

31 January 2017

## DECEMBER 2016 QUARTERLY ACTIVITIES REPORT

### HIGHLIGHTS

#### BAOBAB PHOSPHATE PROJECT

- More than 30,000 tonnes of product currently on drying pads
- First Shipment planned during March 2017 Quarter
- Recently installed Hydrocyclone improving throughput and product quality and further enhancements planned to be installed during March 2017
- No lost time injuries or significant incidents during the period
- Work progressing on Large Mine Permit Application
- Resource definition drilling progressing well and resource upgrade expected during March 2017 Quarter
- Establishment of working capital and trade finance facilities with a local bank

#### CORPORATE


- Cash balance at 31 December 2016 of A\$9.0m
- Dr Chris Pointon was appointed Chairman following Mr Dick Block's sad passing away
- As previously announced Managing Director, Cliff Lawrenson, left the Company during January 2017. Recruiting activities for a replacement continue

Dr Chris Pointon, Chairman, commented "Building a mine without a Definitive Feasibility Study saves substantial time and money but inevitably leads to additional challenges during the ramp up phase.

*Avenira has experienced some processing plant issues and difficulties in achieving the low moisture levels required by customers. Production levels are still below nameplate but additional debottlenecking opportunities have been identified, including the reconfiguration of the Hydrocyclone. We are also working on the addition of a dryer which should further improve consistency of production."*

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FOR FURTHER INFORMATION:

  
Mr Rod Wheatley

CFO and Company Secretary, Avenira Limited



## **1. BAOBAB PHOSPHATE PROJECT** (80% owned)

### **1.1 PROJECT DEVELOPMENT**

Key areas of activity during the December 2016 quarter are listed below.

#### **Occupational Health and Safety**

- No lost time injuries or significant incidents were reported during the December quarter
- Work continued progressing operator training and establishing safety systems.

#### **Mining**

- Mining of the Stage 1 open pit was completed with phosphate mining in this pit finished during the third week in November.
- Overburden removal in Stage 2 open pit was completed during the third week in December.
- Phosphate mining in the stage 2 open pit commenced on the 100RL bench in the first week in December and is continuing.
- The mining operation continued to improve, with close teamwork between mining engineering, geological, survey and contractor teams.

#### **Mine Design and Schedule**

Ongoing optimisation of the mine design and schedule continues to demonstrate little change to the original pit design.

#### **Processing**

- Consulmet (Pty) Limited, in conjunction with the Company process team, continued work in the wet screening plant with the target of increasing the plant throughput to design capacity.
- Minor modifications were completed at the washing screen product discharge, and a dewatering hydrocyclone was installed to reduce moisture levels in the phosphate product before open air drying. This work was completed in the 3rd week of December.
- Initial plant performance following the hydrocyclone installation indicates a significant drop in moisture content of the phosphate product and a slight increase in the product grade, resulting from removal of minor amounts of residual clay in the screen product.
- Subsequent to the quarter end it became clear that additional pumping capacity would improve the hydrocyclone performance. Installation of a new pump and related control systems is scheduled to be completed by Consulmet during March 2017.
- Contract crushing operations were commissioned during October, after some delays. The Company is working closely with the crushing contractor to improve the productivity and availability that will be required from this plant as the throughput of the wet screening plant increases to nameplate capacity.



- The second phase of product drying pads was constructed early in the December quarter with progressive improvements achieved in the open-air drying procedures and methodology, with product moisture levels below 3% achieved late in the quarter.

### **Local Community Consultation and Relocation**

Close collaboration with the local communities continued through the December quarter:

- The employment rotation system for selection from potential local employees for short term and longer term operational functions continued.
- The tree planting program in the areas immediately outside the project safety fence continued throughout the quarter, with a large number of local residents involved in this program in cooperation with the Forestry Department. This work will be completed in the March 2017 quarter when the program will focus on establishment of a tree nursery to supply seedlings for future rehabilitation.



*As part of the agreed social and community support, Avenira handed over a medical transportation and rescue unit (equipped with the conventional first aid kit and devices) and various medical equipment to Ms Yacou Kane, the mayor of the city of Gawane, near the Baobab Projecct. The feedback from the administrative authorities (prefect), the political representatives (elected mayors and city councils) and the local communities (villages) was very positive*

### **Recruitment**

A program is underway for the recruitment of the personnel required to establish and operate the site assay laboratory, which is planned to be established during the March 2017 quarter.



## Marketing

Establishing long-term relationships with end users of Baobab product is an important priority that is being diligently worked on as the Company prepares for its maiden shipment in the March 2017 quarter.

Global phosphate prices were weak in the last quarter of 2016 but market conditions are now stabilising.

## 1.2 GEOLOGY AND EXPLORATION

### **BAOBAB PROJECT**

#### **Gadde Bissik Area**

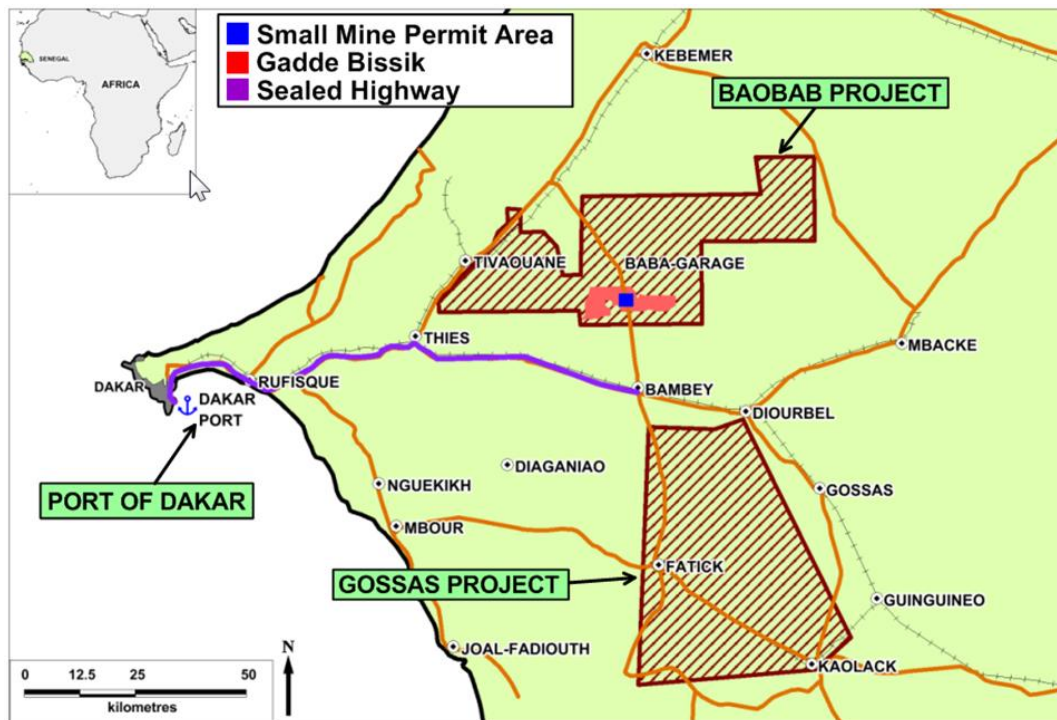
The project location is shown in Figure 1. Drilling activities for the December quarter again focussed primarily on resource definition within and adjacent to the Small Mine Permit ("SMP") at 125m x 125m spacing. The purpose of the current diamond drilling program is to provide sufficient information to allow an increase in the Indicated Resource at Gadde Bissik. A total of 73 diamond holes for 2,922 metres were drilled during the period. A drill status plan is shown at Figure 2.

<b>BAOBAB PROJECT</b>	<b>Air core drilling</b>		<b>Diamond drilling</b>	
Purpose of drilling	Holes	Metres	Holes	Metres
Regional exploration	76	2,814	-	-
Resource definition				
- Within SMP	-	-	20	782
- Outside SMP	8	289	53	2,140
<b>TOTAL</b>	<b>84</b>	<b>3,103</b>	<b>73</b>	<b>2,922</b>

*Table 1: Drilling statistics – December 2016 Quarter*

The update of the Resource estimate was not completed in the December quarter because of delays in receiving analytical data from the independent laboratory. The revised Resource estimate update is now expected to be released during the March 2017 quarter.

Resource definition diamond drilling is anticipated to continue for a significant portion of the March 2017 quarter, primarily adjacent to the eastern part of the SMP and extending further east to follow the mineralised trend.





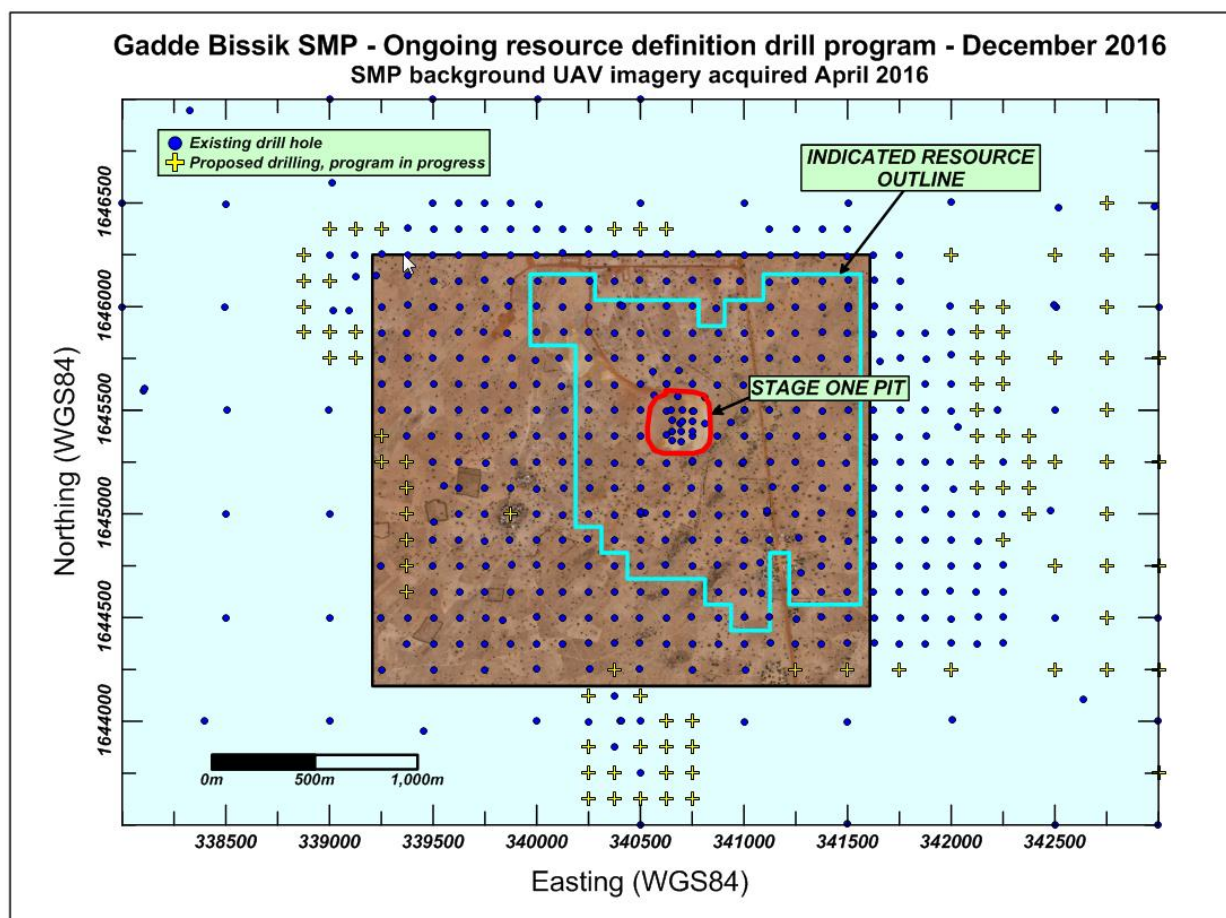


Figure 2: Gadde Bissik SMP – Drill status plan

## Regional exploration

Scout air core drilling on a 4000 metre x 4000 metre grid spacing was extended to cover the entire northern and eastern part of the tenement. A total of 48 holes were drilled for 1,709 metres (see Figure 3). Final assay results are expected in January 2017.

500 x 500 metre grid-spaced air core drill programs were also conducted at the Dinguiraye and Gad Escale prospects to follow up on positive results reported in the September 2016 quarterly (which included RGRC0437 with 8 metres at 21.5%  $P_2O_5$ , RGRC0432 with 6 metres at 20.2%  $P_2O_5$  and RGRC0442 with 4 metres at 23.4%  $P_2O_5$ ). 30 holes were drilled at Dinguiraye for 1159 metres and 17 holes were drilled at Gad Escale for 744 metres. Final assay results are expected in January 2017.

Following receipt of all outstanding assay data it is anticipated that air core drilling in and around the most prospective areas defined by the December 2016 quarter drilling will recommence.

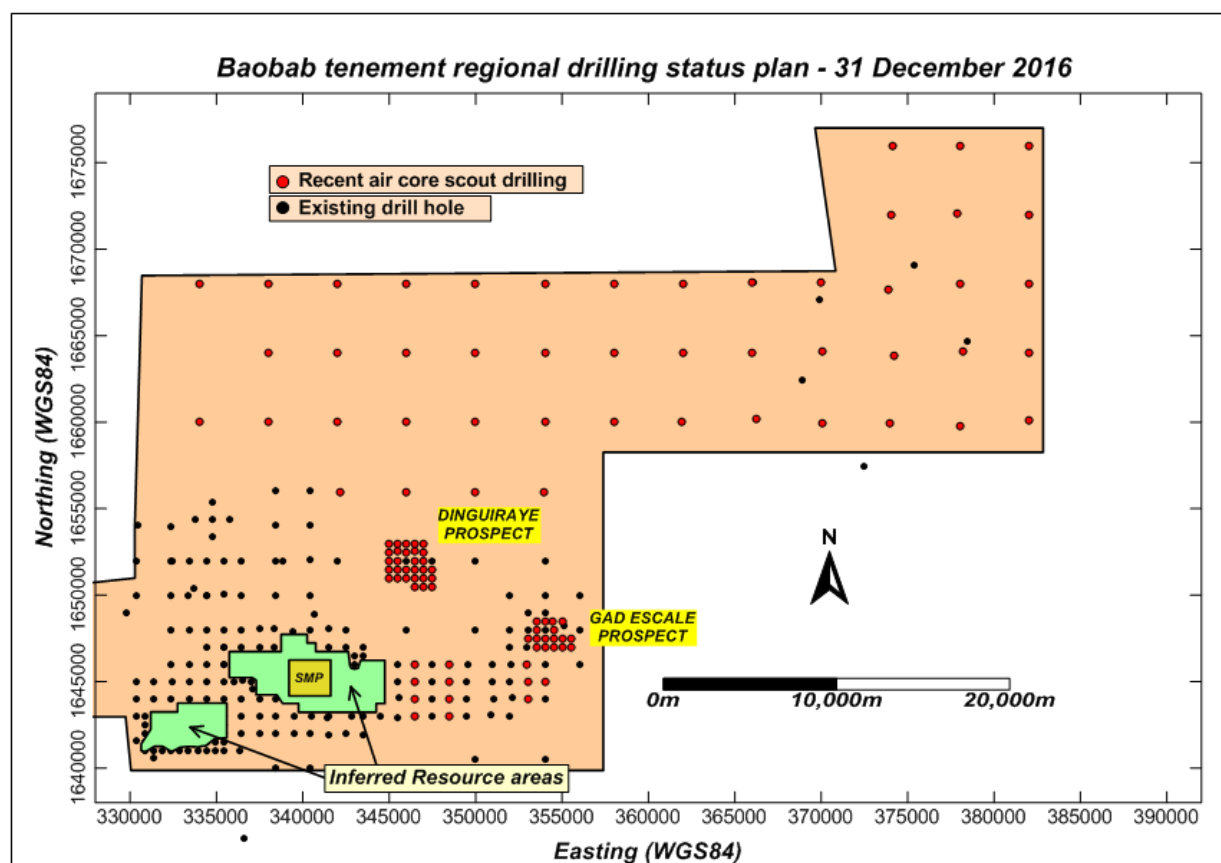


Figure 3: Baobab tenement regional drilling status plan – 31 December 2016

## **GOSSAS PROJECT**

The Gossas tenement is in the process of being transferred to Baobab Mining and Chemicals Corporation SA, an 80% owned subsidiary of the Company.

The Gossas tenement lies to the south-east of Baobab (Figure 1). The eastern part of the tenement covers an area of high prospectivity for phosphate with numerous historical records of phosphate occurrences. Some phosphate exploration was carried out in the 1950s and phosphate mineralisation up to 12 metres thick was recorded in the southeastern part of the Gossas tenement. The depth of overburden varies from 20 to 40 metres. The mineralisation is considered by the BRGM to be similar in nature to the reworked style of mineralisation that occurs at Gadde Bissik on the nearby Baobab tenement. The grade of the phosphate is conjectural with some high-grade samples recorded but sampling protocols are unknown. The geology of the western half of the Gossas tenement is not considered to be prospective for economic phosphate mineralisation.

Initial exploration of the Gossas tenement commenced in July with 5 scout air core holes drilled in the Diakhao area targeting a BRGM anomaly. Drilling is anticipated to recommence in Q1 2017. The areas



of known phosphate mineralisation north of Kaolack will be targeted on a 2,000 x 2,000 metre grid spacing and other adjacent areas to the north and west will be targeted with 4,000 x 4,000 metre scout air core drilling (Figure 4).

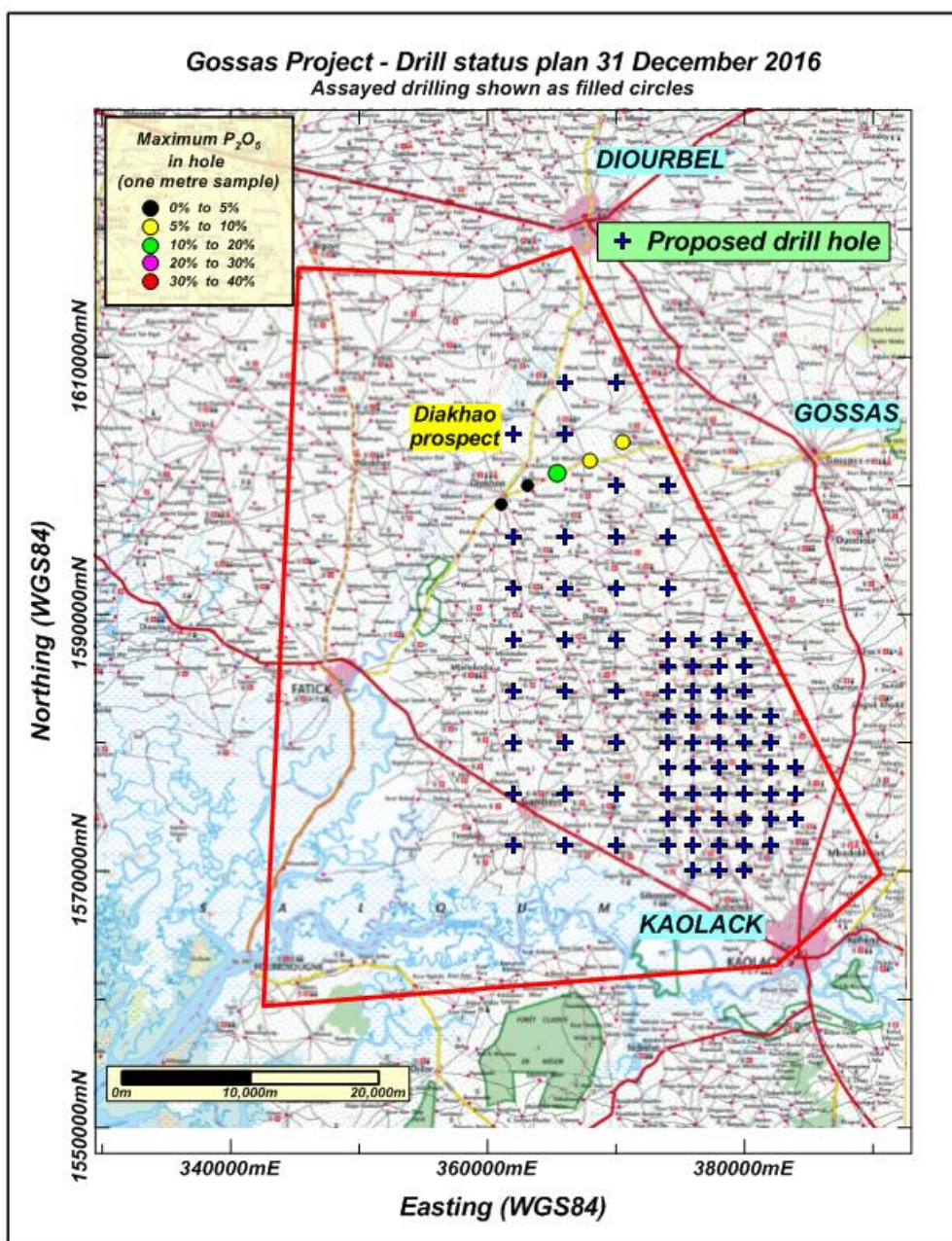


Figure 4: Gossas Project – Drill Status Plan





## 2. JDCPHOSPHATE, INC.

Avenira owns approximately 8.0% of JDC Phosphate, Inc. (JDCP) and has an exclusive licence to utilise the Improved Hard Process (IHP) technology in Australia and Senegal for an extended period of time.

Tip Fowler, CEO of JDCP commented *"Since the September, 2016 Quarterly Report and in light of the formation of a sinkhole beneath a Mosaic phosphogypsum stack, the company has communicated with regulators, the media and other constituencies in order that the benefits of technology change in sinkhole prone Florida be fully considered. The company is also doing laboratory scale test work for a number of projects to determine initial ore suitability for the IHP process. JDCP continues to pursue a capital financing to fund technology development and ultimate commercialization of the technology at full commercial scale and in the interim has taken appropriate measures to extend its cash reserves."*

Shareholders are encouraged to view the JDCP website <http://jdcphosphate.com/>

## 3. WONARAH PHOSPHATE PROJECT, NORTHERN TERRITORY (100% owned)

The Company continues to take action to reduce the holding costs of the Wonarah project until the commercial validation of the IHP technology.

## 4. CORPORATE

### 4.1 BOARD CHANGES

As advised in ASX release dated 5 December 2016, Avenira Chairman Dick Block sadly passed away. Dr Christopher Pointon was appointed non-executive Chairman on 7 December 2016. The Company will commence a search for a further independent director following the appointment of the new Managing Director.

On 8 November 2016, the Company advised that the Managing Director, Cliff Lawrenson would leave the Company in early 2017 and that a search for a new Managing Director had commenced.

On 13 January 2017, the Company advised that Cliff Lawrenson left the Company on 11 January 2017. The Company is well advanced in the recruitment of a new Managing Director, and hopes to make an appointment in the near future.



## 4.2 FINANCING

On 12 January 2017, the Company announced that we had established a XOF 2billion (A\$4.4million) working capital facility and a XOF 2billion (A\$4.4million) trade finance facility with CBAO Group Attijariwafa Bank, a local bank.

## 4.3 CASH POSITION

At the end of the December 2016 Quarter, Avenira had cash of \$9.0 million.

Breakdown of cash spend for the December quarter:

Tenement cost and maintenance	(\$0.07m)
Wonarah Project and JDCP	(\$0.78m)
Baobab Phosphate Project	(\$8.13m)
Net Admin and Corporate	(\$0.81m)
Proceeds from borrowing	\$4.45m



#### Schedule of Avenira Limited Tenements as at 31 December 2016

Location	Tenement Name	Tenement	Nature of Company's Interest
Northern Territory	Arruwurra	EL29840	100%
Northern Territory	Wonarah	EL29841	100%
Northern Territory	Dalmore	EL29849	100%
Northern Territory	Wonarah Mineral Lease	ML27244	100%
Senegal	Baobab	14626/MIM/DMG	80%
Senegal	Gadde Bissik	09810/MIM/DMG	80%

#### Compliance Statement

*Information in this report relating to Exploration Results or estimates of Mineral Resources or Ore Reserves has been extracted from the reports listed below. The reports are available to be viewed on the company website at: [www.avenira.com](http://www.avenira.com)*

#### **Baobab Project:**

*27 April 2015: Minemakers to acquire a potential near-term production rock phosphate project in the Republic of Senegal*

*11 May 2015: Minemakers delivers maiden Inferred Resource for Baobab Rock Phosphate Project in Republic of Senegal*

*22 September 2015: Baobab project update*

*7 December 2015: Maiden Indicated Mineral Resource at Baobab Phosphate Project*

*7 January 2016: Technical Report Mineral Resource Estimation for the Gadde Bissik Phosphate Deposit, Republic of Senegal*

*28 October 2016: September 2016 Quarterly activities report*

#### **Wonarah Project:**

*15 March 2013: Technical Report Mineral Resource Estimation for the Wonarah Phosphate Project, Northern Territory, Australia*

*30 April 2014: Quarterly activities report*

*The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

#### Cautionary Statement Regarding Forward-Looking Information

*All statements, trend analysis and other information contained in this document relative to markets for Avenira trends in resources, recoveries, production and anticipated expense levels, as well as other statements about anticipated future events or results constitute forward-looking statements. Forward-looking statements are often,*



*but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business and economic risks and uncertainties and other factors that could cause actual results of operations to differ materially from those contained in the forward-looking statements. Forward-looking statements are based on estimates and opinions of management at the date the statements are made. Avenira does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements.*