



VOLT

RESOURCES

QUARTERLY ACTIVITIES REPORT TO 31 DECEMBER 2016

HIGHLIGHTS

- Trevor Matthews appointed CEO from 1 January 2017
- Namagale Project PFS completed in mid-December 2016 – on time and within budget; DFS now underway
- Close proximity to transport infrastructure provides material comparative advantages, resulting in relatively low CAPEX and OPEX and attractive EBITDA
- Namangale graphite can be upgraded to 99.99% TGC which meets strict lithium-ion battery grade purity requirements and utilised to make expandable graphite
- Successful marketing activity yields growing customer traction
- Solid support from key Tanzanian stakeholders secured

INTRODUCTION

Volt Resources Limited (**ASX: VRC**), (“**Volt**” or, the “**Company**”) is pleased to provide the market with an update on activities for the three-month period ended 31 December 2016. Notably, the Board is delighted the Pre-Feasibility Study (PFS) was released in mid-December (on time and within budget) and securing the services of Trevor Matthews as Chief Executive Officer from 1 January 2017.

Key events and progress follow.

PRE-FEASIBILITY STUDY COMPLETED

During December 2016, the PFS was completed. It confirmed the technical and financial viability of the Namangale project and recommendation to proceed with the Definitive Feasibility Study (DFS), which the Board accepted. Key salient points from the PFS include:

- **Attractive project:** The base case price and production assumptions resulted in an attractive 87% IRR and pre-tax NPV of US\$1.31B (based on ore material from Measured, Indicated and Inferred Mineral Resource categories) that are presented in Table 1.

Table 1: Key project financial results

Key Financial Measure	Units	Result
IRR - before tax	(%, real)	86.9%
IRR - after tax	(%, real)	66.5%
NPV @ 10.0% - before tax	(US\$ M, real)	1,310
NPV @ 10.0% - after tax	(US\$ M, real)	890
Payback Period from 1 st ore to process plant	(years)	1.4

- **Key Metrics:** The project's key metrics comprise a 22-year mine life, annual throughput of 3.8Mt @ 4.7% TGC resulting in annualised production of 170kt/y of graphite concentrate (Table 2).

Table 2: Nominal key project parameters

Parameter	Units	Design
Mine Life	Y	22
Nominal ore feed tonnes	Mt	83.4
Average grade TGC	%	4.7
Oxide ore	%	40
Fresh and transition ore	%	60
Nominal strip ratio	Waste : Ore	1.4
Process throughput	Mt/y	3.8
Recovery	%	93
Concentrate grade TGC (average)	%	95
Average graphite production	kt/y	170

- **Large Mineral Resource:** The JORC Compliant Mineral Resource Estimate of 461Mt @ 4.9% TGC (Table 3) updates the 446Mt @ 5.01% TGC announced on 12 October 2016. Management believes this is the largest Mineral Resource in Tanzania compared with its peers.

Table 3: JORC Mineral Resource Estimate for Namangale project¹

Namangale Project	Mt	TGC (%)
Inferred		
North	264	5.0
South	23	3.6
Total Inferred	286	4.9
Indicated		
North	122	5.2
South	33	4.3
Total Indicated	155	5.0
Measured		
North	20	5.3
Total Resource	461	4.9
<p>Note: Namangale North previously Nam 1; and Namangale South previously Nam 2 & 3</p> <p>The Mineral Resource is inclusive of the Ore Reserve</p>		

- **Significant Ore Reserve:** The Ore Reserve consists of 127.4Mt @ 4.4% TGC which translates into 5.6Mt of contained graphite.

Table 4: Namangale Project Ore Reserve Statement as at December 2016¹

Ore Reserve Classification	Ore (Mt)	TGC (%)	Contained Graphite (Mt)
Proved			
Namangale 1 (North)	19.3	4.32	0.8
Namangale 2 (South)	-	-	-
Namangale 3 (South)	-	-	-
Subtotal – Proved	19.3	4.32	0.8
Probable			
Namangale 1 (North)	95.8	4.40	4.2
Namangale 2 (South)	6.4	5.11	0.3
Namangale 3 (South)	5.8	3.05	0.2
Subtotal - Probable	108.1	4.37	4.7
Total Ore Reserve	127.4	4.36	5.6
Note: Namangale North previously Nam 1; and Namangale South previously Nam 2 & 3			

1. Refer to ASX announcement dated 15 December 2016 for information in relation to the Mineral Resource Estimate and Ore Reserve Statement. The Company confirms that it is not aware of any new information or data that materially affects the information included in this document and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.
- **Basket price:** Two natural flake graphite concentrates are to be delivered, with Namangale South producing a premium quality larger flake. The blended basket price has been calculated at US\$1,684/t, based on the weighted average of Namangale North (previously Nam 1) and South (previously Nam 2 and 3) that is shown in Table 5.

Table 5: Flake distribution and basket prices for Namangale North and South deposits

Size		Namangale 1		Namangale 2		Namangale 3	
		Weight	Price*	Weight	Price*	Weight	Price*
(µm)	Label	(%)	US\$/tonne	%	US\$/t	(%)	US\$/tonne
+500	Super Jumbo	1	3,968	9	3,968	5	3,968
300	Jumbo	13	3,220	29	3,220	26	3,220
180	Large	29	2,070	29	2,070	30	2,070
150	Medium	12	1,389	8	1,389	10	1,389
75	Small	27	1077	16	1077	19	1077
-75	Fine	18	403	9	403	11	403
Total			1,594		2,205		2,032

*Source: Pricing based on BMI, IMR, Macquarie Investments and discussion with end-users

- **Key markets:** Securing off-take agreements is a key activity in the development of the project. Management have had extensive engagement with end users, traders and intermediaries across China, Japan, Korea, Europe and North America. Of these, China is an important market with three non-binding MOUs signed with end-users for the sale of graphite concentrate totaling 100kt/y.

Going forward, key priorities include converting the Chinese MOUs into binding off-take agreements and progress the marketing of Volt's product offering to key end-users globally.

- **CAPEX relatively low:** The capital cost estimate to build the processing facility and supporting infrastructure to Volt's specifications is US\$173M (Table 6). This is relatively low due to the Namangale project's close proximity to sealed roads directly connecting the Project with the Mtwara port, which provides a significant cost advantage.

Table 6: Capital cost estimate summary

Description	Capital Cost (US\$M)	% of TOTAL
Process Plant	65	37
Power	19	11
Water	11	6
Site Infrastructure	24.5	15
Indirect Costs	31	18
Contingency	22.5	13
TOTAL	173	100
Note: Excludes sustaining sustainable capex		

- **OPEX and EBITDA:** Based on assessing fixed and variable cost elements for producing 170kt/y of graphite flake concentrate, the operating cost estimate is US\$536/t over the mine life (Table 7). This translates to an annualized EBITDA of US\$195M.

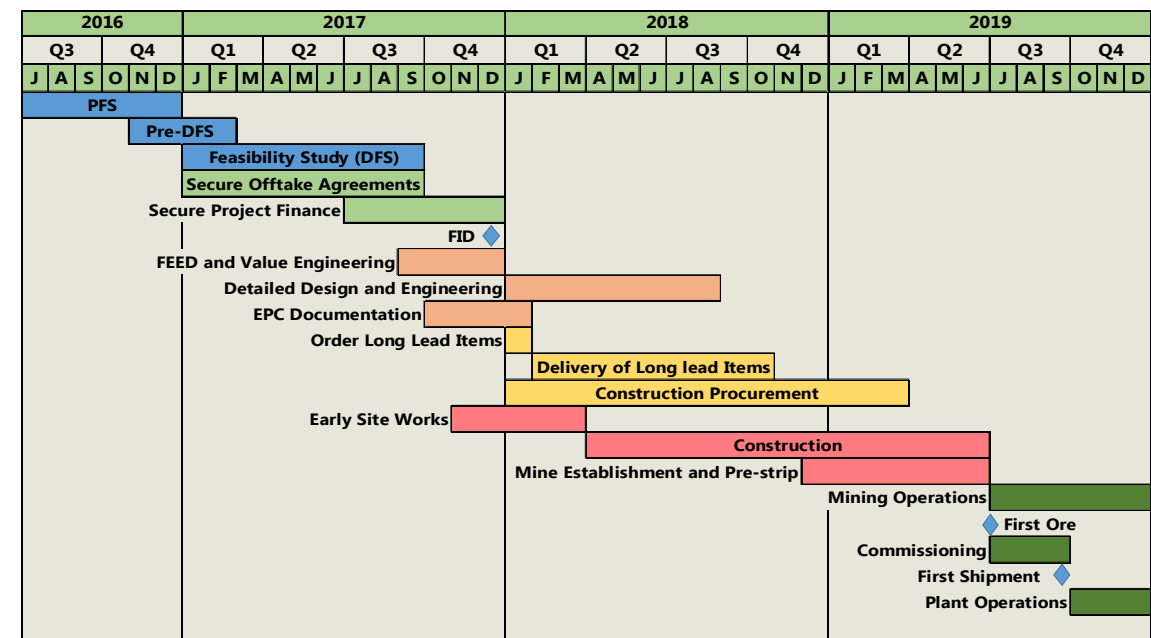
Table 7: Operating cost estimate summary

Annual Operating Costs	Total US\$'000/y	Total Cost %	Product US\$/t
Technical Services and Mining	42,100	45%	243
Processing	31,500	34%	182
Total General & Administration	6,000	7%	34
Product Logistics	13,300	14%	77
Total	92,900	100%	536

- **Implementation schedule:** Management adopted a seamless approach to its study stages that accommodates change through the PFS and into the DFS work flow (which has now commenced). This form of project management reduces the development schedule as there is less 'gating' to pass through. While this can introduce more risk management believe this can be mitigated during the next study and project execution phases.

On completion of the DFS, the project implementation plan will be developed to provide clarity of responsibilities for the owners team and contractors, project controls and other key elements to ensure the Project is delivered in accordance with the basis of design. The aim is to ensure the Project is executed in accordance with its budgeted cost and schedule and the ramp up to nameplate production is achieved in an efficient and timely basis (Figure 1).

Figure 1: Project implementation schedule



RECRUITING A HIGH CALIBRE TEAM

The Board has been cognisant of the need to recruit a high calibre team with the necessary experience to fast-track Volt into production. Hence, it is pleasing to report further additions to the team made during the period:

- **Trevor Matthews – Chief Executive Officer (CEO):** In late November 2016, Mr Matthews was appointed CEO (from 1 January 2017) with the mandate to transform Volt Resources into a leading global natural graphite supplier. Part of his role, other than assuming daily management responsibility, will be to leverage his considerable experience to progress commercial discussions with key corporates and secure project finance.

Mr Matthews has an accounting and finance background with more than 25 years experience in the resources industry, with a clear niche taking nascent projects through to production. Mr Matthews last two roles were as MD at MZI Resources (2012-16) and Murchison Metals (2005-2011), where he successfully transformed both from explorers to producers.

In mid-October 2016, three additions to the team based in Tanzania and Perth included:

- **Godwin Nyelo – Head of Corporate Affairs:** Since retiring from the civil service in Tanzania, Mr Nyelo has undertaken select consulting assignments and a six-year stint with Magnis Resources (2008-14) in a similar role. He was instrumental in securing a special mining licence for its graphite project. Most of his career was spent with the Minerals Division, Ministry of Energy and Minerals, in various senior roles.
- **Chris Davis – Mining Engineer:** Mr Davis has 34 years experience in engineering, project managing and construction of mines, mining plants and port sites, including major upgrades to mining equipment for both fixed, mobile and process equipment. In addition, he has completed numerous plant upgrade installations and successfully undertaken a range of major plant rebuilds in the mining industry in Australia and Asia for the iron ore, nickel, gold and coal industries.
- **Jimmy Ijumba – Mining Operations / Quarry Manager:** Mr Ijumba has 27 years experience working in underground, surface and exploration operations with success in building efficient and safe working teams. His experience includes managing crews of up to 250 people in mining operations, budgeting and cost controls, safety leadership, mineral rights permitting, performance improvement, project management, mine closure, community, government engagement, permitting and exploration logistics management.

NAMANGALE GRAPHITE SUITABLE FOR VARIOUS DOWNSTREAM APPLICATIONS

During the period, several graphite concentrate samples from the Namangale Project were sent to a German metallurgical laboratory for independent testing of the graphite concentrate's suitability for downstream applications. The results, which came in during and post the reporting period, highlighted the following key points:

- The concentrate pre-purification comprised a clean graphite flotation concentrate with encouraging volumes of large flakes.
- Post-purification, the concentrate can be readily upgraded to 99.99% TGC which meets the strict purity requirements to make spherical graphite for use in lithium-ion batteries.
- Incremental tests confirmed the concentrate displayed excellent expansion qualities, which were better than samples from other origins. Notably, the results stated the high suitability for making expandable graphite for use in fire retardant foam, graphite foil and other applications.
- The concentrate is suitable for a wide range of traditional applications such as refractory and lubrication material.

The results, especially confirmation that Volt's graphite concentrate is suitable for producing spherical and expandable graphite (two key growth markets), are extremely positive. This provides Volt with a high degree of market diversity and the ability for the product marketing team to target a wider spectrum of prospective global customers.

MARKETING UPDATE

During the early part of the quarter, the Company received positive preliminary feedback from nine potential customers sent graphite concentrate samples from the Namangale deposit. In fact, several articulated the quality was very high and suitable for downstream applications.

On 9 January 2017, Volt reported that western and Chinese groups had validated its graphite concentrate products, with the following points highlighted:

- **North Asia:** The three Chinese MOU¹ end-user partners, accounting for 100kt/y out of 170kt/y planned production, were pleased with initial test results on Volt's graphite concentrate and additional test-work is to be carried out on 99.95% TGC samples.

Further, with North Asia a priority market, Non-Executive Chairman Stephen Hunt will be visiting China, Japan and Korea more regularly to progress relationships with the MOU partners and connect with other groups seeking to establish a graphite supply chain.

¹ MOU partners are as per ASX Announcement of 16 June 2016, are Optimum Nano, Huzhou Changya and Shenzhen Sinuo.

- **United States and Europe:** Michael Lew has had meetings with more than twenty groups in the electric vehicle supply chain, including renowned automakers. Many have requested graphite concentrate samples for preliminary tests.

Notably, feedback from a leading, high profile US private battery group – on a graphite concentrate sample – highlights conductivity that was an order of magnitude higher than the baseline it was assessed against. As a result, this group will be taking testing to the next stage and progressing commercial discussions.

On 24 January 2017, Volt announced that it had commissioned an experienced southern African-based contractor to produce graphite concentrate under commercial conditions in order to: 1) expedite client end-user test-work and 2) demonstrate the ability to produce high quality samples within relatively close proximity to Namangale.

This decision was taken following an increase in second round test-work requests from US, European and Chinese end-users in the lithium-ion battery sector. Notably, a Chinese group requested a tonne of graphite concentrate for delivery as soon as possible for fully integrated testing and evaluation.

SECURING STAKEHOLDER SUPPORT FOR PROJECT DEVELOPMENT APPROVALS

In mid-October 2016, an update was provided on various stakeholder meetings with the Company targeting submitting a special mining licence application in Q1 2017. This is a complex process with the Board conscious of the need to be advancing the approvals and licencing for the Project on a timely basis while ensuring a high level of government and community engagement to understand and resolve any issues and meet stakeholder expectations. This includes fully complying with local laws and regulations, proactively engaging with the community and being culturally aware.

As part of this process, from June to October 2016, Volt's team in Tanzania met with multiple community and government stakeholders including:

- National, regional and local government officials to gauge sentiment towards the Namangale project and ascertain if mitigating measures need to be undertaken.
- Senior representatives from the Ministry of Energy and Minerals, Ministry of Works, TANESCO – the power utility, TANROADS – the roads agency and the Tanzania Port Authority to understand first-hand the state of critical infrastructure and to what degree it requires upgrading prior to mining operations commencing at Namanagle.
- Resident mine officer and villagers as part of the formal Environmental Social Impact Assessment process for the project to secure a social license and ensure harmonious support from local communities.

The stakeholder meetings are necessary to ensure the timely progress of the project approvals and grant of mining licences. Having been advised of broad support for the Namangale Project from all levels of government and acknowledgement that critical infrastructure requires upgrading by government agencies is of significant benefit.

Management understands the importance of ensuring compliance with Tanzania's environmental laws, respecting local culture and establishing harmonious working relationships with communities. So far, the Board is encouraged with the progress being made in Tanzania and is optimistic the special mining application for the Namangale project can be submitted during Q1 2017.

CORPORATE

During the period, as noted above, the Board appointed Trevor Matthews as CEO with effect from 1 January 2017. Consequently, from the effective date, Executive Chairman Stephen Hunt will relinquish day-to-day managerial responsibilities for the business, other than marketing, and continue on the Board as Non-Executive Chairman.

The AGM was held in Perth on 29 November 2016 with all Board members present and then CEO-designate Trevor Matthews was introduced to all stakeholders. All 13 resolutions tabled at the AGM were passed unanimously by a show of hands. Then Executive Chairman Stephen Hunt delivered a presentation – “Reflections on a transformational year” – which summarised the achievements from a people, finance and project perspective.

Investment Bank Canaccord Genuity was appointed in a corporate advisory role and will work along side NY-based, EAS Advisors, to assist with Volt's investor relations activities and funding requirements.

The corporate web site was refreshed and populated with new content. It went live subsequent to the close of the reporting period on 9 January 2017 and is accessed via the following address www.voltresources.com

Subsequent to the reporting period, on 9 January 2017, CEO Trevor Matthews announced that he would be visiting key institutional investors in the major financial centres as well as progressing commercial discussions with numerous end-user groups.

For and on behalf of Volt Resources Limited

Trevor Matthews
Chief Executive Officer

FUTHER INFORMATION

VOLT RESOURCES LTD is a graphite exploration company listed on the Australian Stock Exchange under the ASX code: VRC. The company is focused on the exploration and development of its existing wholly-owned Namangale graphite project in Tanzania. As of December 2016, the Namangale project is the largest JORC Mineral Resource in Tanzania with 461Mt @ 4.9% TGC for 22.6Mt of contained graphite. The Project has outstanding super jumbo and jumbo flake size distribution. The Namangale Project is ideally located near transport infrastructure with sealed roads running through the tenements providing ready access to the deep-water port of Mtwara, 140km east of the Project.

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

Volt Resources Limited

ABN

28 106 353 253

Quarter ended ("current quarter")

31 December 2016

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(2,065)	(4,234)
(b) development	-	-
(c) production	-	-
(d) staff costs	(321)	(321)
(e) administration and corporate costs	(422)	(917)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	16	43
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)	-	-
1.9 Net cash from / (used in) operating activities	(2,792)	(5,429)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(5)	(5)
(b) tenements (see item 10)	-	-
(c) investments	-	-

Mining exploration entity and oil and gas exploration entity quarterly report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
	(d) other non-current assets	-	-
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)	-	-
2.6	Net cash from / (used in) investing activities	(5)	(5)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	797
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	241	241
3.4	Transaction costs related to issues of shares, convertible notes or options	(44)	(251)
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)	-	-
3.10	Net cash from / (used in) financing activities	197	787

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	5,571	7,618
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,792)	(5,429)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(5)	(5)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	197	787
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	2,971	2,971

Mining exploration entity and oil and gas exploration entity quarterly report

5. Reconciliation of cash and cash equivalents 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	2,971	5,567
5.2 Call deposits	-	4
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,971	5,571

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

Current quarter \$A'000
239
-

- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Directors' salaries, fees and superannuation

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

Current quarter \$A'000
-
-

- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

N/A

Mining exploration entity and oil and gas exploration entity quarterly report

8.	Financing facilities available <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.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	824
9.2	Development	200
9.3	Production	-
9.4	Staff costs	292
9.5	Administration and corporate costs	332
9.6	Other	-
9.7	Total estimated cash outflows	1,648

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	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	N/A	N/A	N/A	N/A
10.2	Interests in mining tenements and petroleum tenements acquired or increased	N/A	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: 31 January 2017Print name: Stephen Brockhurst**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.