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Annual report for the period 30 May 2000 to 29 May 2001 - EL 18/1991 - Mangana
Connemara Gold Mines Proprietary Limited*; Defiance Steward, W. EL18/1991

DEFIANCE MINING NL
A.C.N. 009161522

TASMANIA

ANNUAL REPORT FOR THE PERIOD

30 MAY 2000 TO 29 MAY 2001

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FOR EL 18/91 - MANGANA

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1. Summary

Defiance Mining NL are exploring EL 18/91 at Mangana in Joint Venture with Connemarra Gold Mines Pty Ltd, a wholly owned subsidiary of the Mining Contractor, Barminco Pty Ltd.

The targets are high-grade gold bearing reefs containing more than 50,000 ozs and similar in style to the Mangana Reef in adjacent tenement 24M/93.

Since the Joint Venture was signed in September 1998, Defiance has concentrated its field program within 43M/89 near Mathinna, located approximately 20km to the north of EL 18/91.

Work in the previous reporting period comprised the drilling of two RC percussion drill holes into the Golden Entrance Reef for a total of 180m and follow up sampling on a anomalous soil sample on Blackboy Ridge.

No field work was completed during the current period apart from drill-site clean up.

2. Introduction

EL 18/91 "Mangana", of approximately 9sq km, is centred on the town of Mangana approximately 65 km east of Launceston. The licence, which is now nearing its ninth anniversary, is due for renewal on 29 May 2000.

Connemarra Gold Mines Pty Ltd now holds the tenement, which has been previously held by Alex White and Resolute Samantha Ltd. Defiance Mining NL has signed a joint venture with Connemarra, whereby they can earn a 50% equity in this and other associated tenements, by spending \$1 million on exploration for high-grade gold reefs.

The licence is a mixture of private land on alluvial flats and State Forest in adjacent hilly country. Access is generally excellent with a sealed road to Launceston and strategically placed gravel roads throughout the tenement.

3. Conclusions and Recommendations

- Initial drill testing of the Golden Entrance line of workings was disappointing with a best result of 1m at 0.5g/t Au in MT097. The two holes drilled in this program were not situated in the best position and further drill testing should be completed on this reef along strike to the southwest.
- Drill testing of the Argyle line of reefs along strike from the Golden Entrance Reef should be contemplated.

4. Geology

EL 18/91 lies near the southern end of the 90-km long, north-north-west trending, line of gold deposits that extend from Mangana in the south to Lyndhurst on the north coast.

The gold deposits occur as auriferous quartz reefs, hosted in the Mathinna Beds, a folded sequence of Silurian-Ordovician age sediments. The Mathinna beds are intruded by younger, Devonian-Carboniferous age granites and are in part overlain by Permo-Triassic glacial marine sediments, Jurassic dolerites and Tertiary basalts.

The gold bearing veins are structurally controlled and occur in a range of orientations and forms within zones of shearing and tectonic deformation. Typical vein features are:

Width	0.1-1.0m	up to 10m
Length	10-100m	up to 350m
Depth	<100m	up to 580m
Grade	15-30g/t	cut off 10g/t
Strike	variable	NW to NE dominant
Dip	typically steep	70-80°
Mineralogy	quartz, arsenopyrite, pyrite	minor galena, chalcopyrite, sphalerite

This overall geological setting is very similar to the high grade, quartz vein style mineralisation in the slate belts of central and eastern Victoria which have historical production of approximately 80Mozs.

5. Summary of Previous Exploration

The first gold discovery in Tasmania was made at Mangana in 1852. As exploration extended to the north, further discoveries were made in the Lyndhurst-Mangana belt (including additional discoveries in Mangana EL 18/91) and at Lisle, Lefroy and Beaconsfield.

In this first phase of mining, production peaked sometime prior to 1884. In the Lyndhurst-Mangana zone, activity was concentrated on the southern section between Mangana and Alberton within a 70km by 5km belt of deformed sediments.

In about 1887, after the first phase of mining had largely been completed, a Mr A Loane discovered a reef (Loane's Reef) in the abandoned adit of the Golden Gate mine. Sinking of a shaft to evaluate this reef discovered an additional reef (Main Reef). These two reefs were subsequently mined down to about 280m depth and probably each produced somewhere between 50,000 and 100,000 ozs.

Further exploration at depth below, and adjacent to, these reefs discovered a further two reefs (East and West Reefs) which were mined from 250-470m depth. The New Golden Gate Shaft was subsequently extended to 549m.

The bulk of the 265,000 ozs of gold from the New Golden Gate mine was produced in the years 1888 to 1904. Intermittent production occurred through to 1929 when the workings were finally abandoned. New Golden Gate production represents approximately 16% of Tasmania's historical production.

Early mills were generally simple stamp and gravity mills, which recovered most of the coarse free gold, but gold associated with sulphides was lost. The New Golden Gate mill experimented with cyanide extraction of their sulphides with limited success.

An important feature of the area is that many of the quartz veins never outcropped and were only discovered during underground development aimed at other veins.

Modern day exploration activity has seen a number of companies hold tenure over the Mangana area, however, very few have carried out drilling programs in the area of the old mines. Recent drilling programs have largely concentrated in the Mathinna area.

A large number of old workings remain untested by drilling.

A more detailed summary of historical exploration is available in MacDonald (1996)

6. Summary of Work Completed

6.1 Soil Geochemistry

Resolute Samantha Ltd collected a large number of soil and auger samples over Mangana EL 18/91 while they held tenure. These samples were collected at 100m by 50m spacing with 100m by 25m infill in anomalous zones.

One anomaly on Blackboy Ridge which had a best reported result of 206ppb Au and 570ppm As and several other adjacent samples with 10-40ppb Au was followed up with ten repeat soil samples. The best value repeated as 44ppb Au and 140ppm As, however, all the adjacent samples repeated as <1ppb Au and <10ppm As, thus significantly downgrading the anomaly.

Samples were collected by removing leaf litter off the surface and then digging a small hole to collect soil that was then sieved through a 2mm sieve. Oversize was discarded and the minus 2mm fraction was analysed at Analabs in Burnie for Au by method F614 (detection limit 1ppb Au) and As by method H102 (detection limit 1ppm As). Samples were either collected from the same hole as the original sample (often still visible) or from a site immediately adjacent to the original sample site.

6.2 RC Drilling

Two RC percussion holes (MT097 & 98) were drilled to intersect the Golden Entrance Reef as part of a larger program in the Mangana area, principally targeted at the Mangana Reef in adjacent ML 24M/93.

For ease of access the holes were positioned on the top of the ridge near the northwestern end of the old workings. The targeted intersection points with the reef were 30m and 50m below the collar of the No 1 shaft. The original proposed section line was on a bearing of 045° magnetic (060° AMG) from No 1 shaft, at right angles to the line of the reef. However the hole positions had to be moved 10m to the northwest because of heritage concerns and the hole azimuths were subsequently adjusted by a small amount to retain the same intersection points. Hole positions are itemised in Table 1. RL coordinates are notional because of the lack of suitable local survey control.

Hole No	AMG East	AMG North	RL	AMG Azimuth	Inclination	Depth (m)
MT097	574797.2	5393136.6	432.0	226	50	84
MT098	574797.6	5393137.1	431.8	226	60	96

Table 1. Golden Entrance Reef – Drill Hole Positions.

Samples were collected in a large plastic bag from the drill cyclone at 1m intervals. Following lithological logging, samples of barren material with no quartz or sulphides present, were generally collected at 2m or 4m intervals (rarely 1m or 3m) using a 50mm poly spear. In zones of moderate interest based on the lithological logging, poly speared samples were collected every metre. In samples containing significant amounts of quartz and/or sulphides, samples were collected every metre using a riffle splitter.

Samples were sent to Analabs in Burnie where they were analysed for (detection limits in brackets) the following:

- Au (10ppb) by fire assay.
- As (1ppm) by a triple acid digest with an AAS vapour hydride finish. Samples reporting >50ppm were re-analysed using an AAS finish.

While a number of quartz rich reefs were intersected in both holes, the sulphide content of the quartz was very low, possibly in part due to deep weathering, and Au assay results were disappointing. The best intersection was 1m from 43m at 0.5g/t Au in RC00MT097.

6.3 Survey Control

East Coast Surveying from St Helens established AMG survey control to the vicinity of the Golden Entrance workings. AMG coordinates were established for the two drill hole collars and several points along the line of the old workings.

7. Proposed Future Program

Future targets remaining to be tested include additional holes to the south east on the Golden Entrance Reef and the Argyle Reef, the extension of the Golden Entrance Reef, across the other side of Sailers Gully. Approximately 6-8 holes for a total of about 800m of RC drilling are proposed.

8. References

- Ashley, J, 1995. Resolute Samantha Group Northeast Tasmania "Mathinna Project" Interpretation of Aeromagnetic Data.
- Colville, R. 1998. Connemarra Gold Mines Pty Ltd, Mathinna Gold Project, Annual Report on Exploration Licence 3/97 for the Twelve months ending 19 September 1998.
- Jackson, DG, 1999. Defiance Mining NL, Annual Report 1999 EL 17/91 "Mangana".
- MacDonald, G. 1996. Resolute Samantha Limited, Annual Report 1995 EL 17/91 "Mathinna".

9. Expenditure Statement – EL18/91**For the period 1 April 2000 to 31 March 2001**

Item	\$
Geology	935
Drilling	7,306
Geochemistry	1,612
Other	877
Admin & Overheads	2,800
Total	13,530

* As previously reported the bulk of geological costs were previously included, however drilling costs are accounted for in this report