**ASX ANNOUNCEMENT**

By e-lodgement

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# MARKET LEADING GRAPHITE FLAKE DISTRIBUTION AT NAMANGALE; EXCEPTIONAL PURITY CONCENTRATE UP TO 99.3% TGC

## HIGHLIGHTS

- **Outstanding graphite flake distribution with market leading results in the Super Jumbo and Jumbo categories**
- **Excellent metallurgical flotation results with up to 99.3% Total Graphitic Carbon (TGC) returned in the Super Jumbo (+500 micron) fraction**
- **Up to 67.7% in the Super Jumbo, Jumbo and Large flake size categories**
- **Industry sources and end-user talks imply current prices for Super Jumbo and Jumbo flake natural graphite are circa US$4,000/t and $2,500/t respectively**
- **Confirms Namangale is a first rate project that can consistently deliver premium product for high-end commercial applications**
- **New concentrate results and samples will be provided to end-user groups for further testing to progress negotiations**
- **Exceptional purity achieved without the use of industrial chemicals**
- **Material processing cost advantages compared to synthetic graphite and natural graphite containing deleterious elements**
- **Macro factors continue to drive growing demand for Jumbo flake graphite**
- **Discussions with potential off-take partners and end-user groups in the US, Europe and Asia are progressing well to complement existing MOUs**

## INTRODUCTION

Volt Resources Limited (**ASX: VRC) (**"Volt" or "the Company") is delighted to announce that optimised results from its metallurgical test-work program have now been received. These show further improvement over previously announced results with exceptional high purity graphite concentrates produced up to 99.3% TGC. The concentrates were produced from diamond core composite samples collected from the 2015 drilling program and were achieved through a conventional circuit of milling and flotation that was carried out at ALS in Perth. No industrial chemicals were used to achieve these results.

**EXCELLENT FLAKE DISTRIBUTION AND PURITY ACHIEVED WITHOUT THE USE OF CHEMICALS**

Volt has been able to demonstrate outstanding graphite concentrate quality, with some of the best flake size distributions in the graphite sector among larger peers with operations in East Africa (refer Figure 1).

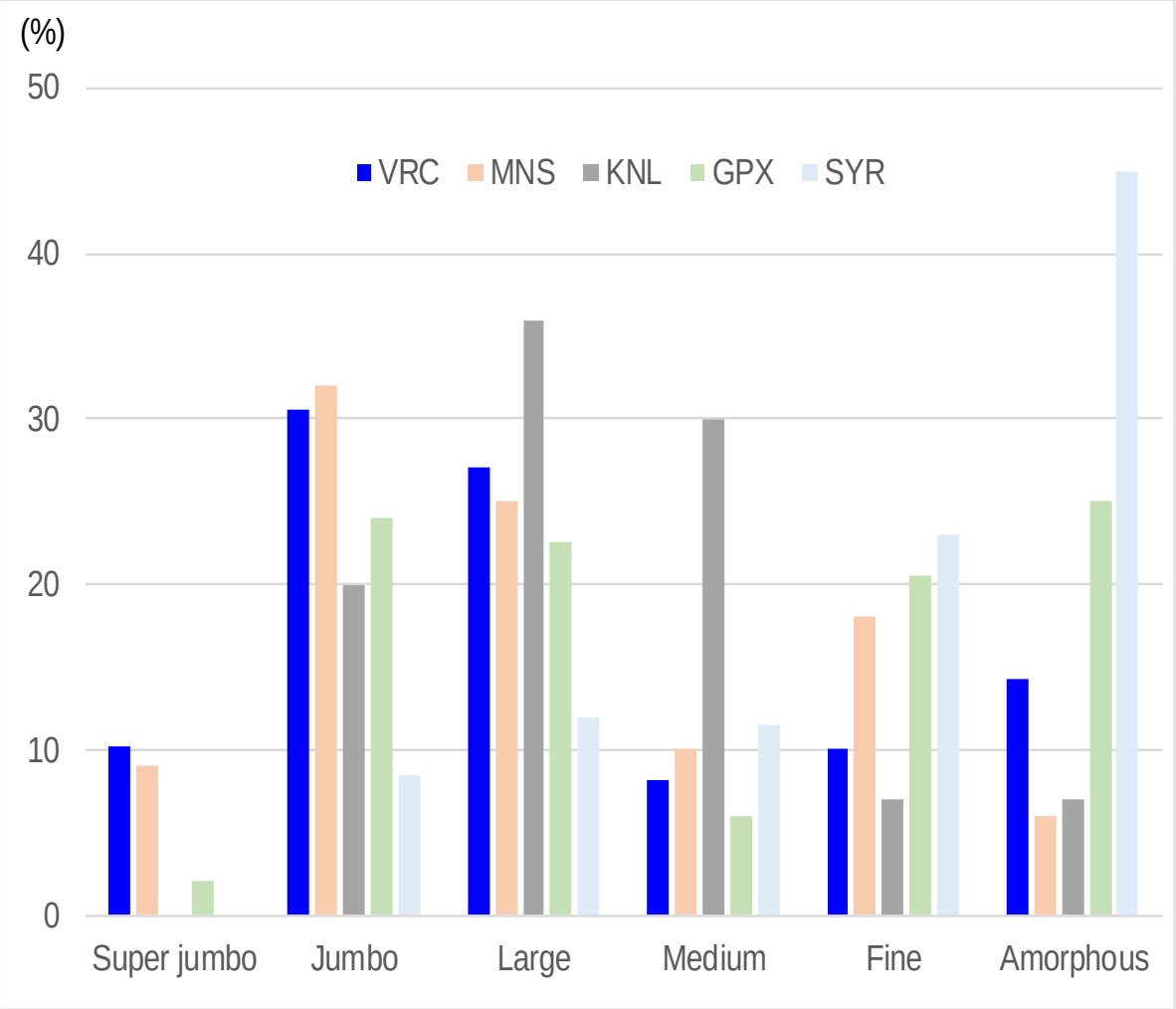


Figure 1: Flake distribution - East African natural graphite suppliers >$20m mkt cap
Source: Company data

Further, the Namangale concentrate graphite is separated through a straightforward crushing then flotation process and, importantly, without the use of industrial chemicals to remove impurities. This potentially delivers Volt a material comparative cost advantage mining graphite relative to peers with unwanted trace elements in their product.

**RESULTS SUMMARY**

The graphite concentrates produced from Namangale returned concentrate grades of up to 99.3% TGC within the +500 micron category (refer Figure 2).

| Size (µm) | Test 28 | | Test 30 | | Test 34 | |
|---|---|---|---|---|---|---|
| | Weight (%) | TGC (%) | Weight (%) | TGC (%) | Weight (%) | TGC (%) |
| 500 | 10.2 | 98.6 | 5.9 | 99.3 | 10.3 | 99.1 |
| 300 | 30.5 | 98.0 | 28.1 | 98.8 | 29.7 | 98.8 |
| 180 | 27.0 | 96.6 | 30.3 | 97.8 | 27.1 | 98.1 |
| 150 | 8.1 | 95.6 | 8.4 | 97.3 | 8.0 | 97.5 |
| 106 | 10.0 | 95.0 | 10.1 | 96.9 | 8.8 | 97.3 |
| 75 | 5.9 | 94.4 | 7.6 | 96.7 | 6.6 | 96.9 |
| 25 | 6.2 | 92.7 | 7.3 | 95.7 | 6.6 | 95.9 |
| -25 | 2.2 | 87.5 | 2.2 | 91.6 | 2.9 | 92.4 |

Figure 2: Latest graphite concentrate and flake distribution results from Namangale undertaken by ALS in Perth

BatteryLimits are managing the metallurgy and Prefeasibility Study for Volt. Its Managing Director Phil Hearse said, “These results from Namangale show high grade coarse flake graphite that is amongst the best that we have seen in our experience with graphite projects, especially since there is still considerable opportunity for further optimisation”.

These results demonstrate that a premium quality concentrate can be produced from Namangale ore.

In addition, the next round of diamond drilling has commenced and is now providing additional samples for ongoing metallurgical test-work. The results of test-work to date demonstrate the Namangale deposit can consistently provide clean, high-grade TGC graphite, suitable for commercial applications mainly within the Lithium-ion battery market.

Executive Chairman, Stephen Hunt commented: "Achieving world class flake size distribution, together with exceptionally high TGC, from our first drilling campaign, is incredibly significant for Volt. These results demonstrate that Volt will be able to produce superior quality graphite, thereby ensuring Volt achieves among the highest basket price amongst its peers for its products. This will undoubtedly greatly assist our marketing and financing efforts, as we go forward. Once again, this is a very significant milestone, if not the most significant, in the Company's desire to become a world class, premium quality, graphite supplier to the burgeoning lithium-ion battery market."

## CONCLUSION

The Board of Volt considers the results to date continue to indicate the Namangale project is rapidly emerging as a world-class graphite deposit.

For and on behalf of Volt Resources Limited

**Stephen Hunt**
**Volt Resources Limited**
Executive Chairman

**Competent Person**
The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Matt Bull, a Competent Person who is a member of Australian Institute of Geoscientists. Mr Bull is a Director of Volt Resources. Mr Bull has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Matt Bull consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# JORC Code, 2012 Edition
# Table 1

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | • Sampling was carried out on ¼ diamond drill hole core samples of mineralized graphite schist.<br>• All samples were geologically logged by a suitably qualified geologist before being composited according to ore type and sent to ALS in Perth for floatation test work and assay. |
| *Drilling techniques* | • *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | • Diamond Drilling was conducted by JCIL drill using HQ core diameter triple tube. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • Diamond drill recovery was good to excellent and is therefore not expected to influence grade. |
| *Logging* | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean,* | • Logging was carried out on each of the diamond drill holes including lithology, amount of weathering by a suitably qualified geologist.<br>• Data is initially conducted on paper logging sheets and is then transferred to excel logging sheets |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Logging is semi-quantitative based on visual estimation. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Core was cut into half and then quarters with ¼. ¼ Core was then composited into representative material types.<br>• Diamond holes were twinned to pre-existing RC holes considered to be representative of mineralization within each of the Namangale deposits<br>• All sampling was carefully supervised with ticket books containing pre-numbered tickets placed in the sample bag and double checked against the ticket stubs and field sample sheets to guard against mix ups |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.* | • The samples were sent to ALS in Perth Australia as quarter core for sample preparation<br>• Analysis for Total Graphitic Carbon (TGC) using the Loss on Ignition by thermogravimetric Analysis at 425 degrees C and 1000 degrees C.<br>• The TGC analysis has been carried out by an industry accepted and recognized laboratory – ALS<br>• This is considered the most appropriate method to analysis high grade concentrates<br>• ALS inserted its own standards and blanks. |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • Data was recorded by the sampling geologist and stored in the company's master spreadsheet.<br>• Twinned holes were used<br>• The samples are transported to Dar es Salaam, before being transported to Perth by a commercial courier company |
| *Location of data points* | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • hand-held GPS was used to identify the position of all samples (X and Y horizontal error of 5 metres) and reported using ARC 1960 grid and UTM datum Zone 37 south. During December 2015 a DGPS survey was conducted which considerably improved the accuracy of the collar locations, especially the Height Datum of the drill-hole ground collar. Positional accuracy is given as <1.5m error in X and Y. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*<br>• *Whether sample compositing has been applied.* | • Drill holes were placed to obtain representative material types for the three deposits drilled to date<br>• Holes were drilled to provide metallurgical samples and will not be used in the Jorc Resource calculation<br>• No compositing was applied into representative mineralization types |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • Surface mapping and interpretation of ground EM data was used to orient the drill lines to get the most unbiased sampling of the mineralization.<br>• Drilling was planned to intersect the mineralization as close as possible to right angles. Results indicate the drill holes intersect the mineralization at between 70-90 degrees. |
| *Sample security* | • *The measures taken to ensure sample security.* | • Transportation is carried out by company staff driving the samples to the courier directly from site |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviews have yet been under taken |