



GRAPHENE POTENTIAL OF TALGA'S HIGH GRADE SWEDISH GRAPHITE TO BE TESTED AT UNIVERSITY OF ADELAIDE

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Corporate Information

ASX Code **TLG**

Shares on issue **85.1m**

Options (unlisted) **3.75m**

Company Directors

Keith Coughlan

Non-Executive Chairman

Mark Thompson

Managing Director

Piers Lewis

Non-Executive Director

 **ASX Code: TLG**

Talga Resources Limited ("Talga" or the "Company") is pleased to announce that a research project is being undertaken with Adelaide Research and Innovation Pty Ltd ("ARI"), the commercial development arm of the University of Adelaide. Specifically, ARI has contracted with Perth-based Talga to test ore from the Company's Nunasvaara project in northern Sweden and assess the ability of this super grade graphite deposit to produce the much publicised high technology material, graphene.

Samples from Nunasvaara are already with the University and test results are expected in a few weeks' time.

Graphene is an emerging industrial derivative of graphite being increasingly researched worldwide for its unique properties and potential extensive application across a range of new era technologies.

Talga's Managing Director, Mr Mark Thompson, said the decision to contract with ARI was a natural extension of the Company's current collaboration with a South Australian partner who is defining the metallurgical profile of Nunasvaara in order to complete a Preliminary Economic Assessment (PEA). The PEA is a required forerunner to accessing project development, financing, and offtake agreements in Europe's high demand industrial markets for graphite.

"Preliminary metallurgical work suggested that characteristics of the Nunasvaara graphite ore may be unique and differ substantially from most other graphite deposits," Mr Thompson said.

"This follows from Nunasvaara being not only the **highest grade JORC/NI43-101 graphite resource in the world** but also because it is hosted within volcanic greenstones rather than the gneissic rocks most typical for graphite deposits. This rare setting gives Nunasvaara ore potentially unique mineralogy, crystallinity and other characteristics that may support extraction options that are cheaper in capital and processing terms than traditional methods.

"As a consequence, the natural follow-on was to query whether Nunasvaara ore is therefore capable of producing graphene in a unique way too – and if so, how it can add a second commercial arm to the deposit's future."

Mr Thompson said the ARI testwork at the University of Adelaide would focus specifically on whether Talga's deposit could make high quality graphene at low cost on a mass scale. The program will not hinder Nunasvaara's current PEA but may allow the Company to incorporate additional commercial aspects into its development pathway.

Background to graphene research

Graphene refers to a one-atom-thick sheet of carbon atoms arranged in a hexagonal lattice and is renowned as the world's first two-dimensional

material identified. Graphene occurs naturally in the mineral graphite and can be synthesised in the laboratory. The recent application of a simple mechanical method for extracting graphene from natural graphite accelerated use of the material and won the Nobel prize for physics in 2010.

A large number of graphene's characteristics such as mechanical stiffness, strength and elasticity, electrical and thermal conductivity, and many others are supreme of all materials known to man. The combination of all these properties in one material means that graphene could replace many common materials and additionally enable several disruptive technologies across many applications, from energy mobility and storage devices to computing and biotechnology.

The list of applications is continuously growing and billions of dollars are being directed towards graphene research worldwide; however the commercialisation rate is currently hampered by the extremely high cost of making even small amounts of graphene.

Talga's graphite projects are located close to existing road and rail infrastructure and abundant hydro-electric and nuclear power sources in the world-leading mining jurisdiction of Sweden. More information on Talga's projects is available on the Company's website www.talgaresources.com

The Company looks forward to providing an overview of the graphene test-work results in the near future when the ARI program has been completed and interpreted.

For further information, contact:

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ABOUT TALGA RESOURCES LTD

Talga Resources Limited (**Talga**) (ASX: "TLG") is a diversified mineral explorer and developer with a portfolio of 100% owned graphite, iron, copper/gold projects in Sweden and gold projects in Western Australia.

The main focus is the development of graphite resources in northern Sweden utilising the advantages of exceptional grade deposits, low cost power, established quality infrastructure and short transport distance to high demand markets in Europe.