



ASX RELEASE

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NEW UNIQUE “GRAPHITE IN GRANITE” PROJECT TENEMENTS NOW GRANTED CORE DRILLING PLANNED

Highlights

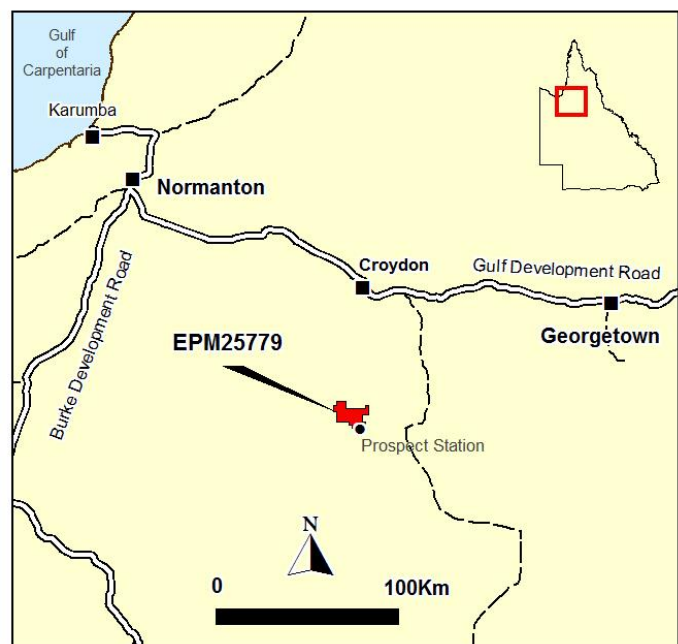
- ❖ 3 large Exploration Permits granted
- ❖ Highly prospective for high quality crystalline (or hydrothermal) graphite
- ❖ Metallica has significant knowledge of the Project having previously drilled in the area

Metallica Minerals Limited (“Metallica” or the “Company”) (ASX:MLM) is pleased to advise that its Esmeralda tenements (the “Project”), located south of Croydon in North Queensland have been granted by the Department of Natural Resources and Mines. Metallica observed graphite mineralisation in previous drilling across the project area. The Company is now progressing land access in readiness for core drilling to be completed in the coming months.



Metallica has identified significant graphite occurrences within its Exploration Permit for Minerals (EPM's) 25779, 25806 and 25807 (combined covering over 750km²) over the Esmeralda Granites in the Croydon region. These occurrences were primarily identified in 2006 during a Metallica drilling program targeting well defined airborne and ground defined intense electromagnetic (EM) anomalies. At the time the target of the drilling was base metal and/or gold bearing massive sulphide mineralisation, instead of sulphides Metallica discovered significant graphite mineralisation. Despite being a considerable geological curiosity, graphite is rarely associated as a consistent mineral in igneous rocks. At the time the discovery was not considered of sufficient commercial interest to progress further exploration. The tenements are held 100% by Metallica's wholly owned subsidiary company Touchstone Resources Pty Ltd.

In addition, a literature review of publicly available information on graphite occurrences in the Esmeralda Granites and Croydon Volcanics indicates large suites of igneous rocks that are inherently and uniquely graphite bearing. Metallica will be





drilling an area where it is interpreted that magmatic differentiation or structural controls have concentrated graphite into significantly higher percentages. Previous percussion drilling, including by Metallica in 2006, exploring for metals and other mineral mineralisation, recorded significant zones (>20m down hole intercepts) of observed graphite mineralisation (>10% graphite visually) in the drill logs.

As the graphite is not metamorphic in origin nor occurs in metamorphic host rock, as per 95% of the world's known graphite deposits, the Esmeralda Graphite Project is relatively unique as igneous sourced or hydrothermal graphite deposits are rare. The known such deposits are typically of high purity graphite in either flake or crystalline form (such examples include Sri Lanka deposits and the Albany Graphite Granite deposit in Canada). The carbon source is non-organic and the carbon is thought to be from deep CO₂ or CH₄ gaseous injection into the magma chamber and later crystallising out as pure or near pure carbon (graphite) crystals.

Metallica has developed a "Hydrothermal" mineralisation model for the Esmeralda granite based on work completed by the Bureau of Mineral Resources ("BMR") in 1988 and recent discovery of the Albany graphite deposit in 2013. Metallica has identified 14 historic percussion exploration drill holes across the region intersecting significant graphitic granite.

The proposed new core drilling program will comprise two holes (each to at least 125m depth) twinning two historic exploration percussion holes; RC002A (2006) and TB18 (1988), which recorded significant graphite granite breccia approximately 500m apart. These are within the priority Warrior Graphite Exploration target within EPM 25779 approximately 70KM SSW of Croydon – see location figure above. The graphite core intervals will then be assessed to determine the graphite form, purity, mineralogy and preliminary metallurgy characteristics and marketability. The cost of the two drill holes (250m total metres drilled), supervision and analysis is budgeted at approximately \$150,000.

Previous Electromagnetic (EM) surveys, including a survey by Metallica in 2006, readily identified conductive graphite, and additional EM surveys will better define targets for future exploration. Metallica's proposed drill holes are within a very well defined intense EM anomaly as could be expected by the significant graphite observed from the drilling.

Metallica CEO Mr Simon Slesarewich;

"While this graphite project has recently been added to Metallica's mineral projects portfolio, we believe there are compelling reasons to complete new core drill holes, twinning two of the previous percussion drill intercepts. It is hoped that this will not only confirm the significant graphite intercepts, in a much more favourable global market for new graphite opportunities, but obtain solid core samples for analysis and provide accurate percentages on contained graphite and its likely quality. Graphite deposits are defined by their purity and we are very confident, based on our research to date, that there is a good probability the Esmeralda graphite should be of a high quality and of a crystalline form".

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