HARMONY GOLD OPERATIONS LIMITED

ANNUAL EXPLORATION REPORT

SEL9927

MAUD CREEK PROJECT

YEAR ENDING 30 NOVEMBER 2004

1:250,000 Map Sheet Katherine SD53-9
1:100,000 Map Sheet Katherine 5369

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SUMMARY

Hill 50 Gold NL acquired the Maud Creek project tenements from Dolomatrix International Limited during 2001. Hill 50 conducted diamond and RC drilling programs at Main Zone and Chlorite Hill before Hill 50 and the Maud Creek Project was acquired by Harmony Gold Operations Limited in mid 2002.

In 2002 Harmony commissioned a photogeological mapping and remote sensing interpretive study that covered the whole Maud Creek project area. At the same time further diamond and RC drilling was carried out on the core mineral claims.

During 2003 work was restricted to resource reviews and interpretation of the drilling data within newly granted MLN1978 (an amalgamation of several MCNs). No new exploration work was conducted in SEL9927.

The review of the Maud Project by Harmony confirmed that a significant primary gold resource was present beneath the oxide open pit. At the same time Harmony was developing a focus at Pine Creek and Burnside as well as in Papua New Guinea. The Maud Project was seen as geographically isolated from its core projects and it was decided to sell the asset.

Much of 2004 was devoted to arranging and preparing data for prospective buyers and no further field activity was undertaken on SEL9927. It has recently been announced that Terra Gold has an option to purchase the project, and if exercised, ownership will change hands before mid 2005.

Reporting and geological activity totalled $1008.00 Considerably more was spent in preparing the project for sale, but this has not been included in the expenditure report.

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1.0 INTRODUCTION

SEL9927 surrounds the western, eastern and southern flanks of the core tenements of the Maud Creek project, 15km east of Katherine NT. Since Harmony Gold Operations Ltd took over management of the project it has carried out a regional geological interpretation of the SEL. This report discusses activity during the year ended November 30th 2004.

2.0 TENEMENT STATUS

SEL 9927 was substituted for EL7775, 8018, 9131. 9132, 9481, and 9639. It comprises 19 blocks of approximately 6,327ha and was granted on 1st December 1997.

Renewal applications were granted and the expiry date is 30/11/2005. The expenditure covenant for 2004 is $4,500.

3.0 LOCATION AND ACCESS

The Maud Creek Project is located about 15km east of the town of Katherine, NT.

The preferred access is via the Stuart Highway, past Tindal airbase to a point 20km south east of Katherine. Turn left onto Ross Road travelling towards the radar dome and thence working northerly, past the present Maud Creek Station homestead along station firebreaks and fence line roads. This was the route used by haul trucks when Main Zone was mined in 2000.

Alternative but more obscure 4WD access is via the all-weather bitumen Katherine Gorge Road to the old Maud Creek Station homestead then via a firebreak track that follows Maud Creek upstream to the old Maud Creek Goldfield adjacent to the Main Zone Deposit.

Off-track access is generally reasonable except for areas covered by Kombolgie Formation or limestone units of the Daly River Basin sediments. Areas of black soil and several well-incised stream channels severely limit access during the wet season. Due to seasonal thick vegetation re-growth, access can be difficult in some areas for a month or so after the wet.

4.0 GEOLOGY

4.1 Regional Setting

The geology of the Maud Creek project area comprises Lower Proterozoic metasedimentary sequences of the Pine Creek Geosyncline, a basinal repository some 14km thick, resting on rifted Archaean basement. This was tightly folded and faulted in the Nimbuwah Event 1870-1850Ma. A lamprophyre dyke suite intruded the region prior to the emplacement of regional batholithic I-type granites of the Cullen event, 1835-1805Ma.

The Lower Proterozoic metamorphics are unconformably overlain by scarp-forming arenaceous sediments of the Mid Proterozoic Kombolgie Sandstone. These are typified

by open folding styles and normal faults. Shallow dipping Cambro-Ordovician limestone and trachyandesite flows of the Daly River Basin sequence onlap the Proterozoic rocks in the south of the area.

4.2 Local Setting

The basement geology in the Maud Creek project area is exposed in irregular erosion windows through Kombolgie Sandstone and Daly River Basin volcanics. The sequence revealed is folded and faulted basement metasedimentary strata of the Katherine Group and the underlying volcaniclastics and dolerite of the Edith River Group. Minor exposures of Finniss River Group phyllites, felsic volcanics and conglomerates are exposed in the south, adjacent to the Cambrian unconformity.

At the historic Maud Creek gold and copper workings mineralisation is associated with sills of Maud Dolerite that have been faulted against sediments and felsic tuffs of the Tollis Formation.

At the Main Zone gold deposit, an east dipping thrust fault has positioned the mafic Plum Tree Creek Volcanic Member? against Tollis Formation sediments.

5.0 PREVIOUS EXPLORATION

Hill 50 Gold NL commenced work in the SEL in mid 2001 following acquisition of the Maud Creek tenement group from Dolomatrix International P/L. Subsequently Harmony Gold Operations Ltd commissioned a regional photo interpretation and remote sensing study of the licence area. The SEL has historically received less attention than the higher priority MCNs surrounding the Maud Creek gold deposits.

A literature review of the tenement shows that the following activity was carried out by previous title-holders. Most activity has been carried out within MCNs that cover the Main Zone gold deposit, the central area of the Maud Goldfield and the Chessman prospect area to the north west. The SEL subject to this report is peripheral to these mineralised areas.

5.1 Historical Activity

The Maud Creek Goldfield was discovered about 1890 and a battery was set up, however, the field was virtually abandoned by 1891. The field re-opened between 1932 and 1934, but due to treatment difficulties, most likely caused by the fine particle size of the gold and the high sulphide content of the ore, only a small amount of gold was recovered.

Approximately 400t of ore was produced from some 20 shallow shafts and potholes, with an average grade of about 30-45 g/t Au. Shafts of 6m to 12m depth with drives 15m to 30m in length were common. The gold was mainly hosted by Maud Dolerite in quartz-sulphide veins with haematitic selvedges, varying from a few cm to a metre in width. The veins trended both north west parallel to Maud Creek, as well as east-west in the area between Gold Creek and Maud Creek.

5.2 Modern Exploration SEL9927

Between **1966 and 1973** several companies explored the Maud Creek area for copper and uranium. Drilling of siliceous and gossanous breccias intersected low, albeit anomalous, concentrations of copper and molybdenum and numerous pyritic zones. However, the potential for gold was not evaluated.

During **1985 and 1986** C.S.R. was granted several exploration licences covering the Maud Creek Goldfield and adjacent areas. C.S.R.'s objective was to explore for Kalgoorlie-style gold deposits in the mafic rocks.

Placer purchased all of C.S.R.'s Australian mineral assets in August **1988** and continued exploration of the project until **1992.** [In the period 1990-1991 Placer discovered and first-stage drilled the Western Shear Zone containing the Main Zone [Gold Creek] gold deposit].

In **1993/94** work completed is detailed in Berthlesen and Goulevitch (1994), which also includes work on the contained MCN's 4218 - 4224.

Initial exploration consisted of grid establishment and reconnaissance RAB drilling.

During **1994/95** exploration completed (including MCN's 4218-4224) is outlined in Goulevitch (1995). RAB drilling was carried out to test structures identified from aeromagnetic data collected by CSR Limited in 1985. This drilling programme was not completed due to heavy rains.

For the **1995/96** year management of exploration programs passed from Norminco to Kalmet Resources. The aeromagnetic data collected in 1985 by CSR Limited was reassessed, with the aim of identifying N-S trending structures similar to the structure hosting the Main Zone deposit (Forbes, 1996). Stephenson (1992) and Forbes (1993) give a thorough review of previous exploration.

Kalmet Resources NL and Kilkenny Gold NL carried out extensive work on parts of now SEL9927 This work included:

1996-1997
Surveying and gridding
Airborne magnetic and radiometric interpretation
Geological mapping
Aerial photography
Soil sampling and stream sediment sampling
RAB drilling.

1997-1998
In late 1997 to early 1998 SRK Consulting carried out a comprehensive geological, airmagnetic and radiometic interpretation of the Maud Creek region for Kilkenny Gold NL.
Geological mapping
Soil sampling 59 samples.

RC drilling 63 holes for 3493m

1998-1999
Geophysical interpretation and geological re mapping.

1999-2001
[The Main Zone deposit was mined by open pit methods to the transitional/primary interface by AngloGold during 2000. It was trucked and treated at the Union Reef mill.]

Hill 50 Gold NL conducted a complete review of previous exploration that led to the identification of five gold targets, one of which, "Runways", is within SEL 9927.

This target was visited in the field during the year and it appears similar in model to the Maud Creek Main Zone, being a lithological change on a north-south corridor. It also appeared to be a possible domal structure 0.5km by 0.8km.

Reconnaissance of the structure on 8401900mN from 22800mE showed the central part was underlain by dolerite. This passed eastwards into a N-S shear zone with quartz veining over 100m width. This in turn passed into sheared tuff with quartz veining.

A total of 46 rock chip samples were collected from the SEL. The best value from the Runways prospect was 110ppb gold. The area in question is soil-anomalous in the range 2ppb to 39ppb Au. A study of the Landsat image suggested that N-S faulting has dextrally displaced and segmented the structure.

At 8400806mN 226689mE the best rock chip value of the program assayed 0.85g Au/t.

It was concluded the area needs more geochemical sampling and mapping to define drilling targets and access would be best served by a maneuverable RAB hammer rig.

2002

Harmony Gold Operations P/L commissioned Stephen Snodin to carry out a photogeological interpretation map of 280 sq km in the Maud Creek area. Three days of field orientation were employed prior to the work.

He utilised existing 1:25,000 aerial photography, Landsat imagery and airborne magnetics to create his interpretation.

He concluded that extensions of the Main Zone to the north and south of the deposit comprised priority targets. The latter extends south into SEL9927 under thin Cambro-Ordovician basin cover.

He also identified ten other targets of lesser priority for exploration follow up.

The text and plan of his report was reproduced in Appendix One of the 2002 annual report.

2003

During this period Harmony did not conduct specific work on SEL9927. Work was focused on reviews of the Main Zone gold deposit. A resource model was created using all available RC and diamond drilling data.

6.0 EXPLORATION FOR PERIOD TO NOVEMBER 30TH 2004

Following on from the decision to sell the Maud Creek Project tenements to a suitable company all activity was focused on preparing the exploration data, both hard copy and digital, in a manner that would facilitate the sale. This activity was conducted in Perth Western Australia and a consultant was hired to manage the activity.

Towards the end of 2004 negotiations were at an advanced stage with a prospective purchaser having taken an option to purchase the project early in 2005.

7.0 EXPENDITURE STATEMENT SEL 9927 (year to 30/11/04)

While no expenditure was reported on the tenement during the period the pro rata costs associated with the sale of the project and including reporting requirements, amounted to several thousand dollars. Only the reporting component is included for this expenditure statement.

Salaries and wages, geology $1008.00

8.0 Proposed Work Program 2005

In the event of a successful sale of the project early in 2005 the new owners are expected to put forward a prioritised work program commensurate with their objectives. Harmony is not privy to the details so is unable to commit on their behalf. The following conclusions and recommendations are presented as relevant to the SEL.

9.0 CONCLUSIONS

SEL 9927 is extensively mantled to the south by Lower Palaeozoic sediments and volcanic flows that have onlapped the prospective Lower Proterozoic Tollis Formation and Plum Creek Volcanic Member.

Several structural features possibly associated with gold mineralisation have been identified as a consequence of photogeological, magnetic and radiometric interpretations by previous workers (SRK Consulting, Kalmet Resources NL, Stephen Snodin.) Some of these target structures have already had some degree of exploration in the form of drilling and geochemical work.

The north-south attitude of the Main Zone mineralisation could be a Reidal type splay response to a north-west trending ductile trend believed to follow the course of Maud Creek. An analogous N-S structure could be present under Cambro-Ordovician cover in the vicinity of 227000mE, 8400500mN or further SE.

It is recommended that identified structural or other types of target that have not yet received sufficient exploration work should be individually reviewed. These should be prioritised in terms of location and degree of younger cover and exploration programs designed to test them.

10.0

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