

12 October 2017

MINERAL RESOURCE INCREASE AT BAOBAB PHOSPHATE PROJECT

HIGHLIGHTS

- **11% increase in Indicated Mineral Resource tonnage to an estimated 34.9 million tonnes at 20.7% P₂O₅ at a cut-off grade of 15% P₂O₅**
- **37% increase in Inferred Mineral Resource tonnage to an estimated 156 million tonnes at 18% P₂O₅ at a 15% P₂O₅ cut-off**

Avenira Limited ('Avenira' or 'the Company') is pleased to advise that now-revised Mineral Resource estimates significantly increase the potential longevity of the Baobab Phosphate Project. Including mining depletion to end August, the new Indicated Resource tonnage is 11% higher than the previous estimate and the new Inferred Resource tonnage is 37% higher than the previous estimate (both as announced on 2 March 2017).

Avenira's Managing Director, Louis Calvarin, said: "Our exploration team has continued to deliver outstanding results in growing the Resource base. Baobab now hosts a world-class resource and this represents a very strong basis for the Company's strategic growth and long term success."

GADDE BISSIK MINERAL RESOURCE TABLE - EFFECTIVE DATE 31/08/2017									
Cut-off grade 15% P ₂ O ₅									
Area		Resource Category	Mt	P ₂ O ₅ %	CaO %	MgO %	Al ₂ O ₃ %	Fe ₂ O ₃ %	SiO ₂ %
Gadde Bissik East	Within SMP	Indicated	27.2	21	29	0.08	2.1	3.66	40.7
		Inferred	2	20	28	0.14	2.6	2.7	43
	Outside SMP	Indicated	7.7	19.6	27.2	0.08	2.28	3.93	43.7
		Inferred	68	18	25	0.11	2.9	3.5	46
	Combined	Indicated	34.9	20.7	28.6	0.08	2.14	3.72	41.4
		Inferred	70	18	25	0.11	2.9	3.5	46
Gadde Bissik West		Inferred	6	17	23	0.19	5.1	6.7	42
Gandal		Inferred	16	18	25	0.1	3.4	8.8	41
Gadde Escale		Inferred	43	19	26	0.14	2.2	2.9	47
Dinguiraye		Inferred	21	19	27	0.19	3.1	3.3	43
Total Resources		Indicated	34.9	20.7	28.6	0.08	2.14	3.72	41
		Inferred	156	18	26	0.13	2.9	4	45

Table 1: Mineral Resource Table

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Table 1 above summarises the current Mineral Resource estimate, including depletion by mining to the end of August 2017, at a P_2O_5 cut-off grade of 15%. The figures in this table are rounded to reflect the precision of estimates and include rounding errors.

The broader Baobab Project area covers approximately 1,163 km² (see Figure 2). The tenement area, as previously indicated in the 11 September 2017 Exploration announcement, has been recently granted for three additional years. A Small Mine Permit ("SMP") was granted in May 2015 over the area of thickest and highest grade mineralisation identified to date in the Gadde Bissik area and the focus of exploration has continued largely within and adjacent this area since that time, including an infill drilling campaign within the SMP to better define the geometry of the phosphate sequence (Figure 1). In addition, drilling campaigns were carried out further to the east, with the objective to increase Indicated Resources and Inferred Resources at the Gadde Escale prospect.

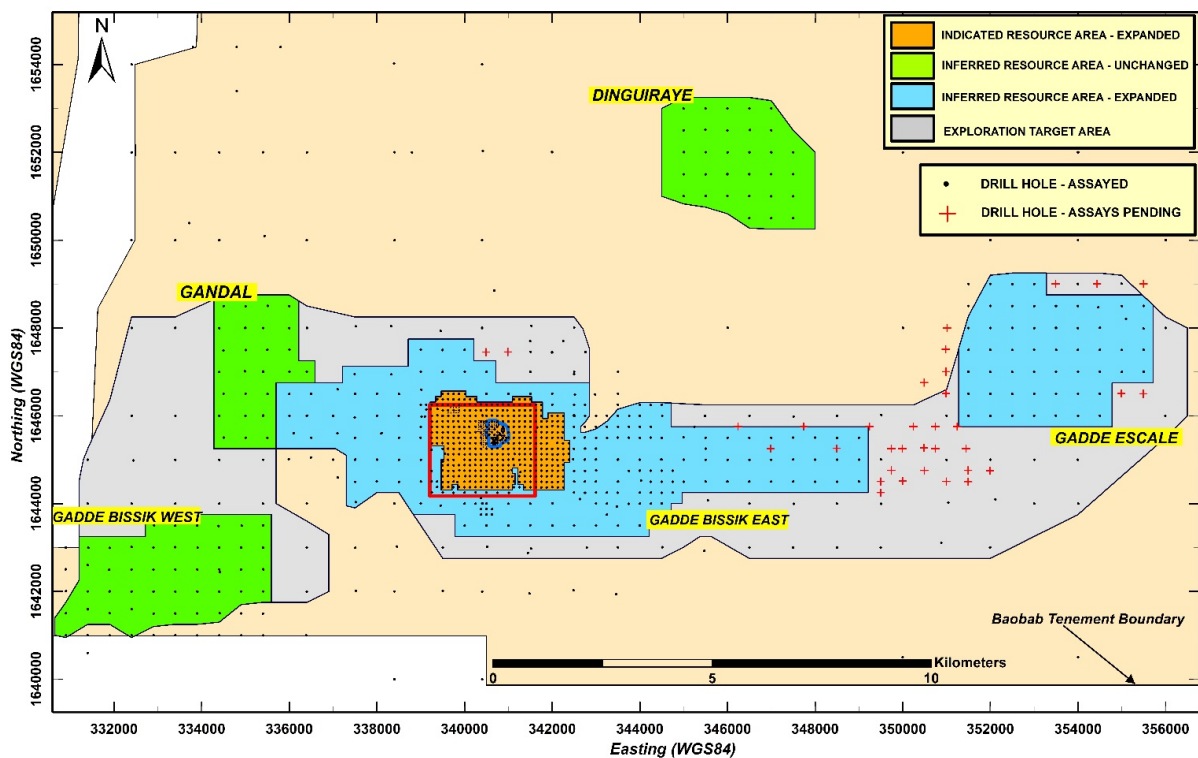


Figure 1: Resource location plan. Small mine permit outline in red. Current pit outline in blue.

At the Gadde Bissik East area, drill holes outside and along the eastern edge of the SMP perimeter and those inside, in the southern part of the SMP, were designed to increase the Indicated Resources. An Indicated Resource of 34.9 Mt at 20.7 % P_2O_5 has now been estimated for this area. The drilling further east of the SMP, at a broader spaced grid, had the objective to increase the Inferred Resources. An Inferred Resource of 70 Mt at 18 % P_2O_5 is now estimated for this area. Further infill drilling is warranted around the better intercepts. An additional 22 diamond holes have been drilled within the resource area to the north, and in extension to the east. Assays results for these holes are pending.



At Gadde Escale (formerly Gad Escale), results from additional holes drilled at the western and southern margins of the resource area have increased the Inferred Resources. An Inferred Resource of 43 Mt at 19 % P₂O₅ has now been estimated. The prospect is open to the east, south and west and further drilling in this area is planned with the dual objective to increase the area of the Resource and to identify the areas of thicker, higher grade mineralisation. An additional 12 diamond holes have been drilled predominantly on the western and south-western margins of the Resource area and assay results for these are pending.

At Dinguiraye, Gandal and Gadde Bissik West, the resource extents have not changed. The mineralised domain interpretations have been updated. Those prospects warrant further investigations and drilling in those areas is planned as well as diamond-core infill drilling designed to identify the areas of thicker, higher grade mineralisation.

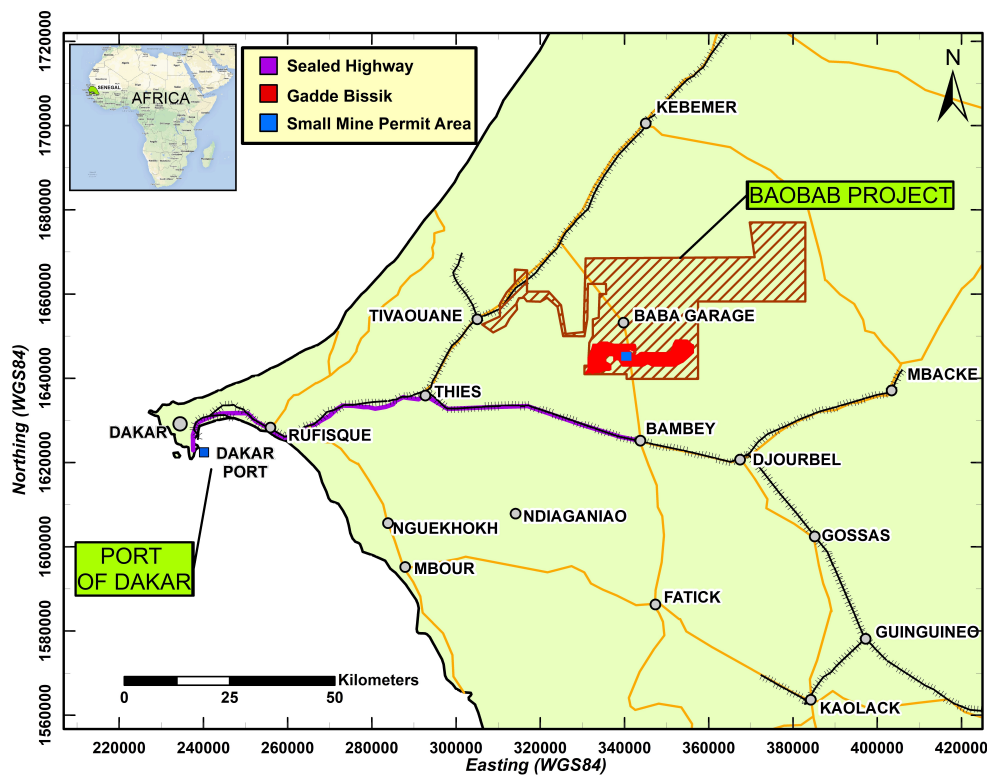


Figure 2: Project and tenement location

An area of less densely-spaced drilling peripheral to the current Inferred Resource areas is categorised as an Exploration Target with an estimated tonnage of around 60 Mt to 100 Mt at approximately 16 to 20% P₂O₅. The potential quantities and grades are conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain that future exploration will result in estimation of a Mineral Resource. Some 500 x 500 m and closer spaced drilling has already been undertaken predominantly in the eastern part of the Exploration Target areas between Gadde Bissik East and Gadde Escale prospects. Assay results for this drilling are pending.



Compliance Statements

The Mineral Resource estimates contained in this document are based on, and fairly represent, information and supporting documentation prepared by the competent persons named below.

The information in this report that related to Exploration Results is based on information compiled by Franck Bizouerne, who is the Regional Geological Manager and a full-time employee of the Company and a Member of the European Federation of Geologists. Mr Bizouerne has sufficient experience that 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bizouerne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this document related to Mineral Resource estimates is based on information compiled by Jonathon Abbott who is a full-time employee of MPR Geological Consultants Pty. Ltd. and is an independent consultant to Avenira Limited. Mr Abbott, a Member of the Australian Institute of Geoscientists, has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is reporting to qualify as a Competent Person as defined in the 2012 edition of the Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Abbott consents to the inclusion in this document of the matters based on the information compiled by him, in the form and context in which it appears.

Other 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

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

23 February 2017: Baobab exploration results update

2 March 2017: Baobab new Mineral Resources estimates

11 September 2017: Baobab exploration results update

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.



ANNEXURE 1

Mineral Resource and Exploration Potential

Drilling within the study area comprises 531 air core and 450 diamond holes for 38,915 metres of drilling. Drill hole spacing varies from around 125 by 125 metres and locally closer in central portions of the SMP area to around 2 by 2 km in peripheral areas (Figures 2 and 3).

The current Mineral Resources represent areas tested by generally 500 by 500 metres and closer spaced drilling designated as Gadde Bissik East, Gadde Bissik West, Gandal, Gadde Escale and Dinguiraye. Estimates for portions Gadde Bissik East, including most of the SMP tested by 125 by 125 metres and locally closer spaced drilling are classified as Indicated. Estimates for mineralisation tested by drill hole spacings of between 125 by 125 metres and 500 by 500 metres are classified as Inferred. Potential mineralisation in more broadly sampled areas is currently too poorly defined for estimation of Mineral Resources, and represents Exploration Targets.

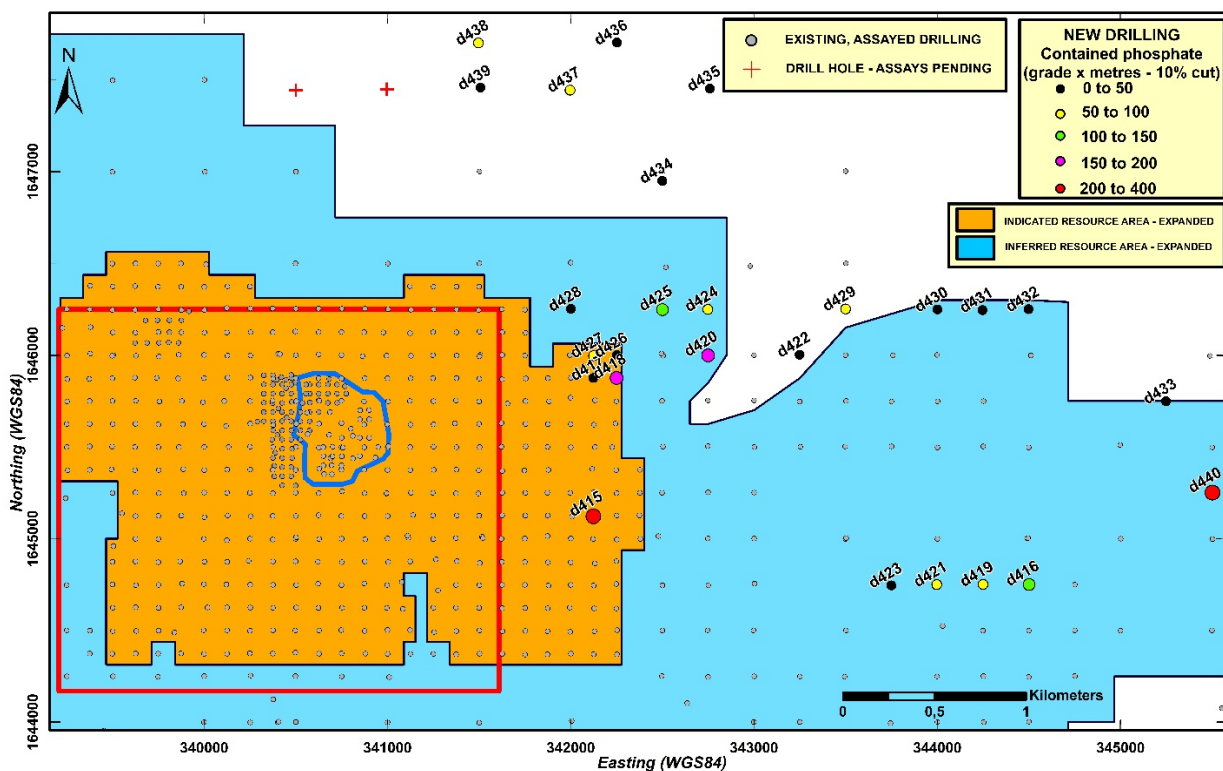


Figure 3: Drill location plan - SMP and environs. Symbols coded for contained phosphate (grade x metres at a 10% P₂O₅ cut-off). "d" prefix indicates diamond-core drilling. Small mine permit outline in red. Initial pit outline in blue.

Composites from air core drilling provide around 46% of the Resource dataset with diamond holes contributing around 54%, including approximately 64% of the composites within the area of Indicated Resources.

Mineralised drill hole intervals were generally sampled over one metre down-hole intervals and analysed by XRF for a suite of attributes including P₂O₅ with LOI determination by thermogravimetric analysis. Primary assaying was undertaken by SGS Lakefield Canada, SGS Booyens in South Africa, ALS Vancouver and ALS Perth. Analyses by these laboratories provide around 72%, 12%,



15% and 1% of the estimation dataset respectively. For all samples analysed by SGS, sample preparation was undertaken in Dakar, Senegal. For all samples analysed by ALS, sample preparation was undertaken in Ouagadougou, Burkina Faso.

Information available to demonstrate the reliability of sampling and assaying includes field duplicates, recovered sample weights standards, coarse blanks and inter-laboratory repeat analyses. Additional confirmation of the general reliability of the air core sampling is provided by results of 16 twinned diamond holes drilled within 10 m of RC holes.

MPR considers that the sample quality information confirms the reliability of the sampling and assaying with sufficient confidence for the current estimates. There are, however some aspects of the sampling and assaying that warrant further investigation as assessment of the project continues. Uncertainties over the reliability of the resource assaying include the MgO analyses by the Booyens laboratory. This assaying includes a detection limit of 0.05%, which is notably higher than the value of 0.01% for SGS Lakefield and is high relative to typical mineralisation grades, with many Booyens MgO assays of mineralised samples reported as below detection. Reference standards results and ALS repeat ICP analyses suggest later phases of Booyens analyses from around mid-April to October 2015 understate MgO grades of typical mineralisation by in the order of 50%. For the resource dataset, Booyens MgO results were replaced by ALS ICP assays where available and later apparently biased results were adjusted by a function developed from standards results and ALS repeats. Composites with adjusted MgO SGS Booyens assays provide around 5% of the resource composite dataset, including 6% of composites from the area of Indicated Resources.

Although there is some uncertainty over the detailed reliability of estimated MgO grades, there is sufficient information to demonstrate that MgO grades of Gadde Bissik mineralisation are generally low relative to typical phosphate rock production and are unlikely to be of significantly impact potential economic exploitation.

The mineralised domains used for the current study capture one-metre down-hole composites of nominally greater than 10% P₂O₅ and comprise a main zone and subsidiary Dinguiraye zone. The mineralised domains are commonly bound by underlying marls and limestones, and overlying sands. The main zone trends east-west over approximately 26 km with an average width of around 4.7 km and includes the Gadde Bissik East, Gadde Bissik West Gandal, and Gadde Escale areas. Gadde Bissik East which includes the SMP area covers an area around 13.5 km east-west by around 3 km north-south with an average interpreted mineralised thickness of approximately 3.5 metres. Within the SMP, mineralisation is interpreted to average 4.9 metres thick. Gadde Bissik West covers an area around 4.5 km east-west by around 2.3 km north-south with mineralisation interpreted to average around 2.5 metres thick. Gandal covers an area around 2 km east-west by around 3.5 km north-south with mineralisation interpreted to average around 3.6 metres thick. Gadde Escale covers an area around 4.5 km east-west by around 2.8 km north-south with mineralisation interpreted to average around 3.8 metres thick.

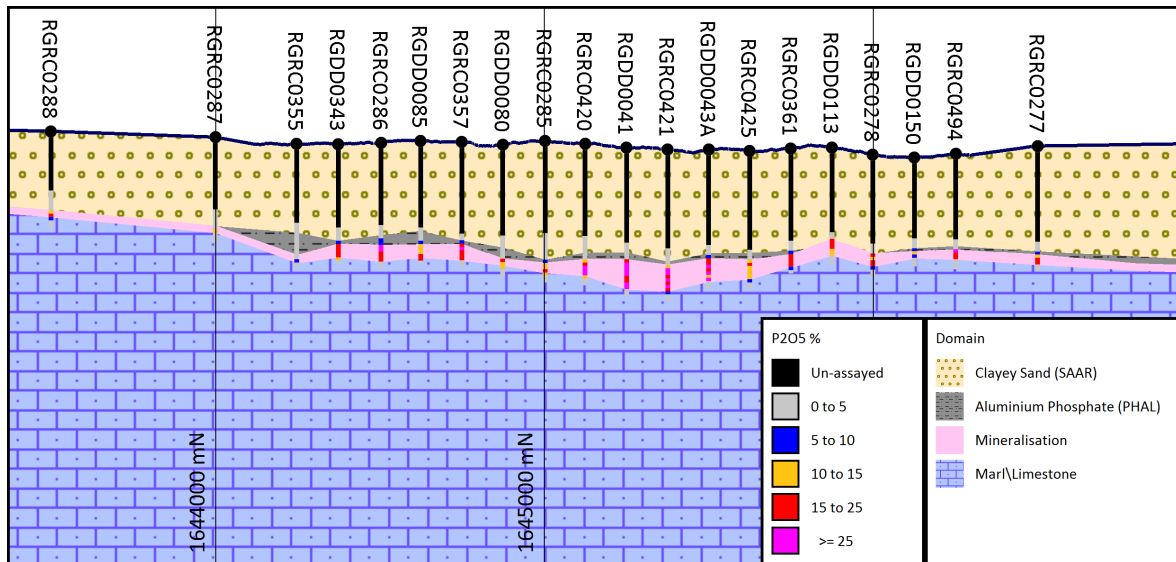


Figure 4: Representative geological cross-section for Gadde Bissik at 341,000mE.

The Dinguiraye mineralisation, which lies around 4 km to the north of the main mineralised zone has been tested by approximately 500 by 500 m drilling and is included in Inferred Resources. It covers an area around 3.5 km east-west by 2.7 km north-south with average domain thickness of 2.8 metres.

For the combined resource areas, mineralisation is overlain by an average of 32 metres of overburden, and extends to a maximum depth of around 58 metres. A geological cross-section is presented in Figure 4.

Immersion density measurements are available for 176 air-dried diamond core samples, including 111 mineralised samples. For 112 of these samples, the measurements were repeated with oven drying giving an average density around 15% lower than the initial air-dried measurements. Geometric density measurements derived from measured core weights, bit diameters and recovered lengths are also available for 1,927 core intervals from 125 diamond holes. The current estimates include a density of 1.55 t/bcm on the basis of the full set of available density measurements including adjustment for moisture content where appropriate.

For the block model constructed for the current study, grades were estimated by Ordinary Kriging of one metre down-hole composites within the mineralised domain. Prior to variogram modelling and resource estimation, the mineralised domain composites were unfolded to remove the gentle undulations from the mineralised domain. The Kriged estimates were re-folded to their correct positions in the compiled block model.

Peripheral portions of the potential mineralised area tested by drill holes spaced at consistently greater than 500 by 500 metres have insufficient drilling for estimation of Mineral Resources. Broadly spaced drilling in these areas suggests the presence of an Exploration Target of around 60 Mt to 100 Mt at approximately 16 to 20 % P₂O₅. These estimates are based on broad spaced drilling. The potential quantities and grades are conceptual in nature.

There has been insufficient exploration to estimate a Mineral Resource and it is uncertain that future exploration will result in estimation of a Mineral Resource.



The Exploration Target estimates are derived from portions of the Ordinary Kriged model based on approximately 1 by 1 km to 2 by 2 km spaced drilling reported at a P_2O_5 cut-off grade of 15% with appropriate factoring and rounding to generate a range of tonnages and grades

Detailed information regarding the Mineral Resource and Exploration Target estimates are included in Annexure 2. A table of material drill data is included as Annexure 3. Material drill data for the Gadde Bissik East and Gadde Escale areas was released in a recent market announcement “Baobab Exploration Results Update” on 11 September 2017.



ANNEXURE 2

**JORC Code Table 1 Report: Baobab Project Updated Resource Estimate
Effective Date 31 August 2017**



JORC Code Table 1 Report: Baobab Project Updated Resource Estimate – Effective date 31 August 2017

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<p><i>Sampling techniques</i></p>	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> 	<ul style="list-style-type: none"> Exploration and resource drilling undertaken since 2014 by BMCC (formerly Atlas Resources), in association with Avenirra (formerly Minemakers) planning and program management includes air core (AC), reverse circulation (RC), and diamond core drilling. An earlier phase of exploration undertaken by BMCC in 2012 is not considered material to the current Public Reporting. The database compiled for the current study comprises 1,374 AC, RC and diamond holes for 50,242 m of drilling, of which 531 AC and 450 diamond holes for 38,915 m lie within the area of the current estimates. The current estimates are based on data from AC and diamond holes. Diamond holes provide 54% of the resource dataset, including 64% of composites within the area of Indicated Resources.
	<ul style="list-style-type: none"> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> 	<ul style="list-style-type: none"> All drilling and sampling was supervised by field geologists. RC and AC holes were sampled over 1 m down hole intervals with sub-sampling generally by riffle splitting. Around 2% of AC resource composites were collected by spearing. Diamond core was generally quartered for assaying using a diamond saw.
	<ul style="list-style-type: none"> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> 	<ul style="list-style-type: none"> Phosphate mineralisation is typically associated with elevated uranium grades. Hand-held radiation detection measurements were used to aid selection of intervals for assaying. These results were not used for resource estimation.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	<ul style="list-style-type: none">Drill samples were analysed by either SGS Lakefield Canada, SGS Booyens in South Africa, ALS Perth or ALS Vancouver. Analyses by these laboratories represent around 73%, 11%, 14% and 1% of the resource estimation dataset respectively.For all samples analysed by SGS, sample preparation was undertaken in Dakar, Senegal where sample preparation comprised oven drying and crushing of the entire sample to 75% passing -2mm. A 1.5kg sub-sample collected by riffle splitting was pulverised to 85% passing -75 microns in a ring and puck pulveriser (SGS Method PRP89, PRP94).20g samples of pulverised material were air freighted to the analytical laboratory. A 0.2-0.5 gram sub-sample of the pulverised material was fused with lithium metaborate and analysed by XRF for P₂O₅, Al₂O₃, CaO, Fe₂O₃, K₂O, MgO, MnO, Na₂O, SiO₂ and TiO₂ (± Cr₂O₅ and V₂O₅). (SGS Method XRF76C,V). LOI was determined gravimetrically at 1000°C.Several sets of selected samples were also assayed for the following additional attributes by a variety of methods with between 50 and 259 mineralised assays available for each attribute: Ag, As, Ba, Be, Bi, Cd, Ce, Co, Cs, Cu, Ga, Ge, Hf, In, La, Li, Mo, Nb, Ni, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, U, W, Y, Zn, Zr, Cl, F, Hg, C, and Corg.All samples analysed by ALS were prepared at ALS Ouagadougou, Burkina Faso, with samples of pulverised material air-freighted to the assay laboratory.After oven drying ALS crushed the samples were crushed to 70% passing 2 mm, with a 250 g split ring-milled to 85% passing 75 microns. Sub-samples of the pulverized material were analysed by several methods including ME-ICP06 (lithium metaborate fusion with analysis by ICP-AES), for the resource attributes with secondary attributes by method ME-MS61 (four acid digest with analysis by ICP MS/AES) and LOI was determined gravimetrically at 1000°C. ALS analyses included the following attributes: SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO, Na₂O, K₂O, Cr₂O₃, TiO₂, MnO, P₂O₅, SrO, BaO, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Ti, U, V, W, Y, Zn, Zr and LOI.



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • The RC drilling utilised face-sampling bits with diameters of 146 mm. • The AC drilling utilised bit diameters of 76 to 140mm. • All diamond drilling was triple tube, at 90 or 116mm diameters with rotary mud tri-cone pre-collars through un-mineralised overburden. Diamond core was not oriented. • All Gadde Bissik drilling was vertical.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> • RC sample recovery was assessed by weighing total recovered sample material. RC recoveries for the first 30 holes showed significant variation between holes with significant problems caused by the sandy overburden. High pressure air is likely to have caused widening of the hole at depth thus reducing air pressure and sample return. RC drilling was abandoned in favor of AC, and no RC holes lie within the resource area. • Diamond core recovery measurements comprising recovered lengths for core runs are available for all holes and show an average recovery of around 93% for mineralised intervals, which is consistent with good quality diamond drilling. • For areas of reasonably comparable coverage, mineralised samples from AC and diamond holes show comparable average grades for all resource attributes providing some confidence in the general reliability of AC sampling. • Additional confirmation of the general reliability of AC sampling is provided by 16 twinned diamond holes which show similar average mineralisation thicknesses and phosphate grades to the paired AC holes. • For pre 2017 AC drilling sample recovery was assessed by weighing total recovered sample material, with an estimated average recovery of around 57% for mineralised samples. This value is less than expectations for high quality AC sampling. There is an association between lower average AC sample weights and higher phosphate grades. Although reasons for this trend are unclear, and investigations are on-going, it appears likely to reflect mineralisation variability rather than selective sample loss leading to biased samples. Sample recovery was not measured for the 2017 AC drilling. • The consistency of results from AC and diamond drilling indicates that despite the relatively low average recovery the AC samples are representative and do not suffer from significant biases due to selective sample loss or gain. • For the resource dataset, twinned diamond holes were selected in



		<p>preference to AC holes with diamond drilling providing 64% of the Indicated area resource dataset.</p> <ul style="list-style-type: none">• Available information suggests that the resource sampling is reasonably representative and does not include a systematic bias due to preferential sample loss or gain.
<i>Logging</i>	<ul style="list-style-type: none">• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>• <i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none">• AC, RC and diamond holes were routinely geologically logged by industry standard methods with logs available for around 99% of resource area drilling.• The geological logging is qualitative in nature, and of sufficient detail to support the current estimates.• Sub-samples of AC and RC chips were retained in chip trays. Diamond core and AC and RC chip trays were routinely photographed.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none">• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</i>	<ul style="list-style-type: none">• RC and AC samples were collected over 1 m down-hole intervals and generally sub-sampled with a three tier riffle splitter. Around 2% of AC resource composites were collected by spearing.• The majority of RC and AC samples were dry, with very few samples logged as wet.• Diamond core was halved or more commonly quartered for assaying using a diamond saw.• Measures taken to ensure the representivity of RC and diamond sub-



Criteria	JORC Code explanation	Commentary
	<p><i>duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>sampling include close supervision by field geologists, use of appropriate sub-sampling methods, routine cleaning of splitter and cyclones.</p> <ul style="list-style-type: none"> • Information available to demonstrate the representivity of AC sub-sampling includes field duplicates and paired diamond holes. • The available information demonstrates that the sub-sampling methods and sub-sample sizes are appropriate for the grain size of the material being sampled, and provide sufficiently representative sub-samples for resource estimation.
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • Hand-held radiation detection measurements were used to aid selection of intervals for assaying. These results were not used for resource estimation. • Assay quality control procedures include coarse blanks, certified reference standards and check ICP analyses by ALS for samples initially assayed by SGS during 2015. • For pre 2017 samples assayed by both SGS and ALS, P₂O₅ assays for coarse blanks inserted within runs of mineralised samples average around 0.1% higher (absolute) than initial assays of source material. SGS attribute this apparent low-level contamination to deficiencies in cleaning of sample preparation equipment at the Dakar sample preparation facilities. Coarse blanks included in the 2017 assaying suggest lower average levels of contamination for this assaying. • The level of apparent contamination for SGS and ALS is low relative to typical mineralisation grades, and it does not appear to have significantly affected the current estimates. • At 0.05%, the detection limit for MgO analyses by the Booyens laboratory is notably higher than the value of 0.01% for SGS Lakefield and is high relative to typical mineralisation grades, with many Booyens MgO assays of mineralised samples reported as below detection. • Assays of submitted reference standards and ALS repeats suggest Booyens analyses from around mid-April to October 2015 understate MgO grades of typical mineralisation by in the order of 50%. For the resource dataset, Booyens MgO results were replaced by ALS ICP assays where available and apparently biased results from later batches were adjusted by a function developed from standards results and ALS repeats • Composites with adjusted MgO Booyens assays represent around 5% of the resource dataset, including 6% of composites from the area of Indicated resources. • Although there is some uncertainty over the detailed reliability of MgO



assaying, there is sufficient information to demonstrate that average MgO grades of Gadde Bissik mineralisation are low relative to typical phosphate rock production and are unlikely to significantly impact potential economic exploitation of Gadde Bissik mineralisation.

- The available QAQC information has established acceptable levels of precision and accuracy for the attributes included in resource estimates.

- No significant intersections are reported in this announcement.

Verification of sampling and assaying

- *The verification of significant intersections by either independent or alternative company personnel.*
- *The use of twinned holes.*

- Diamond drilling includes 16 holes drilled within 10 m of AC holes. The twinned diamond and AC holes show similar mineralisation grades and thicknesses providing some confidence in the general reliability of the AC sampling.

- *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*

- Sample intervals and geological logs were recorded on logging sheets and subsequently entered into desk-top or lap-top computers. These logs and laboratory assay files were merged directly into a central Micromine database.
- Database and geological staff routinely validate database entries with reference to original data.
- The Competent Person's independent checks of database validity included: Comparison of assay values with geological logging, comparison of assay values between nearby holes, checking for internal consistency between, and within database tables, comparisons between assay results from different sampling phases.
- Additional checking included comparing all database assay entries with laboratory source files and spot check comparison of depths and sample numbers between original field sampling sheets and database entries for 1,705 intervals from 4 diamond holes and 157 AC holes.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> These checks showed no significant discrepancies in the database used for resource estimation. MgO assays from later phases of assaying by the SGS Booyens laboratory were adjusted to compensate for an apparent negative bias shown by submitted reference standards and ALS repeats. Composites with adjusted MgO assays represent around 5% of the resource dataset, including 6% of composites from the area of Indicated resources.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <hr/> <ul style="list-style-type: none"> <i>Specification of the grid system used.</i> <hr/> <ul style="list-style-type: none"> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> The surface topography of the SMP and adjacent areas has been surveyed by RPAS (remotely piloted aircraft system) photogrammetry using known points surveyed by differential GPS (DGPS) as a reference base. Collar locations for holes RGDD0048 to RGDD0133 were accurately measured from the RPAS survey with collars identified by markers or ground inspection. The majority of resource composites (91%) are from holes with high accuracy DGPS or RPAS collar surveys. The remaining (9%) composites are from holes with collar locations measured by hand-held GPS. Within the area of Indicated resources 7% of composites have only hand-held GPS collar surveys. For the resource dataset, all drill hole collar elevations were derived from a triangulated surface based on the RPAS topographic survey and DGPS collar surveys outside coverage of the RPAS survey. For collars surveyed by RPAS or DGPS the elevation change was generally minor. This approach was undertaken to ensure consistency between drill holes and the topographic surface. Drill holes were not routinely down-hole surveyed. For the comparatively widely spaced and shallow vertical holes the lack of comprehensive DGPS or RPAS collar surveys and down-hole surveys and does not affect confidence in resource estimates. <hr/> <ul style="list-style-type: none"> All surveying was undertaken in World Geodetic System (WGS84) Zone 28 coordinates. <hr/> <ul style="list-style-type: none"> A triangulation representing topography was generated from the RPAS topographic survey and DGPS collar surveys outside coverage of the RPAS survey. Mineralisation does not outcrop and accuracy of the topographic triangulation does not affect resource estimates. Topographic control is adequate for the current estimates.



Criteria	JORC Code explanation	Commentary
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <hr/> <ul style="list-style-type: none"> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Drill hole spacing across the broader Gadde Bissik prospect varies from more than two km by two km in peripheral portions of the tenement to 125 m by 125 m in the SMP area, with a small number of closer spaced infill holes within the area of mining. Resource estimates for mineralisation tested by drilling spaced at 125 m by 125 m and closer are classified as Indicated. Estimates based on holes spaced at between 125 m by 125 and 500 by 500 m are classified as Inferred. Potential mineralisation tested by drilling spaced at more than 500 m by 500 m to around 2 km by 2 km is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets. <hr/> <ul style="list-style-type: none"> The data spacing has established geological and grade continuity sufficiently for the current Mineral Resource Estimates. <hr/> <ul style="list-style-type: none"> Drill hole samples were composited to 1 m down-hole intervals for resource modeling.
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> The mineralisation is flat lying to gently undulating, and perpendicular to the generally vertical drill holes. The drilling orientation achieves un-biased sampling of the mineralisation.
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Sample collection for BMCC drilling was supervised by BMCC geologists using protocols established by Avenir. The project is in a largely rural area with easy access to the general public. Samples selected for assaying were collected in heavy-duty polyweave plastic bags that were immediately sealed and placed inside a BMCC vehicle. The bagged samples were then taken by BMCC employees directly to the BMCC site office in the regional town of Tivaouane or mine site office where they were kept under lock and key. Samples were transferred to the BMCC office in Dakar weekly where paperwork was prepared and samples then delivered directly to SGS in Dakar by BMCC personnel. No contractors or third parties were permitted unsupervised access to samples before delivery to SGS. Results of field duplicates and twinned holes along with the general consistency of assay results between sampling phases and drilling



Criteria	JORC Code explanation	Commentary
<i>Audits or reviews</i>	<ul style="list-style-type: none"><i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none">Data reviews have included comparisons between various sampling phases and methods which provide some confidence in the general reliability of the data.The Competent Person independently reviewed the quality and reliability of the exploration data. These reviews included observation of drilling and sampling, review of database consistency, spot check comparisons between original sampling sheets and database entries and comparison of laboratory source files with database entries, and review of QAQC information.The Competent Person considers that the sample preparation, security and analytical procedures adopted for the BMCC drilling provide an adequate basis for the Mineral Resource estimates.



Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<p><i>Mineral tenement and land tenure status</i></p>	<ul style="list-style-type: none"> • <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> • <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> 	<ul style="list-style-type: none"> • The Boabab project areas lie within BMCC 1553km² Research Permit “Cherif-Lo Ngakham” in the region of Thies. The licence was renewed on 28 July 2014 for three years. A renewal application has been submitted on the 11 of May 2017 and approval granted for three additional years, starting on 27 July 2017. The new permit area is now covering 1,163 km² • A Small Mine Permit has been granted to BMCC and covers a 5km² higher grade, more closely drilled portion. The permit allows unlimited production from within the permit area, subject to environmental approval. Avenir has entered into an agreement with Agrifos regarding certain fees and royalties that will apply in relation to future mine production, the nature of which are subject to confidentiality. The obligations in regard to fees and future royalties are not considered by the company to be commercially onerous. • There are no known impediments to maintaining a licence to explore or to continue production from within the SMP. Proposed changes to mineral titles legislation in Senegal seek to limit the number of mineral titles any one entity may possess concurrently. The impact of these proposed changes is uncertain but may affect the ability of the Company to obtain concurrent mining permits in future mining areas outside Gadde Bissik. • Expansion of current mining activities within the SMP and future mining activities in other areas may require negotiation and compensation regarding relocation of small rural communities.
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Data from an earlier phase of exploration by BMCC is not considered material to this Public Reporting.
<p><i>Geology</i></p>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Gadde Bissik phosphate mineralisation is part of the widespread marine phosphate phase within the Middle Eocene (48.6 to



40.4 Ma) Senegalese sedimentary basin. Phosphate mineralisation in

the Gadde Bissik area is predominantly a product of dismantling and reworking of primary high grade “residual” phosphate deposits and subsequent deposition under palaeo-morphological control. The “reworked” deposits at Gadde Bissik are thicker and higher grade than typically recorded in the broader area and may indicate a more proximal source resulting in a lower degree of dilution through mixing with non-phosphatic material.

- The Gadde Bissik stratigraphic succession comprises a footwall of marl and marly clays, with locally overlying nummulitic limestone, discordantly overlain by the phosphatic sequences. The contact is typically marked by elevated iron levels within the marly clay. The main phosphatic unit comprises phosphate sands with hard and soft phosphate pebbles, phosphatic conglomerates and varying degrees of ferruginous gravels. The unit varies from 1 to 12 m thick with the thicker areas interpreted as lenticular or pod-like bodies. Grades vary from around 5 to 37% P₂O₅. Above the main phosphate unit a discontinuous layer of white gravelly aluminum phosphate is locally developed with grades typically in the range of 1-5% P₂O₅ locally ranging up to 10%. Where present the layer varies from 1 to 5 m thick. The lower part of this unit grades into the main phosphatic unit in some places. The phosphatic units are overlain by clayey sands ranging from around 10 to 50 m thick.

Drill hole Information

- *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
 - *easting and northing of the drill hole collar*
 - *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
 - *dip and azimuth of the hole*
 - *down hole length and interception depth*
 - *hole length.*
- *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*

- Appropriate information is included in the body of the announcement.



Criteria	JORC Code explanation	Commentary
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some</i> 	<ul style="list-style-type: none"> • Appropriate information is included in the body of the announcement
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • Estimated resources do not include equivalent values. • The mineralisation is flat lying to gently undulating, and perpendicular to the vertical drill holes, with down-hole lengths closely reflecting true thicknesses.
<p><i>Diagrams</i></p>	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of</i> 	<ul style="list-style-type: none"> • Included in body of announcement.



Criteria	JORC Code explanation	Commentary
	<p><i>intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></p>	
<p><i>Balanced reporting</i></p>	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • Appropriate information is included in the body of the announcement
<p><i>Other substantive exploration data</i></p>	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • An initial metallurgical composite of 56 kg taken from 9 AC holes was tested at the University of Adelaide in September 2014. Results indicated that a simple wet screening process rejecting the <212 micron fraction could upgrade material from a feed grade of ~22% to a product of ~33% P₂O₅. Approximately 55% of the P₂O₅ was recovered and 60% of the feed weight was rejected. The composite had a cadmium level of <30ppm and uranium levels <100ppm. • A second round of metallurgical test work undertaken at the University of Adelaide on 5 separate composites, comprised of approximately 300kg from 19 diamond drill holes confirmed the results of the first round of test work. Composite feed grades of 21- 29.5% P₂O₅ were able to be beneficiated to product grades of 31.4- 36.6% P₂O₅. Other product grades ranged from 0.01-0.03% MgO, 0.5-1.1% Al₂O₃, 1.6-4.1% Fe₂O₃ and from 7.3-16.6% SiO₂. Cd and U₃O₈ levels in the second round of test work were higher than levels measured in the first round of test work and the combined results indicated cadmium levels in the 30-40ppm range and uranium levels in the 120-140ppm range for the >212 micron fraction. • A third round of metallurgical test work was carried out core from 14 diamond drill holes within the SMP area. The base of the mineralised horizon was identified with increased rigor to exclude a marly clay horizon high in MgO and Fe₂O₃. This surface is readily identifiable visually. The entire potentially mineable width above the marly clay at a 10% P₂O₅ cut-off was used for the metallurgical test work. Assaying was done on a ¼ PQ3 core split and the remainder sent to Mintek Laboratory in Johannesburg, South Africa for initial testing with follow-up testing conducted at the Ian Wark Institute Laboratory at the University of South Australia. • One 300Kg composite was made up from 5 individual top-to-bottom mineralised horizon intercepts for screen design parameter testing and generation of clay fines/rejects for settling characterisation



testing.

Individual testing was carried out on 8 of the remaining top-to-bottom mineralised horizon intercepts.

- Each sample was subjected to the following test work:
- An uncrushed head sample was put through a screen size and assay program.
- For Composite 1, the resultant <212 μ fraction was subjected to settling characteristic testing conducted by VIETTI Slurrytec.
- The uncrushed screen size fractions were assayed for the following suite: P₂O₅, Al₂O₃, Fe₂O₃, CaO, MgO, K₂O, Na₂O, MnO, TiO₂, SiO₂, F, Cl, As, Bi, Cd, Co, Cr, Cu Hg, Nb, Ni, Pb, Sb, Se Th, U, V, Zn and Corg.
- Following receipt of the size fraction assays, the results were combined with previous testing size-assay data.
- The results of the test work showed similar results to the previous two test work programs and have demonstrated that the behaviour of the mineralisation when subjected to the proposed method of beneficiation, wet screening, is relatively consistent across the deposit and at cut-off grades above 10% P₂O₅.
- The test work indicates that at the 15% cut-off grade chosen for the current resource estimate, a 35% mass recovery of product from a feed grade of 21.0% P₂O₅ will recover 51% of the contained P₂O₅. This is the same recovery as previously estimated at 18% cut-off, although at a slightly lower product P₂O₅ grade. Further work is required to determine the final product grade but it is likely to be ~32% P₂O₅ based on the current test work. Other important metallurgical parameters determined by the test work are:
 - Cd 22-44 ppm
 - U 100-120 ppm
 - Hg <0.02 pm
 - Cl <0.02%
 - Corg <0.2%
 - Fe₂O₃ ~2.5% (r = 1.0-4.39%)
 - Al₂O₃ ~0.9% (r = 0.5-1.4%)
 - MgO ~0.03% (r = 0.01-0.05%)
 - Ca:P <1.5
- A fourth round of test work was undertaken on clay slimes to determine recovery using flotation. This work began in late 2015 at the Mintek Laboratory in Johannesburg and was completed at the Ian Wark Institute Laboratory at the University of South Australia in mid-2016.



- A 300kg composite was made up from mineralised drill core from the open pit design area. The composite was screened at Mintek to produce a -212 μ “clay” fines/reject sample which was used for settling characterisation tests at Mintek.
- Flotation test work was carried out at the Ian Wark Institute Laboratory as follows:
 - Rougher Test (no de-sliming of float feed) – direct (apatite) and reverse (silica) flotation to establish response and performance under selected floatation conditions.
 - Rougher Test (with de-sliming of float feed) – direct and reverse flotation to establish response and flotation under selected flotation conditions.
 - Rougher/Cleaner Test (with and without de-sliming of float feed) – direct flotation based on the most favourable regime and condition developed in the previous Rougher tests to establish the upgrading performance with one stage of cleaner flotation.
- The test work showed optimal performance from direct (apatite) flotation with a de-slimed rougher feed at 55 μ , giving a high-grade product at around 37% P₂O₅ with a recovery of around 57% and significantly reduced levels of Al₂O₃ and Fe₂O₃.
- Further testing of the above concentrate with wet high intensity magnetic separation (WHIMS) reduced iron levels by another 30% leading to a final product of approximately 38% P₂O₅ and 1.9% combined Al₂O₃ and Fe₂O₃.
- This initial flotation test work demonstrates that addition of a clay flotation process would increase overall P₂O₅ recovery from approximately 51% to 79%.
- Additional metallurgical test-work is ongoing.

- The resource model includes estimates for P₂O₅, Al₂O₃, CaO, Fe₂O₃, MgO, and SiO₂.
- In addition to routine assaying, several sets of selected samples were also assayed for the following additional attributes by a variety of methods: Ag, As, Ba, Be, Bi, Cd, Ce, Co, Cs, Cu, Ga, Ge, Hf, In, La, Li, Mo, Nb, Ni, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Tl, U, W, Y, Zn, Zr, Cl, F, Hg, C and C organic.
- For all secondary, and additional attributes average estimated grades (where available) or average grades for mineralised samples are below Avenir's expectations of critical thresholds for potential production and marketing options, and demonstrate that deleterious attributes appear are unlikely to prevent potential economic extraction.



Further work

- *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*
- Further infill drilling is being carried out to the east of the SMP area in the direction of continuation of mineralisation.
- Future exploration work is planned at a regional scale, infilling current 4 km by 4 km grid spaced drilling in the northern and eastern part of the tenement. Further infill and extension drilling is planned for the Dinguiraye, Gadde Escale and Gandal prospects.



Section 3 Estimation and Reporting Mineral Resources
 (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Database and geological staff routinely validate database entries with reference to original data. The Competent Person's independent checks of database validity included: Comparison of assay values with geological logging, comparison of assay values between nearby holes, checking for internal consistency between, and within database tables, and comparisons between assay results from different sampling phases. Additional checking included comparing all database assay entries with laboratory source files and spot check comparison of depths and sample numbers between original field sampling sheets and database entries for 1,705 intervals from 4 diamond holes and 157 AC holes. These checks showed no significant discrepancies in the database used for resource estimation.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr. Abbott visited Gadde Bissik on the 22nd and 23rd of April 2015, and viewed drill core at BMCC's Dakar office on the 24th of April 2015. The site visit included inspection of drilling and sampling activities, and discussions of details of the project's geology and drilling and sampling with field geologists and Mr. Abbott gained an improved understanding of the geological setting and mineralisation controls, and the resource sampling activities.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Geological setting and mineralisation controls of the Gadde Bissik mineralisation have been established from with sufficient confidence for the current estimates. Resources were estimated within wireframes representing mineralised domains interpreted on the basis of geological logging and P₂O₅ assay grades with a nominal P₂O₅ cut-off grade of 10%. The domain is commonly bound by underlying marls and limestones, and overlying sands.



Criteria	JORC Code explanation	Commentary
<i>Dimensions</i>	<ul style="list-style-type: none"><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	<ul style="list-style-type: none">Mineralised domains interpreted for the current study comprise a main zone and a subsidiary domain in the Dinguiraye area.The main mineralised domain trends around 26 km east-west by around 4.7 km north south and includes areas tested by drill holes at patterns varying from around 2 by 1 km to 125 by 125 and locally closer. Areas tested by generally 500 by 500 m and closer spaced drilling are included in estimated Mineral Resources. Potential mineralisation in more broadly sampled areas is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets. Areas of 500 by 500 m and closer spaced drilling within the main zone included in Mineral Resources include zones designated as Gadde Bissik East, Gadde Bissik West, Gandal and Gadde Escale. The Gadde Bissik East zone includes the SMP area.For Gadde Bissik East the interpreted mineralised domain extends around 13.5 km east-west by 3 km north-south. It ranges from 2 to rarely 11 m thick and averages around 3.5 m thick, with an average depth to mineralisation of approximately 33 m. Within the SMP area the domain averages around 4.9 m thick.For Gadde Bissik West interpreted mineralisation extends around 4.5 km east-west by 2.3 km north-south. It averages around 2.5 m thick, with an average depth to mineralisation of 21 m.The Gandal zone covers an area around 2 km east-west by around 3.5 km north-south. Interpreted mineralisation averages around 3.6 m thick with an average depth to mineralisation of 29 m.The Gadde Escale zone covers an area around 4.5 km east-west by 2.8 km north-south. Interpreted mineralisation averages around 3.8 m thick with an average depth to mineralisation of 37 m.The Dinguiraye area has been tested by approximately 500 by 500 m drilling and is included in Inferred Resources. It covers an area around 3.5 km east-west by 2.7 km north-south with average domain thickness and depth to mineralisation of 2.8 and 32 m respectively.For the combined resource areas, the mineralised domain averages 3.3 m thick, with an average depth to mineralisation of 32 m



Criteria	JORC Code explanation	Commentary
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> 	<ul style="list-style-type: none"> Resources were estimated by Ordinary Kriging of 1 m down hole composited assay grades within the mineralised domain. The estimates include P₂O₅, Al₂O₃, CaO, Fe₂O₃, MgO and SiO₂ with variograms modeled for each attribute. No upper cuts were applied to the estimates. This reflects the generally moderate variability of most attributes and ameliorates the risk of understating secondary attribute grades. Estimates included in Mineral Resources were generally extrapolated to a maximum of around half the drill hole spacing beyond drilling, with a maximum extrapolation distance of generally around 250 m. Grade estimation included un-folding of composite locations using the base of the mineralised domain as a reference surface. Grade estimation included a six pass, octant based search strategy. Search ellipsoid radii (east-west, north-south, vertical) and minimum data requirements for these searches comprise: Search 1 200x200x1 m (8 data), Search 2 300x300x1.5 m (8 data), Search 3 600x600x1.5 m (4 data), Search 4 600x600x1.5 m (4 data), Search 5 1200x1200x3 m (2 data) and Search 6 1200x1200x3 m (2 data). Indicated Mineral Resources include estimates from Search passes 1 to 5, with Search 1 and 2 providing 98% of these estimates. Inferred Resources are primarily based on search 1 to 4, with search 5 and 6 contributing around 6.2% of the estimates. Micromine software was used for data compilation, domain wire-framing, and coding of composite values, and GS3M was used for resource estimation. The estimation technique is appropriate for the mineralisation style.
	<ul style="list-style-type: none"> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> 	<ul style="list-style-type: none"> The current resource model is reasonably consistent with the model reported in March 2017, with differences reflecting drilling and analyses completed since that time. A comparative OK model estimated without un-folding gave similar estimates. For the comparatively minor trial mining to the end of January 2017, the mineralised volume predicted by the model is consistent with preliminary mining estimates, with mining producing around 3% higher volume than predicted. Evaluation of as-mined production is at an early stage, and reliable grade estimates have not yet been completed.



<ul style="list-style-type: none">• <i>The assumptions made regarding recovery of by-products.</i>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	<ul style="list-style-type: none">• Estimated resources make no assumptions about recovery of by-products.• In addition to routine assaying, several sets of selected samples were also assayed for the following additional attributes by a variety of methods:Ag,As,Ba,Be,Bi,Cd,Ce,Co,Cs,Cu,Ga,Ge,Hf,In,La,Li,Mo,Nb,Ni,Pb,Rb,Re,S,Sb,Sc,Se,Sn,Sr,Ta,Te,Th,Tl,U,W,Y,Zn,Zr,Cl,F,Hg,C,C organic.• For all secondary, and additional attributes average estimated grades (where available) or average grades for mineralised samples are below Avenir's expectations of critical thresholds for potential production and marketing options, and demonstrate that deleterious attributes appear are unlikely to prevent potential economic extraction.
<ul style="list-style-type: none">• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	<ul style="list-style-type: none">• Grades were Kriged into 62.5 by 62.5 by 1 m parent blocks (east, west, vertical). Plan-view dimensions of the parent blocks approximate half the drill hole spacing in the closest drilled portions of the deposit. For un-folding and precise representation of interpreted domain volumes the parent blocks were re-blocked to dimensions of 31.25 by 31.25 m by 0.25 m.• Grade estimation included a six pass, octant based search strategy. Search ellipsoid radii (east-west, north-south, vertical) and minimum data requirements for these searches comprise: Search 1 200x200x1 m (8 data), Search 2 300x300x1.5 m (8 data), Search 3 600x600x1.5 m (4 data), Search 4 600x600x1.5 m (4 data), Search 5 1200x1200x3 m (2 data) and Search 6 1200x1200x3 m (2 data).
<ul style="list-style-type: none">• <i>Any assumptions behind modelling of selective mining units.</i>	<ul style="list-style-type: none">• Details of potential mining parameters are unclear reflecting the early stage of project evaluations.• The estimates reflect conceptual development plans for the project which comprise a selective medium scale open pit operation feeding a beneficiation plant.
<ul style="list-style-type: none">• <i>Any assumptions about correlation between variables.</i>	<ul style="list-style-type: none">• The modeling did not include specific assumptions about correlation between variables.
<ul style="list-style-type: none">• <i>Description of how the geological interpretation was used to control the resource estimates.</i>	<ul style="list-style-type: none">• The mineralised domains used for resource estimation are consistent with geological interpretation of mineralisation controls.
<ul style="list-style-type: none">• <i>Discussion of basis for using or not using grade cutting or capping.</i>	<ul style="list-style-type: none">• No upper cuts were applied to the estimates. This reflects the generally moderate variability of most grade attributes, and ameliorates risk of understating secondary attribute grades.
<ul style="list-style-type: none">• <i>The process of validation, the checking process used, the comparison of model data to drill hole data,</i>	<ul style="list-style-type: none">• Model validation included visual comparison of model estimates and composite grades, and trend (swath) plots.



	<p><i>and use of reconciliation data if available.</i></p>	<ul style="list-style-type: none"> For the comparatively minor trial mining to the end of August 2017, the mineralised volume predicted by the model is consistent with preliminary mining estimates, with mining producing around 3% higher volume than predicted. Evaluation of as-mined production is at an early stage, and reliable grade estimates have not yet been completed.
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> Tonnages are estimated on a dry tonnage basis, with densities derived from sample results inclusive of allowance for oven-drying.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> The cut-off grade used for resource reporting reflects Avenira interpretation of potential project economics for a medium scale operation feeding a beneficiation plant.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i> 	<ul style="list-style-type: none"> The estimates are intended to reflect medium scale, selective open pit mining. Specific details of potential mining parameters are unclear reflecting the early stage of project evaluations. With a maximum depth of 58 m, the resources appear amenable to open pit mining.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> As outlined in Section 2 of this Table, four phases of metallurgical test work have been undertaken on samples of Gadde Bissik mineralisation. The test work suggests that for mineralisation selected at 15 P₂O₅ cut-off beneficiation by wet screening will recover around 51% of contained P₂O₅. Further work is required to determine the final product grade with current test work suggesting it is likely to be greater than 31% P₂O₅ with other key metallurgical parameters including deleterious attribute grades lying within the ranges expected for saleable product. Initial magnetic separation and flotation test work on the wet screening fines reject has demonstrated that recovery of an additional 28% of P₂O₅ is possible. Additional metallurgical test-work is ongoing.



<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> • Testing to date and analysis of the clay waste product from the simple physical sizing beneficiation process indicates no chemical environmental concern storing this product either in surface storage facilities or returning this material to completed open pit areas. • An Environmental Impact Study (EIS) and Community Support and Relocation Plan (CSR) has been approved by the government. The EIS was outsourced to environmental consultant Transecor, and included an independently audited risk assessment study. The assessment identifies the key negative environmental impacts during a construction phase, as dust generation, noise levels generated from mining operations, surface water management and the potential for local aquifer water quality reduction. All of these elements are typically mitigated through standard management plans and systems of work. The risk assessment also identifies significant positive environmental and socio-economic impacts during any future operating phase of the project. • The CSR involved extensive community and local government consultation and was signed off by all parties.
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> • Immersion density measurements are available for 176 air-dried diamond core samples, including 111 mineralised samples. For 112 of these samples, the measurements were repeated with oven drying giving an average density around 15% lower than the initial air-dried measurements. • Geometric density measurements derived from measured core weights, core diameters and recovered lengths are available for 1,927 core intervals from 125 diamond holes. • The current estimates include a density of 1.55 t/bcm on the basis of the available density measurements including adjustment for moisture content where appropriate. This value is consistent with investigations undertaken during trial-mining.
<p><i>Classification</i></p>	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories</i> 	<ul style="list-style-type: none"> • The model estimates are classified by a set of plan-view polygons defining areas of relatively consistent drill spacing. • Estimates for mineralisation tested by drilling spaced at 125 m by 125 m and rarely closer are classified as Indicated. Estimates based on holes spaced at between 125 m by 125 m and approximately 500 m by 500 m are classified as Inferred. • Potential mineralisation tested by drilling spaced at more than 500 m by 500 m to around 2 km by 2 km is too poorly defined for estimation of Mineral Resources, and represents Exploration Targets.



	<ul style="list-style-type: none"> • <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The resource classification accounts for all relevant factors. • The resource classifications reflect the competent person's views of the deposit.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • The resource estimates have been reviewed by Avenira geologists, and are considered to appropriately reflect the mineralisation and drilling data.
<i>Discussion of relative accuracy/confidence</i>	<ul style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> • <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> • Confidence in the relative accuracy of the estimates is reflected by the categorisation as Indicated and Inferred.



ANNEXURE 3

Baobab Phosphate Project exploration drilling programs – material drill intercepts



Hole ID	Easting	Northing	RL	Dip	Total depth	Mineralised intercept data (average grade over width)								Prospects
						From	To	Width	P ₂ O ₅ %	Fe ₂ O ₃ %	Al ₂ O ₃ %	MgO%		
RGDD0415	342123.452	1645121.888	34.395	-90°	45.5	34.36	43.36	9.0	27.14	5.84	1.58	0.02	Gadde Bissik East	
						35.36	40.36	5.0	34.08	3.99	0.84	0.01		
RGDD0416	344500.614	1644750.188	36.944	-90°	41.1	33.48	39.48	6.0	18.13	4.68	1.4	0.03	Gadde Bissik East	
RGDD0417	342123.583	1645875.999	32.524	-90°	39.9	36.6	38.6	2.0	8.68	3.30	5.62	1.60	Gadde Bissik East	
RGDD0418	342249.834	1645875.315	31.649	-90°	36.3	27.35	34.3	6.95	21.9	9.35	1.47	0.05	Gadde Bissik East	
						27.35	31.3	3.95	25.95	7.88	1.10	0.04		
RGDD0419	344249.297	1644750.94	36.491	-90°	35.75	29.75	33.75	4.0	15.15	1.97	1.54	0.02	Gadde Bissik East	
RGDD0420	342748.967	1645998.414	33.498	-90°	35.5	26.14	33.14	7.0	22.12	1.87	1.47	0.02	Gadde Bissik East	
						30.14	32.14	2.0	25.95	2.35	1.27	0.02		
RGDD0421	343996.673	1644749.492	33.709	-90°	33.8	27.2	32.2	5.0	16.82	2.58	1.82	0.02	Gadde Bissik East	
RGDD0422	343248.601	1646002.731	34.209	-90°	35.0	32.05	33.05	1.0	8.64	3.21	4.4	0.12	Gadde Bissik East	
RGDD0423	343749.154	1644745.464	33.755	-90°	33.8	29.06	32.06	3.0	9.02	1.11	3.16	0.05	Gadde Bissik East	
RGDD0424	342747.551	1646248.929	33.617	-90°	35.0	26.94	32.94	6.0	14.95	3.37	2.79	0.04	Gadde Bissik East	
RGDD0425	342499.874	1646247.657	30.968	-90°	33.4	26.25	31.25	5.0	21.98	2.57	1.73	0.04	Gadde Bissik East	
RGDD0426	342251.884	1646000.444	31.265	-90°	38.0	33.7	35.7	2.0	9.88	2.42	2.79	0.04	Gadde Bissik East	
RGDD0427	342124.153	1645996.965	31.851	-90°	38.5	33.0	37.0	4.0	20.17	3.31	1.85	0.07	Gadde Bissik East	
RGDD0428	342000.775	1646251.985	31.235	-90°	38.5	34.0	37.0	3.0	13.93	1.77	1.22	0.03	Gadde Bissik East	
RGDD0429	343499.08	1646251.857	34.446	-90°	30.0	25.0	28.0	3.0	20.23	0.77	2.27	0.04	Gadde Bissik East	
RGDD0430	344000.446	1646248.838	34.602	-90°	26.5	21.8	24.8	3.0	6.93	1.35	2.74	0.04	Gadde Bissik East	
RGDD0431	344246.034	1646245.33	34.121	-90°	23.3	19.8	21.8	2.0	14.3	2.21	2.3	0.04	Gadde Bissik East	
RGDD0432	344497.71	1646250.485	35.221	-90°	23.25	19.12	21.12	2.0	16.19	1.65	3.14	0.08	Gadde Bissik East	
RGDD0433	345247.803	1645748.285	36.097	-90°	36.5	31.35	34.35	3.0	9.86	13.06	2.14	0.07	Gadde Bissik East	
RGDD0434	342499.172	1646949.378	32.815	-90°	27.0	23.5	25.25	1.75	14.86	2.93	3.70	0.06	Gadde Bissik East	
RGDD0435	342758.6	1647451.99	29.524	-90°	35.5				<5%				Gadde Bissik East	
RGDD0436	342251.992	1647703.183	30.053	-90°	35.5	31.75	33.75	2.0	17.3	2.93	2.26	0.05	Gadde Bissik East	
RGDD0437	341996.142	1647443.57	26.774	-90°	47.5	41.87	45.87	4.0	19.35	4.59	2.72	0.06	Gadde Bissik East	
RGDD0438	341496.018	1647700.783	30.498	-90°	29.96	24.	28.0	4.0	22.8	4.82	1.19	0.02	Gadde Bissik East	
RGDD0439	341507.267	1647457.767	30.018	-90°	45.0	37.0	41.0	4.0	6.12	2.97	3.32	0.05	Gadde Bissik East	
RGDD0440	345500.842	1645251.157	36.352	-90°	36.6	25.6	34.6	9.0	24.36	1.67	1.87	0.02	Gadde Bissik East	

Intervals restricted to those with ≥ 5% P₂O₅

RGDD - diamond-cored drilling; nsr - no sample recovered