. North-south extension of the trough gave rise to the formation and inclusion of the NTZ and STZ.

Lithological units comprising the Arunta Orogenic Domain have been divided into 3 main divisions (see below), which are based upon defining unconformity events.

- Division 1. Felsic and mafic granulites.
- Division 2. Schistose pelitic meta-sediments and quartzo-feldspathic gneisses.
- Division 3. Schistose pelitic meta-sediments and meta-quartzite.

EL 22381 is located within the NTZ and consists predominantly of Division 2 lithologies. Freeman (1986) suggest that sedimentation within the Georgina Basin commenced during the Adelaidean with the deposition of argillites, arenites, glauconitic sediments and carbonates along the southern margin of the basin. Post Adelaidean sedimentation was dominated by carbonates and arenites.

It is postulated that Mid-Proterozoic tectonic events caused dislocation of basin sediments into an array of fault bounded blocks, and that reactivation of these faults occurred during the Carboniferous Alice Springs Orogeny.

### **3.3 LOCAL GEOLOGY**

The paucity of outcrop within EL 22381 has hindered a thorough understanding of the local geological environment. This said, the acquisition of recently surveyed airborne magnetics has aided greatly the interpretation of likely lithologies beneath the vast blanket of red sand cover sequence.

Postulated bedrock lithologies within the northwestern portions of EL 22381 above latitude 23° 00' are suggested to be composed of basal Arunta Complex schist, gneiss, and meta-quartzites, intruded by Lower Proterozoic felsic intrusives. The northern boundary of this Complex is interpreted as reverse faulted, and is herein called the 'Tarlton Fault'. The Tarlton Fault is oriented northwest-southeast. North of the Tarlton Fault are Cambrian sandstones, limestones, dolomites, and minor siltstones.

South of latitude 23° 00', EL 22381 bedrock lithology sequences are interpreted as Cambrian sandstones, limestones, and minor dolomites and siltstones. Sporadic outcropping Triassic ferruginous conglomeratic sandstones are observed. An unconformable relationship is inferred between Triassic and Cambrian lithologies.

### **3.4 REMOTE SENSING**

A thorough interpretation of Landsat 7 multispectral and airborne magnetic data sets was completed. All data sets were acquired from the Northern Territory Geological Survey. These were:

- Landsat 7  
NT Scene 100/76  
Bands 1 – 7, and Panchromatic  
(18.09.1999)
- Huckitta Geophysical Survey  
1981 Grids and Line Data
- Huckitta East Geophysical Survey  
1983 Grids and Line Data

All interpretations were undertaken using ERMapper version 6.3 GIS software, on a 'stand alone' PC using Windows 98 platform.



An evaluation of airborne magnetic data for EL 22381 was made possible following the joining of the 'Huckitta' and 'Huckitta East' data sets. Data pertaining to EL 22381 was isolated from the entire dataset and enhanced using a simple Total Magnetic Intensity image (Figure 2). This image highlighted the relative magnetic intensity of surficial and buried lithologies, as well as the structural setting. From this analysis, a total of 17 separate airborne magnetic anomalies were identified as prospective for base metal mineralisation, refer Appendix 3.

The predominance of sand cover sequence limited the delineation of structural and mineralogical targets during analysis of the Landsat 7 data. However, the construction of a false colour composite RGB432 image (Figure 3) proved invaluable as a guise to vegetation distribution, and topographic features such as drainages, tracks, and isolated low-level outcrops. This said, the spatial resolution of the Landsat 7 multispectral data is limited to 30m.

### **3.5 RECONNAISSANCE MINERAL EXPLORATION TRAVERSING**

Exploration Licence 22381 was originally defined as a region highly prospective for the discovery of gold and base metal mineralisation. Recently released Northern Territory Geological Survey (NTGS) airborne magnetic and Landsat 7 satellite data sets suggested the presence of geophysical signatures and earth features indicative of volcanogenic hosted massive sulphide (VHMS), porphyry copper, and structurally controlled hydrothermal ore deposits.

A total of 29 field days were spent undertaking reconnaissance geological mapping over 17 separate areas within EL 22381, during the period 9<sup>th</sup> October 2001 and 8<sup>th</sup> October 2002. Each of these areas was identified from analysis of remotely sensed data sets as having potential to host gold and / or copper mineralisation.

Reconnaissance mineral traversing was undertaken via examination of rock exposures, pan concentrate and creek bank profile sampling, and scree vector analysis.

### **3.6 ROCK CHIP SAMPLING AND ASSAYING**

A total of 21 rock chip samples were collected for geochemical analysis. These samples were collected from two geologically and geochemically anomalous areas (Sunset Boulevard and Ningaloo).

Billy is located at 689850E / 7459710N (AMG) and consists of a 100m by 10m rock exposure. Original lithological constituents and fabric are largely obscured as a result of the now highly siliceous nature of the rock. Exposures display abundant fracturing and brecciation of the original rock, with later secondary porosity flooding of amorphous white silica rich fluids. Within the siliceous component of the rock is observed irregular vuggs with quartz crystal growths, fine powdery ferruginous linings, bladed specularite, manganese spots, and rare malachite smears and spots. The original host rock is suggested as gneiss or meta-quartzite.

The exposure is oriented at approximately 280° True North, and is believed to dip steeply north. An extensive area (100m by 50m) of scree, displaying various degrees of weathering and oxidation, occurs immediately south of the exposure.

A total of 6 point rock chip samples (BGI 001 to BGI 006) were collected at the Sunset Boulevard prospect.

Rock exposures at the Ningaloo prospect were confined to sporadic exposures within a dry local tributary located at 688450E / 7460330N (AMG). The geochemical anomalism at Ningaloo occurs over a poorly defined area measuring 200m by 100m. Sandy alluvium and other detritus obscures much of the exposure at the Ningaloo prospect. Despite this a total of 15 rock chip samples (BGI 007 to BGI 021) were collected. Each sample was collected across a 4 square metre area.

All rock chip samples suggested that the copper mineralisation was hosted by a felsic intrusive. This intrusive was generally medium grained, and varied from granite to muscovite granite, displaying occasional brecciation with ferruginous secondary porosity in-fill. Minor hematite smears and blebs were observed within the more intensely brecciated portions.

All geochemical rock chip sample locations are included in Appendix 4.

Geological descriptions for rock chip samples BGI 001 to BGI 021, and mineral compositions for rock chip samples BGI 007 to BGI 021 are included in Appendix 5.

All rock chip samples were analysed for Au, Cu, Pb, Zn, Ag, As, and Fe. Aminya Reference Laboratories (Ballarat, Victoria) performed the sample preparation and analysis. Analytical results are included in Appendix 6.

### **3.7 DRILLING**

An attempt to geochemically test Magnetic Anomaly A by vehicle mounted vacuum drill technique failed on two separate attempts due to machine failure. A further attempt by tractor mounted augering failed to return a representative sample and the mission was again aborted prematurely without result. This anomaly was selected as existing access was available directly to the site, and it was believed that the depth to bedrock did not exceed 2 metres. Due to seasonal concerns and time constraints no further bedrock geochemical testing was undertaken.

### **3.8 LANDOWNER LIAISON**

Landowners at the Tarlton Downs and Marqua Pastoral Stations were routinely informed of Blue Gum International's exploration intentions and proposed exploration programs. Regular telephone contacts were made throughout the tenure year. Exploration field programs were undertaken only after consultation with the respective landowners with due regard for existing and future dated Station programs, land access concerns, meteorological conditions, and safety.

#### **4. RESULTS**

Due largely to the paucity of exposure within EL 22381 and the lack of reliable up-to-date geological information for the Tobermorey (SF 53 – 12) and Hay River (SF 53 – 16) 1:250,000 geological sheet regions, much of the exploration focus within EL 22381 was based upon interpretation of airborne magnetics.

This interpretation was based upon the premise that BGI was focussed on discovering gold and copper mineralisation within Lower Proterozoic lithologies, associated with ore deposit models including porphyry intrusive, hydrothermal vein, and volcanogenic hosted massive sulphide.

A thorough examination of the data sets determined that there was little likelihood of the porphyry intrusive or volcanogenic hosted massive sulphide style deposits. This conclusion may possibly be qualified by suggesting that if such deposits did exist, they would be small and uneconomically exploitable.

The potential for the discovery of hydrothermal vein style mineralisation was considered high with significant linear features intersecting within Lower Proterozoic age rock units, adjacent to Lower Proterozoic felsic intrusive complexes.

Of the seventeen remote sensing anomalies located and field visited within EL 22381, all were found to be covered by considerably thick (> 10m) cover sequences of sand. A list of airborne magnetic anomalies is included in Appendix 3.

Geochemical analysis of the 21 rock chip samples returned weakly anomalous copper (BGI 005 - 1151 ppm Cu) mineralisation within iron rich (7.10% Fe) at the Sunset Boulevard prospect, and highly anomalous copper (BGI 014 – 2.88% Cu) at the Ningaloo prospect. Weakly anomalous gold mineralisation (to 0.04 ppm Au) was recorded at both prospects.

#### **5. CONCLUSIONS**

Isolated anomalous copper mineralisation located at the Sunset Boulevard prospect significantly downgrades the potential of the prospect to host any significant mineralisation.

Further field evaluation and geophysical modeling of anomalous rock chip copper values collected at the Ningaloo prospect has sourced the mineralisation to a 60m to 70m wide fault corridor. Lithology exposures within this corridor display brittle and soft fracture tectonic fabrics, of which copper mineralisation is associated with 'rock-flour' within the tectonic breccia matrix. Rare exposures of quartz hosted malachite was observed adjacent to brecciated portions. Field evaluation concludes that these copper anomalous fractures are separated by wide zones of non-mineralised host rock assemblages, consequently significantly downgrading the mineral potential of this prospect.

As a result of the downgrading of the Ningaloo and Sunset Boulevard prospects, BGI believed no further investigation of airborne magnetic targets was justified. No further work was performed and the licence was recommended for complete relinquishment.

## 6. EXPENDITURE

Exploration activities performed by Blue Gum International Pty. Ltd. during the period 9<sup>th</sup> October 2001 and 18<sup>th</sup> August 2003 totalled A\$53,887.

A breakdown of exploration expenses for the period is included below.

Category	A\$	%
Salaries and Wages	28,800	53.44
Transport	1,250	2.32
Accommodation	373	0.69
Consumables	1,589	2.95
Communication	2,070	3.84
Field Supplies	255	0.47
Vehicle Operating + Fuel	9,356	17.36
Maps + Plans	25	0.01
Geophysics	4,200	7.79
Geochemical Analysis	450	0.84
Drilling	250	0.01
Tenement	3,403	6.32
Base Support Costs	910	1.69
Administration	858	1.59
<b>Total</b>	<b>53,887</b>	<b>99.32</b>

## **7. ACKNOWLEDGEMENTS**

The Directors of Blue Gum International Pty. Ltd. are expressly grateful to the owners of 'Marqua' (Mr. Malcolm Chalmers) and Tarlton Downs (Mr. Michael James) Pastoral Stations for permitting access across the Station Properties to BGI personnel. Their assistance with information pertaining to access routes, local conditions and historical factors.

## **8. REFERENCES**

- Cozens, G.J., 1995. Final Report On Exploration Licence 6694 (Hay River): Eastern Arunta Project. Normandy Exploration Limited Report No. 11022. Volume 1 of 2. Northern Territory Department of Mines and Energy Open File Report No. CR95/249A.
- Freeman, M.J., 1986. Huckitta (SF 53 – 11) 1:250,000 scale Geological Map Series Explanatory Notes. Northern Territory Geological Survey.
- Meade, R.A, 2002. First Annual Report on Exploration Licence 22381 (Hay River). Blue Gum International Pty. Ltd.

**APPENDIX 1.**

**EL 22381 TENURE – 10<sup>th</sup> OCTOBER 2001.**

**APPENDIX 2.**

**EL 22381 TENURE – 10<sup>TH</sup> NOVEMBER 2002.**

### **APPENDIX 3.**

#### **EL 22381 AIRBORNE MAGNETIC ANOMALY SUMMARY.**



#### **APPENDIX 4.**

#### **EL 22381 GEOCHEMICAL ROCK CHIP SAMPLE LOCATION SUMMARY.**

**APPENDIX 5.**  
**EL 22381 ROCK CHIP SAMPLE DESCRIPTIONS.**

**BGI 001** Vuggy, hematite veined, very siliceous, rare specularite to 1 mm, possibly quartz vein very siliceous quartzite, very siliceous rock with possible ex-granite texture, occasional ex-solution of elements / grains / minerals, very rare pyrite disseminations, occasional evidence of brecciation, occasional hematite stained quartz areas.

**BGI 002** Very siliceous ex-granite, brecciation, possible re-silicification, very fine grained hematite and silicification filling secondary porosity, rare malachite spots to 2 mm and weathered equivalents along fractures as smears, limonitic weathering of minerals completely obliterated, malachite appears associated with limonitic vuggs adjacent to hematite rich zones, very rare sphalerite with hematite veins.

**BGI 003** Thin <1 mm wide opaline silica lining vuggs, very limonitic and ferruginous minerals within extremely silicified ex-granite, occasional fine bladed specularite clusters, abundant sugary tan-light brown quartz growths and saccharoidal linings of vuggs, extremely vuggy rock, hematite veins

**BGI 004** Extremely silicified very brecciated ex-granite, veins and vugg-fills of hematite and quartz and hematite-quartz respectively, occasional very hematitic rock appearing as clasts and lumps (possible replacement), rare very fine pyrite, ?? Au ??, occasional chalcocite filled voids (scratches tan-brown).

**BGI 005** Very silicified, possibly ex-granite, very brecciated and filled with hematite quartz, hematite appears as veins and clasts, very rare malachite within quartz lined voids and as smears on fracture surfaces, evidence of open space linear void fill (now growth quartz), slickensiding evident.

**BGI 006** Very silicified quartz veined rock, hematite angular clasts, rare malachite and bleached malachite along fractures, occasional malachite within quartz filled vuggy voids.

**BGI 007 – BGI 021** Quartz veined granite, occasional hematite veins.

Sample	Qv	Hv	Hdiss	Mal	Pyr	Chl Alt	Hmass	Sil	Comment
BGI 007	2	1	1						
BGI 008	10	2	1				5		Slickensiding
BGI 009	2	10	2			M			
BGI 010	10		1	5					
BGI 011	4	2				M			
BGI 012	1	2	1	1					
BGI 013	1	1	1	10			5		
BGI 014	2	1		5		W			
BGI 015	15	1	1	1				W	
BGI 016	5	1	1	1					
BGI 017	10	1		4		W	1		
BGI 018	5	1				W			
BGI 019	5	10	2	5			1		
BGI 020	2	1		1			4		
BGI 021	1		1			W		W	

W	=	weak	Qv	=	quartz vein (%)
M	=	medium	Hv	=	Hematite vein (%)
S	=	strong	Hdiss	=	Hematite dissemination (%)
			Hmass	=	Hematite massive (%)
Pyr	=	Pyrite (%)	Chl Alt	=	Chlorite alteration (%)
Mal	=	Malachite (%)	Sil	=	Silica (%)

## **APPENDIX 6.**

### **EL 22381 ROCK CHIP SAMPLE GEOCHEMISTRY RESULTS.**

**LABORATORY** : Aminya Reference Laboratories  
291 – 293 Learmonth Rd, Wendouree, Victoria, 3355  
Ph : (03) 53394995 Fax : (03) 53395314

**LABORATORY REFERENCE** : BR009243  
**CLIENT REFERENCE** : 6814  
**DATE RECEIVED** : 05.08.02  
**NO. OF SAMPLES** : 21

<b>ELEMENT</b>	<b>Au</b>	<b>Cu</b>	<b>Pb</b>	<b>Zn</b>	<b>Ag</b>	<b>Fe</b>	<b>As</b>
Sample No.							
BGI 001	0.01	77	9	5	<	3.25	<
BGI 002	0.02	128	17	7	<	9.90	<
BGI 003	<	95	9	6	<	3.63	<
BGI 004	0.01	42	8	2	<	4.50	<
BGI 005	0.03	1151	11	17	<	7.10	<
BGI 006	0.03	111	5	<	<	1.95	<
BGI 007	0.01	7	3	3	<	0.85	50
BGI 008	0.03	19	8	5	<	4.06	65
BGI 009	0.01	125	7	13	<	2.85	80
BGI 010	0.02	4190	4	9	1.0	1.21	60
BGI 011	0.02	71	5	7	<	0.91	40
BGI 012	0.02	2050	7	5	<	1.59	70
BGI 013	0.02	2.58%	8	14	1.0	1.70	100
BGI 014	0.04	2.88%	14	19	<	2.52	90
BGI 015	0.01	123	4	<	<	1.25	120
BGI 016	<	2.56%	8	<	<	1.16	60
BGI 017	0.02	8150	8	6	<	1.13	90
BGI 018	0.04	43	3	<	<	0.96	120
BGI 019	0.03	6040	8	2	1.0	3.28	80
BGI 020	0.03	989	4	2	1.0	2.29	110
BGI 021	0.01	228	3	3	<	1.38	100
<b>UNITS</b>	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)	(ppm)
<b>DETECTION LIMIT</b>	0.01	1	1	1	0.1	0.01	20
<b>SCHEME</b>	PE01S	ARBM	ARBM	ARBM	ARBM	A015	AAS