

# 2004 Annual Report

# On

# **EXPLORATION LICENCE, EL 22206**

# **AuQuest Project**

Period Beginning 23<sup>rd</sup> October 2003 And the Period Ending 22<sup>nd</sup> October 2004.

LICENCEE \ OPERATOR: STANDARD 1:250,000 SHEET: STANDARD 1:100,000 SHEET: AUTHOR:

DATE: DISTRIBUTION: Renison Consolidated Mines NL SD5204 Darwin Noonamah 5172 Scott Hall Project Geologist Prue Kobiolke Geologist. October 2004 NT Department of Mines & Energy. Renison Consolidated Mines NL, Brisbane. Renison Consolidated Mines NL, Tom's Gully.

# **Tenement Details**

This Tenement was applied for in 1999 and has been held up in Native Title until recently. The tenement comprises 2 blocks covering  $6km^2$  and is located west of and neighbouring Tom's Gully.

#### **Tenement History**

#### Table 1 Tenure Details EL 22206

Date of Grant		23rd Oct	23rd October 2003		
Period of Grant		6 Years	6 Years		
Year of Tenure	Period	Blocks	Blocks	Expenditure	
		Surrendered	Retained	Covenant	
1	2003/2004	0	2	\$5,000	
2	2004/2005	0	2	\$5,000	

### SUMMARY

Renison Consolidated Mines NL has been developing an exploration strategy in the Northern Territory since 1999. This strategy includes targeting dislocations that host economic gold mineralisation within regional structures that intersect known stratigraphical and structural features of the Pine Creek Geosyncline. EL22206 forms a part of a regional package of tenements (AuQuest Project) that have a northwest trend, covering what the Company has called the Noonamah-Corroboree trend. Processing of Northern Territory Government supplied 400m spaced aeromagnetic and radiometric data and a small 200m line spacing aeromagnetic survey carried out by the Company has significantly enhanced the detail of the underlying geology and the subsequent interpretation of the prospectivity of that area.

Over the past two years, the Company's focus in the Northern Territory has been the development and subsequent operation of Stage 3 of the Quest 29 dump leach operation during 2003/04, and the completion of the resource drilling and feasibility study on underground mine development at Tom's Gully which will produce approximately 40,000ozpa of gold.

Approximately \$1.75m has been spent on ground at Tom's Gully and other tenements within the AuQuest Project, as part of the company's exploration strategy, over the previous 12-month period. The Feasibility Study on Tom's Gully Underground and is due for completion during November 2004.

Quest 29 and Tom's Gully are part of the AuQuest project, which covers approximately 1100 square kilometres of exploration licenses including EL22206. It is expected that exploration on these EL's will find additional open cut ores which can be treated through the Tom's Gully plant and exploration will focus on these EL's and targets on completion of the Feasibility Study.

Work completed on this tenement has comprised of literature reviews and initial data entry to GIS of historical work. A meeting with the native title claimants is hoped to be arranged shortly so field work can be undertaken in the near future.

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### **1. INTRODUCTION**

Sirocco Resources NL was listed on the Australian Stock Exchange on the 20<sup>th</sup> December 1996, following a recapitalisation of the failed Kakadu Resources NL Company. Additional capital raising was completed on the 5<sup>th</sup> June 1997, which allowed a series of exploration and evaluation programs to be initiated, around the existing infrastructure of Tom's Gully and also the Quest 29 Mining Leases. Sirocco Resources NL was renamed during 2002 after corporate restructuring to Renison Consolidated Mines NL, a feasibility study on reopening the Tom's Gully Mill and underground operation is currently being completed.

Previous work is being compiled into GIS format for target generation and to reduce repetition for the possibility of further Dump Leachable oxide resources and hopefully some higher grade material to supplement the underground mining.

Access to the tenement is via secondary tracks leading from the Arnhem Hwy. These tracks provide good access for 4WD vehicles during the dry season, however these tracks become impassable after heavy rain, and therefore no access is possible throughout the wet season.

### Figure 1 Tenement Location Map

# 2. REGIONAL GEOLOGY

EL 22206 is located within the Pine Creek Geosyncline, which has been interpreted as an intracratonic basin lying on an Archaen basement, and containing a 14 km thick sequence of Proterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. The Northern portions of the project area contain the oldest sediments The Mount Partridge Group that is unconformably overlain by the South Alligator Group, which comprises most of the tenement areas. The southern portion of the Project area is comprised of Burrell Creek Formation, which conformably overlies The South Alligator Group. Tertiary and Quaternary Soils and Gravel's unconformably overlie all the lower lying portions of the tenement areas, generally referred to as "Black Soils Regions". All of the Early Proterozoic sediments and volcanics in the Mount Bundey area were folded in a major deformation event dated around 1800 million years. The fold axes trend north-northeast and generally plunging gently to the south, as can be seen in Figure 2.

#### 2.1 The Mount Partridge Group

#### 2.1.1 Wildman Siltstone

The Mount Partridge Group is represented by the Wildman Siltstone, which is interpreted to be up to 1500m thick. In the Mount Bundey Region the Wildman Siltstone consists of laminated and banded shale, carbonaceous and often pyritic siltstone inter bedded with undifferentiated volcanics in up to 100m interbeds, minor dolomitic sediments may also be present. The sediments near the granite intrusion may also be hornfelsed. The Wildman Siltstone is interpreted to be prospective for large tonnage, low-grade gold deposits and small tonnage, high-grade deposits. Wildman Siltstone hosts the Tom's Gully gold deposit.

#### 2.2 The South Alligator Group

The Koolpin Formation, Gerowie Tuff and the Mount Bonnie Formation represent the South Alligator Group. The rocks of the South Alligator Group are considered to be prospective for either large tonnage, low grade gold deposits (such as that at the nearby Rustler's Roost gold mine) or small tonnage, high grade deposits.

#### 2.2.1 Koolpin Formation

The Koolpin Formation comprises ferruginous siltstone and shale, which is commonly carbonaceous and pyritic. Chert bands and nodular horizons are common and lenses of ironstone occur occasionally, as haematitic breccias throughout the sequence into undisturbed quartz-veined siltstone and shale. Minor components of dolomite can also occur. The Koolpin is one of the most prospective units in the Mount Bundey Region for hosting mineralisation (West Koolpin, Taipan, BHS and North Koolpin Open Pits at Quest 29 are all within Koolpin sediments)

#### 2.2.2 Gerowie Tuff

The Gerowie Tuff conformably overlies the Koolpin and has similar characteristics of siltstones and shales but is not as iron rich. Within the Mount Bundey Region it is dominated by graded beds of siliceous tuffaceous mudstones grading to greywacke and arenite, diagenetically altered, up to 600m thick, and generally poorly mineralised. The highly siliceous component of the tuffs and arenites make them resistant to erosion, and they tend to form areas of high relief.

#### 2.2.3 Mount Bonnie Formation

The Mount Bonnie Formation conformable overlies the Gerowie Tuff and is dominated by a shallow marine sequence of interbedded and graded siltstone, chert and greywacke with occasional BIF's. The unit can be up to 600m thick and is generally iron rich and may be siliceous in places. The Mount Bonnie Formation hosts the Rustler's Roost deposit.

#### 2.3 Finniss River Group

#### 2.3.1 Burrell Creek Formation

Conformably overlying the Mount Bonnie Formation is the Burrell Creek Formation interpreted as a flysch sequence of fine to coarse marine sediments and appears to be part of continuous sedimentation process. Due to the lack of marker horizons and poor exposure the width of the unit is unknown but is thought to be >1000m. This Formation is considered prospective for large low-grade gold deposits as typified by the Batman deposit of Mount Todd. The potential also exists for small high-grade deposits similar to Possum and Happy Valley with John Shields GIGIAC Theory (Gold in Greywacke in Anticlinal Crests). Also high-grade deposits such as Bandicoot, Marrakai and the Ringwood line which all lie on a major deep-seated magnetic trend, Figure 2.

#### 2.4 Intrusives

#### 2.4.1 Zamu Dolerite

The Zamu Dolerite occurs as small bodies that are poorly exposed, as a result of its weathering some rubble boulders may be present at surface. It consists of altered quartz dolerite and gabbro and is generally narrow and broadly conformable to bedding as thin sills. The Zamu Dolerite is the only known suite of mafic intrusives that were emplaced prior to regional metamorphism and deformation. The Zamu Dolerite appears to have a controlling influence on the mineralisation at Quest 29 within the Koolpin sediments but this is not fully understood at this stage. Mineralisation is also hosted within this unit at Quest 29 and also at Chinese Howley.

#### 2.4.2 Mount Bundey Granite & Mount Goyder Syenite

The sedimentary sequences and the Zamu Dolerite are intruded by the Proterozoic Mount Goyder Syenite and Mount Bundey Granite which form a co genetic complex which crops out over about an 80km area. This intrusion is believed to have been the heat and fluid source for the mineralisation, which occurs throughout the local region. Their mineralogy and geochemistry suggests they are both differentiated from a common magma, which intruded into the gently south plunging folded belt of sediments.

A thermal metamorphic overprint associated with the southern margin of the Mount Bundey Granite intrusive has resulted in the development of both cordierite and andalusite, and probably was the generator for the local gold mineralisation. Further to the south of the Mount Bundey and Mount Goyder intrusive is possibly a second deep-seated pluton to the south as indicated by a roughly circular magnetic feature (Discussions with Williams Resources 1998).

#### 2.5 Deformation & Metamorphism

Regional deformation with north-northeast folding plunging gently south occurred around 1800 My, based on a rubidium-strontium analysis, causing metamorphism to greenschist, and sometimes higher to amphibolite facies. This event also resulted in the intrusion of thin sills of Zamu Dolerite, and the post – tectonic emplacement of the Mount Bundey Granite and Mount Goyder Syenite is a comparable cogenetic pluton dated at 1790 + 110 My in the region. Structural deformation of the metasediments is complex.

The major folding episode resulted in tight folds whose axes plunge southwest. However within these major folds the more incompetent beds, i.e. carbonaceous shales, have been deformed into localised complex structures. The granitic emplacement has also influenced the fold structures as can be seen on the regional geological map. Metamorphism to greenschist facies through dynamic compression associated with intense folding is common. The granitic emplacement and the associated structural deformation and generation of hydrothermal fluids are thought to have been responsible for most of the gold enrichment throughout the Pine Creek Geosyncline. eg. Cosmo Howley, Rustlers Roost, Toms Gully, Moline, Mt Todd and Quest 29. Figure 2 Regional Geology, Magnetics Map & GIS Data

## **3. PREVIOUS EXPLORATION**

The earliest known record of exploration in this area of the Mount Bundey region was undertaken during the 1970's by Geopeko who used costeaning, rock sampling, soil sampling, and drilling.

During the early 1980's Aquitaine Australian Minerals/ Pan D'Or Mining and Jimberlana Mining occupied EL1653, as well as Optimal Mining and ACA Howe Australia, then in 1986 AGIP Australia occupied EL4642 undertaking limited exploration.

During the late 1980's to the early 1990's Carpentaria Gold held the tenements as EL4927, in which they took stream sediment samples and some percussion drilling as a means of searching for gold deposits. Stream sediment sampling was successful in identifying the Tom's Gully Deposit.

During the early 1990's Kakadu Resources held the tenement as EL7322, and Dominion Gold Operations held tenement for EL8688 during 1995 and conducted lag sample analysis. Soil and rock chip samples were also taken within EL8688, by Northern Gold and Territory Goldfields, along with lag and soil samples.

Current Tenement Holders in the Project area include Northern Gold 1990-present, Valdora -Rustler's Roost Mining –Williams Inc. now called Valencia Ventures 1993-present, and Renison Consolidated Mines NL 1997-present.

This work is currently being compiled into GIS format for target generation and to prevent repetition with follow up work.

## **4. CURRENT EXPLORATION**

Work on this tenement has been restricted to Literature reviews for previous work and data entry of some of this information into GIS databases. LAG and stream sediment samples can be seen within the tenement area. Some of the stream sediment anomalies will be followed up. Vehicle traverses have been undertaken to assess the access to the area, which was deemed to be reasonable for dry season access.

Magnetics and Radiometrics data has been reprocessed and reinterpreted to follow regional structures, which are seen to be fluid conduits for mineralisation within the region. This data is presented in Figure 2 with geology overlain.

Now all of the titles that have been held up in native title have been granted a meeting with traditional owners will be scheduled so field work can begin at the start of the 2005 Dry Season.

## **5. REHABILITATION & ENVIRONMENTAL PROTECTION**

Before ground work can begin we must arrange a meeting with the traditional owners regarding access, we are endeavouring to arrange this currently.

# 6. NORTHERN TERRITORY EXPLORATION EXPENDITURE for MINERAL TENEMENT 2003\2004

Section 1. Tenement type, number and operation name: (One licence only per form even if combined reporting has been approved)				
Туре	EL			
Number	22206			
Operation Name (optional)	AuQuest			

Section 2. Period covered by this return:				
Twelve-month period:		If Final Report:		
From	23/10/2003	From		
То	22/10/2004	То		
Covenant for the reporting period:		\$ 5,000		

Section 3. Give title of accompanying technical report:				
Title of Technical Report	2004 Annual Report on EL 22206 AuQuest Project			
Author	Scott Hall			

Section 4. Locality of operation:			
Geological Province	Pine Creek GeoSyncline		
Geographic Location	Darwin		

Section 5. Work program for the next twelve months:				
Activities proposed (please mark with an "X")	Drilling and/or costeaning			
X Literature review	Airborne geophysics			
X Geological mapping	Ground geophysics			
X Rock/soil/stream sediment sampling	X Other: Traditional Owner Meeting			
Estimated Cost:	\$5,000			

Section 6. Summary of				Data and For	nat Supplied in
operations and expenditure:					ical Report
Exploration Work type	Work Done		Expenditure	Digital	Hard copy
Office Studies	WORK D		Experiature	Digital	
Literature search	V		\$1,200.00		
	X		\$ 500.00		
Database compilation					
Computer modelling			+		
Reprocessing of data	X		\$ 500.00		
General research	X		\$ 600.00		
Report preparation	Х		\$ 500.00		
Other (specify)	0		\$ 0.00		
	Subtotal		\$3,300.00		
Airborne Exploration Surveys	(state line kr	ns)			
Aeromagnetics		kms			
Radiometrics		kms			
Electromagnetics		kms			
Gravity		kms			
Digital terrain modelling		kms			
Other (specify)		kms			
	Subtotal		\$		
Remote Sensing					
Aerial photography					
LANDSAT					
SPOT					
MSS					
Other (specify)					
	Subtotal		\$		
Ground Exploration Surveys					
Geological Mapping					
Regional					
Reconnaissance	Х		\$1,200.00		
Prospect					
Underground					
Costean					
Ground Geophysics			_		
Radiometrics					
Magnetics			_		
Gravity					
Digital terrain modelling					
Electromagnetics					
SP/AP/EP					
IP					
AMT/CSAMT					
AMT/CSAMT Resistivity					
AMT/CSAMT Resistivity Complex resistivity					
AMT/CSAMT Resistivity Complex resistivity Seismic reflection					
AMT/CSAMT Resistivity Complex resistivity Seismic reflection Seismic refraction					
AMT/CSAMT Resistivity Complex resistivity Seismic reflection Seismic refraction Well logging					
AMT/CSAMT Resistivity Complex resistivity Seismic reflection Seismic refraction Well logging Geophysical interpretation	X		\$ 500.00		
AMT/CSAMT Resistivity Complex resistivity Seismic reflection Seismic refraction Well logging	X		\$ 500.00		

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Geochemical Surveying and Geo	ochronology			
(state number of samples)				
Drill (cuttings, core, etc.)				
Stream sediment				
Soil				
Rock chip				
Laterite				
Water				
Biogeochemistry				
Isotope				
Whole rock				
Mineral analysis				
Laboratory analysis (type)				
Petrology				
Other (specify)				
Ground Explo	ration Subtotal		\$1,700.00	
Drilling (state number of holes	& metres)			
Diamond	holes	metres	5	
Reverse circulation (RC)	holes	metres	5	
Rotary air blast (RAB)	holes	metres	5	
Air-core	holes	metres	5	
Auger	holes	metres	5	
Other (specify)	holes	metres	5	
	Subtotal		\$	
Other Operations				
Costeaning/Trenching				
Bulk sampling				
Mill process testing				
Ore reserve estimation				
Underground				
development (describe)				
Mineral processing				
Other (specify)				
	Subtotal		\$	
Access and Rehabilitation			_	
Track maintenance				
Rehabilitation				
Monitoring				
Other (specify)				
	Subtotal		\$	
TOTAL EX	PENDITURE		\$5,000.00	

an	I certify that the information contained herein, is a true statement of the operations carried out and the monies expended on the above mentioned tenement during the period specified as required under the <i>Northern Territory Mining Act</i> and the Regulations thereunder.				
Х	X I have attached the Technical Report				
1.	Name:	Scott Hall	2.	Name:	
	Position:	Project Geologist		Position:	
	Signature:	Sedt &d		Signature:	
	Date:	08/10/2004		Date:	

# 7. CONCLUSION AND PROPOSALS

Following the compilation of all historical data to GIS and associated target generation, ground work on the tenement will begin. Stream sediment anomalies associated with the contact of the Wildman Siltstone and Koolpin Formation along an anticlinal closure seen in Figure 2 will be an initial target in association with a subtle southeast/northwest trending magnetic feature crosscutting the fold closure.

Potential for finding further minable resources within the Mount Bundey Area is still considered very high.

Forward Work program expenditures contained in Section 6.5 above totalling \$5,000.

### 8. REFERENCES

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