Eagle Graphite Reports Strong Early Results From Li-Ion Battery Tests

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TORONTO, April 08, 2019 - Eagle Graphite Inc. (TSX VENTURE:EGA) ("Eagle Graphite", "We", or the "Company") is pleased to report positive early results from testing for lithium-ion battery anodes. This work is being performed as part of our ongoing graphite usage study.

Image

Cycling data with uncoated purified spheroidal graphite of Eagle Graphite's Black Crystal project. Cycles 1 through 55.

Highlights

- Lithium-ion coin cells were produced using anodes made from purified and spheronized graphite from Eagle Graphite's quarry in British Columbia.
- Both uncoated and coated graphite showed excellent 'near theoretical' results in initial charge-discharge cycling. In both cases, reversible capacity exceeded typical industry specifications for lithium-ion batteries.
- The uncoated graphite is undergoing long-term cycling. After 55 cycles, 99.23% of the original reversible capacity remained, which is viewed as a very strong result.

A leading independent specialist laboratory is under engagement to optimize process and qualify graphite produced at our Black Crystal plant for high value markets. The ongoing research, begun in 2018, has already confirmed potential applicability of our graphite for a wide range of high value markets.

During this part of the study, CR2016 coin cells were prepared in accordance with typical industry standards using Li/Li^+ counter electrodes, commonly known as a half-cell design. Graphite produced from Eagle Graphite's Black Crystal quarry and processing plant was purified to at least 99.98 %wtC and spheronized to typical battery industry specifications. Anodes for the CR2016 cells were prepared using this spheronized and purified graphite, some with uncoated graphite, and some with graphite coated with soft carbon.

The independent laboratory has provided a report to the Company with results from galvanostatic cycling of the coin cells.

Results For Uncoated Graphite

The author of the report states, "The electrochemical performance on the formation cycles is defined as excellent in that we are witnessing stable cycling with 361.94 mAh/g of reversible capacity on the first cycle. Considering that 372 mAh/g is a theoretical maximum for natural graphite, we define the result for Black Crystal as 'near theoretical' performance."

Long-term cycling of the uncoated is ongoing, with 55 cycles reported to date.

Cycle	Capacity, mAh/g	
	Irreversible	Reversible
1	404.19	362.77

5	367.02	362.74
10	368.56	362.41
25	365.30	363.09
55	361.48	359.98

Table 1: Results of long-term cycling with uncoated purified spheroidal graphite from Eagle Graphite's Black Crystal Project.

The report's author comments, "The data show that long-term cycling performance with the uncoated graphite is extremely stable. The registered reversible capacity loss, from 362.77 mAh/g to 359.98 mAh/g, amounts to a very low 0.77%, with 99.23% of the original reversible capacity remaining."

Results For Coated Graphite

Coated graphite "shows a significantly improved result versus that with the uncoated graphite, which manifests itself in a greater reversible capacity (364.78 mAh/g vs. 361.94 mAh/g for coated and uncoated graphites, respectively) and greatly diminished irreversible capacity loss (i.e. 7.53% vs. 10.45%, respectively, in the same order)."

Although the study did not include long term cycling of the coated graphite, the report notes that "cycling stability is usually even greater with coated samples."

Typical battery industry specifications require initial reversible capacity of at least 350 mAh/g.

About Eagle Graphite

Eagle Graphite owns the only natural flake graphite facility in western North America that is constructed and permitted for production. The Black Crystal quarry and plant are located 35 kilometres west of the city of Nelson in British Columbia, Canada, 70 kilometres north of the state of Washington, USA. The Company's shares are listed on the TSXV under the symbol "EGA".

Cautionary Statements

Disclosure Regarding Forward-Looking Statements: This release contains certain "forward-looking information" within the meaning of applicable securities legislation. Such information is based on assumptions, estimates, opinions and analysis made by management in light of its experience, current conditions and its expectations of future developments as well as other factors which it believes to be reasonable and relevant. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause our actual results to differ materially from those expressed or implied in the forward-looking information and accordingly, readers should not place undue reliance on such information. Although the Company believes, in light of the experience of its officers and directors, current conditions and expected future developments and other factors that have been considered appropriate, that the expectations reflected in this forward-looking information are reasonable, undue reliance should not be placed on them because the Company can give no assurance that they will prove to be correct. In evaluating forward-looking information, readers should carefully consider the various factors which could cause actual results or events to differ materially from those expressed or implied in the forward looking information. The statements in this release are made as of the date of this release. The Company undertakes no obligation to comment on analyses, expectations or statements made by third parties in respect of the Company or its securities, its financial or operating results, as applicable.

Torey Marshall, BSc (Hons), MSc (Geology), MAusIMM(CP), a "Qualified Person" as defined by NI 43-101, has reviewed and approved the scientific and technical information in this release.

Neither the TSXV nor its Regulation Services Provider (as that term is defined in the policies of the TSXV) accepts responsibility for the adequacy or accuracy of this release.

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Photos accompanying this announcement are available at

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