

Quarterly Activities Report as at 31 December 2014

ASX Code: AOU

Securities on Issue:

57,984,109 fully paid ordinary shares (quoted)

21,800,000 partly paid shares (unquoted)

4,000,000 options exercisable at \$0.15 expiring 18/7/2016

Directors

Glenn Whiddon
(Executive Chairman)

Nicholas Ong
(Non-executive Director)

Matthew Foy
(Non-executive Director)

Company Secretary

Matthew Foy

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Mozambique-focused emerging gold producer, Auroch Minerals NL (ASX:AOU) (**Auroch** or the **Company**) provides shareholders with the following summary of its activities during the December quarter.

OPERATIONS

During the quarter, the Company announced a significant shift in focus which will unlock the value of its Mozambique gold assets near the town of Manica.

In early 2014 Auroch committed resources to a comprehensive review of the Fair Bride deposit which is the largest orebody within the Manica Project Area (**Figure 1**). The new work included a new Mineral Resource Estimate (**MRE**) for Fair Bride completed by CSA Global (UK) and a comprehensive set of metallurgical tests on the fresh gold bearing ore. Both results were released to market during the quarter and will form the basis of a Scoping Study on Fair Bride as a stand-alone development which is expected to be released to the market in Q1 2015.

The recent Mineral Resource update (ASX - [14 Nov 2014](#)) has brought the estimate into line with the 2012 JORC Code for the reporting of mineral resources and ore reserves. Importantly, the new MRE included a significant re-interpretation of the geological controls on mineralisation, along with this better understanding came a significant increase in the global grade of the deposit to over 3 g/t Au. The additional detail has significantly improved the ability to devise and manage a more selective mining strategy which will predominantly be from an open pit before proceeding underground on the high-grade shoots.

Recent testwork on the sulphide ore at Fair Bride has shown that a recovery range of between 74% and 78% for the fresh ore, is achievable (ASX - [19 Nov 2014](#)). The higher resource grade and the high recoveries in the transitional (>80%) and oxide (>95% ASX – [14 March 2014](#)) ores point to an exciting development opportunity. The planned circuit will involve crushing followed by an ultra-fine grind and concentrate flotation with standard cyanide leaching of the concentrate.

Auroch will now concentrate its efforts into completing the required technical studies and bringing Fair Bride into production in the shortest time possible.

Updated Mineral Resource Estimate

During the quarter, Auroch released an updated Mineral Resource Estimate (**MRE**) for the Fair Bride Deposit. Fair Bride is the flagship deposit within the Manica Project in western Mozambique.

The Mineral Resources Statement is presented in Table A.

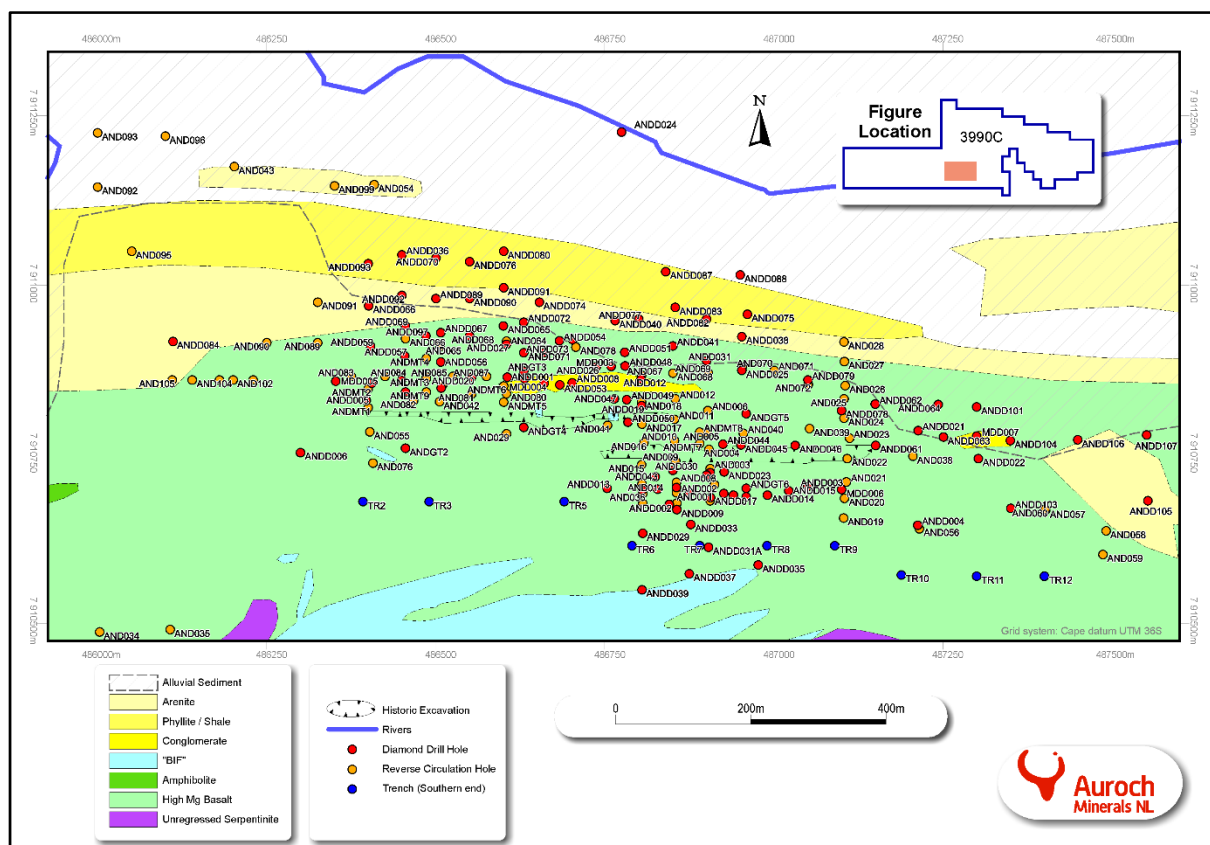
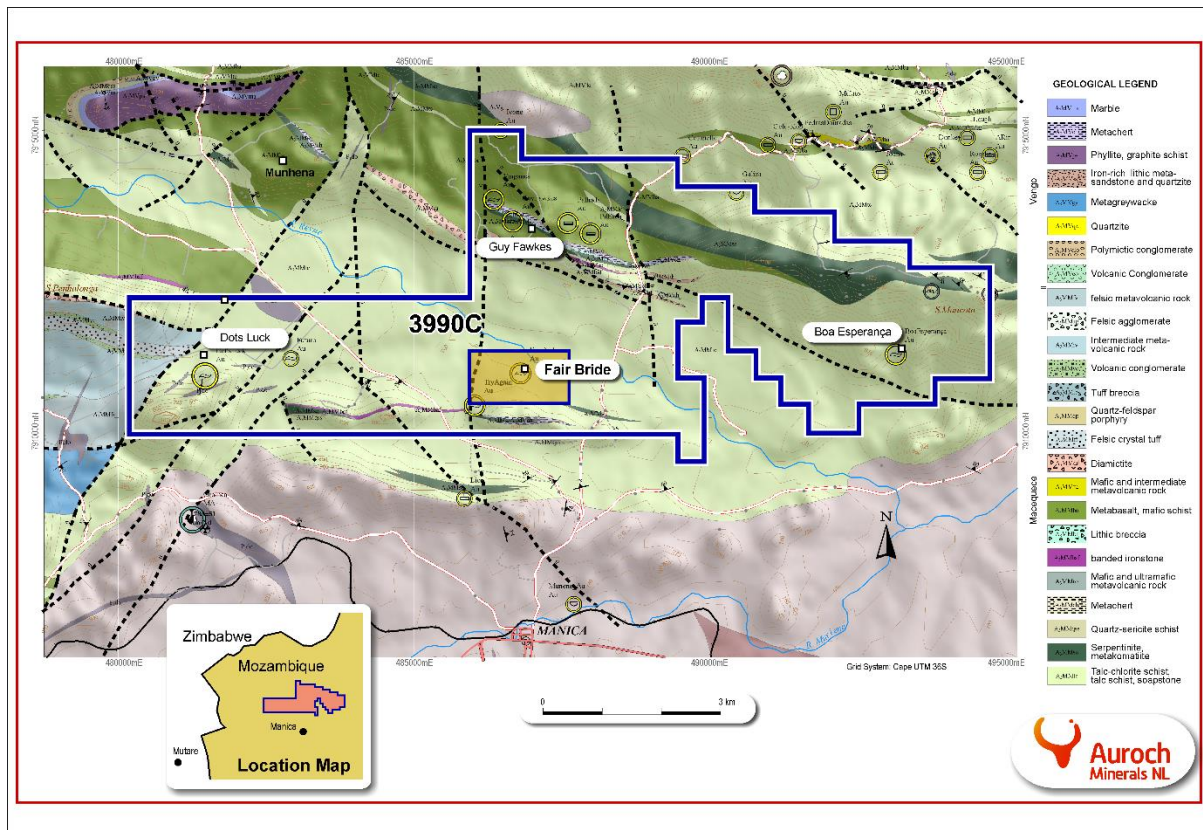
Auroch has made a strategic decision to focus on the Fair Bride deposit, the largest orebody within the Manica Project (**Figure 1**). The current update of the 2011 Mineral Resource Estimate announced in this release and a comprehensive set of metallurgical tests at Fair Bride (released later in the quarter) will form the backbone of a scoping study focused solely on the development of the Fair Bride deposit.

A summary of the information used to estimate the resource is as follows: The overall geological setting is a classic “Shear Zone Hosted Gold Deposit” occurring in the Odzi-Manica-Mutare (**OMM**) greenstone belt within the Archaean aged Zimbabwe Craton. The OMM hosts a number of gold deposits including the Redwing, Penhalonga and Rezende mines. The Fair Bride deposit is hosted within a sequence of low-MgO ultramafics, mafics and sedimentary units that have been metamorphosed to upper Greenschist – lower amphibolite facies. Gold mineralisation occurs in an east-west trending shear zone within a multiply deformed, retrograde alteration halo. The gold is typically associated with syn- to post- kinematic arsenopyrite (up to 5%) within a silica + chlorite + albite + biotite + Illite ± carbonate ± pyrite alteration halo.

Fair Bride Mineral Resource Estimate (MRE) November 2014.					
Deposit	Category	Cut-off Au (g/t)	Tonnes (kt)	Grade Au (g/t)	Total Au (Oz)
Fair Bride	Measured	1.0	2,893	3.14	291,600
Fair Bride	Indicated	1.0	2,665	3.07	263,300
Fair Bride Measured & Indicated Resources			5,557	3.11	554,900
Fair Bride	Inferred	1.0	3 988	2.87	368,300
Fair Bride Total Resources			9,546	3.01	923,200

Table A. Fair Bride Mineral Resource Estimate presented at a 1.0 g/t cut-off. The grade-tonnage relationship for the Measured and Indicated category resources is presented in Figure 4.

Detailed geological studies have identified the key lithologies interpreted to be important to the spatial distribution of the orebody, including the overprint of weathering where the Base of Complete Oxidation (**BOCO**) and the Top of Fresh Rock (TOFR) were logged in detail. This has allowed the compilation of a robust geological interpretation which was wireframed and used for resource estimation.



Drilling of the deposit has been by both diamond drilling (75%) and Reverse Circulation (RC) drilling. Diamond drilling was of HQ and NQ diameter core (111 holes for 21,555m), recoveries of diamond core across the deposit were excellent averaging 96%.

Samples were assayed at a variety of accredited laboratories during the life of the project. Independent checks between labs and appropriate QAQC procedures including laboratory duplicates, use of Certified Reference Material (CRMs), blanks and umpire laboratory checks were carried out. Review of QAQC results demonstrate that a suitable level of accuracy and precision of gold analysis with no evidence of significant bias has been established for use in mineral resource estimation.

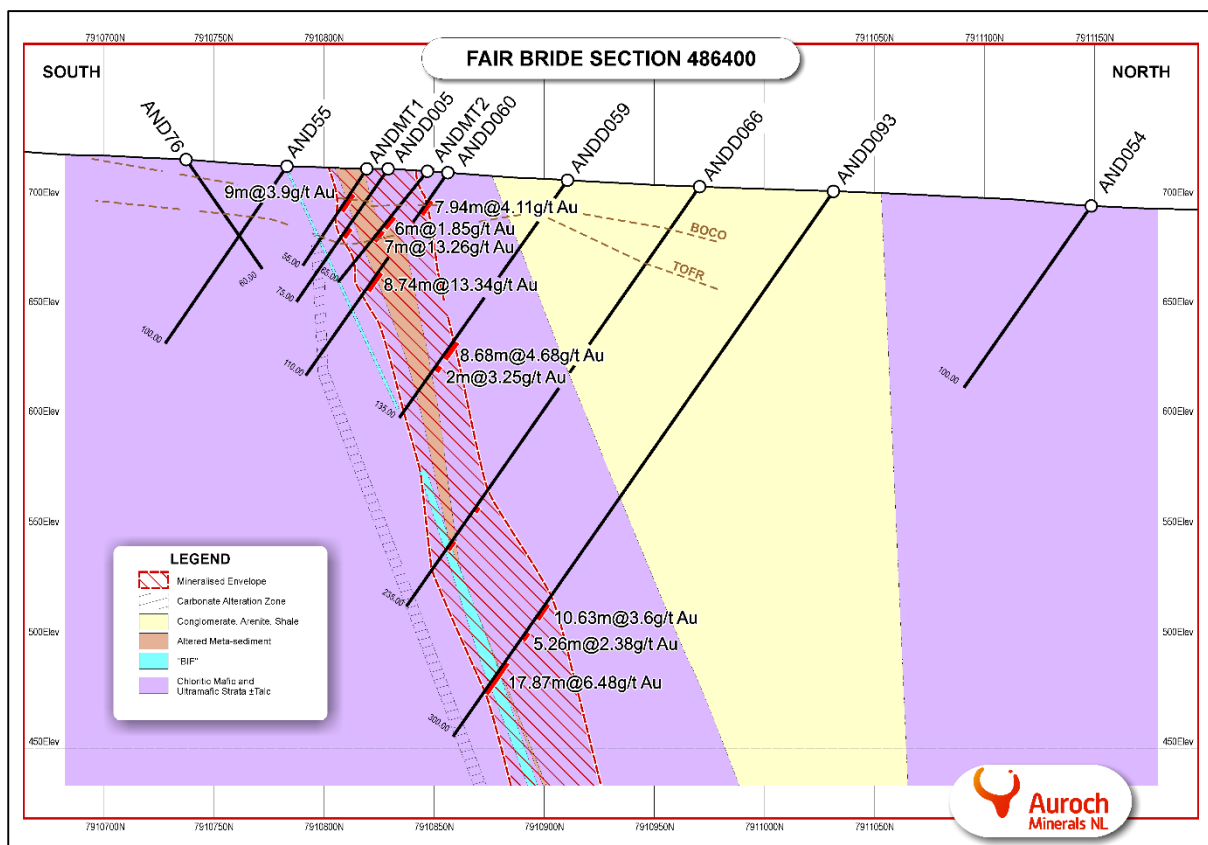


Figure 3. Cross section 486400mE looking east highlights the mafic, ultramafic, sedimentary sequence dipping steeply north.

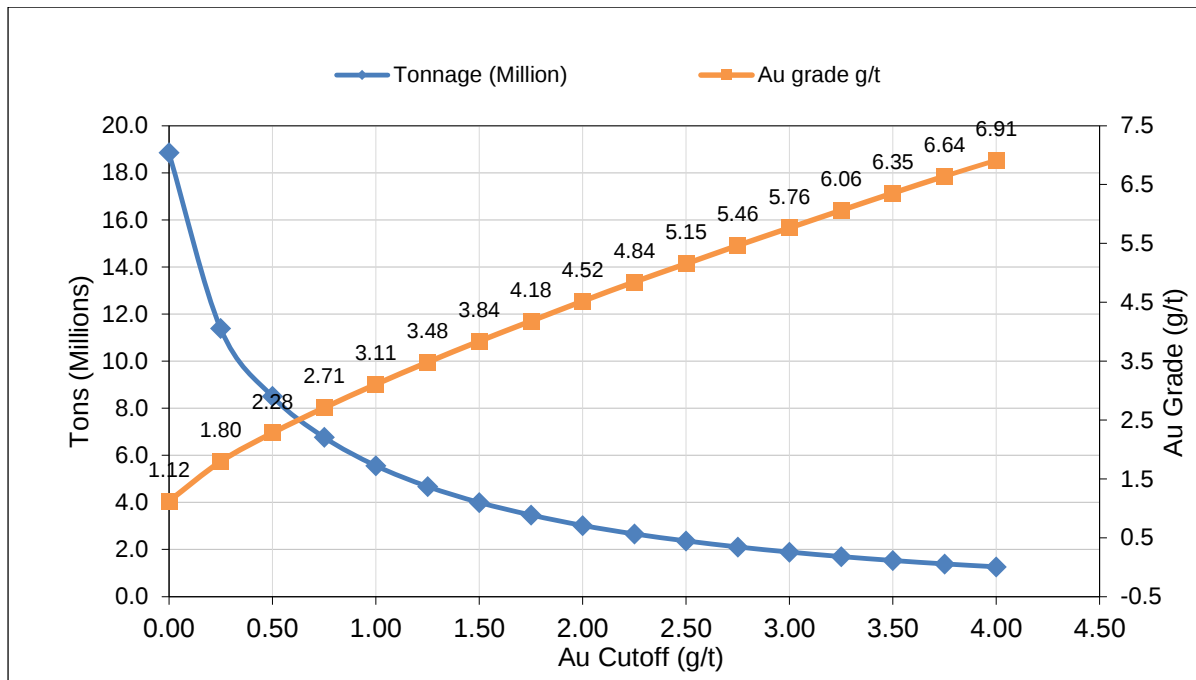


Figure 4. Graph of the Grade - Tonnage relationship for Measured and Indicated Resources

Discussion

The 2014 Fair Bride MRE represents a significant reduction in contained metal across all resource categories when compared to the previous resource estimated in 2011 and presented to the ASX by Auroch in March 2014 (see Figures 5 & 6).

The reasons for the changes from the 2011 MRE include:

- Revised geological interpretation
- Revised interpretation of the statistics and variography of the deposit
- Revised estimation strategy limiting extrapolation. This has the effect shortening the depth extent of the resource
- Different mineral resource category classification strategy applied
 - Shorter ranges applied
 - Includes an estimate of the quality of the estimate for each block
- Increase in reported cut-off grade

The Board and Management of Auroch feel that the new resource update more accurately reflects the mineralisation present at Fair Bride.

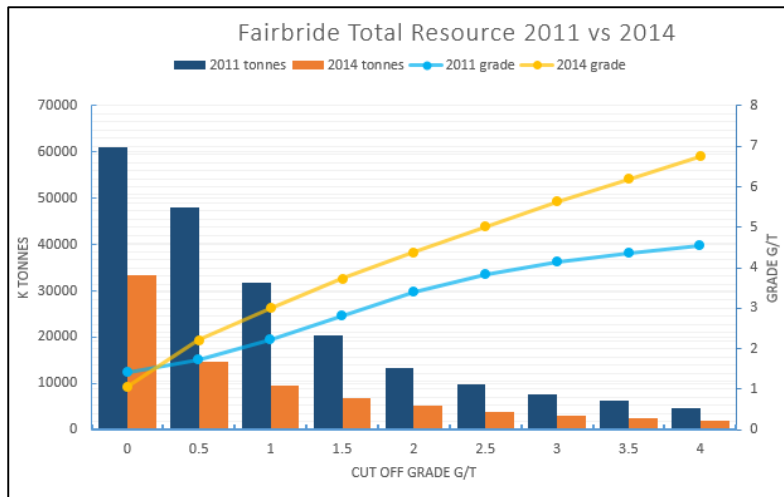


Figure 5.
Grade tonnage curve comparing results of the 2011 MRE and the current update of the resource. Tonnes have decreased at all cut-off grades however grade is substantially higher particularly at higher cut-off grades.

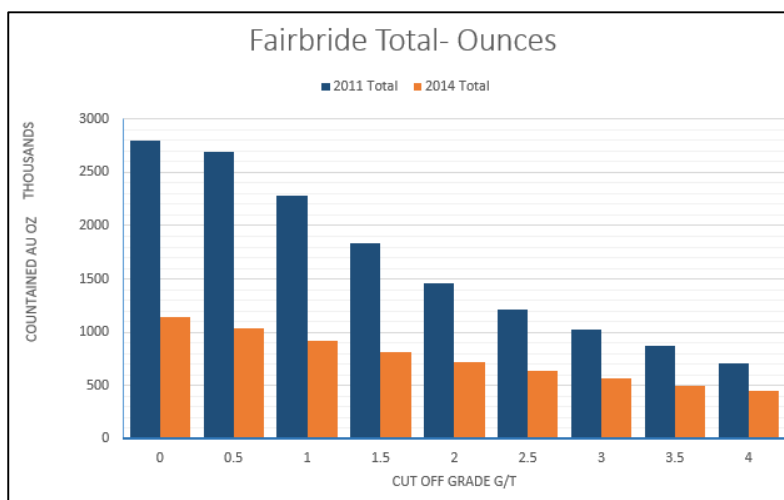


Figure 6.
Total contained ounces for the Fair Bride deposit plotted against cut-off grade. The total reduction at a 0.5 g/t cut-off is approximately 1.5 Moz. Importantly, over 1M of these ounces were in the inferred category and down dip of the updated resource.

Update on metallurgical evaluation of fair bride sulphide ore

During the quarter, Auroch also provided an update on progress of its metallurgical test programme (ASX:AOU 14 March 2014). The focus is on the Fair Bride sulphide ore body.

Metallurgical Test Program

The process under development for Fair Bride consists of a sulphide flotation plant which will produce a gold-rich concentrate. This concentrate, which is typically 10-20% of the main plant feed tonnage, will then be processed using a combination of Ultra-Fine Grinding (UFG) and oxygen assisted cyanide leaching (Leachox®), before final recovery in a conventional carbon circuit. Testing of various grind sizes between 45 micron to 14 micron has been completed with the 14 micron sample delivering the highest recoveries.

Oxides and Transitionals

Further work on oxide ore conducted at SGS in Johannesburg confirmed the amenability of the material to direct cyanidation and recoveries of >95% were achieved. In order to fully develop the process route transitional samples were also tested and as previously announced, an overall recovery of 79.5% was achieved after concentrate treatment and tailings leach. The work was conducted at a grind of 27µm and as shown in the Sulphide flotation test work (Concentrate Treatment section)

recoveries are interpreted to improve with a reduction in grind size, which will be tested during the next stage of test work.

Flotation on Sulphide Ore

The use of flotation on pyrite/arsenopyrite ores containing gold is a well-established metallurgical application and is used in many gold deposits worldwide. Previous flotation test work on Fair Bride ore date back to 2006, when high-grade ore (3.73 g/t Au) was tested at SGS Laboratories in Johannesburg. More recently a composite sample of sulphide ore with a 2.1g/t Au head grade was tested at Maelgwyn Laboratories in Johannesburg to determine the flotation recovery at a nominal grind size of $P_{80}=75$ microns, results are presented in Table B.

Year	Laboratory	Head Grade g/t Au	Au Recovery to Concentrate %	Mass Pull % head feed	Concentrate Grade g/t Au
2006	SGS	3.73	98	19	21.0
2014	Maelgwyn	2.10	91	14	15.3

Table B: The results of flotation tests on sulphide ores from Fair Bride are summarised.

The results shown above refer to first pass rougher flotation only. Test work done at SGS in 2006 also reported significant concentrate mass reduction by incorporating a cleaner flotation stage and using gangue depressants to suppress talc. This work showed it was possible to reduce the concentrate mass to just over 10% and increase the final concentrate gold grade from 21 to 33 g/t or higher with Re-cleaning as shown in the 2006 test work. This result is considered by Auroch to be significant in terms of the subsequent concentrate treatment process and will be the subject of the next phase of test work.

Concentrate Treatment

The use of oxygen and High Shear reactors to improve the recoveries from the flotation concentrate were tested with positive results and results are shown below in Table C:

Grind Size Size (μm)	Aachen Oxidation	Gold recovery %
45	10 Pass	74.3
22	10 Pass	77.8
14	10 Pass	81.4

Table C: Significantly higher gold recoveries gained when oxidation is added to the process route.

Process Development

Interpretation of previous work combined with new results show that overall gold recovery from Fair Bride sulphide ore will be in the range of 74-78%.

Following the revised MRE with its higher grade and lower tonnages, process design work will focus on processing higher grade ore with a grade of approximately 3 g/t as well as modifying the flotation plant to reduce concentrate mass.

Potential to grow Fair Bride Resource

Following the reinterpretation of the geology and completion of the MRE at Fair Bride, opportunities for both resource classification upgrading and addition of new resource Au ounces has been assessed.

Excellent target opportunities identified are as follows (See **Figure 7** and Table D):

1. **Conversion** of **Inferred** Resources to **Indicated** Resources within the existing model to RL 300m
2. Generate **new** Inferred Resources **within** the existing block model to RL 300m
3. Generate **new** Inferred Resources **below** the existing block model to RL 100m
4. Assess the ground adjacent the western extremity of the existing block model

The Exploration targets stated below show the potential for Fair Bride to grow through exploration where opportunities exist to upgrade current resources (target 1) from inferred to indicated and from down dip (targets 2 & 3) and along strike (target 4) outside the resource boundary where additional ounces may be discovered.

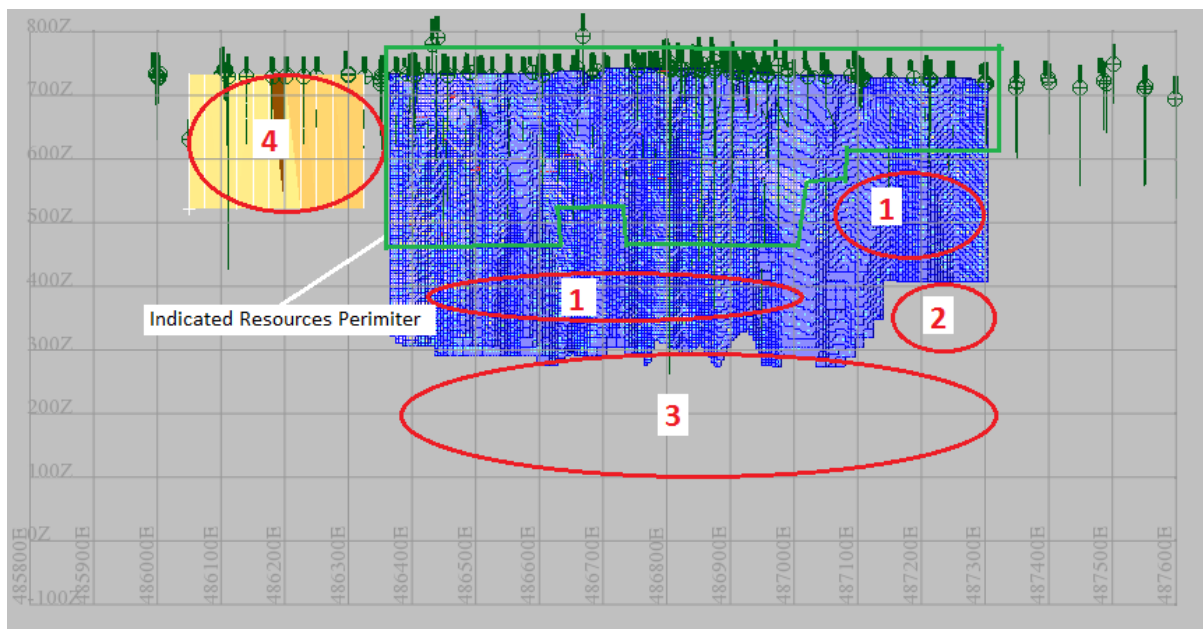


Figure 7. West - East Long Section Showing the Block Model (shaded blue) and Opportunity Areas

Opportunity	Tonnage (kt)	Mean Grade (Au g/t)	Contained Au (Au Oz)
1	3,200 – 3,900	2.60 – 3.2	267,000 – 398,000
2	50 – 60	1.8 – 2.1	3,000 – 4,000
3	3,900 – 4,700	2.7 – 3.2	329,000 – 491,000
4	2,400 – 3,000	2.9 – 3.5	226,000 – 337,000
Total	9,500 – 11 660	2.7 – 3.4	825,000 – 1,230,000

Table D: Exploration Targets - Possible Tonnage Grade and Content Ranges for Opportunities 1 – 4 (@ Cut off 1.0 g/t Au)

A drilling program to validate these targets is currently in the planning phase. The potential quantity and grade of the Exploration Targets 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.

Regional Exploration Potential of the Manica Project

Importantly, although the current focus is on Fair Bride, the Manica Project area still has considerable exploration upside, with significant resources already defined at Guy Fawkes, Dot's Luck and Boa Esperanza.

The Manica Project has many other high priority exploration targets (Priority Exploration Targets Identified – ASX [27 March 2014](#)). The consolidated Exploration Target for the Manica Gold Project has been estimated in accordance with the JORC (2012) guidelines and is presented in Table E.

Table E: Manica Gold Project – Exploration Targets		
Tonnes (Kt)	Au (g/t)	Contained Gold
250-1,500	2.0-4.0	360,000-1,700,000

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.

Fair Bride Scoping Study

The Company is in the final stages of completion of a Scoping Study for the development of the Fair Bride deposit as an open cut operation that will progress towards an underground development by declining from the high-wall of the open pit. The results of the scoping study will be released to the market in Q1 2015.

CORPORATE

Manica Gold Project Acquisition – Final Completion

During the quarter the Company advised that it had entered into a deed of mutual settlement and release with Pan African Resources plc (**Pan African**) in relation to the Manica Gold Project.

Auroch paid Pan African a final payment of \$350,000 in full and final satisfaction of its obligations:

- to pay the remaining \$1.65 million Consideration Cash;
- to pay up to \$4 million in Deferred Cash Consideration;
- to issue up to 71,666,668 ordinary shares as Deferred Consideration Shares under the original share sale agreement; and
- Auroch also cancelled the existing 25 million shares held by Pan African during the quarter.

Appointment of CEO

Subsequent to the quarter the Company advised that Dr Andrew Tunks had joined the Company as Chief Executive Officer to advance the Fair Bride deposit through its feasibility stages and assess potential new opportunities.

For the past six months Dr Tunks has been consulting to Auroch, assisting on the mineral resource estimate update. Prior to joining Auroch, Dr Tunks was Managing Director at A-Cap Resources Limited and has previously held senior gold exploration positions, including Chief Geologist at IAMGOLD Corporation, Ranger Minerals Limited in West Africa and North Limited in Western Australia.

Dr Tunks, who holds a B.Sc. (Hons) from Monash University and a Ph.D. in geology from the University of Tasmania, has over 25 years of experience in exploration and mining in Australia, Africa and South America.

Dr Tunks' core expertise is in structural and economic geology relating to gold deposits. As a former Senior Lecturer in Geology at the University of Tasmania, Dr Tunks has been published in peer-reviewed journals and presented at various international conferences on the structural controls of gold mineralisation. He is also an accredited member of The Australian Institute of Geoscientists.

Dr Tunks has strong links to the equity markets and has been involved in raising over \$50M of capital for exploration and development projects, he has held several Board positions and is currently a Non-executive Director of Minerals Corporation Limited (MSC:ASX).

Board Changes

Following the resignation of Jan Nelson as a Non-executive Director of the Company during the quarter, Matthew Foy was appointed to the Board as a Non-executive Director. Matthew is also Auroch's Company Secretary and is an active member of the WA State Governance Council of Governance Institute Australia (GIA).

Matthew spent four years at the ASX facilitating the listing and compliance of companies and possess competencies in publicly listed company secretarial, operational and governance disciplines. Matthew is currently company secretary to several ASX-listed Companies and is also a Non-executive Director of SWW Energy Ltd.

Loan Facility

During the quarter, the Company advised that it entered into an unsecured loan facility with an unrelated party of up to \$500,000 (**Loan Facility**). The Loan Facility has a repayment date of 31 July 2015 and accrues interest at a rate of 9.25% per annum.

Convertible Note Conversion and Maturity Date Extension

Subsequent to the quarter Auroch advised of the conversion of 640,000 Convertible Note Securities pursuant to the terms and conditions of the convertible note facility announced to ASX on 23 April 2014. Further, Noteholders representing 160,000 Convertible Note Securities entered into deeds of extension to vary the End Date of the Convertible Note Securities to 30 June 2015.

For further information please visit www.aurochminerals.com or contact:

Auroch Minerals NL

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Chairman

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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%
Mucurumadzi Project ¹	5026L	Granted	-	-	-
Gondola Project ¹	5000L	Granted	-	-	-
Sussundenga Project ¹	4800L	Granted	-	-	-

¹Tenements proposed to be acquired from Republic Gold Limited (refer ASX announcement 11 June 2014)

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%

The information in this report that relates to Exploration Targets and Exploration Results 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 is a Fellow of the Geological Society of South Africa, which is a recognised professional organisation 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 presentation of the matters based on the information in the form and context in which it appears.