

# **ASX ANNOUNCEMENT**

#### 18 January 2016

## 99% TC GRAPHITE PRODUCT FROM SIMPLE FLOTATION

- Final product grades of 99% TC achieved from simple flotation without chemical or thermal purification
- Significant market advantage with low cost processing delivering an ultra pure, highly crystalline and high value product for use in batteries
- Detailed analysis of flake graphite concentrate, including graphene test work to commence at University of Adelaide
- JORC compliant resource upgrade for the McIntosh Project imminent

Hexagon Resources Limited (ASX: HXG) is pleased to announce the significant ultra high purity results achieved from bulk scale metallurgical test work completed by ALS in Adelaide. The results demonstrate that purity levels of 99% TC can be achieved using simple flotation without the use of any form of chemical of thermal purification.

The high value final concentrate produced confirms the highly crystalline nature of the graphitic schist having excellent liberation characteristics. The 99% TC concentrate produced is a blended product highlighting ultra high purity across all flake sizes. The absence of any chemical or thermal purification in generating such a high purity product, together with extremely high processing recoveries of >86%, ensures a significant comparative advantage with major cost savings in both capital and operational expenditure associated with producing battery grade product.

"Only a small fraction of the graphite produced globally is suitable for the high end technology markets of today. The key to McIntosh is a combination of its simple, low cost processing to achieve ultra high purity along with a lack of particular impurities that are not compatible in batteries. These exceptional bulk scale metallurgical results are exactly what we had hoped for, it further strengthens our position to value add to our products adding significantly the overall economics of the project" commented Tony Cormack, Hexagon's CEO / Head of Operations.



The natural flake graphite market is currently experiencing outstanding growth due to the increasing demand for lithium-ion batteries for use in electric vehicles and energy storage from renewable sources such as solar and wind. Hexagon's strategy is focussed on taking advantage of the continued growth in the sector by producing high purity flake for use as anode material in these batteries and assessing value added spherical graphite production via air-jet milling.

Hexagon will now commence a detailed test work program on the McIntosh flake graphite concentrate with Adelaide Research and Innovation Pty Ltd a wholly owned subsidiary of the University of Adelaide. The test work program will include characterisation of the physical, electrical, structural and chemical composition using a number of specialist techniques.

The program will also evaluate the extraction of graphene using three exfoliation methods and a series of characterisation techniques. It will also determine the quality and yield of the isolated graphene. The program is estimated to take a month to complete.

Work on a resource upgrade for the McIntosh Project is nearing completion with results expected to be reported to the market in the coming weeks. These exceptional bulk scale metallurgical results prove the quality of the ultra high purity product with the resource upgrade to confirm quantity. The company will then move promptly to a feasibility study for the McIntosh Project.

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#### **Competent Persons Statement**

The information in this report relating to Exploration, Drilling, Assay Results and Geological Data at the McIntosh Project is based on information previously compiled and / or reviewed by Mr. Tony Cormack, Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Hexagon Resources Limited. Mr. Cormack has sufficient experience which is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cormack consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.





**Figure 1:** Photomicrograph of Super Jumbo Flake Graphite from diamond drill hole T6GDD164 at a depth of 47.47m. The image highlights the highly crystalline nature and lack of impurities within the graphite flake enabling a 99% TC ultra high purity concentrate to be produced using only simple flotation.