

RNS Number : 2323V  
Alba Mineral Resources PLC  
14 April 2016

14 April 2016

## **Alba Mineral Resources plc**

("Alba" or the "Company")

### **Amitsoq Project Update**

#### **Further Geochemistry Results at Amitsoq Graphite Project in Greenland Confirm High Grade Graphite with Low Detrimental Elements**

Alba Mineral Resources plc (AIM:ALBA) is pleased to report the completion of rock geochemistry assays on samples from the former graphite mine at Amitsoq, part of the Amitsoq graphite project (the "Project") near Nanortalik in southern Greenland. Analyses indicate that the geochemistry is substantially in agreement with a petrographic study carried out by the British Geological Survey. The samples are dominated by phyllosilicate minerals (clay, mica and chlorite) and graphite, with pyrite comprising between 0.1 and 5.5% of the samples. The pyrite contains minor amounts of trace metals, which are neither considered as credits nor penalty elements if the pyrite is separated from the graphite.

#### **HIGHLIGHTS**

- **Secondary laboratory tests are substantially in agreement with initial British Geological Survey (BGS) graphite tests with regard to carbon content (BGS tests found overall mean graphitic carbon content of 28.7%)**
- **Potentially detrimental ("penalty") elements (arsenic, antimony, cadmium, and mercury) all occur in low concentrations**
- **Potential smelter credit elements (silver, gold, copper, lead and zinc) are low.**

#### **Background**

On November 30, 2015, Alba reported on eleven (11) samples that had undergone petrographic analysis and carbon content determination at the British Geological Survey ("BGS") at their lab in Keyworth, Nottinghamshire. The petrographic study concluded that the graphite exists in various morphologies, ranging from fine-grained specular forms to large discrete crystals, to agglomerations which span areas of up to 15 mm in size. Measurements of the discrete graphite flakes suggests that the mean flake size varies from 300-500 µm ('Jumbo') to 180-300 µm ('Large'), however the single most common flake size is in fact 'Super-Jumbo' (>500 µm). The graphitic carbon contents varied from 20.5% to 35.4%, with an overall mean graphitic carbon content of 28.7%.

Two questions that the BGS study raised were the volume of pyrite present within the samples and also the potential for this sulphide mineral to contain potential credit and deleterious elements. Secondary testing was therefore undertaken to test for those elements.

#### **Geochemical Analysis**

A total of eleven (11) samples were dispatched to the ALS Minerals laboratory at Loughrea, Co. Galway, Republic of Ireland for independent geochemical testing. Analysis included major-element and trace-element geochemistry and total sulphur analysis.

The results of the major element analysis, i.e., elements that form the majority of the earth's minerals (oxides of silicon, aluminium, potassium, sodium, etc.), indicated that the samples were dominated by phyllosilicate minerals (clay, mica and chlorite), graphite, and pyrite (iron sulphide). The total sulphur analysis varied from 0.22% to 10.2%, with a mean concentration of 6.1% sulphur. Stoichiometrically this related to a pyrite content ranging from 0.1 to 5.5% (mean 3.3%), and is substantially in agreement with the BGS petrographic study.

A total of 51 trace elements were determined by the multi-element mass spectroscopy technique of the eleven samples submitted. Particular emphasis was placed on potential credit elements (gold, silver, copper, lead, zinc) that might be expected to occur with the pyrite, as well as potential deleterious

elements (arsenic, antimony, cadmium, mercury). Table 1 summarises the results.

Table 1. Concentrations of potential credit and deleterious elements in Amitsoq graphite samples.

	<b>Min (ppm)</b>	<b>Max (ppm)</b>	<b>Average (ppm)</b>	<b>Std Dev (± ppm)</b>
<b>Credits</b>				
Gold	ND	ND	ND	ND
Silver	1.53	3.40	2.45	0.69
Copper	17.5	427.0	285.9	119.5
Lead	11.9	46.5	30.4	8.9
Zinc	7	3920	841	1057
<b>Deleterious</b>				
Arsenic	1.20	6.60	3.19	1.95
Antimony	0.08	0.84	0.18	0.22
Cadmium	0.01	30.50	6.08	8.30
Mercury	0.01	4.00	1.63	1.45

Potential credits associated with the samples are generally low and do not approach economically recoverable concentrations. The zinc concentrations showed the greatest range and probably reflect the presence of sphalerite (ZnS) associated with the pyrite. The concentration of potentially deleterious elements are also low, with only one sample containing cadmium greater than 6 ppm (30.5 ppm - correlating with the 3920 ppm zinc sample), which is slightly anomalous compared with cadmium concentration in typical rocks. Overall the samples are not considered to contain elements that could potentially make the graphite at the former Amitsoq site uneconomical based on impurities.

#### **Proposed Future Work on the Amitsoq Project**

An airborne electromagnetic (EM) and magnetic study is proposed in the coming 2016 field season to help define the geology and identify graphitic horizons. If warranted, follow-up exploration and resource definition drilling will take place close to the former graphite mine to determine grade and continuity of the known mineralization. Geological mapping and geochemical sampling at the same time will determine if the areas are prospective for a variety of commodities (gold, PGMs, copper-zinc) in addition to the primary graphite targets.

#### **Mike Nott, Alba's CEO, commented:**

"The results from the geochemistry study are gratifying. They confirm many of the conclusions of the BGS petrography study regarding the presence of pyrite and the high grade graphite present in the samples. The trace element geochemistry confirms that no elevated concentrations of harmful elements are present in the graphite."

"We eagerly look forward to the next phase of exploration, which will involve an airborne geophysical survey and follow-up fieldwork. After appraising the geophysical results, we hope to initiate a drilling programme to determine the thickness and continuity of the graphite horizons on the project."

#### **Competent Person's Declaration**

The information in this announcement that relates to the geology, exploration results and work programme is based on information compiled by and reviewed by EurGeol Dr Sandy M. Archibald, PGeo, Aurum Exploration Services, who is a Professional Geologist and Member of the Institute of Geologists of Ireland, and a Fellow of the Society of Economic Geologists. He is a geologist with fourteen years of experience in the exploration industry, and ten years post-graduate studies.

Sandy M. Archibald is a Technical Advisor to Alba Mineral Resources plc and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration, and to the type of activity which he is undertaking to qualify as a Competent Person as defined in the June 2009 Edition of the AIM Note for Mining and Oil & Gas Companies. Sandy M. Archibald consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears and confirms that this information is accurate and not false or misleading.

**For further information please contact:**

**Alba Mineral Resources plc**

Michael Nott, CEO

+44 20 7264 4366

**Cairn Financial Advisers LLP**

James Caithie / Liam Murray

+44 20 7148 7900

**Dowgate Capital Stockbrokers Limited**

Jason Robertson / Neil Badger

+44 1293 517744

**Additional Information**

Alba holds a 15 per cent interest in Horse Hill Developments Limited, the company which has a 65 per cent participating interest and operatorship of the Horse Hill oil and gas project (licences PEDL 137 and PEDL 246) in the UK Weald Basin.

Alba has the right to earn up to 70 per cent of the Amitsoq Graphite Project in Southern Greenland (refer to our announcement of 6 October 2015).

In addition, the Company holds a base metal licence in the Republic of Ireland, and has applied for the reissue of a uranium permit in northern Mauritania. The new Mauritanian permit will be on a reduced area, and is centred on known uranium-bearing showings.

Alba continues actively to review and discuss other project opportunities which have value-enhancing potential for the Company whether by acquisition, farm in or joint venture in a range of jurisdictions around the world.