

Q4 2021 Quarterly Activities Report

31 January 2022 Shaun Verner – Managing Director & CEO



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Syrah's Value Proposition



Electric Vehicles require graphite

- Electric Vehicle ("EV") adoption is gaining momentum
- Anodes in lithium-ion batteries used in EVs are made of graphite



Graphite is a strategic critical mineral

- Global anode supply chain is currently 100% reliant on China
- Graphite is designated as a strategic critical mineral in USA, EU, Japan & Australia



Balama Graphite Operation: A Tier 1 asset

- Long life (>50 years¹) and high grade (16% TGC²)
- Largest integrated natural graphite mine and processing operation globally
- Significant vanadium resource at Balama is a valuable option³



Vertical Integration in USA

- Balama to be vertically integrated with AAM4 facility at Vidalia, USA
- Large scale ex-Asia AAM supply option that is ESG verifiable

Syrah's vision is to be the world's leading supplier of superior quality graphite and anode material products, working closely with customers and the supply chain to add value in battery and industrial markets



^{1.} Life of mine based on current 108Mt Graphite Ore Reserves being depleted at 2Mt throughput per annum. Refer to 2020 Annual Report released to ASX 29 March 2021 for Reserves as at 31 December 2020. All material assumptions underpinning the Reserves and Resource statement in this presentation continue to apply, other than as updated in subsequent ASX releases.

TGC = Total graphitic carbon.

^{3.} Scoping study on potential to refine vanadium as per ASX release 30 July 2014.

AAM = Active anode material.

Syrah's Positive ESG Profile

Leading ESG standards	 ✓ ISO:45001 and ISO:14001 certification at Balama ✓ ISO:9001 certification at Vidalia ✓ Vidalia expansion project being developed in line with best practice health, safety and environmental standards ✓ Critical Risk Management Framework embedded across the Group
Best practice sustainability frameworks	 ✓ Sustainability frameworks guided by: Global Reporting Initiative (GRI) United Nations Sustainable Development Goals International Council on Mining and Metals ✓ Robust Community Development and Stakeholder Engagement Strategy
Low carbon footprint	 ✓ Lower carbon emissions footprint (life cycle) of natural versus synthetic graphite ✓ Independent life cycle assessment (LCA) completed ✓ Implementing initiatives to lower carbon footprint further
 Auditable back to source	 ✓ Fully integrated by Syrah from mine to customer ✓ Vidalia products will have a single chain of custody back to the source

Q4 2021: Highlights

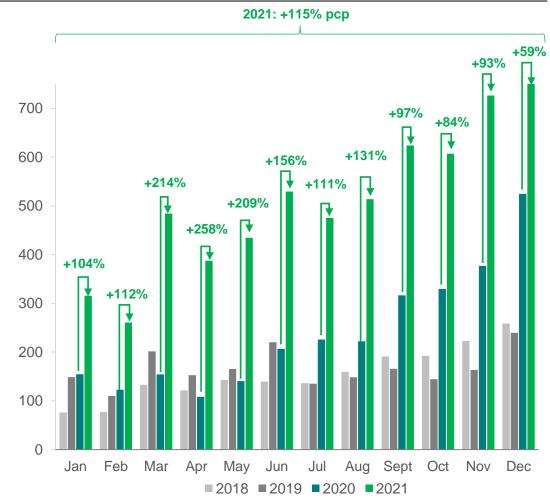
Health and Safety	Total Recordable Injury Frequency Rate ("TRIFR") of 0.5 for Balama and 0.0 for Vidalia at quarter end
	Positive momentum in EV sales and penetration, a key leading indicator for natural graphite and active anode material ("AAM") demand growth
	 Continued strong global EV sales, with 115% growth in 2021, versus 2020, to ~6.2 million units¹
Market	Global EV sales were more than 800,000 units in December 2021 ¹
	Pace of battery capacity commitments and vertical integration of the EV supply chain is accelerating in the USA
	China domestic graphite fines price increased through the December 2021 quarter
	December 2021 quarter production and sales constrained by container shipping market disruption – additional breakbulk shipment option expected to materially improve production and sales from the March 2022 quarter
	 13kt natural graphite produced at 82% recovery and 19kt sold and shipped during the December 2021 quarter
	Product quality consistent with previous quarters with stable recovery and grade – 89% recovery achieved in the December 2021 month
Balama Update	 Balama C1 cash costs (FOB Nacala) of US\$1,159/t for the December 2021 quarter – Balama C1 cash costs (FOB Nacala) guidance is US\$430–470/t at a 15kt per month production rate
	Weighted average sales price increased to US\$530/t (CIF) with very strong incremental demand and higher contracting prices
	 Strong sales order book with more than 80kt of natural graphite sales orders for the March 2022 quarter, demonstrating robust underlying demand conditions
	First 10kt spot shipment from Pemba port to China in February 2022, creating additional export option and significantly increasing Balama sales
	US\$79m capital invested in Vidalia ²
V: -1-1:- 11:1-(-	Offtake agreement executed with Tesla to supply 8ktpa AAM from Vidalia at a fixed price for an initial term of four years ³
Vidalia Update	• Detailed engineering on Vidalia's initial expansion ("Vidalia Initial Expansion") ~50% completed
	 Well progressed in the processes to facilitate a final investment decision on the Vidalia Initial Expansion in the near-term
Corporate	• LCA ⁴ completed, confirming the superior environmental position of Syrah's integrated operations versus Chinese natural and synthetic graphite AAM
	Quarter end cash balance of US\$53m

- 1. Source: MarkLines. December 2021 includes Syrah's estimate for EV sales (~29,000 total) in selected European companies.
- 2. Includes all capitalised costs associated with Vidalia to 31 December 2021.
- 3. Refer to ASX releases from 23 December 2021 and 29 December 2021.
- 4. Independent "origin to gate" lifecycle assessment.



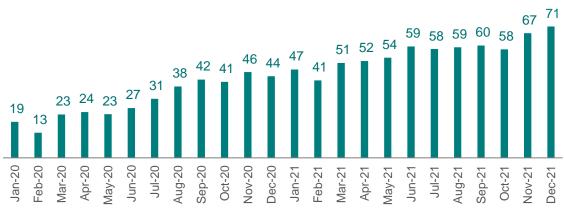
EV sales and anode volumes have continued to strengthen

Global EV Sales ('000 Units)



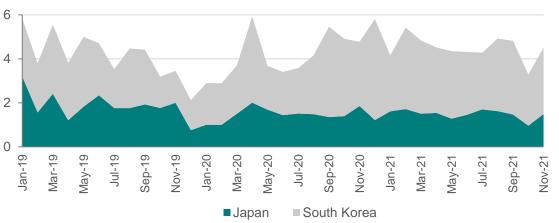
Source: Source: MarkLines. December 2021 includes Syrah's estimate for EV sales (~29,000 total) in selected European companies.

Chinese Anode Production (kt)



Source: ICCSino.

Chinese Purified Spherical Graphite Exports (kt)



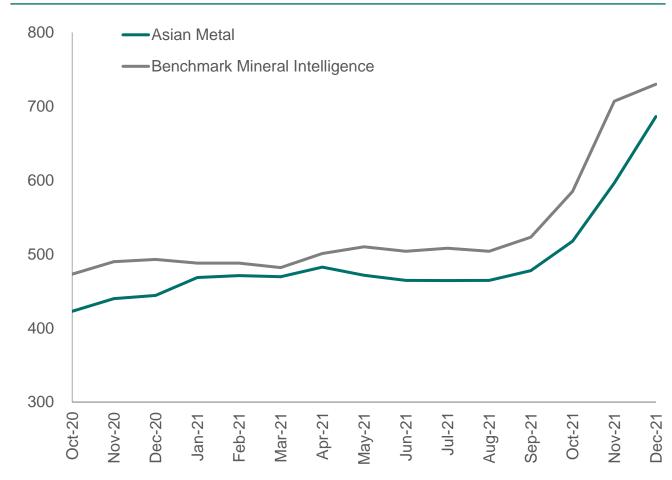
Source: Asian Metal.



China domestic graphite fines price has increased due to Chinese supply disruptions and strong demand flowing through the supply chain

- A constructive market is supporting increasing China domestic graphite fines price
- Spot graphite pricing is currently opaque. However, according to two independent price reporting agencies, China domestic prices for natural graphite fines (-100 mesh) have increased over the last 12 months
- Graphite fines demand is strong
 - EV sales increased 115% in 2021
 - Chinese anode production at ~70kt in December 2021
- Graphite supply (volume and quality) disrupted through winter production outage in China
 - Chinese production in Heilongjiang Province disrupted by power cuts and unexpected shutdowns due to environmental issues
 - Disruption in the shipping market has affected Chinese import restocking that would ordinarily occur prior to winter

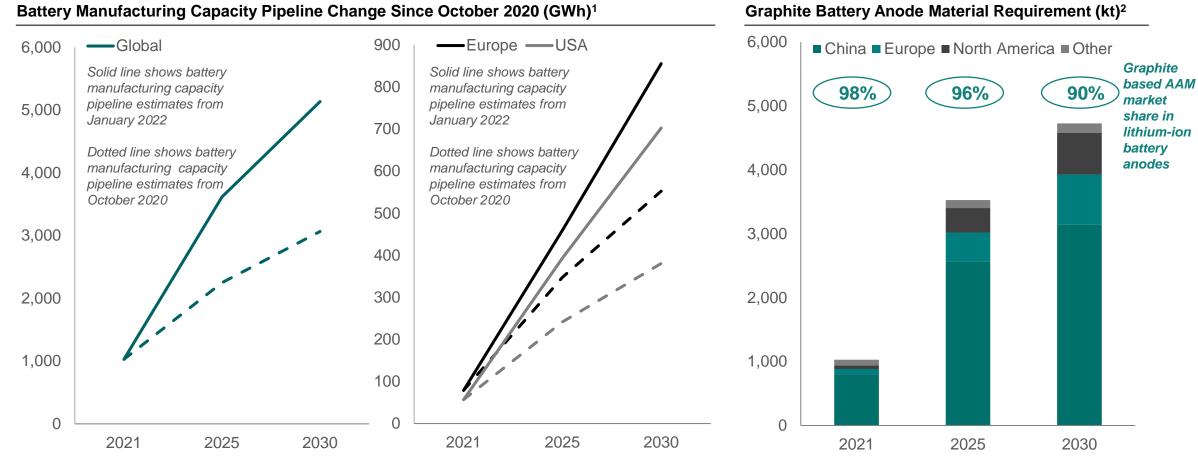
Natural Graphite Fines Prices (US\$/t)1



^{1.} Source: Benchmark Mineral Intelligence and Asian Metal (Price Reporting Agencies). China domestic prices for natural graphite fines (94-95% grade; -100mesh) are shown. Syrah's historical weighted average sales prices include sales under a mix of contract types and pricing mechanisms and are not necessarily representative of natural graphite spot prices nor consistent with the natural graphite price assessments of price reporting agencies. Furthermore, prices of China sales, within Syrah's historical weighted average sales prices, are exclusive of China VAT. Historical prices shown may not reflect future sales prices for Syrah natural graphite fines products



Battery manufacturing capacity pipeline is rapidly increasing across key regions, with substantial localised anode material supply required



10kt AAM and 45kt AAM capacity at Vidalia equates to 3% and 12%, respectively, of graphite AAM required for estimated USA-based battery manufacturing capacity by 2025³

Source: Benchmark Mineral Intelligence Battery Megafactory Assessment, January 2022 and Flake Graphite Forecast, Q4 2021.

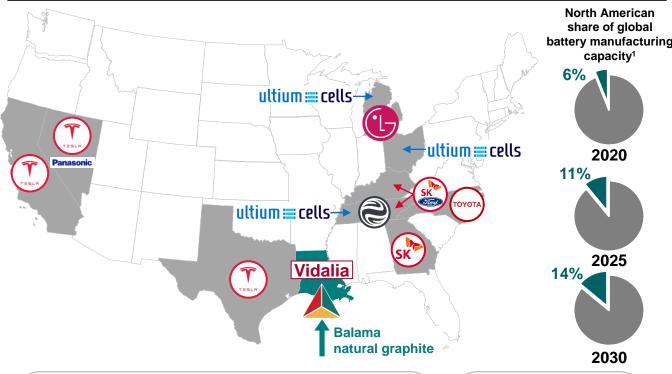
^{1.} Lines reflect estimated battery manufacturing capacity from October 2020 and January 2022, respectively. Battery manufacturing capacity in 2021 reflects January 2022 estimates as a past period.

^{2021, 2025} and 2030 forecast battery manufacturing capacity, 85% battery manufacturing capacity utilisation, 96% graphite anode market share and 1.2kg/kWh intensity of graphite in anode.

²⁰²⁵ forecast USA battery manufacturing capacity of 393GWh, 85% battery manufacturing capacity utilisation, 96% graphite anode market share and 1.2kg/kWh intensity of graphite in anode.

USA battery market is maturing rapidly to support a large-scale EV manufacturing base in the region

Location of Planned Battery Manufacturing Capacity in USA







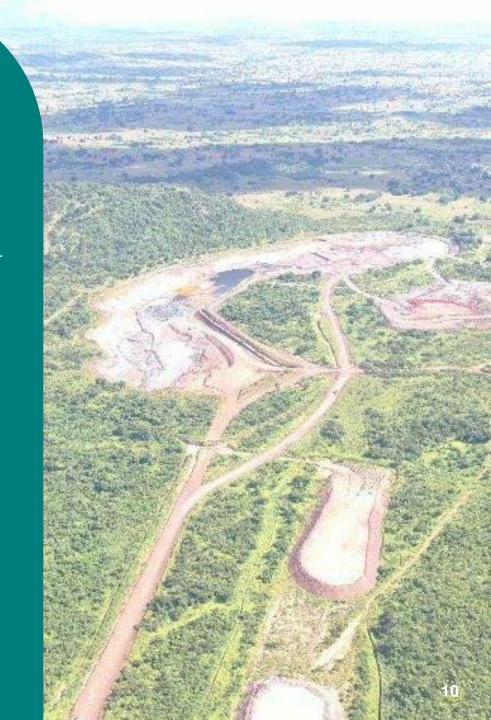
Planned Battery Manufacturing Capacity in USA¹

g	Company	Size (GWh)	Location	Status / Start
ıy	Stellantis / Samsung SDI	40	TBC	Planning / 2025
	Stellantis / LGES	40	TBC	Planning / 2024
	Toyota	TBC	NC	Planning / 2025
	FREYR / Koch	50	TBC	Planned / 2030
	Ford / SKI (BlueOvalSK)	400	KY	Planning / 2025
	Ford / SKI (BlueOvalSK)	129	TN	Planning / 2025
	LG (Green Field Project)	75	MI / TBC	Planning / From 2025
	GM / LGES (Ultium Cells 1)	35	ОН	Under construction / 2022
	GM / LGES (Ultium Cells 2)	35	TN	Planning / 2023
	GM / LGES (Ultium Cells 3)	50	MI	Planning / 2024
	SKI	~10 + ~12	GA	Under construction / 2022
	Tesla	95	TX	Under construction / 2022
	Panasonic (PENA)	49	NV	Construction / 2022 (35 GWh operating)
	Tesla	10	CA	Pilot / Operating
	LG	5	MI	Operating
	AESC Envision	10	TN	Planned / 2025 (3 GWh operating)
	iM3NY	5	NY	Planned / 2025 (1 GWh operating)
	Farasis	8-16	TBC	Planning / 2023-4
	1 Cauras, Banahmark Minaral Into	Iliaanaa Battani	Magafaatan	CYDAH DECOLIDATE

^{1.} Source: Benchmark Mineral Intelligence Battery Megafactory SYRAH RESOURCES 9 Assessment, January 2022.

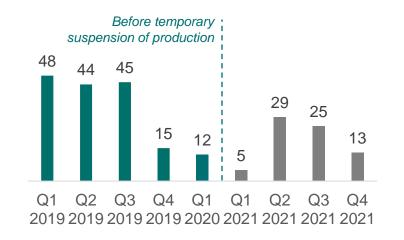
Q4 2021: Balama Production and Operations

- December 2021 quarter production constrained by maximum inventory positions and container shipping market disruption additional breakbulk shipment option expected to materially improve production and sales from the March 2022 quarter
- 13kt natural graphite produced at 82% recovery during the December 2021 quarter
- Product quality consistent with previous quarters with stable recovery and grade record 89% recovery achieved in December 2021 month
- Strong operational performance demonstrated during campaign production runs in the quarter with an average and maximum daily production run-rate of 16kt per month and 24kt per month, respectively
- C1 cash costs (FOB Nacala) of US\$1,159/t
- Balama C1 cash costs (FOB Nacala) guidance is US\$430–470/t at a 15kt per month production rate. Balama unit costs are expected to reduce materially as production rate increases beyond 15kt per month
- Planned maintenance brought forward and optimisation works completed
- Positive COVID-19 cases recorded during the quarter had no impact on Balama operations. Vaccination program was completed in December 2021, with 97% participation by Syrah employees and contractors, and is ongoing for the Balama community
- Material improvement in security situation in northern Cabo Delgado

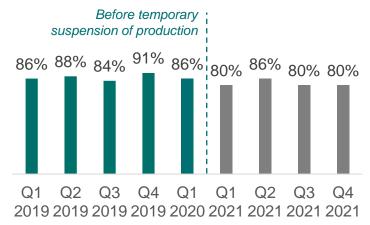


Q4 2021: Balama Production and Operations

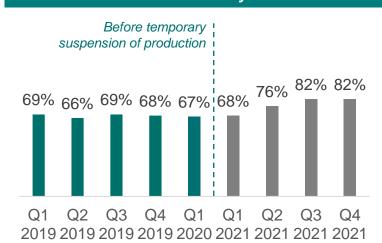
Natural Graphite Production (kt)



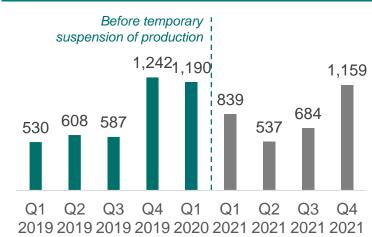
Product Mix (% Fines)



Plant Recovery



C1 Costs (US\$/t)





Balama is the largest natural graphite mining/processing operation globally

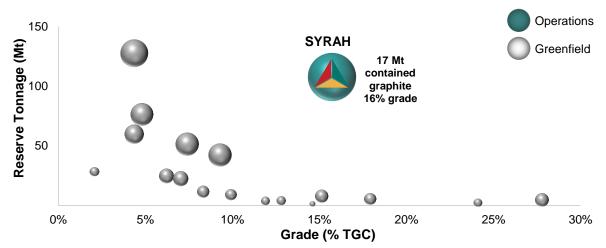
Asset Overview

Location Southern Cabo Delgado Province, Mozambique		
Reserve & 108Mt (16% TGC) Graphite Ore Reserve 1,422Mt (10% TGC) Graphite Mineral Resource		
Life of Mine ²	_ife of Mine ² ~50 years	
Mining	Simple open pit mining, low strip ratio	
Processing	Conventional – includes crushing, grinding, flotation, filtration, drying, screening and bagging	
Plant Capacity	2Mtpa ore throughput yielding ~350ktpa; 274kt produced since 2018	
Product	94% to 98% fixed carbon graphite concentrate	
C1 Cost ³	Forecast ~US\$330/t at full capacity	

Key Dates

Mar 2021	Production recommenced at Balama	
Mar 2020	r 2020 Temporary suspension of production at Balama	
Sep 2019	In response to drop in flake graphite prices, production moderated	
Mar 2019	Graphite Mineral Resources and Ore Reserves updated	
Jan 2019	Commercial production declared, with quarterly production of 33kt	
Dec 2018	Balama produced >100kt in 2018	
Sep 2018	Mining Agreement finalised with Government of Mozambique	
Jan 2018	Balama transitions to operations, global sales commenced	
Nov 2017	First production of natural graphite	
Jul 2016	Balama process plant construction commenced	
May 2015	Feasibility Study completed	

Ex-China Natural Graphite Reserves⁴



Balama Graphite Operation



- 1. As at 31 December 2020. The Ore Reserve is based on, and fairly represents, Syrah's ASX announcement dated 31 March 2019 (Annual Report 2019), 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 announcement dated 31 March 2019 (Annual Report 2019), which was prepared by competent person, Mr Jonathon Abbot.
- 2. Life of Mine based on Ore Reserves being depleted at 2Mt per annum of mill throughput.
- 3. Cash operating cost Free on Board (FOB) Nacala, excluding government royalties and taxes. ~50% of C1 costs are fixed at ~50% capacity utilisation.
- Source: Company filings; Notes: Selected ASX / TSX-listed graphite projects with declared Reserves only and excludes Chinese producers. Bubble size reflects contained graphite reserves.

Q4 2021: Balama Sales and Marketing

- Sold and shipped 19kt natural graphite and all 20kt finished product inventory contracted to customers
- Unprecedented container shipping market disruption continued to impact the Company's ability to secure container capacity for Balama products on vessels sailing from Nacala
- Exceptionally strong demand and forward contracting with end-user customers more than 80kt of sales orders for the March 2022 quarter
- New sales contracts are at higher prices than achieved in the December 2021 quarter
- Weighted average sales price increased to US\$530/t (CIF) in the December 2021 quarter and further price support is evident in coarse and fines markets post quarter end
- Fines sales accounted for approximately 80% of overall product sales during the quarter
- Chinese anode production increased to 70kt per month in December 2021
- Chinese natural graphite supply disruption and the challenges in the shipping market severely affected Chinese inventory and restocking of natural graphite ahead of the winter production outages
- Container shipping availability expected to improve through the March 2022 quarter with additional capacity being added and lower competition expected from the agricultural sector
- Major logistics and export option has been developed in breakbulk shipments through Pemba port



Syrah has developed a major additional export option in breakbulk shipments through Pemba port

- Whilst Syrah expects container shipping availability to improve, a major new logistics option has been developed to commence breakbulk shipments through Pemba port
- Breakbulk shipments through Pemba port will provide an additional export route for Syrah, enabling:
 - Flexibility in managing inventory between Balama, Nacala and Pemba
 - Significantly higher Balama product sales than could be achieved solely through Nacala port in containers
 - Higher production rates at Balama, facilitating >15kt per month production
- A first 10kt breakbulk shipment from Pemba to China is scheduled in early February 2022
- Significant further customer demand for such shipments is evident
- Syrah expects to make additional breakbulk shipments through the first half of 2022 to China and Europe
- Pemba is approximately half the distance of Nacala from Balama by road
- Syrah's integrated logistics service provider is providing transport, port and customs services for exports from Pemba, with additional warehousing contractors added





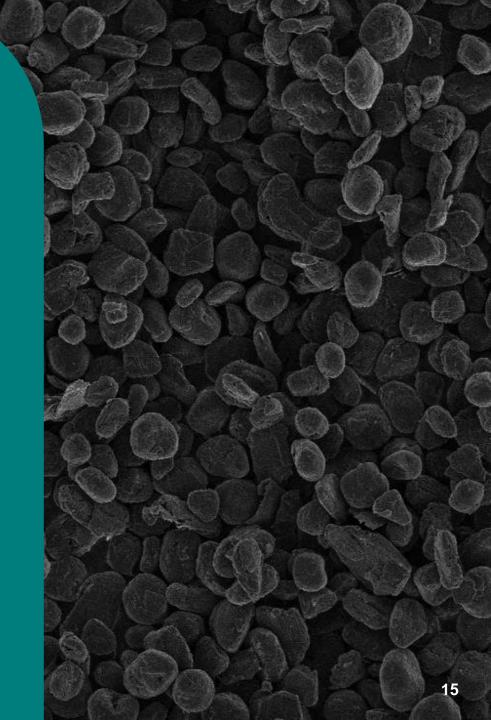
Q4 2021: Vidalia

- US\$79m capital invested¹ in Vidalia de-risking Syrah's entry into the downstream AAM market
- Offtake agreement executed with Tesla to supply 8ktpa AAM from Vidalia at a fixed price for an initial term of four years²
- Detailed engineering on the Vidalia Initial Expansion project is ~50% completed and has supported the technology, design and assumptions in the Bankable Feasibility Study³
- Detailed engineering and critical long-lead equipment procurement completed is underpinning readiness to proceed to construction
- Well progressed in the processes to facilitate a final investment decision on the Vidalia Initial Expansion in the near-term
- Interest from target customers provides strong basis for a potential accelerated, larger expansion at Vidalia beyond the initial expansion



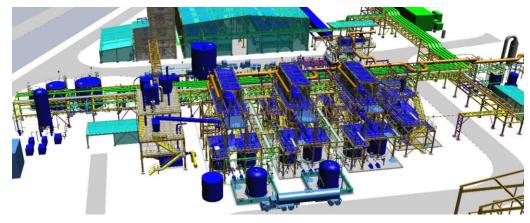
Refer ASX releases 23 December 2021 and 29 December 2021

3. Refer ASX release 1 December 2020.

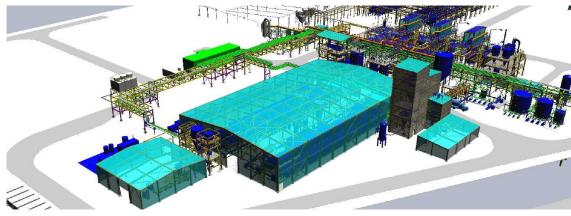


Syrah has significantly advanced detailed engineering and long-lead equipment procurement

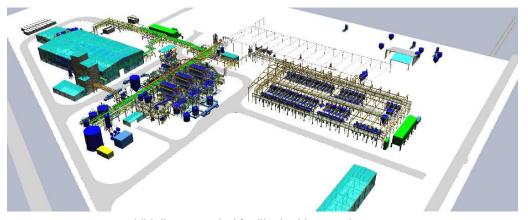
- Bankable Feasibility Study on the Vidalia Initial Expansion was completed in December 2020¹
- Subsequently, Syrah has completed front-end engineering and design, detailed engineering and long-lead equipment procurement on the Vidalia Initial Expansion
- Detailed engineering is almost ~50% complete
- Vendor data received on key critical equipment to enable advancing engineering for layout, utilities, and services
- Ordering critical long-lead equipment, including power distribution centres, milling equipment and carbonisation furnaces
- Vendor data being procured on further non-critical equipment to advance construction packages for bidding



Purification/waste neutralisation for Vidalia expanded facility.



Furnace buildings for Vidalia expanded facility.



Vidalia expanded facility looking north west.

De-risking Vidalia expansion

Date	Key Milestones	
Dec 2021	✓ Tesla offtake agreement executed	
Dec 2021	✓ Detailed engineering ~50% completed	
Nov 2021	✓ "Balama origin to Vidalia gate" lifecycle assessment completed	
Jun 2021	Worley awarded detailed engineering and procurement services contract	
Jun 2021	Transitioned to detailed engineering for 10ktpa AAM facility	
Jun 2021	Integrated AAM dispatched to potential customers for qualification	
May 2021	First fully integrated production of AAM from Vidalia	
Mar 2021	Transition to initial detailed design for 10ktpa AAM facility	
Mar 2021	Installation and commissioning of furnace	
Dec 2020	BFS confirms robust economics for large scale AAM production	
Nov 2020	Dispatched AAM (toll treated) for product qualification by customers	
Oct 2020	First production of AAM (toll treated) using anode precursor from Vidalia	
Jul 2020	First production of purified spherical graphite to battery specification from Vidalia	
Dec 2018	First production of unpurified spherical graphite at Vidalia	
Sep 2018	Phase 1 study completed for large-scale AAM production at Vidalia	
Aug 2018	Vidalia site purchase completed	
Mar 2018	Benchmarking of AAM produced from Balama graphite completed	
Nov 2016	Syrah announces plans to establish commercial scale facility in Louisiana	
Apr 2016	Pilot test work program initiated in China (milling and purification)	



Q1 2022 outlook

EV sales growth, constructive demand environment for anode material and Chinese supply disruption driving strong demand and pricing for Balama products

Increasing Balama production beyond 15kt per month with consideration of market demand, forward customer contracting and Nacala / Pemba shipping availability

FID for initial expansion of production capacity at Vidalia to become a vertically integrated producer of natural graphite AAM to supply ex-Asia markets

Maintaining liquidity for Balama operations under various market scenarios and securing new funding to advance Vidalia beyond FID





Appendix

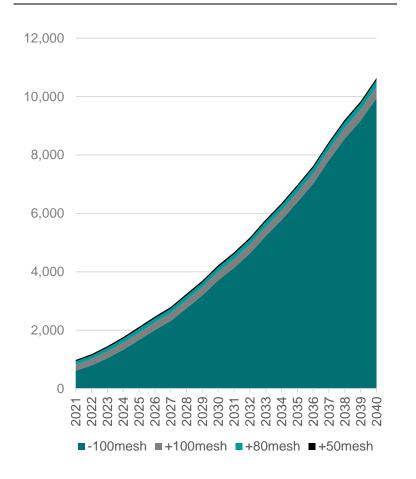


Battery and natural graphite fines (-100mesh) demand in early stages of growth – driven by EV adoption

■ Stationary ■ Portable Devices

Global Battery Manufacturing Capacity (GWh) Global EV Sales (Millions) 8,000 7,000 6,000 60 5,000 4.000 30% 3.000 2,000 20 10% 1,000 2025 2025 2026 2027 2029 2030 2031 2033 2034 2035 2035 2035 2037 2037 2037 2037 2037 2037 2037

Global Natural Graphite Demand (kt)



Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2021.

Note: EV penetration rate is global EV sales as a proportion of total global vehicles sold, including passenger cars, light duty vehicles, buses and coaches.

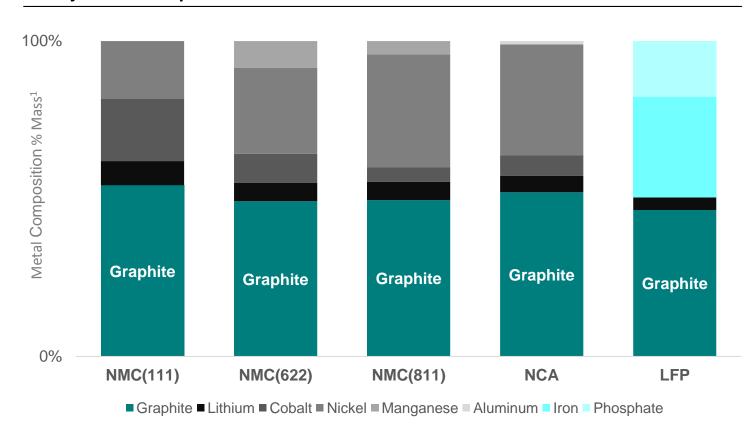


EVs sold (LHS) — EV penetration rate (RHS)



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

Battery Mineral Composition of Batteries



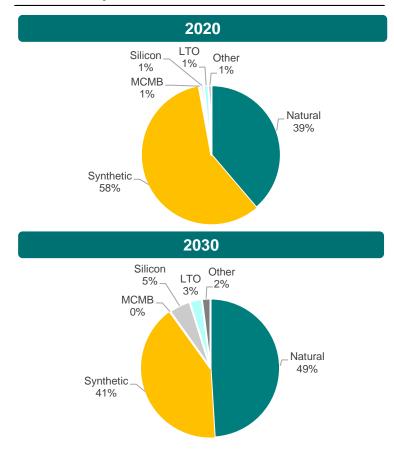
Source: Syrah analysis, data from Gaines, L., Richa, K., & Spangenberger, J. (2018) Key issues for Li-ion battery recycling (excludes oxygen), Benchmark Mineral Intelligence.

NMC: Lithium nickel manganese cobalt oxide battery.

NCA: Lithium nickel cobalt aluminium oxide battery.

LFP: Lithium iron phosphate battery.

Natural Graphite Demand for Batteries



Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2021.



^{1.} Shown as percent of the total sum by elemental mass featured in the analysis for each battery chemistry, excludes oxygen (cathode).

EV makers committed to LiB technology for expansion – advances required for commercial transition to solid state

EV Manufacturers



Targeting EV sales share of 70% (Euro) / 50% (ex-Euro) by 2030 and all electric by 2033-35



Targeting EV/hybrid sales share of 50% by 2025 and all electric by 2030



Targeting zero-emission vehicles only by 2035



Targeting EV sales share of 40% by 2030



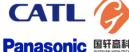
Targeting EV sales of 5.5mn units by 2030



Targeting EV sales share of 70% (Euro) / 35% (USA) by 2030

Current **Battery** Supplier CATL

Panasonic











CATI

Panasonic



SAMSUNG SDI



(1) LG Energy Solution

LG Energy Solution



1 LG Energy Solution



Future Battery Supplier









Targeting partnerships in Europe and USA for 200GWh by 2030



Targeting partnerships in US for 70GWh by 2025



Targeting partnerships in Europe 60GWh by 2025

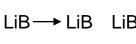






Targeting supply arrangements and partnerships in US and Europe for 260GWh by 2030

Transition Plan









Syrah's global business to supply growing battery anode demand

