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Q3 2020 Quarterly Activities Report

21 October 2020

Shaun Verner – Managing Director & CEO

SYRAH RESOURCES

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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



Syrah's Balama Graphite Operation is a Tier 1 asset

- Long life (>50 years[1]) and high grade (16% TGC[2])
- Largest integrated natural graphite mine and processing plant globally



Vertical Integration in USA

- Balama to be vertically integrated with an anode production plant in USA
- Syrah to provide an ex-Asia & ESG verifiable source of anode supply

1. Life of mine based on current 108Mt Graphite Ore Reserves being depleted at 2Mt throughput per annum. Refer to 2019 Annual report released to ASX 31 March 2020 for Reserve as at 31 December 2019. All material assumptions underpinning the Reserves and Resource statement in this announcement continue to apply, other than as updated in subsequent ASX announcements.
2. TGC = Total Graphitic Carbon

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Positive ESG Profile

Leading health and safety standards	✓ ISO:45001 and ISO:14001 certification at Balama ✓ Vidalia battery anode project being developed to ISO operating standards
Best practice sustainability frameworks	Sustainability frameworks based on: ✓ Global Reporting Initiative (GRI) ✓ United Nations Sustainable Development Goals ✓ ICMM 10 Principles for Sustainable Development
Low carbon footprint	✓ Lower carbon footprint (Life Cycle) of natural versus synthetic graphite[1]
Auditable back to source	✓ Anode material from Vidalia will have a single chain of custody back to the source

1. Benchmark Minerals Intelligence

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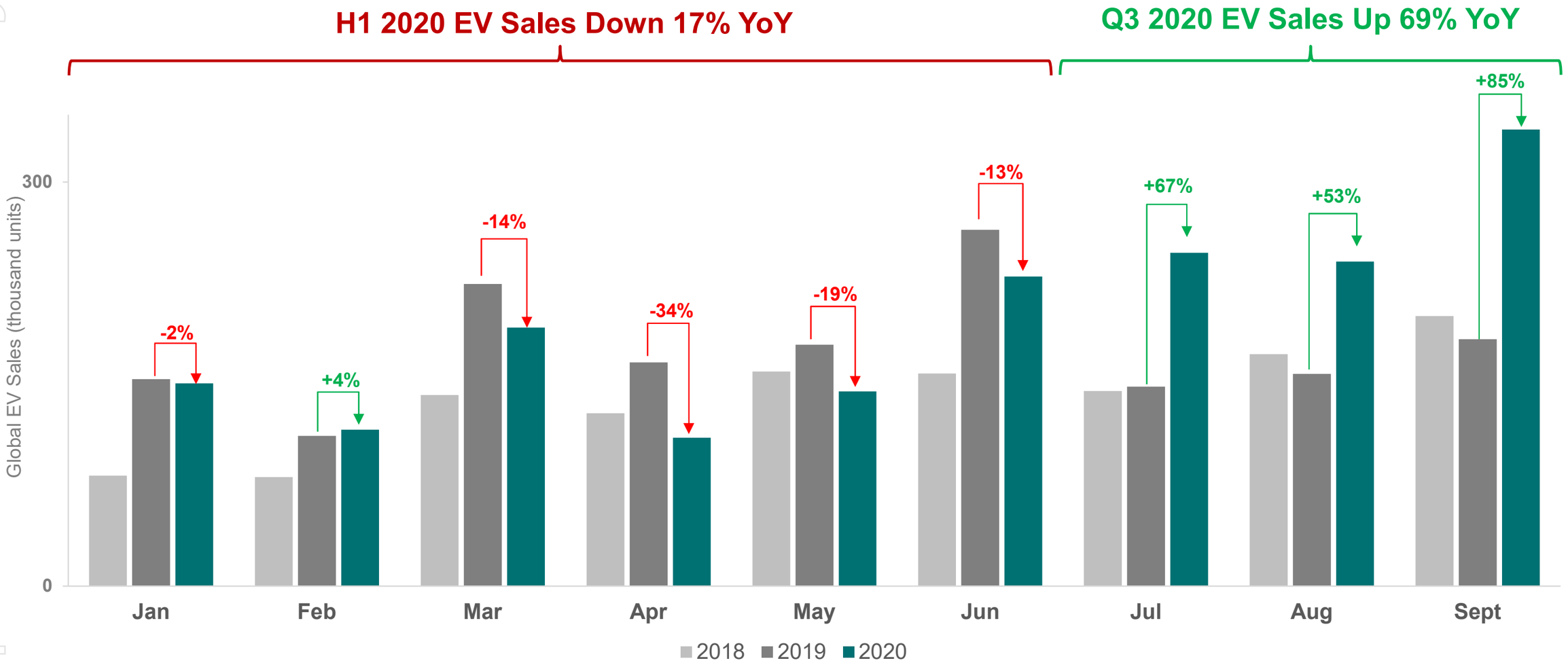
Q3 2020: Key Points

Vidalia Battery Anode Material Project	• First production of Active Anode Material (“AAM”) via toll treatment of anode precursor from Vidalia achieved post quarter end - excellent electrochemical characteristics demonstrated • Product optimisation via toll production is ongoing, on track to dispatch AAM to potential customers for product qualification during Q4 2020 • Syrah on track to become first vertically integrated producer of natural graphite active anode material outside China
Balama Graphite Operation	• Production at Balama temporarily suspended in March 2020 due to COVID 19 impacts – travel restrictions, lower demand • Travel restrictions beginning to ease, however market conditions yet to improve to allow production restart • Sales from finished product inventory of 3kt at average price US$470/t (CIF) during the quarter • Balama preserving cash during temporary suspension; retains operating / marketing capability to rapidly restart production • Restart lead time of ~2-3 months once decision is made
Market	• EV market returned to growth during the quarter, with 69%[1] growth in Q3 versus prior year • Focus on graphite as a critical mineral increased momentum – US Executive Order declared a national emergency in relation to critical minerals supply; EU Foresight Study on critical raw materials released, both highlighted graphite • Ongoing policy commitments to transport sector decarbonisation including: China’s pledge to become carbon neutral by 2060; Europe’s $572 billion green stimulus plan; and California to ban new gasoline car sales by 2035
Health and Safety	• Quarter end Total Recordable Injury Frequency Rate (“TRIFR”) was 0.5 • Ongoing focus on compliance with government directives and internal COVID19 protocols. • No cases of COVID 19 identified at any of Syrah’s global operations to date
Corporate	• Cash balance of US$44m at 30 September 2020

1. Based on data from EV Sales (http://ev-sales.blogspot.com/) for July and August. Syrah estimates for September.

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Global EV sales recovery indicates increased natural graphite demand

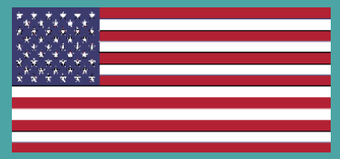


Source: All data except Sept 2020 from EV Sales (http://ev-sales.blogspot.com/). Sept 2020 data Syrah Resources estimate

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Governments rush to secure critical mineral supply chains; move towards electric transport options

Government announcements during Q3 2020:



- **Executive Order declaring a national emergency in relation to critical minerals supply:**

  Quote: *"United States is 100 percent reliant on imports for graphite, which is used to make advanced batteries for cellphones, laptops, and hybrid and electric cars. China produces over 60 percent of the world's graphite and almost all of the world's production of high-purity graphite needed for rechargeable batteries"*

- California to ban new gasoline car sales by 2035
- Supply chain localisation and clean energy policy likely to remain a focus in the US regardless of elected party



- **Critical Raw Materials Foresight Study highlighting battery minerals shortage for Europe**

  Quote: *"Of all materials currently used in battery manufacturing, cobalt, natural graphite, and lithium are critical in the 2020 list of Critical Raw Materials"*

- Largest green stimulus plan in history approved with value of US$572bn
- GHG emissions reduction target increased to at least 55% by 2030 - previous target 40%



- Pledge to become carbon neutral before 2060
- NDRC[1] encourages loosening NEV quota to encourage consumption
- MOT[2] states 60% of new cities will achieve >70% in green travels

1. National Development and Reform Commission
2. Ministry of Transport

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USA and Europe are significantly underinvested in anode capacity

Supply Chain Stages	1 Mining / Ore Processing		2 Active Anode Material Precursor		3 Active Anode Material	
Value Add Processing Steps	MINING	CONCENTRATION	MILLING/ SHAPING	PURIFICATION	CARBON COATING	THERMAL TREATMENT
Current share of value added processing (China, Europe, USA)[1]	65%	0% / 1%	100%	0% / 0%	83%	0% / 0%

China USA Europe

1: Syrah Resources analysis, data from Benchmark Minerals Intelligence

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Syrah progressing vertically integrated natural graphite anode supply ex-China

ESG[1] Auditable & Verifiable Back to Source

Balama Natural Graphite Operation

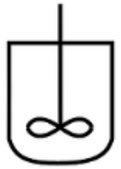


Vidalia Battery Anode Material Project[2]





MINING



CONCENTRATION



MILLING/
SHAPING



PURIFICATION



CARBON
COATING



THERMAL
TREATMENT

1. ESG: Environmental, Social and Governance

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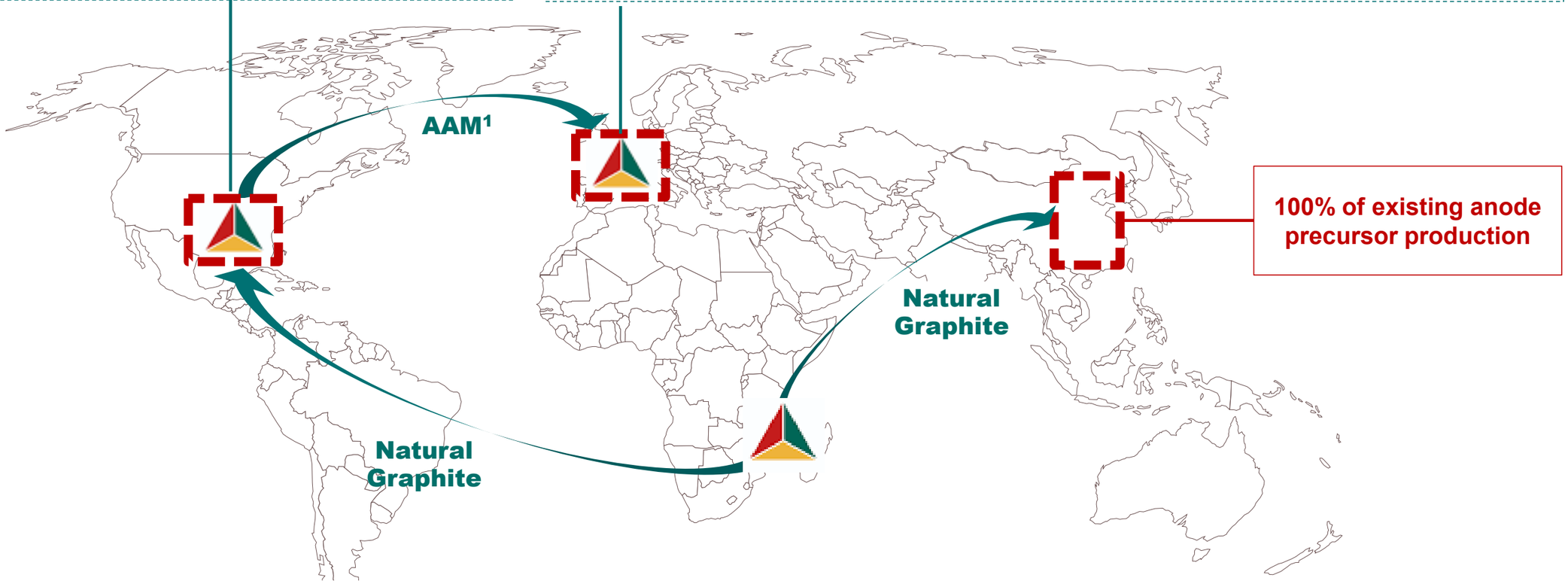
Syrah is a near term anode supply option for USA and European markets

Vidalia Battery Anode Material Project

- Planning to establish USA based anode material production vertically integrated with the Balama Graphite Operation

Export Markets

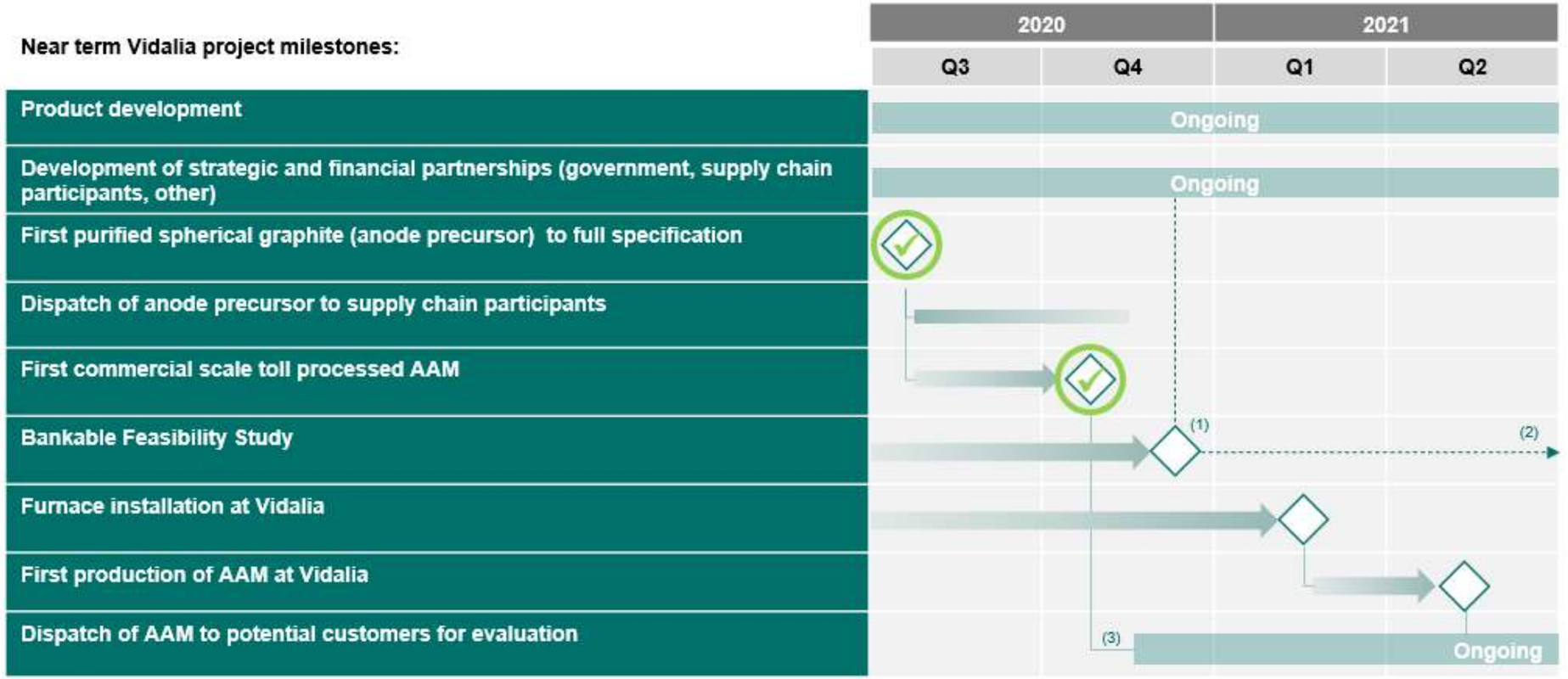
- Potential for Syrah to export from USA to ex-USA markets. Potentially providing ex-China supply chains with alternate and complimentary source of anode material versus existing sources



1. AAM: Active Anode Material

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Syrah on track to supply natural graphite anode to ex-Asia markets



Note: AAM = Active Anode Material

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Summary and Outlook

Vidalia Battery Anode Material Project	• Syrah remains on track to become the first vertically integrated producer of natural graphite active anode material outside China
	• Planned milestones during Q4 2020 include:
	  • Commencement of product qualification with EV supply chain participants, a product performance and quality assurance process with potential end customers; and,
	  • Completion of Vidalia battery anode plant expansion Bankable Feasibility Study (BFS)

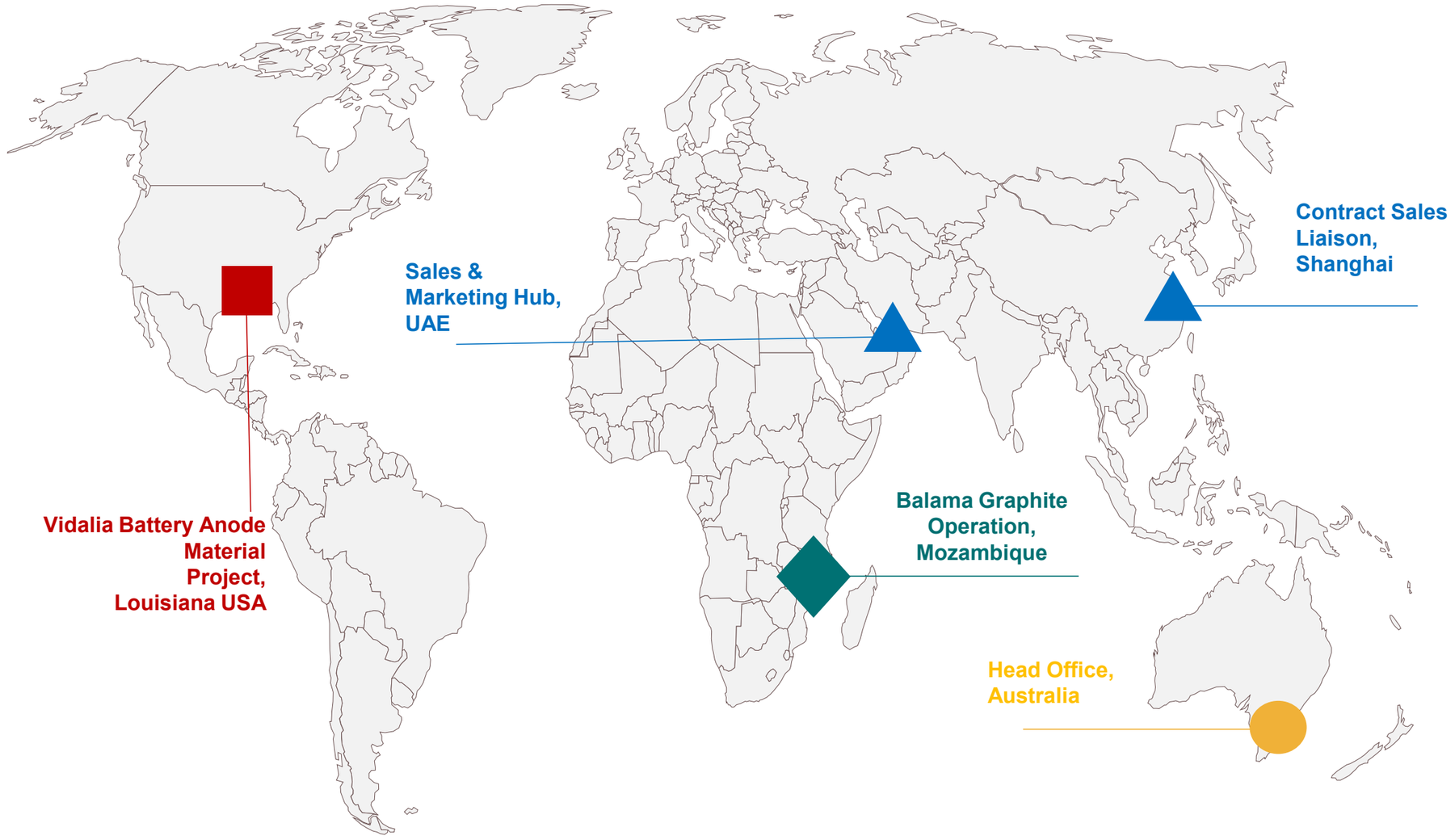
Balama Graphite Operation	• Balama preserving cash during temporary suspension; retains operating / marketing capability to promptly restart production • Restart lead time of ~2 to 3 months post decision • Syrah views EV sales growth during Q3 and ongoing Government policy support for transport sector decarbonisation as positive leading indicators for natural graphite demand and continuation of these trends will lead to Balama restart

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Appendix

Syrah's global business to supply growing battery anode demand



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Balama Graphite Operation – a Tier 1 asset

Operation Summary

Location	Cabo Delgado Province, Mozambique
Life of Mine[1]	~50 years
Mining	Simple open pit mining, low strip ratio
Processing	Conventional – includes crushing, grinding, flotation, filtration, drying, screening and bagging
Plant Capacity[2]	2Mtpa ore throughput, ~350ktpa graphite concentrate
Product	94% to 97% fixed carbon graphite concentrate

Key Dates

Mar 2020	Temporary suspension of production at Balama Graphite Operation
Sep 2019	In response to drop in flake graphite prices, production reduced
Mar 2019	Graphite Mineral Resources and Ore Reserves Update
Jan 2019	Commercial production declared, with quarterly production of 33kt
Sep 2018	Mining Agreement finalised with Government of Mozambique
Jan 2018	Balama transitioned to operations, global sales commenced
Nov 2017	First production of natural graphite
Jul 2016	Balama process plant construction commenced
May 2015	Feasibility study completed

Graphite Mineral Resources and Ore Reserves

Classification	Tonnes (Mt)	TGC[3] (%)	Graphite (Mt)
Total Resources	**1,422**	**10.0**	**146.4**
- Measured	23.5	17.6	4.1
- Indicated	378	11.2	42.3
- Inferred	1,020	9.8	100.0
Total Reserves	**107.54**	**15.73**	**16.92**
- Proved	-	-	-
- Probable	107.54	15.73	16.92



1) Life of mine based on current 108Mt Graphite Ore Reserves being depleted at 2Mt throughput per annum. Refer to 2019 Annual report released to ASX 31 March 2020 for Reserve as at 31 December 2019. All material assumptions underpinning the Reserves and Resource statement in this announcement continue to apply, other than as updated in subsequent ASX announcements.
2) Ramp up to full capacity subject to market demand
3) TGC = Total Graphitic Carbon

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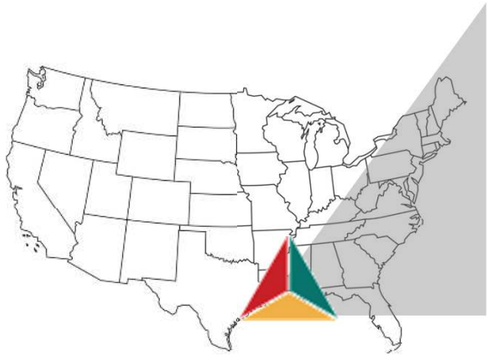
Vidalia Battery Anode Material Project

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Project History

Oct 2020	First production of AAM (toll treated) using anode precursor from Vidalia
Jul 2020	First production of purified spherical graphite (anode precursor) to battery specification at Vidalia using Balama natural flake graphite feed
Dec 2019	First production of purified spherical graphite using Balama feed. Purity >99.95% achieved (200t pa purification capacity installed)
Dec 2018	First production of unpurified spherical graphite using Balama feed at Vidalia (5kt pa milling capacity installed)
Sep 2018	Phase 1 commercial scale study completed
Aug 2018	Vidalia site purchase completed
Mar 2018	Syrah produced anode testing and benchmarking completed
Nov 2016	Syrah announces plans to establish commercial scale facility in Louisiana
Apr 2016	Pilot test work program initiated consisting of 3 milling machines and chemical purification systems
Jan 2015	Testing by industry participants confirms AAM produced from Balama flake suitable for battery industry

Project Location: Vidalia (Louisiana, USA)



- ✓ Proximity to potential customers
- ✓ Access to key utilities
- ✓ Options to expand facility size
- ✓ Direct barge/port access to Mississippi river
- ✓ Supportive government relations
- ✓ Access to key consumables (HF, HCL, Caustic)
- ✓ Capable workforce

Vidalia commercial scale plant for qualification (2020)



