



ASX Announcement

Advanced Materials Update: High Quality Graphene Produced

22 December 2021

Greenwing Resources Ltd (Greenwing or the Company) (ASX:GW1) is pleased to provide an update on its Advanced Materials Research and Development Agreement with Swinburne University of Technology (Swinburne).

FIRST MILESTONE ACHIEVED

The programme of research and development of speciality carbon products has been achieved its first key milestone - the environmentally friendly production of high-quality graphene from our Graphmada graphite concentrates.

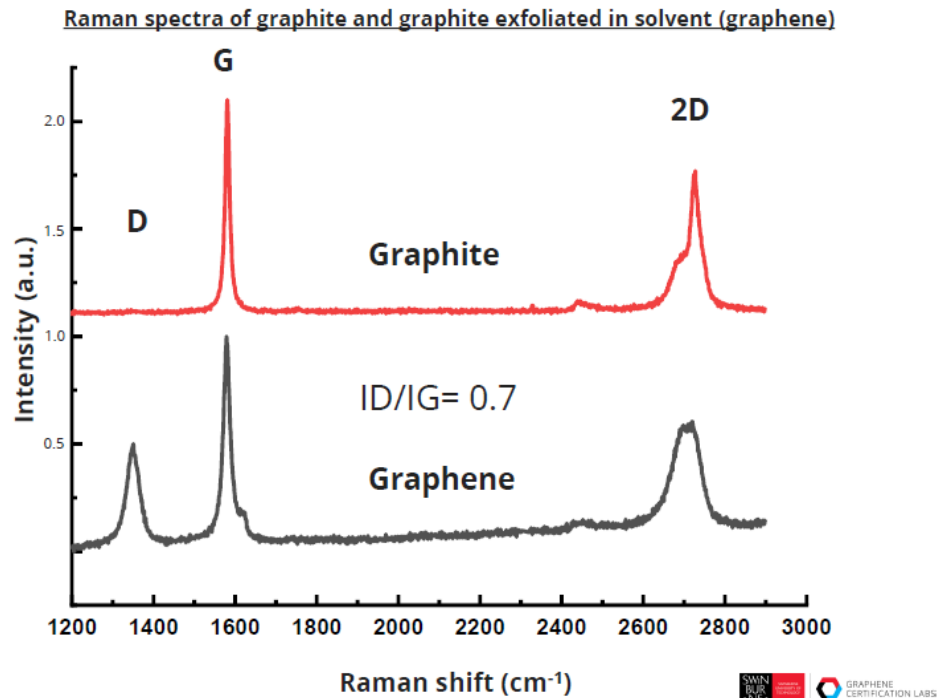
This milestone is fundamental step towards creating a scalable, environmentally friendly, advanced fireproof panelling product from expandable graphite and graphene, with a focus on mechanical strength and fire retardation.

HIGHLY ENCOURAGING RESEARCH RESULTS

Research into the characterisation of large-flake graphite concentrates (P5094) produced from Greenwings's Graphmada Mining Complex have demonstrated excellent qualities of:

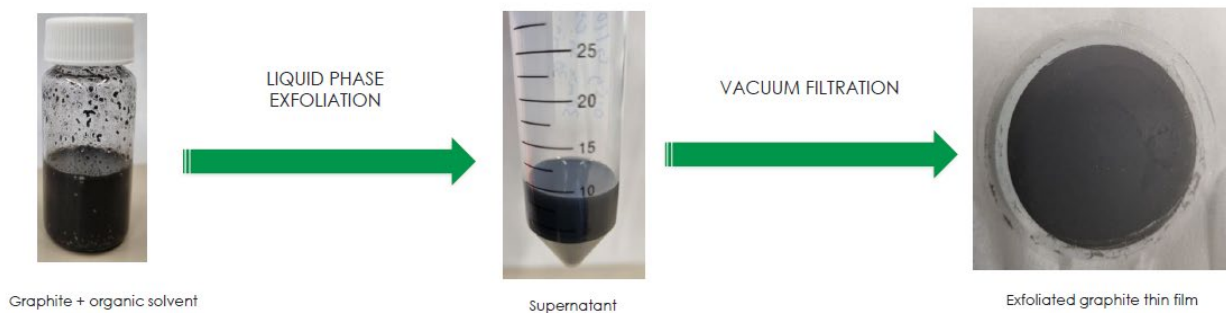
- low impurities;
- low defects; and
- low oxidation.

Exfoliation of these high-quality large-flake graphite concentrates has also produced environmentally friendly graphene with excellent qualities demonstrated by the superior 2 D peaks recorded.



GRAPHENE PRODUCED FROM GRAPHMADA GRAPHITE

Graphmada graphite concentrates were combined with a non-toxic organic solvent, prior to liquid phase exfoliation occurring, to produce a supernatant (liquid). The resultant liquid was pipetted out and the concentration measured by UV-Vis Spectroscopy. Finally, a thin film was then prepared by vacuum filtration of the liquid, in order to undertake graphene characterisation.



NEXT STEPS

The ongoing research work will now be concentrating on the following: -

- Undertaking graphene characterisation to be completed in ISO9001 laboratories;
- Optimising of the graphene percentage for strength and fire retardation; and
- Manufacturing of next generation cladding prototypes.

FURTHER INFORMATION

Further details regarding Swinburne's research process and the collaboration can be found in accompanying presentation released today.

CRAIG LENNON (CEO)

"Developing environmentally friendly, fire-resistant speciality carbon composites from purified expandable graphite and graphene is a key goal we are working towards with the Swinburne team.

This research has demonstrated a path towards a scalable, environmentally friendly production method for graphene, not linked to petroleum production or other toxic methodologies. The opportunities this presents for the Company and its shareholders are exciting and we look forward to further innovative and market leading results from our collaboration with Swinburne."

For more information, please contact:

Rick Anthon
Chairman

Craig Lennon
CEO

This announcement has been approved by the Company's Board of Directors for release.