

# Quarterly Activities Report as at 31 March 2014

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**ASX Code:** AOU

**Securities on Issue:**

34,492,515 fully paid ordinary shares (quoted)

25,000,000 fully paid ordinary shares (restricted)

21,800,000 partly paid shares (restricted)

**Directors**

Glenn Whiddon  
(Non-executive Chairman)

Dean Cunningham  
(Managing Director)

Jan Nelson  
(Non-executive Director)

**Company Secretary**

Matthew Foy

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**OVERVIEW**

- **Scoping study confirms robust economics of a centralised standalone 30Ktpm non-refractory<sup>1</sup> gold plant to provide early cash flow**
- **Updated Mineral Resource Estimate reinterprets gold bearing structures**
- **88% Recovery on Transitional Ores at Fair Bride +96 Recoveries on all oxide ores**
- **Environmental Impact Assessment Report submitted**
- **Top Ten Priority Exploration Targets identified**

Mozambique-focused emerging gold producer, Auroch Minerals NL (ASX:AOU) (**Auroch** or the **Company**) is pleased to provide shareholders with the following quarterly activities report on the Company's recent activities.

**Feasibility Update**

During the quarter the Company updated its near term route to production strategy for the development of the non-refractory resources at the Fair Bride, Dot's Luck, Guy Fawkes and Boa Esperança deposits.

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<sup>1</sup> Stage 1 consists of a standalone 30Ktpm non-refractory gold plant producing +24Koz of Au at an average head grade of 2.22g/t Au.

Stage 2 consists of 120Ktpm open pit and underground mining operation producing +100Kozs of Au per annum at an average head grade of 2.46g/t Au.

Stage 3 consists of expanding the 30Ktpm non-refractory gold plant to 60Ktpm producing +45Koz of Au at an average head grade of 2.37g/t Au. Refer to Annexure 1 for a full definition of non-refractory and refractory material.

A key objective of the Stage 1 development strategy has been to ensure a robust IRR, a positive NPV and an economically sustainable standalone project, while critically creating a pathway to unlock the value of the total resource of 2,820,100 Au (**Table 2**) through Stages 2 and 3 in the future.

This is achieved despite the Stage 1 development carrying directly and indirectly \$24.2 million of costs that will directly benefit Stages 2 and 3, with lower operating costs and capital expenditures.

Over the past 8 months all of the work programs identified in the original scoping study (refer announcement 3 July 2013) have been completed, these include:

- Submission and approval of DTI non-dilutionary grant funding of approximately A\$870 000<sup>2</sup>;
- Submission of the Environmental Impact Assessment and the Rights of Land Use and Benefit Direito de Uso e Aproveitamento da Terra (DUAT) to the Mozambique Ministry of Coordination of Environmental Affairs (MICOA) in accordance with the terms of the mining concession;
- In-fill drilling at Dot's Luck and Guy Fawkes totalling 8,249m of diamond drilling and 1,010m of RC drilling with 1,867m of trenching specifically at Guy Fawkes;
- Verification and validation of the Dot's Luck and Guy Fawkes geological structures together with the updated resource model prepared by CSA Global Consultants resulted in an updated mineral resource estimate (**MRE**);
- A detailed internal due diligence and data analysis of the Fair Bride structure was completed;
- Tailings disposal and geotechnical consultants issued reports for the placement and preliminary design of the gold plant and tailing disposal facility;
- Metallurgical test work to confirm preliminary recovery factors. Preliminary results confirm the historical Pan African test work and estimates used in the scoping study;
- This metallurgical test work has been extended to include a series of flotation and subsequent ultra-fine grinding (**UFG**) tests on the ores at Fair Bride. The results of these UFG test show Au recoveries of 88% on non-refractory transitional ores.
- Preliminary open pit designs by RHDHV Mining Consultants and initial infrastructure capital estimates from Basil Read Matomo were completed;
- The gold plant process design has been updated, mass balances re-calculated and key equipment lists including mining equipment have been re-priced; and
- Prefeasibility Studies estimation accuracy of the capital requirements over the life of mine of Stage 1.

Independent advisers JP Mining Consulting (Pty) Limited (**JPMC**) have updated the initial scoping study to include the work completed above, including the updated mineral resource estimate for Stage 1 (**Updated Scoping Study**). The Updated Scoping Study includes the following assumptions:

- All non-refractory resources, including Inferred resources have been used with appropriate conversion and modifying factors applicable for the style of mineralisation and mining method.

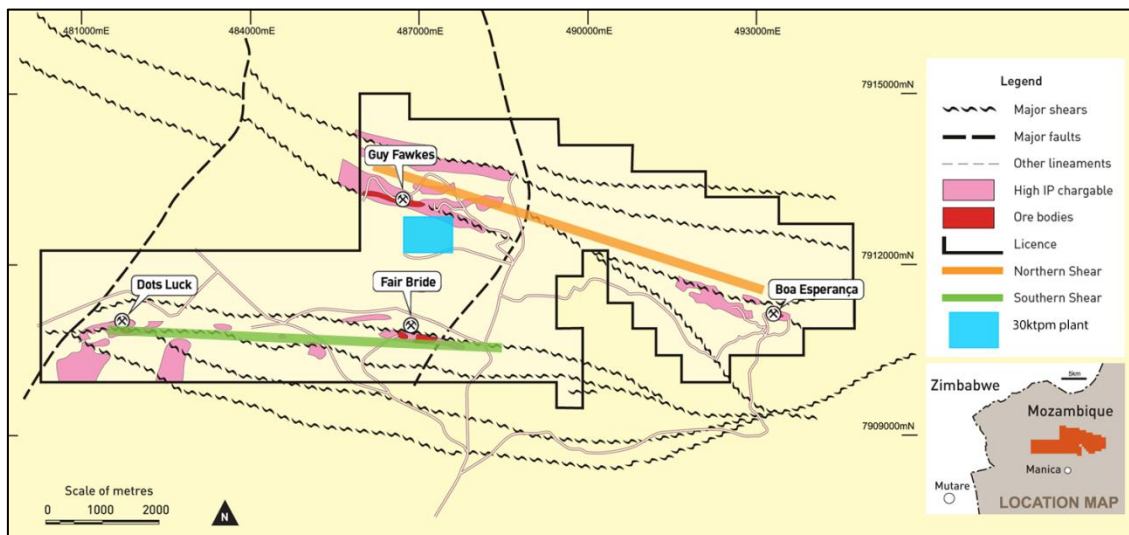
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<sup>2</sup> Based on a Rand/Australian dollar of 9.20.

Table 1: Non-Refractory Resources to be used in the Stage 1 DFS			
Classification	Tonnes	Au g/t	Ounces
Measured	1,996,000	1.73	111,000
Indicated	929,000	1.83	54,500
Inferred	941,000	3.07	92,800
<b>Total</b>	<b>3,866,000</b>	<b>2.08</b>	<b>258,300</b>

Cut Offs: Measured 0.50g/t; Indicated 0.50g/t <300m and 1.00g/t >300m; Inferred 0.50g/t

- The Stage 1 plant is centrally located on the Mining Concession (**Figure 1**) and the production profile is show in **Figure 2**;



**Figure 1: Showing the position of the centralised plant relative to the mining deposits**

- The tailings disposal has expansion capacity built into it and has been designed to receive up to 60Ktpm;
- Estimated total production of 172,752 oz Au over an operating life of mine (LOM) of 8 years;
- An average head grade of 2.20 g/t Au (Figure 2) is fed into the Stage 1 plant to produce an average +22,000 oz pa (**Figure 3**);

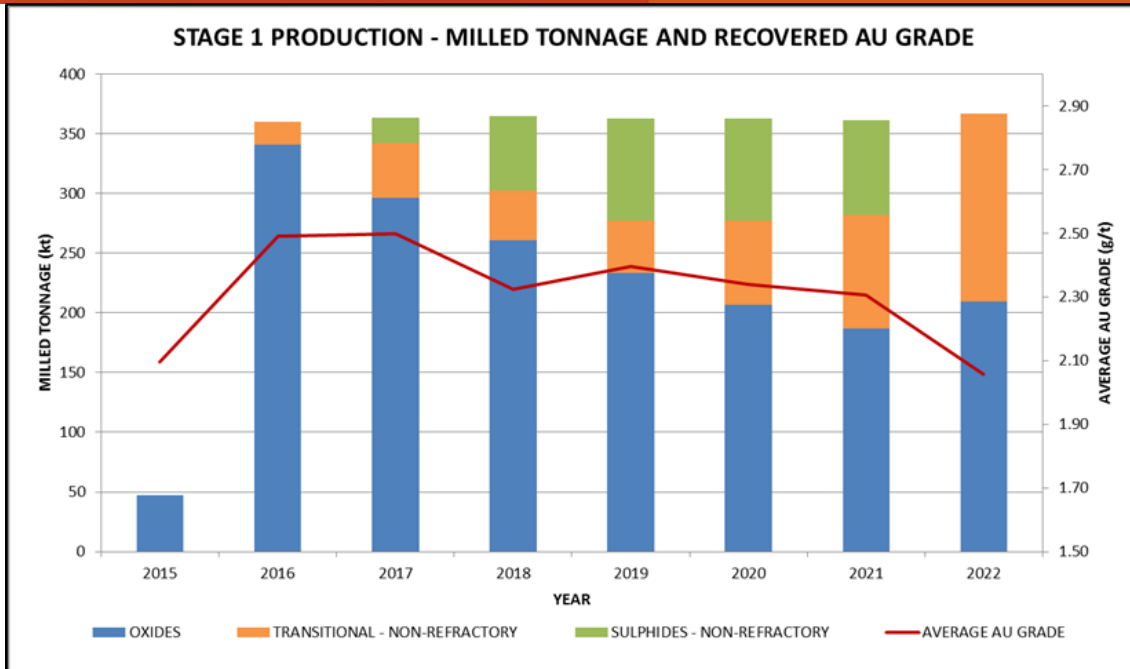


Figure 2: Tonnage (oxide, sulphide and transitional ores) (Kt) and Grade Profile (g/t) over the life of the Stage 1 Project.

- A long term gold price of US\$1,336/oz<sup>3</sup>;
- Included in the Stage 1 Project scope is a flotation and an Ultra-Fine Grinding (UFG) circuit for the treatment of non-refractory transitional ores (mined at Fair Bride and Dots Luck within the first 18 months) and a refractory pilot plant for further test work. The benefits of including the UFG process are twofold:
  1. To treat and maintain the recoveries of the transitional ore well above 80% during Stage 1; and
  2. To provide data on the most effective treatment of refractory ore.

The inclusion of the Pilot Plant, as recommended in the preliminary Biox laboratory report, is to confirm the historical laboratory tests on these refractory ores which indicated recoveries of  $\pm 88\%$ . Testwork to replicate these recoveries on a production scale through the use of the Pilot Plant will determine the efficacy of Stage 2 (120Ktpm refractory plant). However, the results of recent UFG metallurgical test show Au recoveries of 88% on non-refractory transitional ores that may translate into the delay or complete elimination of an oxidation process (e.g. BIOX) for the future treatment of the deeper refractory ores at Fair Bride.

<sup>3</sup> Gold price estimate from Bloomberg Analysts (Sept 2013):

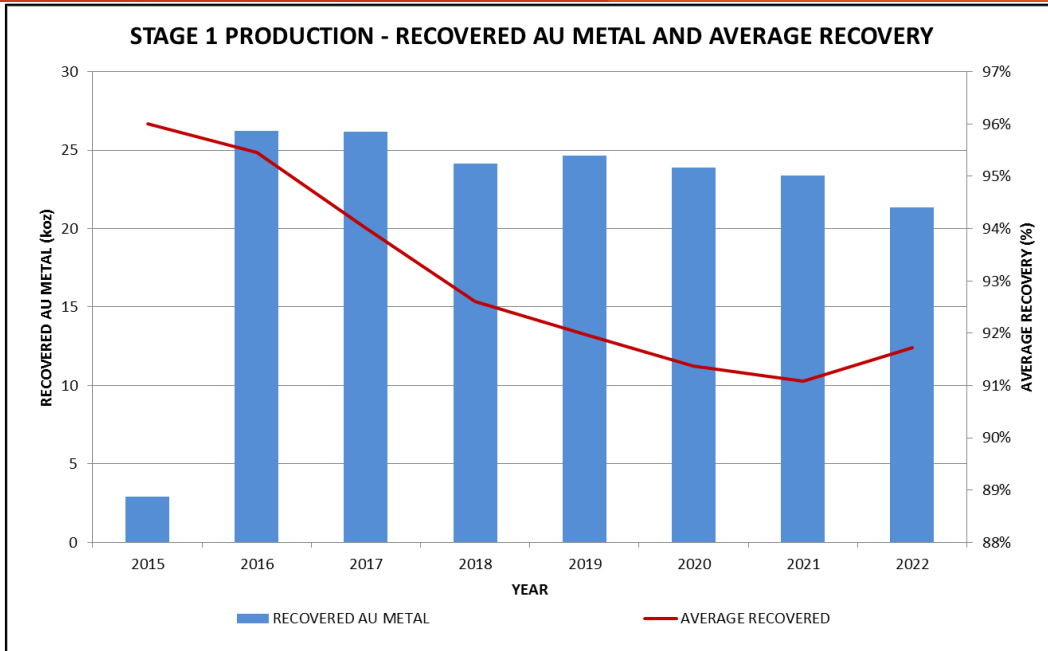


Figure 3: Recovered Au Metal (Kozs) and Recovery (%) over the life of the Stage 1 Project.

- Average total operating cost (steady state) of US\$51.8/t milled or US\$777/oz (excludes capex and is before tax, depreciation) (Figure 4). The inclusion of a flotation, UFG circuit and Pilot Plant has added 5% to the average total operating costs in US\$/ton, subject to confirmation by the Stage 1 DFS. This approach is the key to unlocking the 2.5Moz (Annexure 1) refractory resource that includes 1 million ounces at an average grade of 4.13 g/t Au (based on a cut-off grade of 3g/t Au) at Fair Bride; and

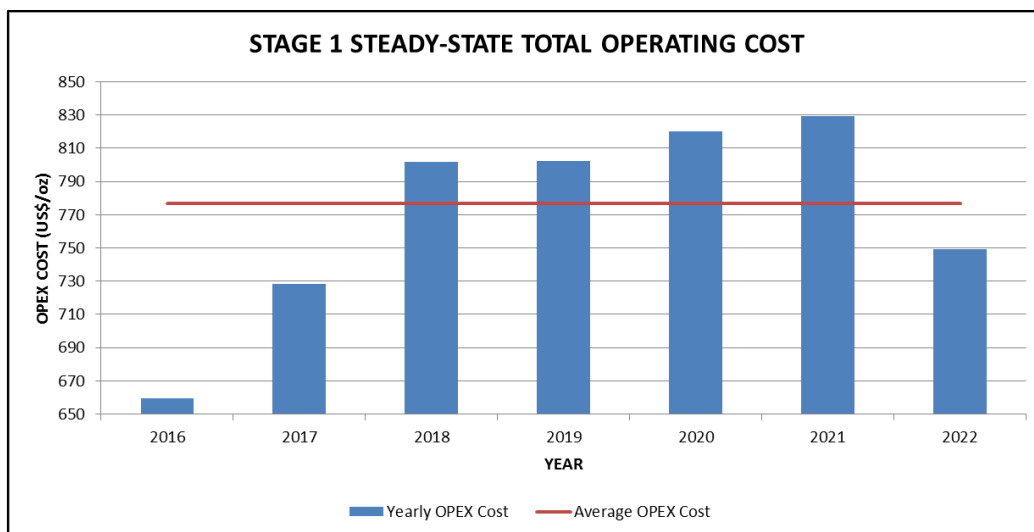


Figure 4: Steady State Total Operating Costs (US\$/oz) (excludes capex and is before tax, depreciation)

- Preliminary mine designs have been completed including:

- Simple conceptual open pits for the Fair Bride (**Figure 5**), Dot's Luck (**Figure 6**) and Boa Esperança deposits, to a maximum depth of approximately c60m; and
- Shallow depth underground semi-mechanised open stoping at the Guy Fawkes deposit.

These preliminary designs have provided the production schedules for sizing of the Stage 1 plant.

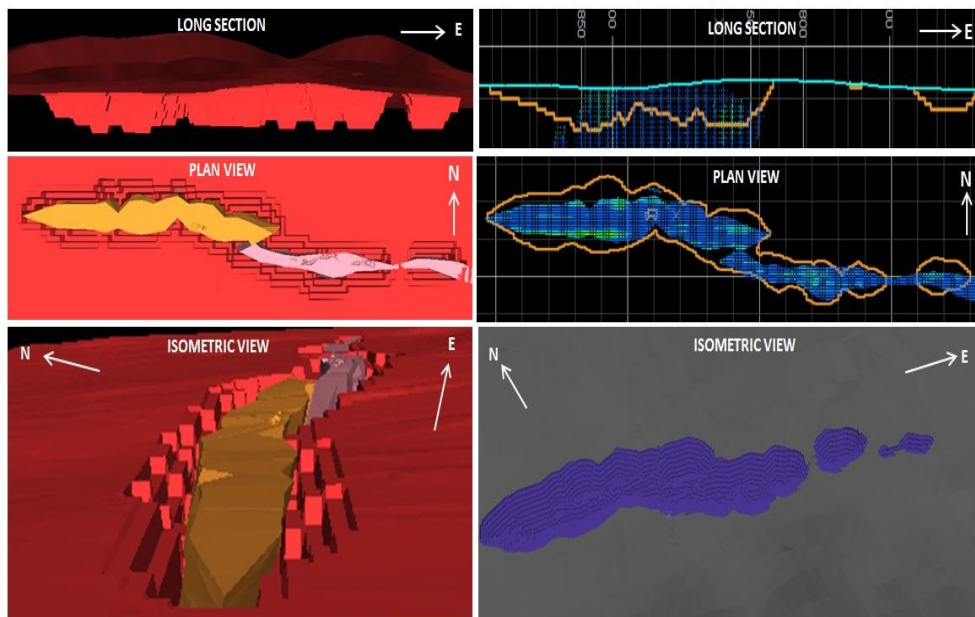


Figure 5: Fair Bride conceptual pit design

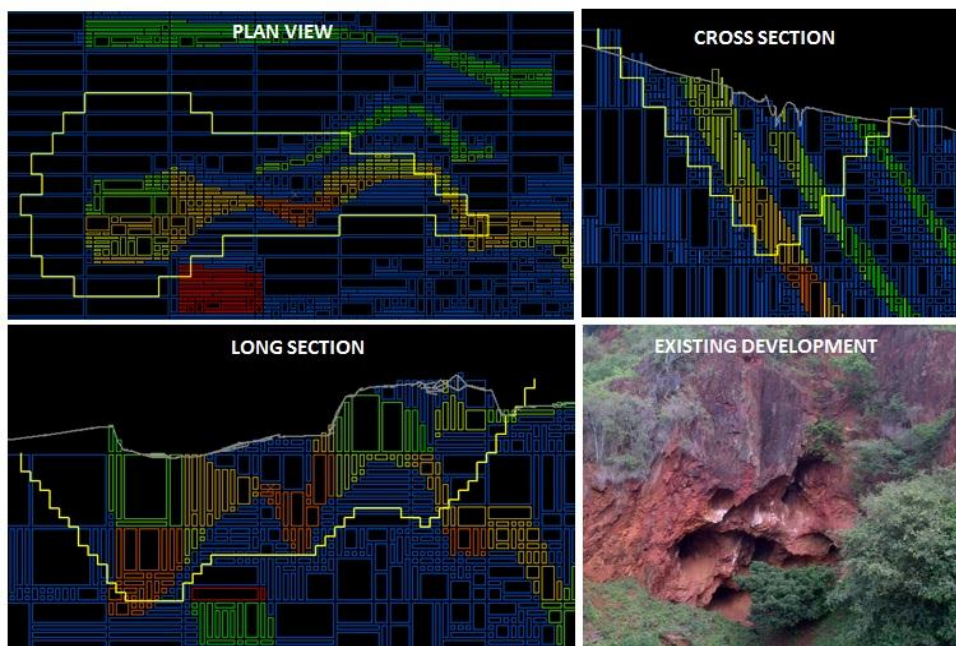


Figure 6: Dot's Luck conceptual pit design

- Stage 1 capital expenditure has been scoped at US\$39m in January 2014 constant money and includes items that have direct benefits and savings attributable to the expansion (Stage 2 and 3) as follows:
  - a. The cost of relocating all families associated to the mining areas and plant are incorporated in the scope. The preliminary capital cost of the relocation plan is US\$2.7m and this has a direct benefit on Stage 2.
  - b. Mining and overburden stripping of the Stage 1 resource at Fair Bride exposes the Stage 2 refractory ores. Approximately 2 million cubic metres of overburden is stripped (at a ratio of 2.54:1) during Stage 1 at a cost of US\$15m. This is reflected as an indirect benefit to the Stage 2 project as it is paid for from Stage 1.
  - c. Infrastructure (roads, services, workshops, conveyors, etc) will be utilised by the Expansion and has an attributable value estimated at US\$2.8m.
  - d. Capital cost of UFG circuit and Pilot Plant of US\$3.8m for processing and test work on refractory ores.
  - e. EIA costs have already been incurred for the expansion to Stage 3 and include the refractory foot print (Stage 2).

Based on the JPMC Updated Scoping Study, the Auroch Board has authorised the Company to proceed with a Stage 1 DFS for the engineering design.

#### **Balance of Work to Complete Stage 1 DFS**

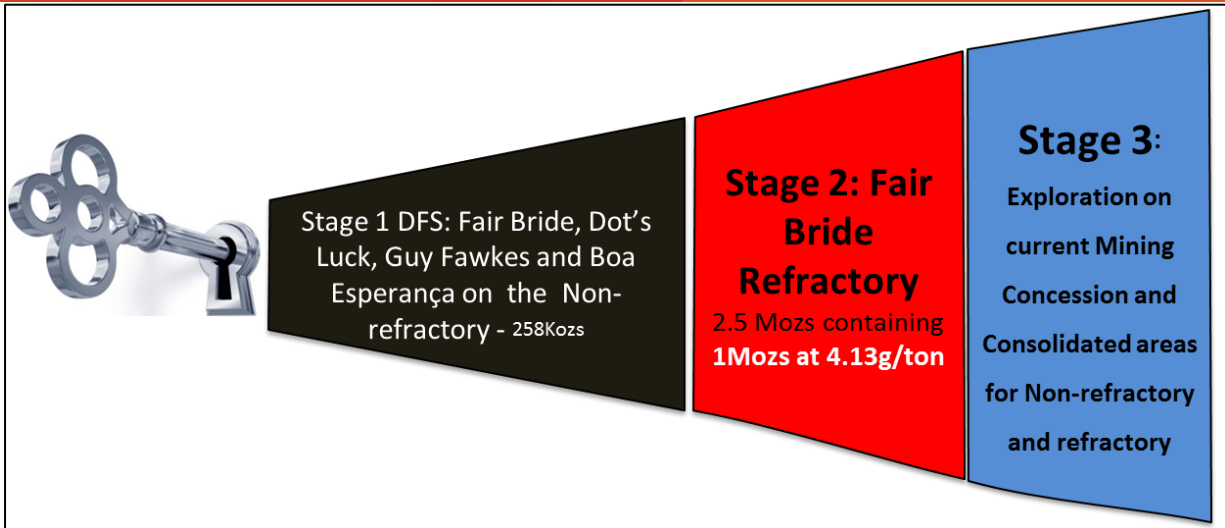
Approximately 35% of the Stage 1 DFS has been completed to date and the balance of the scope of work to be completed by the 4<sup>th</sup> quarter 2014 is as follows:

- Underground sampling and additional drilling at Dot's Luck, Guy Fawkes and Boa Esperança;
- Mining and Process engineering design and capital estimation;
- Provision of utilities (power and water contracts); and
- Completion of the relocation and social responsibility programs.

#### **Future Expansion Projects**

Stage 1 is the key to unlocking the Stage 2 expansion (**Figure 7**) as it exposes the deeper refractory ores found at Fair Bride below c60m. The Stage 2 DFS will consist of a 120Ktpm open pit and underground mining operation producing +90Kozs of Au per annum.

The Auroch management team is comfortable that its current understanding of the geology, mineralogy and metallurgy of the Fair Bride refractory ore does not represent an unrealistic economic target or technical risk. The metallurgical test programme completed in March 2014 together with the planned Pilot Plant following the first six months of production will confirm and resolve any outstanding engineering design questions and trigger a Stage 2 DFS using either UFG and/or an oxidation process.



**Figure 7: Stage 1 is the key to unlocking Stage 2 and 3**

Stage 1 could be expanded to 60Ktpm (Stage 3) based on the outcome of further exploration drilling within our current Mining Concession and consolidated areas (collectively, **Exploration**). Two expansion options exist, in the event that either:

1. Sufficient additional non-refractory Au ounces from Exploration are accumulated to extend the production profile of the Stage 1 plant for a further 10 to 12 years; and/or
2. An additional +350,000oz Au resources from Exploration is accumulated which would trigger a decision point on the expansion from Stage 1 to Stage 3.

### Mineral Resource Estimate Update

During the quarter Auroch released an updated Mineral Resource Estimate at the Manica Gold Project which includes exploration and infill drilling work undertaken at the Dot's Luck and Guy Fawkes deposits during 2012/13.

CSA Global was commissioned to update the MRE for the Dot's Luck and Guy Fawkes deposits within the Manica Gold Project Mining Concession to incorporate the additional results from the exploration and infill drilling campaigns. The updated JORC Code (2012) compliant MRE is presented in **Table 2** below.



**Table 2: 2014 Manica Gold Project MRE**

Category	Project Sector	Cut-off Au (g/t)	Tons (000')	Grade Au (g/t)	Total Au (oz)
Measured	Fair Bride*	0.50	11,561	1.73	642,000
<b>Total Measured Resources</b>			<b>11,561</b>	<b>1.73</b>	<b>642,000</b>
Indicated	Fair Bride*	0.50 < 300m	10,795	1.64	570,000
		1.00 > 300m			
	Guy Fawkes**	1.25	420	1.92	25,600
	Dot's Luck**	0.50	425	1.87	25,500
<b>Total Indicated Resources</b>			<b>11,640</b>	<b>1.66</b>	<b>621,100</b>
Inferred	Fair Bride*	0.50	24,598	1.83	1,449,000
	Guy Fawkes**	1.25	380	3.90	48,000
	Dot's Luck**	0.50	455	2.06	30,000
	Boa Esperança*	1.25	330	2.94	30,000
<b>Total Inferred Resources</b>			<b>25,763</b>	<b>1.88</b>	<b>1,557,000</b>
<b>Total Manica Gold Project Resource</b>			<b>48,964</b>	<b>1.79</b>	<b>2,820,100</b>

\*This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code (2012) on the basis that the information has not materially changed since it was last reported.

\*\*The 2014 MRE was classified by following the guidelines in the JORC Code (2012). Classification of the MRE included consideration of geological understanding of the deposits, QAQC of the samples, *in situ* dry bulk density data and drill-hole spacing.

The geological work carried out at Dot's Luck and Guy Fawkes during 2012/2013 was part of the verification and validation process undertaken by management, including the historical geological work. This has given management the confidence to move forward with the DFS. At Dot's Luck, the structural interpretation remains unchanged and at Guy Fawkes it has resulted in a different structural interpretation which resulted in reduced resources at Guy Fawkes.

Work completed at Dot's Luck and Guy Fawkes over the past 12 months includes:

- 1) 8,249m of diamond drilling and 1,010m of RC;
- 2) Trenching of 1,867m at Guy Fawkes; and
- 3) A complete database review which improved the understanding of continuity and potential depth extensions.

The Stage 1 DFS will incorporate targeted resource drilling and underground mapping and sampling. Drill ready targets have been identified at both Dot's Luck and Guy Fawkes deposits and these may add to the project MRE in the future.

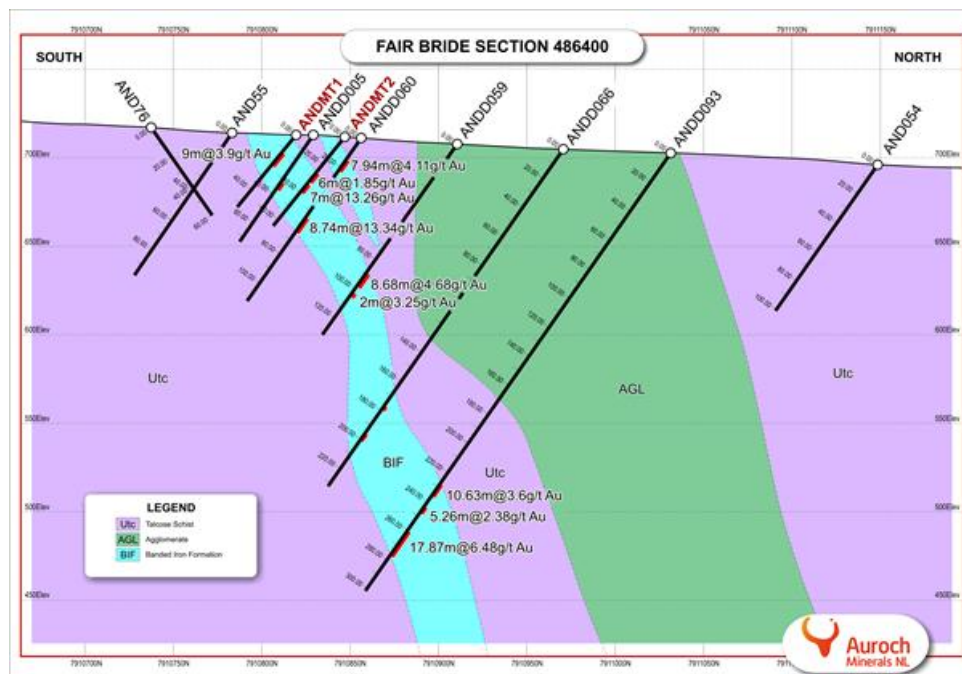
The net impact of the verification and validation process has resulted in the MRE being reduced by 8% from 2.970Mozs to 2.820Mozs.

### Fair Bride Resource

No independent resource review was undertaken on the Fair Bride deposits and the MRE remains unchanged. An internal Auroch audit has replicated and confirmed the estimation technique and MRE on this deposit.

During 2013 metallurgical test work drilling was completed wherein assay results confirmed grades and structure of the existing resource (refer ASX announcement 27 November 2013), including the following highlights:

- **25m at 4.45g/t Au** between 16.50m and 41.50m, including **6m at 15.14g/t Au** between 34.5m and 40.50m (ANDMT2).
- **12m at 3.08g/t Au** between 12.50m and 24.50m, including **2m at 7.69g/t Au** between 13.5m and 15.5m (ANDMT1).
- **11m at 8.45g/t Au** between 11.50m and 22.50m, including **6m at 14.20g/t Au** between 16.50m and 22.60m (ANDMT3).



**Figure 8: Fair Bride Deposit Example South North Cross Section**

Fair Bride (**Figure 8**) is characterised by gold mineralisation primarily within metasedimentary units, such as metagreywackes, phyllites and banded iron formations (BIF), within an east-west trending shear zone. The mineralisation is structurally controlled within lenses along a major shear zone. The

mineralised zone ranges in thickness from 2m to 59m averaging about 35m in the west, and from 2m to 15m, averaging about 7m in the east.

A tabulation of the non-refractory and transitional resource categories (**Table 3a**) and refractory resources categories (**Table 3b**) are set out below.

<b>Table 3a: Fair Bride Non-Refractory and Transitional 2014 MRE</b>			
Classification	Tonnes	Au g/t	Ounces
Measured	1,996,000	1.73	111,000
Indicated	228,000	1.64	54,500
Inferred	68,000	1.83	92,800
<b>Total</b>	<b>2,292,000</b>	<b>1.72</b>	<b>258,300</b>

Cut-off grades: Measured 0.50g/t; Indicated 0.50g/t <300m and 1.00g/t >300m; Inferred 0.50g/t

<b>Table 3b: Fair Bride Refractory 2014 MRE</b>			
Classification	Tonnes	Au g/t	Ounces
Measured	9,565,000	1.73	531,000
Indicated	10,567,000	1.64	515,500
Inferred	24,530,000	1.83	1,356,200
<b>Total</b>	<b>44,662,000</b>	<b>1.76</b>	<b>2,402,700</b>

Cut-offs: Measured 0.50g/t; Indicated 0.50g/t <300m and 1.00g/t >300m; Inferred 0.50g/t

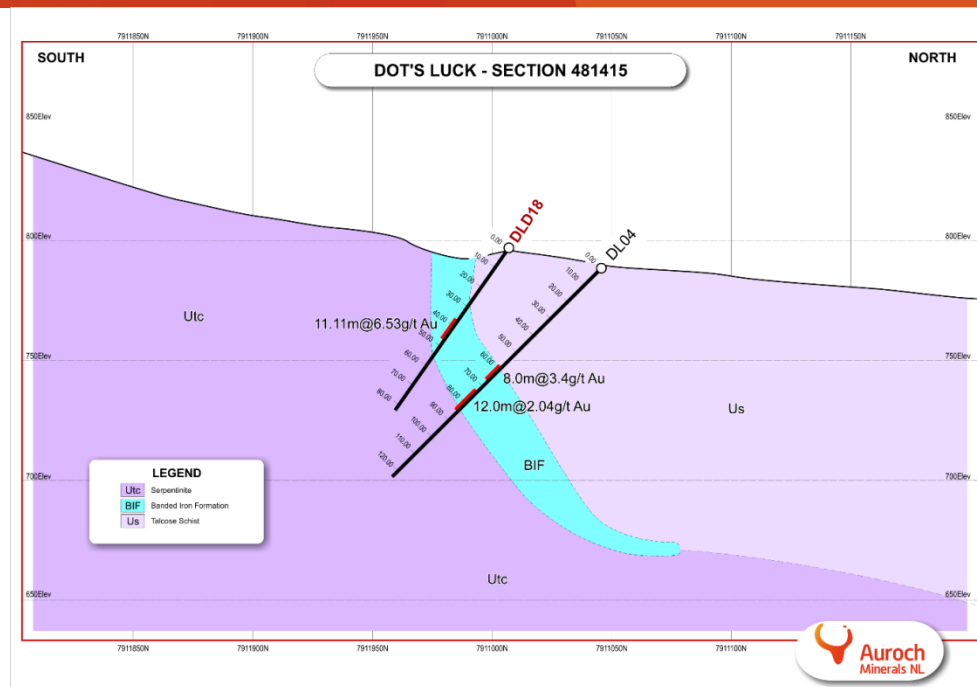
The notable feature of this deposit (**Figure 9**) is that it is amendable to open pit mining and future underground mechanised sub-level stoping and Table 1b includes **1,025,904oz Au at 4.13g/t Au** using a 3.0g/t cut-off of refractory material. Fair Bride is located 1.5km from the proposed processing plant.

#### **Dot's Luck Resource**

The additional in-filling and metallurgical test work drill results (refer ASX announcements 15 and 27 November 2013) along with underground sampling at Dot's Luck has resulted in the declaration of a maiden Indicated 25,500 ounces and Inferred 30,000 ounces of resource.

An example cross section is provided in **Figure 9** and highlights of the in-fill and metallurgical assay results are presented below:

- **11.11m at 6.53g/t Au** between 37.47m and 48.58m, including **6.9m at 10.41g/t Au** between 40.78m and 47.72m (DLD18).
- **13.7m at 3.88g/t Au** between 30.40m and 44.10m, including **2.57m at 14.27g/t Au** between 39.13m and 41.70m (DLD19).
- **6m at 4.93g/t Au** between 42.50m and 48.50m (DLR20).



**Figure 9: Dot's Luck Deposit Example South North Cross Section**

Dot's Luck mineralisation is hosted by pebbly tuffaceous metagreywacke intercalated with BIF and is strongly foliated. The mineralised zone is enveloped within talc carbonate schists. The lithologies are altered by silicification and carbonatisation. The mineralised zone has a maximum thickness of about 30m.

A tabulation of the resource categories is detailed in **Table 3**.

Classification	Tonnes	Au g/t	Ounces
Indicated	425,000	1.87	25,500
Inferred	455,000	2.06	30,000
<b>Total</b>	<b>880,000</b>	<b>1.97</b>	<b>55,500</b>

Reported from blocks where Au >= 0.5 g/t and depleted blocks removed. Differences may occur due to rounding.

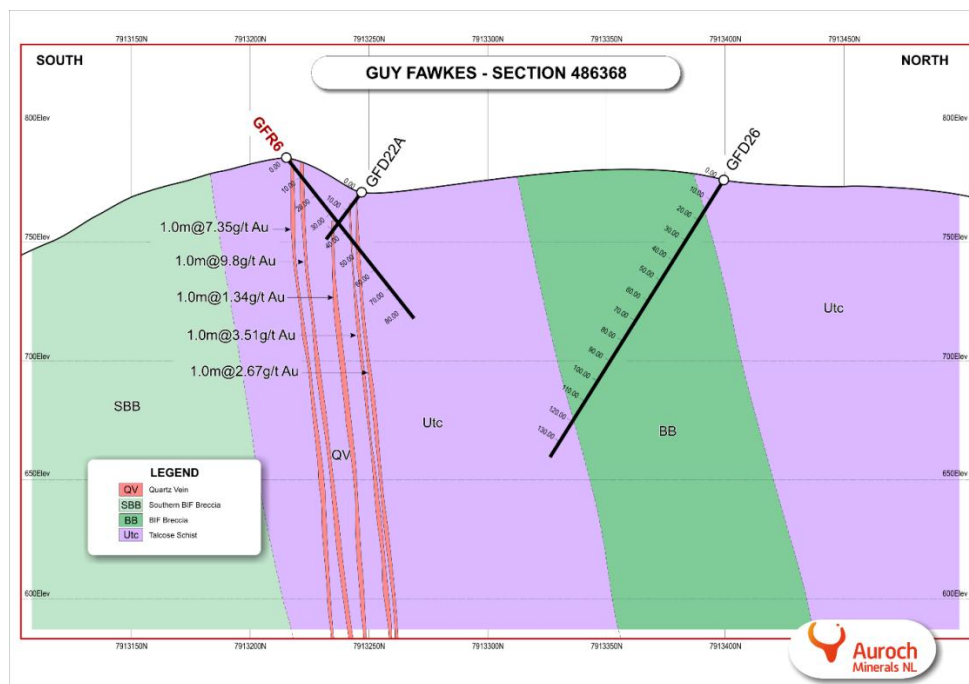
A reporting cut-off grade of 0.5g/t Au is used in order to conform to the cut-off grade used for the planned open pit mining method at the Fair Bride deposit.

The Dot's Luck project is intended to be a small high quality open pit operation (located only 4km from the proposed processing plant), with potential upside on strike and deeper drilling having confirmed extensions to depth.

## Guy Fawkes Resource

The exploration drilling programme in the 2012/2013 campaign, along with in-filling and metallurgical test work drilling assay results (refer ASX announcements 15 and 27 November 2013), include the following highlights:

- **2m at 11.15g/t Au** between 19.50m and 21.50m, including **1m at 21.96g/t Au** between 20.50m and 21.50m (GFR03).
- **3m at 2.35g/t Au** between 37.50m and 40.50m (GFR04).
- **1m at 7.35g/t Au** between 0.50m and 1.50m (GFR06).
- **1m at 9.80g/t Au** between 5.50m and 6.50m (GFR06).
- **20m at 1.64g/t Au** between 89.50m and 91.50m (GFR07).
- **2.74m at 1.90g/t Au** between 69.02m and 71.76m (GFD33).



**Figure 10: Guy Fawkes Deposit Example South North Cross Section**

The Guy Fawkes deposit (**Figure 10**) is characterised by narrow quartz vein gold mineralised structures. These multiple structures are similar in size to those in other quartz hosted greenstone deposits<sup>4</sup>. A tabulation of the resource categories is detailed in **Table 4** below.

<sup>4</sup> Foster, R.P., *et al* (1986). *Archean Gold Mineralisation in Zimbabwe*. In Anhaeusser, C.R. and Maske, S. (1986). *Mineral Deposits of Southern Africa Vol. 1*. Geol. Soc. S. Afr., Johannesburg

**Table 4: Guy Fawkes 2014 MRE**

Classification	Tonnes	Au g/t	Ounces
Indicated	420,000	1.92	25,600
Inferred	380,000	3.90	48,000
<b>Total</b>	<b>800,000</b>	<b>2.87</b>	<b>73,600</b>

Reported from blocks where AU $\geq$  1.25 g/t and depleted blocks removed. Differences may occur due to rounding.

In the context of the Guy Fawkes deposit, the MRE records a material change from the June 2011 MRE. Auroch considers that the revision has provided a sound base from which to develop and increase the resource classification of the MRE from current levels at this deposit by undertaking:

- underground sampling and on reef mapping;
- focused in-fill drilling from surface to:
  - delineate strike extensions; and
  - further depth extensions.

The near vertical structure at Guy Fawkes lends themselves to semi-mechanised open stoping mining methods. The proposed processing plant is located at Guy Fawkes.

#### Boa Esperança Resource

No independent resource review was done on the Boa Esperança deposits and its resource estimate remains unchanged (**Table 5**). Limited historic drilling was undertaken in the vicinity of Boa Esperança and included the following highlight intersection:

- **15.67m** at **1.33g/t** Au between 36.38m and 52.05m, Including **0.92m** at **5.53g/t** between 39.83m and 40.75m (BED001).

Boa Esperança, is characterised by a mineralised sequence comprising highly fractured and re-crystallised BIF with aplite and has a BIF-breccia footwall. The mineralised zone is about 23m thick.

A tabulation of the resource categories is detailed in **Table 5** below.

**Table 5: Boa Esperança 2014 MRE**

Classification	Tonnes	Au g/t	Ounces
Inferred	330,000	2.94	30,000
<b>Total</b>	<b>330,000</b>	<b>2.94</b>	<b>30,000</b>

Reported for a relatively high cut-off grade of 1.25g/t as likely mining parameters have not been determined to date.

## Excellent Metallurgical Test Work Results

Metallurgical testwork results released during the quarter focused on Stage 1 non-refractory gold. The results ensure the accuracy of recoveries used for the metallurgical plant design in the Definitive Feasibility Study, for the processing of ore from the Fair Bride, Dot's Luck and Guy Fawkes deposits.

### Flotation

No historical test work had ever been conducted on the non-refractory transitional ore samples at Fair Bride or Dot's Luck. The results of the recent test work indicated the need for a pre-wash stage prior to flotation. The addition of an activator in the mill and sulphurdising agent prior to flotation was included in the current metallurgical test work program.

The tests showed that 80% of the Au and 97% of the sulphide sulphur is recovered into the concentrate. The flotation tails will be treated in a standard leach circuit.

### Concentrate Leaching on Transitional Material (Only at Fair Bride and Dot's Luck)

The first series of tests on rougher concentrate<sup>5</sup> have provided information on the primary grind of 80% passing 75 $\mu$ m. Subsequent test batches of rougher concentrate were then subject to Ultra-Fine Grind (UFG) and Carbon in Leach test work. These tests produced the following grind size Au Recovery curve (Figure 11).

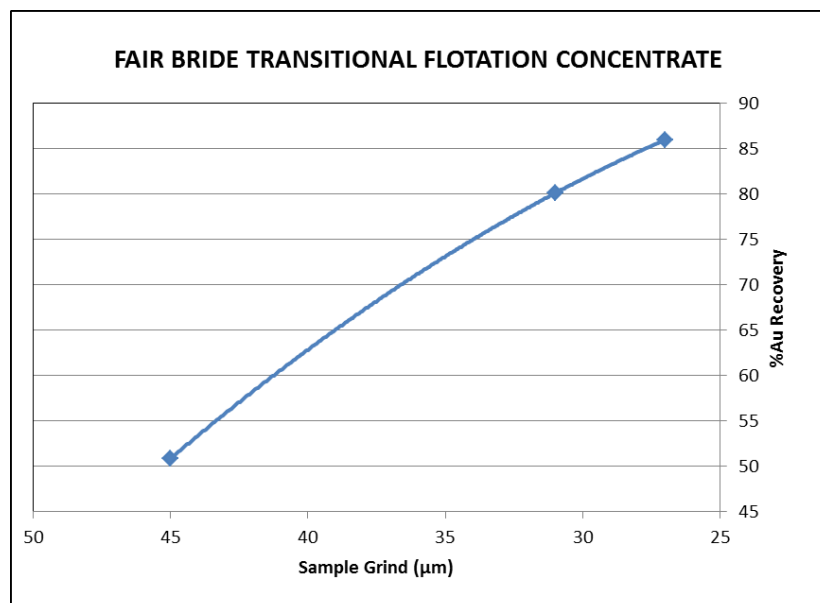


Figure 11: Grind Size Recovery Curve

<sup>5</sup> Rougher concentrate refers to first stage of flotation.

Based on the Figure 11 results, a grind size of 79% passing 27µm gives a remarkable overall plant recovery of 88%.

The net impact of this high recovery from the UFG test work coupled with the relatively coarse grind of 27µm gives the Company flexibility in evaluating the Fair Bride deeper refractory ore (**Table 3**) to delay or even eliminate the oxidation process (e.g. Biox).

However, it is anticipated that as mining extends into the deeper portions of the Fair Bride deposit, the refractory nature of the ore will increase and the recovery will change. To address the lower recovery we will be in a position to adjust the grind size<sup>6</sup> to accommodate this change in recovery.

### Oxide Leaching

The initial Stage 1 plant process design and capital cost, with 24 hours residence time in the leach, has been confirmed as a result of the recent test work. The recoveries are tabulated below (**Table 6**).

Table 6: Oxide Leaching Au Recovery		
Sample	Calculated Head Grade (Au g/t)	Recovery (%)
Fair Bride Oxide ROM <sup>7</sup> :		
24 hours	3.61	89.6
48 hours	4.02	97.3
Air Sparging <sup>8</sup> 24 hours	4.20	96.5
Dot's Luck Oxide ROM:		
24 hours	1.58	91.2
48 hours	1.46	96.6
Air Sparging 24 hours	1.74	97.7
Guy Fawkes Oxide ROM:		
24 hours	2.80	96.9
Air Sparging 24 hours	2.72	97.5

Based on **Table 6**, a conservative recovery factor of 96% (Air Sparging 24 hours) has been used for all of the oxide ores in the Stage 1 scoping study assumptions.

<sup>6</sup> Ultra-Fine Grinding - A Practical Alternative to Oxidative Treatment of Refractory Gold Ores, S. Ellis, Kalgoorlie Consolidated Gold Mines, Kalgoorlie, WA.

<sup>7</sup> ROM refers to Run of Mine.

<sup>8</sup> Air Sparging refers to the introduction of air into each leach vessel to maintain the dissolved oxygen levels.



### Top Ten Exploration Targets Shortlisted for Follow Up Exploration

The Company had identified thirty-six exploration targets within its Mining Concession (3990C) following a ground mapping programme completed in December 2013. The top ten prospective targets have been selected for immediate follow-up exploration (**Top Ten Priority Exploration Targets**), which have three styles of Au mineralisation:

1. Guy Fawkes - includes quartz vein hosted-, quartz stock-works hosted-, altered talc carbonate schist hosted- and deformed banded iron formation (BIF) hosted- deposits, with or without aplite, in proximity to major shear zones;
2. Boa Esperança - comprises deformed metapelites with aplite invasion in proximity to major shear zones. The Boa Esperança style of mineralisation is somewhat wider than the Guy Fawkes style in general; or
3. Dot's Luck/Fair Bride - includes sheared metasediments within mafic schist in proximity to major shear zones.

The consolidated exploration target for the Manica Gold Project has been estimated in accordance with JORC (2012) guidelines in and is presented in **Table 7** below.

Table 7: Manica Gold Project Exploration Target		
Tonnes (Kt)	Au (g/t)	Contained Au (oz)
250 – 1,500	2.0 – 4.0	360,000 – 1,795,000

The potential quantity and grade of the Exploration Target is conceptual in nature, and there has so far been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimate of a Mineral Resource.

#### Planned Exploration Programme

The planned exploration programme comprises three evaluation targets, two delineation targets and five scouting targets.

Exploration activities to be conducted on the targets shall include:

- Further surface and underground geological and structural mapping and sampling;
- Soil gold geochemical mapping;
- Trenching and pitting;
- Rock chip sampling; and
- RC and diamond drilling.

These activities are planned for completion by the end of Q4 2014 and aim to update the existing mineral resource at the Manica Gold Project. The total cost of the exploration programme will be approximately US\$700,000.

### **Environmental Impact Assessment Report Submitted**

During the quarter Auroch advised that the Environmental Impact Assessment Report (**EIA**) on the proposed mining activities at the Manica Gold Project has been submitted to the Mozambique Ministry of Coordination of Environmental (MICOA) for assessment.

The EIA is required in order to comply with the terms of the 25 year Mining Concession (3990C), granted in March 2011 and will allow for the on-going development and exploitation of the Company's gold resources. The completion of the EIA has involved in excess of 15 scientists and specialist consultants from disciplines as diverse as archaeology to flora and fauna to geohydrology.

They have defined a baseline of the ecology, environment and social communities against which the Company can now monitor and manage its economic and environmental impact.

As part of the above EIA process, significant work was also completed that form an integral component of the Manica Gold Project Stage 1 DFS, as follows:

1. In-fill drilling and metallurgical assay results at Dot's Luck and Guy Fawkes, together with the historical database, provided the data and material for the additional metallurgical test work;
2. Metallurgical test work to confirm earlier preliminary recovery factors (final report due in March 2014) which are required to established the chemical composition of the gold bearing ores to be processed;
3. Based on points 1 and 2 the gold plant process design has been updated, mass balances re-calculated and key equipment lists re-priced to a PFS level of accuracy in order to establish water consumption and rates of waste disposal;
4. Surface geotechnical studies for the tailings disposal site and for the placement and preliminary design of the gold plant infrastructure; Preliminary open pit designs by RHDHV mining consultants with capital and working cost estimates; and
5. Preliminary gold plant and infrastructure capital and working cost estimates from Basil Read Matomo.

The completed EIA, which is purely of a technical nature and does not entail DFS financial considerations, clearly indicates that there are no fatal flaws in terms of potential environmental or social impact issues. The EIA sets out the guidelines required by Mozambican legislation under which the Manica Gold Project will be managed in terms of the Company's environmental policies.

## Corporate

During the quarter Auroch advised of the appointment of Endeavour Financial as the Company's exclusive financial advisor in respect of financing the development of the 3Moz Manica Gold Project, Mozambique.

Endeavour Financial is an internationally renowned corporate advisor that has raised over \$4 billion of debt for junior mining companies and closed M&A related financings valued at over \$28 billion. Endeavour Financial will assist Auroch in structuring appropriate financing and strategic partnership arrangements in the lead up to the development and commencement of production at the Manica Gold Project.

Subsequent to the quarter the Company advised it had raised \$800,000 via a convertible note facility. Proceeds from the raising will be used for working capital purposes. Subject to shareholder approval, the debt facility may be converted into ordinary shares on the terms and conditions set out in Annexure 2.

For further information please visit [www.aurochminerals.com](http://www.aurochminerals.com) or contact:

## Auroch Minerals NL

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### Competent Person Statements

The information in this report that relates to Exploration Results and/or Exploration Targets is based on information compiled by Mr Gordon Koll who is a registered Professional Natural Scientist (Pr.Sci.Nat.) under the South African Council for Natural Scientific Professions (SACNASP) and a Fellow of the Geological Society of South Africa, which is recognised as a RPO by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). Mr Koll is a full-time employee of the Company. Mr Koll has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of The JORC Code. Mr Koll consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Fair Bride and Boa Esperança is based on information reviewed by Dr W.D. Northrop who is a consultant to ExplorMine and is appointed as Independent Geologist to Auroch Minerals NL project team. He is registered by the South African Council for Natural Scientific Professions as a Professional Natural Scientist in the field of practice of Geological Science, Registration Number 400164/87, and as such is considered to be a Competent Person. Dr Northrop has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Northrop consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

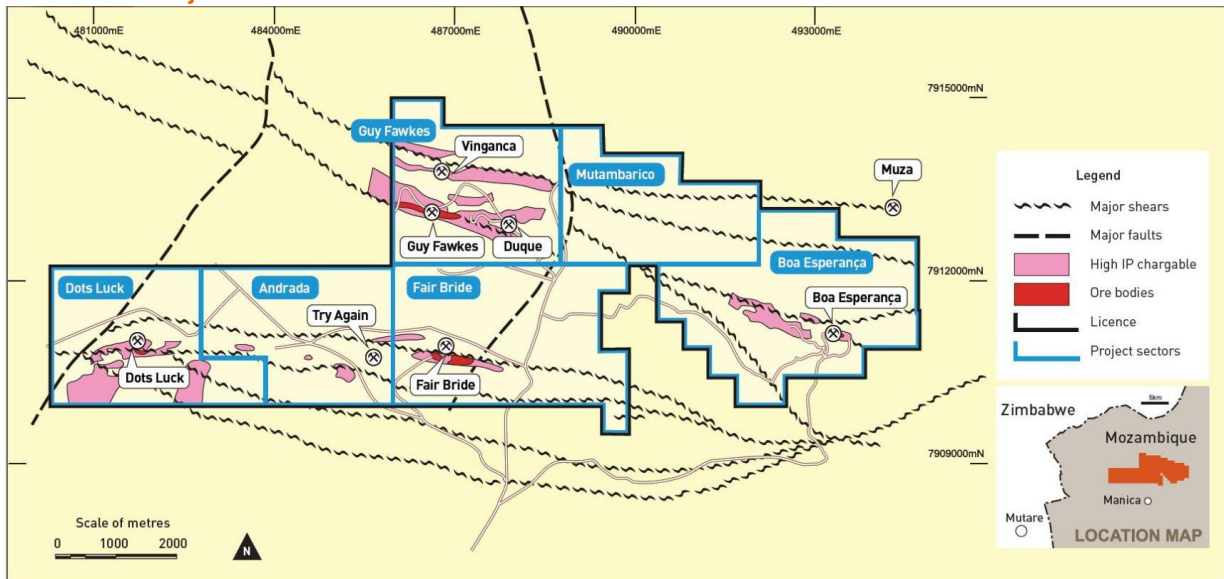
The information in this Report that relates to in-situ Mineral Resources at Dot's Luck and at Guy Fawkes is based on information compiled by David Williams of CSA Global Pty Ltd. David Williams takes responsibility for those parts of the report. He is a Member of the Australasian Institute of Mining and Metallurgy, and a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). David Williams consents to the inclusion of such information in this Report in the form and context in which it appears.

The information in this report that relates to the Mining Factors is based on information reviewed by Professor Jim Porter who is a Fellow of the Southern African Institute of Mining and Metallurgy, visiting Professor to the Faculty of Engineering at the University of the Witwatersrand and has wide experience in gold deposits and mining methods as envisaged in the Scoping Study; accordingly he is a Competent Person in terms of the JORC code. In terms of the Scoping Study he is responsible for the Mineral Reserve Estimate and has reviewed and approved the Scoping Study section of this press release.

### About Auroch Minerals NL

Auroch Minerals NL (ASX:AOU) is exploring and developing the **multi-million ounce** Manica Gold Project, Mozambique. Auroch owns 100% of the Mining Concession which has a granted **25 year Mining Right** and is the largest JORC Code compliant gold resource in Mozambique.

### Manica Gold Project Sectors



**Table 2: Manica Gold Project 2014 MRE**

Category	Project Sector	Cut-off Au (g/t)	Tons (000')	Grade Au (g/t)	Total Au (oz)
Measured	Fair Bride*	0.50	11,561	1.73	642,000
<b>Total Measured Resources</b>			<b>11,561</b>	<b>1.73</b>	<b>642,000</b>
Indicated	Fair Bride*	0.50 < 300 m	10,795	1.64	570,000
		1.00 > 300 m			
	Guy Fawkes	1.25	420	1.92	25,600
	Dot's Luck	0.50	425	1.87	25,500
<b>Total Indicated Resources</b>			<b>11,640</b>	<b>1.66</b>	<b>621,100</b>
Inferred	Fair Bride*	0.50	24,598	1.83	1,449,000
	Guy Fawkes	1.25	380	3.90	48,000
	Dot's Luck	0.50	455	2.06	30,000
	Boa Esperança*	1.25	330	2.94	30,000
<b>Total Inferred Resources</b>			<b>25,763</b>	<b>1.88</b>	<b>1,557,000</b>
<b>Total Manica Gold Project Resource</b>			<b>48,964</b>	<b>1.79</b>	<b>2,820,100<sup>1</sup></b>

<sup>1</sup>Inclusive of the 1,025,904oz at 4.13g/t Au using a 3.0g/t cut-off

\*This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

## **Annexure 1 - Definition of Non-Refractory and Refractory Resources**

Exploration and test work completed to date on the Manica Gold Project indicates that there are several mineralisation types occurring over the Mining Concession (3990C) with the type of gold carrier defining the class of gold occurrence.

- **Non-refractory ores** can be defined as those ores where 90% or more of the contained gold is recoverable by conventional process routes such as gravity concentration, milling, and direct cyanide leaching. Where sulphides are the carrier additional selective grinding may be required dependent on the particle size.
- **Refractory ores** are defined as those that give gold recoveries of less than 90% when subjected to direct cyanidation or only give acceptable gold recoveries with the use of more complex pre-cyanidation techniques. Techniques commonly associated with recovering gold from refractory material are Bio-oxidation (BIOX), Pressure Oxidation (POX) or Roasting.

## Annexure 2 – Debt Facility Terms

1. **Principal Amount:** \$800,000.
2. **Term:** 9 months.
3. **Coupon Interest Rate:** From date of actual draw down, 12% per annum on the total amount drawn down.
4. **Facility Fee:** 5% payable in cash or shares (subject to Shareholder Approval), at the election of the Lenders. In the event the Lenders elect to receive shares in lieu of cash, the Borrower will issue up to 500,000 ordinary shares at a deemed issue price of 10 cents per share in lieu of the Facility Fee. The Facility Fee is payable within 1 month after Shareholder Approval and the Lenders must make the election to be paid in Shares at least 7 days prior to expiry of that 1 month period.

Subject to Shareholder Approval, the Borrower agrees to issue a total of 4,000,000 unlisted options to the Lenders, exercisable at \$0.15 on or before the date which is two years from the date of issue (“Options”). The Options will be issued on the basis of 5 options per AUD\$1 of face value. The Options will be issued as soon as practicable after Shareholder Approval, and in any case within 1 month after Shareholder Approval.

5. **Conversion**

Subject to Shareholder Approval, the Principal Amount and/or any accrued interest may be converted into ordinary shares, in whole or in part, at any time after 3 months from draw down, at the election of the Lenders. Those shares will be issued at a price which is the greater of:

  - (a) \$0.03; and
  - (b) the price which is a 20% discount to the 10 day VWAP prior to the Lenders providing written notice to the Borrower of its intention to convert the Principal Amount and/or any accrued interest to shares, or part thereof.

If the Principal Amount and accrued interest is repaid within 3 months from draw down no conversion into shares will occur.

## Interest in Mining Tenements

### Mozambique

Tenement	Tenement ID	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
Manica Gold Project	3990C	Granted	100%	-	100%

Tenement	Tenement ID	Status	Farmin Interest at beginning of quarter	Farm-in Interest acquired or disposed	Farm-in Interest at end of quarter
Baobab Farm-in	1022L	Granted	-	-	-

### Western Australia

Tenement	Tenement ID	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
Crawford	E09/1899	Granted	100%	-	100%
Beete	P63/1646	Granted	100%	-	100%
Peninsula	P63/1694	Granted	100%	-	100%