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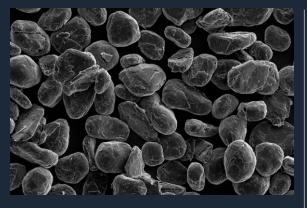
## **Our Position**



Syrah is a major ex-China natural graphite and active anode material (AAM) supplier for global customers, with upstream and downstream expansion potential underpinned by the world-class Balama resource



Natural graphite and AAM demand will increase five and nine times, respectively, over the next ten years<sup>1</sup>



Syrah is the only operating vertically integrated natural graphite AAM supplier outside of China



Balama is a 350ktpa graphite producer in Mozambique supplying global battery anode and industrial customers since 2017

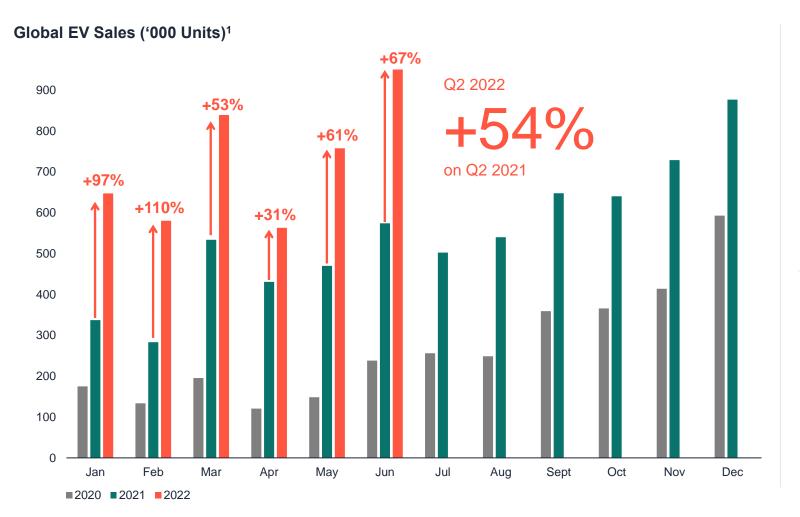


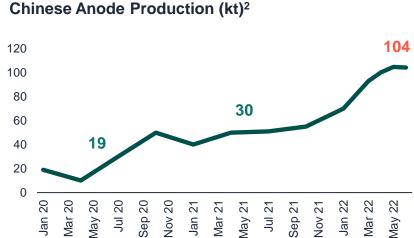
Vidalia is building an 11.25ktpa AAM facility in the US with commercial sales arrangements in place with tier 1 customers

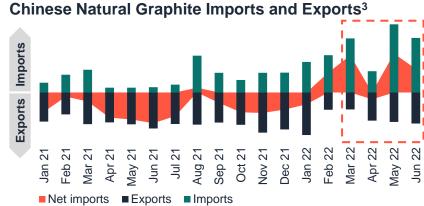
<sup>1.</sup> Source: Benchmark Minerals Intelligence Flake Graphite Forecast, Q2 2022. Note: AAM demand is for natural graphite AAM

# EV sales and anode production volumes continue to strengthen









<sup>1.</sup> Source: LMC.

Source: ICCSino.

<sup>3.</sup> Source: Asian Metal

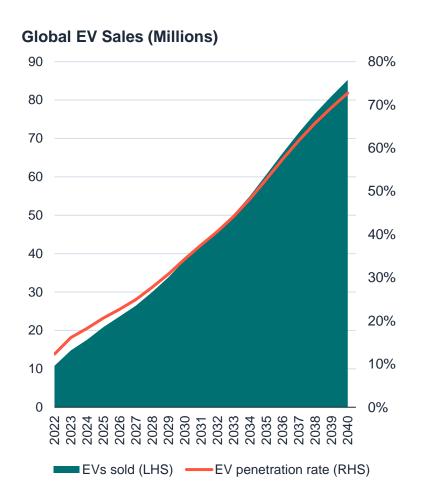
## Rapidly evolving market conditions are benefiting Syrah

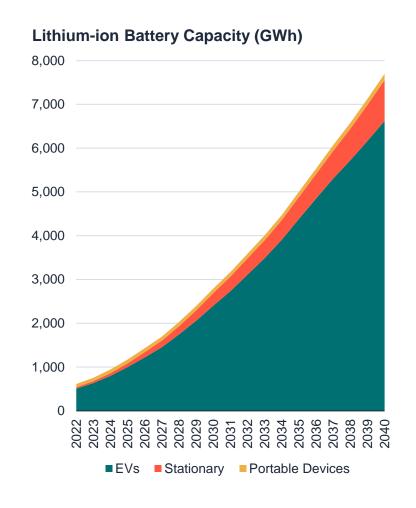


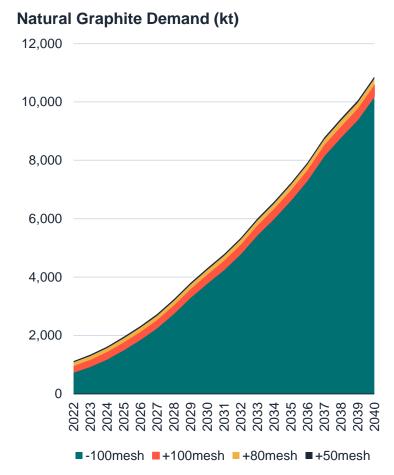
- Balama is a "market-critical" natural graphite operation largest integrated mining and processing operation globally
- Syrah's natural graphite sales price increased by ~50% over last 18 months with higher increase in spot fines price over the same timeframe
- Price reported for China domestic natural graphite AAM increased by ~40% over the last 18 months
- Largest imported natural graphite supplier to the Chinese anode supply chain
- Balama production and sales have only been constrained by container shipping, not operations or customer demand
- Commercial arrangements in place with tier 1 Vidalia AAM customers Tesla binding offtake contract; Ford+SKOn MOU
- Constructing 11.25ktpa AAM facility at Vidalia and accelerating DFS for expansion to 45ktpa
- US Department of Energy loan demonstrates criticality of Vidalia to the battery supply chain in USA

# Battery and natural graphite fines (-100mesh) demand is in the early stages of growth – driven by EV adoption





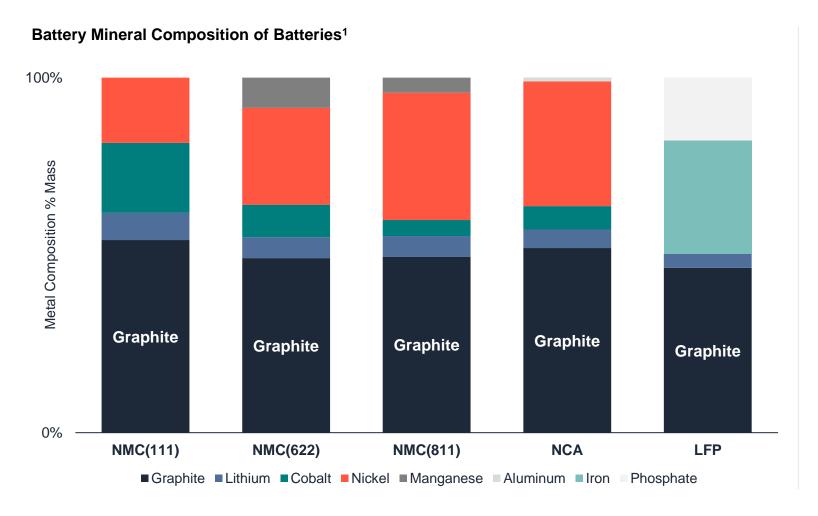




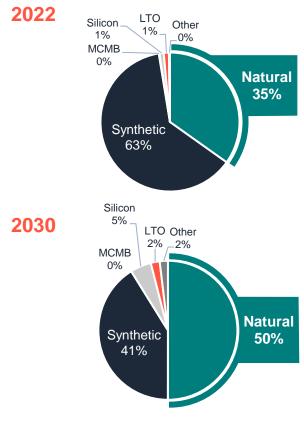
Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q2 2022.

# Graphite is a high intensity material in EV batteries, with costs / emissions expected to drive shift towards natural graphite









<sup>1.</sup> Source: Syrah Resources analysis, data from Gaines, L., Richa, K., & Spangenberger, J. (2018) Key issues for Li-ion battery recycling (excludes oxygen). Notes: NMC: Lithium nickel manganese cobalt oxide battery; NCA: Lithium nickel cobalt aluminium oxide battery; LFP: Lithium iron phosphate battery

<sup>2.</sup> Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q2 2022.

# **Our Value Proposition**





## Vertical Integration

- AAM from Vidalia for battery makers and auto OEMs
- Natural graphite from Balama for AAM producers



# Operating and Development

- Largest integrated natural graphite operation globally
- First vertically integrated natural graphite AAM supplier outside of China



### **Cost Position**

- Cost competitive AAM supply from Vidalia
- Sustainable and low cost curve position at Balama with project development capital already fully invested



### **ESG** Position

- Leading ESG standards and sustainability frameworks
- Low greenhouse gas emissions footprint
- Single chain of custody offers full auditability and transparency



# Expansion Potential

- Significant downstream expansion potential at Vidalia and in Europe
- Upstream brownfield expansion potential at Balama

# **Our Unique Downstream Position**

- ✓ High grade Balama graphite feedstock processed at Vidalia
- Optimised AAM product performance with customer base
- Expansion optionality in downstream operations underpinned by scale of Balama resource
- ✓ Full-chain performance with cost and ESG focus
- ✓ Greenhouse gas emissions reduction programs
- ✓ Full traceability and transparency in AAM product and natural graphite feed
- Ex-China alternative at volume / security of supply
- ✓ Development timing aligned with EV and battery supply chain buildout in Western markets





# Syrah aims to become a leading supplier of anode products



Our expansion strategy is underpinned by Balama's world-class resource



## **Vidalia Operations and Expansion**

- Mass market drop-in AAM product developed and qualified with customers using a fully operational and commercial-scale qualification facility
- ✓ Vidalia AAM tested to have excellent initial physical, chemical properties and electro-chemical performance
- ✓ Co-located in USA for >4 years of development
- Market-standard milling, purification and surface treatment processing with improved emissions and water management
- ✓ HF and HCL purification designed for safe operation, neutralization and disposal
- Very high focus on ESG principles and minimising full chain greenhouse gas emissions
- ✓ Q3 2023 start of production
- ✓ Progressing DFS for a 45ktpa AAM Vidalia facility



Q3 23

Start of Production

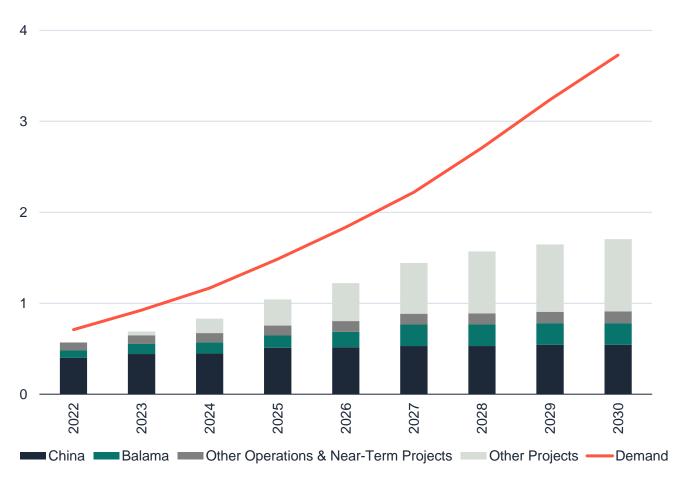
11.25<sub>KTPA</sub>

**AAM Production Capacity** 

# Almost all growth in natural graphite demand is for fine flake consumed in the battery anode market



### Global natural graphite fines (-100mesh) market balance (Mt)<sup>1</sup>



- Fine flake (-100mesh) products supply the battery anode market, <u>not coarse flake</u>
- ~80% of current Balama production is fine flake
- Fine flake market is forecast to remain undersupplied even with full Balama utilisation and the deep project pipeline being developed
- China fine flake production is stagnating<sup>2</sup>

<sup>1.</sup> Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q2 2022. Note: Balama forecast production is a Benchmark Mineral Intelligence forecast

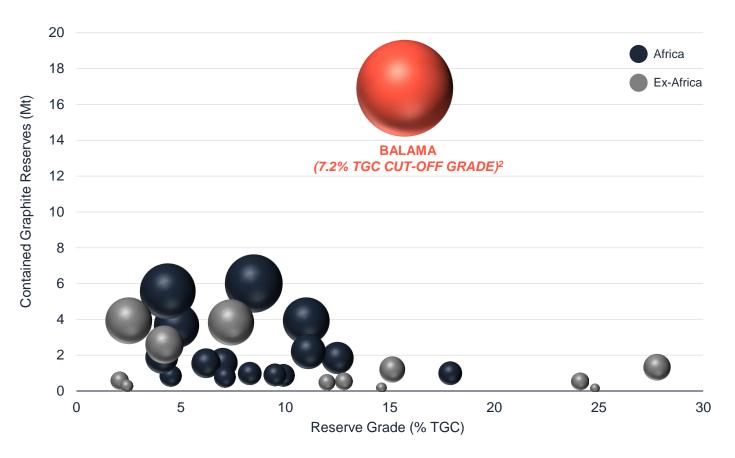
<sup>2.</sup> Source: ICCSino. Note: Based on June 2022 year to date China production.

### Balama is a differentiated tier 1 asset



Most induced projects are expected to be higher cost and coarse flake weighted

### Ex-China natural graphite reserves and reserve grade<sup>1</sup>



- Ex-China projects are required to close the supply gap, but little new supply has been developed in the last five years
- Fine flake supply growth may lead to coarse flake oversupply, with inversion of the price dynamic
- Many projects have high market price assumptions and aggressive operating and capital metrics, along with concurrent vertically integrated construction
- Syrah has deep operating and market entry experience

<sup>1.</sup> Source: Company filings; Notes: Selected ASX / TSX-listed graphite projects with declared Reserves only and excludes Chinese producers. Bubble size indicates contained graphite reserves.

<sup>2.</sup> As at 31 December 2021, Balama Ore Reserve is based on, and fairly represents, Syrah's ASX release dated 24 March 2022 (Annual Report 2021), which was prepared by competent persons, Mr Jon Hudson and Mr Christopher Hull.

# **Balama Highlights**

- 50+ year reserve-backed mine life
- 350ktpa natural graphite production capacity weighted to fine flake - with further expansion readily deliverable
- Simple, low strip, open pit mining and conventional processing to 94-98% carbon grade product
- Process plant, TSF, power and workforce infrastructure in place and optimised over five years
- Differentiated ESG position, 11.25Mw solar / 8.5Mw battery project underway for one third of power requirement
- Ex-mine gate contracted logistics / warehouse services
- In-house experienced Sales & Marketing capability
- Qualified natural graphite products already supplied in large volumes to the battery anode market



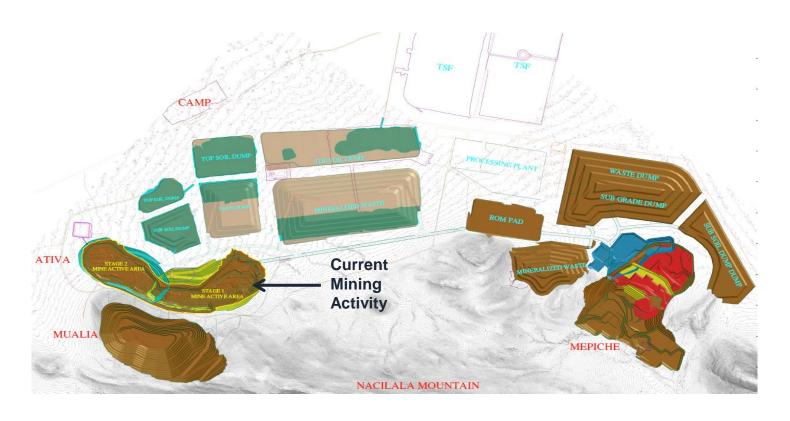
**Natural Graphite** Production Capacity

350 KTPA 50+ YEAR Mine Life

# **Balama Highlights**



### **Balama Graphite Operation Layout**



- Large Reserve of >100Mt Ore Reserve
  @ 16% TGC for 17Mt contained
  graphite<sup>1</sup>
- Significant Resource: >1Bt Mineral Resource @ 10% TGC<sup>1</sup>
- ~19% TGC current plant feed grade<sup>2</sup>
- ✓ Low life of mine plan strip ratios:
  - Ativa 0.41:1
  - Mualia 0.72:1
  - Mepiche 1.14:1
- Relevant vanadium resource
- 1. As at 31 December 2021. The Ore Reserve is based on, and fairly represents, Syrah's ASX release dated 24 March 2022 (Annual Report 2021), which was prepared by competent persons, Mr Jon Hudson and Mr Christopher Hull. The Mineral Resource is based on, and fairly represents, Syrah's ASX release dated 24 March 2022 (Annual Report 2021), which was prepared by competent person, Mr Jonathon Abbot.

2. Based on actual June 2022 year to date plant feed grade.

# **AAM & Natural Graphite Markets, Production, Outcomes**

- Current AAM supply >85% from China, balance Korea / Japan¹
- Balama and Vidalia critical to battery supply chains:
  - Balama upstream internal supply and to China AAM producers
  - Vidalia downstream supply to ex-Asia battery customers
- >5-year advantage over competing potential projects
- Operations and capital plans based on:
  - Real-world pricing, cost, production, and life cycle assessment assumptions
  - Operational experience and commercial engagement
- Compelling cost base, margins and returns as assets mature and production volumes increase
- Strong recognition and support as strategic assets on global Critical Mineral assessment





<sup>1.</sup> Source: Benchmark Anode Market Assessment, June 2022. Note: Based on CY2022 production forecast for natural and synthetic graphite AAM.

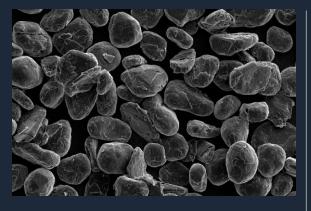
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