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**QUARTERLY ACTIVITIES REPORT – PERIOD ENDING 30 SEPTEMBER 2016**

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**Highlights**

- Balama Project remains on schedule for commissioning in Q2 CY2017
- Balama Project budget has been increased from US\$175 million to US\$185 million to incorporate changes of scope, principally the introduction of attrition cells and additional on-stream analysis
- Detailed engineering and design of the process plant complete
- Ramp up of personnel at Balama continues with approximately 1,400 direct staff and contractors now working on site (which will reach nearly 2,000 personnel by peak construction)
- Key items of plant and equipment for the processing plant, as well as significant quantities of plate and steel work have been delivered or are on-route to site
- The mining fleet required for full operations have been mobilised and construction of the run-of-mine (ROM) ore storage pad is underway
- With the wet season approaching, plans are in place to minimise any potential interruptions to the construction schedule
- Attrition cells have been added to the Balama process flow sheet, which will improve the average graphite concentrate grade, with no material impact on the capital forecast and minimal incremental operating costs
- Chairman Jim Askew has assumed an Executive Chairman role subsequently to the resignation of the Managing Director Tolga Kumova
- Mr Kumova continues to work with Syrah's senior management team to maintain third party relationships associated with the downstream battery anode market
- Shaun Verner has been appointed Executive General Manager for Sales and Marketing and an updated senior management structure put in place



## **BALAMA GRAPHITE PROJECT (100%) – REMAINS ON SCHEDULE FOR COMMISSIONING IN Q2 CY2017**

During Q3 CY2016, A\$52.3 million (US\$39.2 million) was spent on the Balama Graphite Project (inclusive of staff costs), resulting in total project development expenditures of A\$116.6 million (US\$86.3 million) as at 30 September 2016. An additional US\$20 million in development expenditures have been committed during the quarter, which brings total actual and committed capital expenditures to US\$127 million.

Balama Project budget has been increased from US\$175 million to US\$185 million to incorporate changes of scope related to improved product quality. These changes are:

- Introduction of attrition cells to the process flow sheet
- Additional on-stream analysis to optimise product qualification

The Company has ample cash resources to cover these plant upgrades.

### **Health, safety and community development**

- Achieved over 2 million hours worked without a Lost-Time Injury
- Health and Safety Management System progressed significantly with the development and implementation of the Project's Critical Hazard Management Standards
- Site visit from the National Directorate of Mines and Energy did not identify any material issues
- Critical incident response capability strengthened with implementation of Crisis & Emergency Management System and the formation of the Emergency Response Team
- Archaeological Survey of mine concession undertaken with no areas of cultural or heritage significance identified
- Significant local employment, training and skills development continues
- Environmental Monitoring Program progressing successfully in line with the conditions of the Environmental License
- Annual external environmental audit undertaken with no material issues identified



## **Geology**

- Balama currently hosts the world's largest reserve of contained graphite at Balama East and Balama West, with a combined Ore Reserve (JORC 2012) of 81.4 Mt at 16% total graphitic carbon (TGC), sufficient for over 40 years of mine life (refer ASX announcement dated 29 May 2015)
- In addition, Mualia Zone (Balama West) currently has an Indicated and Inferred Mineral Resource (JORC 2012) of 28.9 Mt at 18.4% total graphitic carbon (TGC) (down to 100m and at 5% TGC cut off)
- Work is currently being undertaken to investigate the potential to upgrade the Mualia Zone Mineral Resources into Ore Reserves. No further drilling will be required as part of this process and the Company will update the market once this is complete

## **Engineering and procurement**

- Detailed engineering and design is complete
- Significant quantities of material have been delivered to Balama to date including:
  - 53% of the required plate work which primarily consists of partially pre-fabricated equipment such as tanks, chutes, hoppers, etc
  - 41% of the required steel work which primarily consists of supporting structures for equipment such as frames, beams, braces, railings, etc
- Key items of plant and equipment have also been delivered or are on-route to site including the screw feeders, crushing plant, flotation cells, scrubber, agitators, cyclones, recycle crusher and wet screens

## **Wet season preparation**

To ensure that any potential interruptions to the construction schedule are minimised as a result of the upcoming wet season from December 2016 to February 2017, a number of initiatives are being undertaken including:

- Completion of diversion drains on the main access road and cutting various diversion drains around the Balama site, which will divert water away from the road, accommodation camp and process plant site
- Bituminise internal roads at the accommodation camp site
- Preparing hardstand areas throughout the process plant site
- Prioritise assembly of the warehouse and plant workshop to provide safe storage areas for all items located at the process plant site until installation or the end of the wet season



- As development of the Tailings Storage Facility progresses, finalise design of drains that will need to be installed to protect the asset

## **Mine development**

- The mining fleet required for full operations has been mobilised including 9 × Bell B40 articulated dump trucks, 2 × Liebherr excavators, 2 × Caterpillar dozers, 2 × Caterpillar graders and 2 × Fuel tankers
- Training has commenced for 20 trainee mobile plant operators recruited from the local community, with the objective of successfully training and transitioning 90% of total mining operators to local community members over time
- To meet the processing plant's requirements during peak production, mining activities will only need to be conducted over a day shift, 6 days per week
- The Mining Contractor, Tayanna Mozambique SARL, has commenced establishment of their mining compound and offices (Tayanna has been operating for 20 years in Mozambique)
- Construction of the run-of-mine (ROM) pad with a capacity of 360,000 tonnes is underway with completion expected in January 2017

## **Processing plant**

### **Construction and civil concrete works**

- A total of nearly 1,400 direct staff and contractors (which will reach nearly 2,000 personnel by peak construction) are currently working on site, including the Civil Contractor CMC Africa, who is responsible for the completion of major concrete works
- To date, approximately 71% of the required concrete for the process plant has been poured:
  - Concrete works have been completed for the crushing station, ore storage, recycle crusher, conveyors, pipe racks
  - Foundations for primary milling, secondary milling, flotation, thickener and dryer area are complete
  - Slabs for the thickener are complete
  - Slabs for flotation, reagent storage and dryer area are well advanced



**Figure 1 – Flotation footings**



**Figure 2 – Slabs for the flake dryer area**





**Figure 3 – Slabs for the product classification and bagging area**

### **Structural, Mechanical and Piping**

- The Structural, Mechanical and Piping (SMP) contract has been awarded to Kentz Engineers & Contractors Limitada (Kentz), a member of the global SNC-Lavalin Group
- Kentz has mobilised to site and established a 300 person camp
- The crusher and apron feeder have been erected, and erection of the ore bin is in progress
- Structural steel work for the crushing station and recycle crusher building is significantly progressed
- Pre-assembly for the recycle crusher building and tramp magnet structure is complete
- Pre-assembly for the primary milling and scrubber and filtration area is underway



**Figure 4 – Primary crusher**



**Figure 5 – Crushed ore storage bin**





**Figure 6 - Primary milling (left) and recycle crusher (right)**

#### **Addition of attrition cells to the Balama process flow sheet**

- Attrition cells have been added to the Balama process flow sheet, based on significant pilot plant test work, which has demonstrated the potential for between 96.5% to 98.8% TGC concentrate to be produced across a range of flake sizes
- The process used by the attrition cell is very simple and involves the removal of gangue minerals from graphite particles, which cleans the surface of the particles and improves flotation efficiencies downstream without a significant impact on particle size
- Higher selling prices can be achieved for graphite concentrate grades of over 97% TGC and will also reduce the downstream processing costs (by requiring less acid) of spherical graphite production
- Opportunity to further improve the attrition cell performance with on-going test work
- The estimated capital expenditure for these attrition cells will have no material impact on the capital forecast for the project
- Incremental operating costs for the attrition cells are estimated to be less than US\$10 per tonne of concentrate produced
- Installation of this equipment will be readily integrated into the existing flow sheet





## **Mine support infrastructure**

- To date, approximately 26% of the required concrete for mine support infrastructure (power station, warehouse, workshop, administration building, laboratory, etc) has been poured
- 15.4 MW Power Station – concrete works have commenced and delivery of power station equipment and materials are in progress
- 700,000 litre Fuel Facility – equipment for the fuel facility has been ordered and civil works are scheduled to commence during December 2016
- Administration building – construction is underway and awaiting the delivery of final roofing materials
- Product storage, warehouse and fixed plant workshop – BlueScope Steel has been awarded the materials supply contract, with a local construction team mobilising to site during October 2016
- Accommodation camp – expansion is substantially complete and will have the capacity to host 600 employees and contractors after full completion which is scheduled for December 2016
- Water pipeline – pipe is on site and ready for installation to commence after the installation contract is awarded
- Tailings Storage Facility – clearing of topsoil and vegetation for the Tailings Storage Facility site is complete and removal of bulk floor material is 90% complete. Surface preparation and embankment works are underway. Worley Parsons continues to provide design and construction support throughout this process



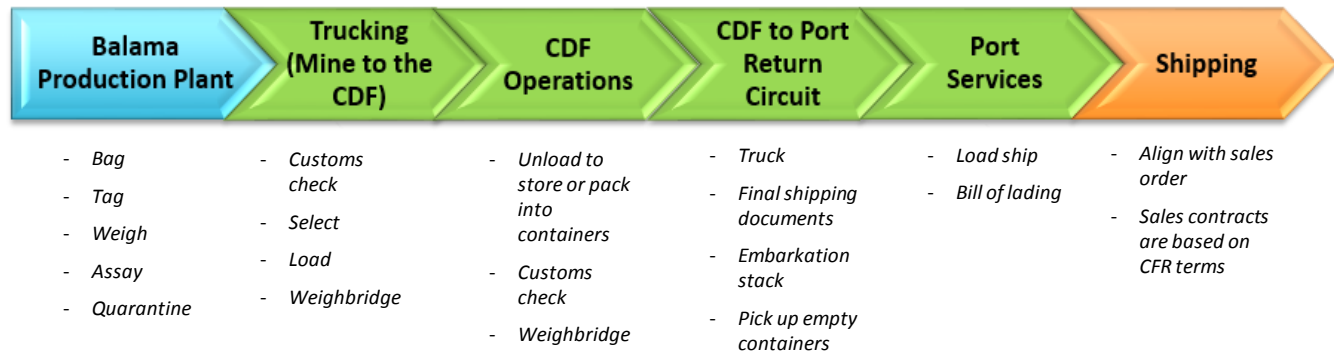
**Figure 7 – Power station foundations**

## **Operations readiness and commissioning**

- Detailed operational readiness schedule is being developed in conjunction with the construction and commissioning schedules
- Commissioning is currently in the planning stages with the objective of progressively commissioning areas in a sequence in parallel with construction being completed to reduce the overall time to production ramp up



## Logistics – mine to port



Note: CDF = Crossing docking facility, CFR = Cost and Freight

**Figure 8 – Overview of the logistics path**

- The Company intends to move product from Balama to Nacala port, located approximately 490 km south east of the Balama Project
- Trucking of product will be outsourced to a contractor and at full production, there will approximately 67 trucks (B-Double trailers), each transporting approximately 36 one tonne bags of product, from Balama to Nacala port daily
- Graphite concentrate will be packed in 1 tonne bags and then consolidated into 20 foot shipping containers and a dedicated cross docking facility located near Nacala port
- The Company is in discussions with a preferred provider (a leading logistics company in Africa) of trucking and associated services and expects to announce the award of this contract during Q4 CY2016

## Offtake sales agreements

- In addition to previously released offtake contract information, the Company is currently in detailed discussions with potential customers in relation to the supply of flake graphite to battery anode material producers
- Product testing with potential customers have been undertaken and products have been approved for use in battery anode production
- Discussions on flake graphite sales agreements continue with traditional market customers



## PROPOSED DOWNSTREAM SPHERICAL GRAPHITE PLANT

The Company is planning to provide a strategy update in relation to the Proposed Spherical Graphite Plant in November 2016.

## CORPORATE

During the September 2016 quarter, Syrah announced the resignation of Managing Director Tolga Kumova as part of a transition reflecting the evolving strategic direction of the Company and the key development activities it is currently undertaking. Chairman Jim Askew has stepped into an Executive Chairman role for the interim period and a global search for a new Managing Director has commenced with the objective of making this appointment within the next few months.

Mr Kumova will remain with the Company as an advisor, focussed on business development activities for the battery anode market, for at least 12 months.

Shaun Verner has been appointed Executive General Manager for Sales and Marketing to engage current and potential customers in the traditional graphite market and to continue developing downstream customers in battery anode materials. Mr Verner was previously a senior Sales and Marketing Executive at BHP Billiton, across a variety of traded metals and bulk commodities and has significant experience in the integration of operations, markets and risk.

In addition, Syrah is also currently working on the recruitment of a new role, Chief Operating Officer (COO) for Battery Anode Materials (BAM), who will lead the Syrah graphite anode team, focusing initially on the final design and delivery of the pilot plant for process qualification, and the feasibility study for the commercial spherical graphite plant during 2017.

Mr Kumova will work with the new Managing Director, COO – BAM and Mr Verner to maintain third party relationships associated with the downstream battery anode market

The updated senior management structure is set out in the figure below.

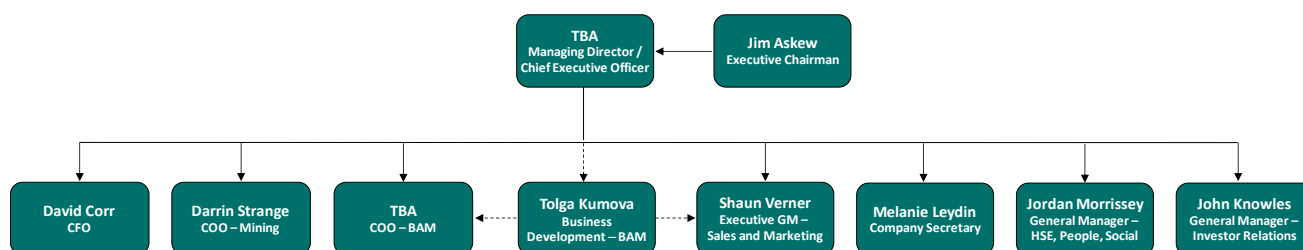


Figure 9 – Syrah's senior management structure





During the quarter, Syrah has conducted an extensive internal risk review across all aspects of the business, which is a fundamental building block to corporate strategy and governance.

## LICENSES

The following table lists the current licenses held by Syrah Resources Limited and its subsidiaries as at 30 September 2016:

Project	License Number	License Type	Country	Interest acquired/farm-in during the quarter	Interest disposed/farm-out during the quarter
Balama	6432C	Mining Concession	Mozambique	-	-
Balama <sup>1</sup>	5684L	Prospecting License	Mozambique	-	-
Botswana	347/2014	Prospecting License	Botswana	-	-
Botswana	348/2014	Prospecting License	Botswana	-	-
Botswana	349/2014	Prospecting License	Botswana	-	-
Botswana	350/2014	Prospecting License	Botswana	-	-
Mount Lyndhurst <sup>2</sup>	EL 4790	Exploration License	Australia	-	-
Mount Lyndhurst	EL 4791	Exploration License	Australia	-	-
South <sup>2</sup>	17904-	Large Scale	Zambia	-	-
Sasare North <sup>3</sup>	HQ-LPL				

Note 1: Syrah has entered into a tenement sale agreement (TSA) for the acquisition of a tenement (Tenement) in Balama from a third party (Seller). Under the TSA, Syrah may be required to issue to the Seller, as part of the contingent consideration for the acquisition of the Tenement, up to US\$2.0 million of fully paid ordinary shares (Sale Shares) in various tranches, with the number of Sale Shares under each tranche to be calculated based on the 30 day volume weighted average price of Syrah shares prior to the issue date. The Sale Shares (if issued) will rank equally with Syrah's existing shares, and will not be issued to an existing class of security holders in Syrah. It is not expected that security holder approval will be required for the issue of Sale Shares.

Note 2: The Mount Lyndhurst licenses are 50% owned by Syrah Resources Limited and 50% owned by the Joint Venture Partner (Zurich Resources Pty Ltd). Syrah advised the Mines Department of South Australia that the Company will not be renewing these licences on 18 September 2015.

Note 3: Syrah submitted a report for the abandonment of this license on 29 March 2016. The Zambian government has acknowledged the receipt of the abandonment application but has yet provided acknowledgement that the license is abandoned.



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**About Syrah Resources**

*Syrah Resources Limited (ASX code: SYR) is an Australian-based industrial minerals and technology company. Syrah is currently constructing the Balama graphite project (Balama) in Mozambique, with commissioning scheduled to commence in Q2 2017. Balama will be the leading global producer of high purity graphite. Balama production is targeted to supply traditional industrial graphite markets and emerging technology markets. Syrah has successfully completed extensive product certification test work with several major battery producers for the use of Balama spherical graphite in the anode of lithium ion batteries.*

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

SYRAH RESOURCES LIMITED

### ABN

77 125 242 284

### Quarter ended ("current quarter")

30 SEPTEMBER 2016

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	(30)
(b) development	(49,558)	(95,413)
(c) production	-	-
(d) staff costs <sup>(1)</sup>	(3,181)	(8,059)
(e) administration and corporate costs	(1,924)	(5,062)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	429	1,181
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(54,234)</b>	<b>(107,383)</b>

<sup>(1)</sup> Includes staff costs in relation to project development and corporate & administration functions

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	(6)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>(6)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	194,321
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(54)	(5,593)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(54)</b>	<b>188,728</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	325,971	191,594
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(54,234)	(107,383)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(6)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(54)	188,728
4.5	Effect of movement in exchange rates on cash held	(7,881)	(9,131)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>263,802</b>	<b>263,802</b>



5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1    Bank balances	28,063	78,472
5.2    Call deposits	235,699	247,459
5.3    Bank overdrafts	-	-
5.4    Other – Security deposits	40	40
<b>5.5    Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>263,802</b>	<b>325,971</b>

**6.    Payments to directors of the entity and their associates**

- 6.1    Aggregate amount of payments to these parties included in item 1.2
- 6.2    Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3    Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
311
-

The above related party payments include salaries, superannuation and consultancy fees paid to directors and/or director related entities during the quarter ended 30 September 2016.

**7.    Payments to related entities of the entity and their associates**

- 7.1    Aggregate amount of payments to these parties included in item 1.2
- 7.2    Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3    Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

N/A

8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

N/A

9. <b>Estimated cash outflows for next quarter</b>	\$A'000
9.1 Exploration and evaluation	-
9.2 Development	45,592
9.3 Production	-
9.4 Staff costs	3,656
9.5 Administration and corporate costs	1,828
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>51,076</b>

10. <b>Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	Nil	N/A	N/A	N/A
10.2 Interests in mining tenements and petroleum tenements acquired or increased	Nil	N/A	N/A	N/A

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here: .....  
(Company secretary)

Date: 26 October 2016

Print name: MELANIE LEYDIN

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.