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The Company Announcement Platform ASX Limited Exchange Centre 20 Bridge Road SYDNEY NSW 2000

MARY VALLEY PROJECT – GEOPHYSICAL SURVEY RESULTS UPDATE

HIGHLIGHTS:

- Gravity surveys over three areas of historical high-grade manganese production have generated significant, discrete, dense anomalies on or proximal to the known workings;
- Initial results suggest the expanded presence of manganese mineralisation laterally and at depth;
- Passive Seismic data is still being processed and sectional data generated from all available geophysical sources is being compiled to assist drill planning as a priority;
- The Company believes that the potential to develop a Direct Shipping Ore (DSO) manganese mining operation on its tenure is further enhanced by these results
- An additional site visit is in planning to collect bulk samples from workings for initial metallurgical testwork

Eclipse Metals (ASX:EPM or the **Company**) is pleased to announce initial results from geophysical surveys over known manganese deposits in its Mary Valley manganese project, located approximately 14 kilometres southwest of Gympie township in Queensland (Figure 1 and 7). The Company believes that mining these deposits has demonstrable potential to produce manganese as Direct Shipping Ore (DSO).

The primary objective of the surveys was to generate manganese targets near preexisting workings by assessing the area for discrete, dense anomalies in open rural land and beneath areas of heavily vegetated regorowth.

The geophysical surveys consisted of on-ground gravity and passive seismic measurements at the Amamoor, Eel Creek and Upper Kandanga prospects (Figure 2), where historical high grade Mn production has occurred and which the Company had previously prioritised from conducted fieldwork during 2014 and 2015.

Eclipse Metals Ltd is an Australian exploration company focused on exploring the Northern Territory and Queensland for multi commodity mineralisation. The company has an impressive portfolio of assets prospective for gold, manganese, iron ore, base metals and uranium mineralisation. The Company's mission is to increase Shareholder wealth through capital growth and ultimately, dividends. Eclipse plans to achieve this goal by exploring for and developing viable mineral deposits to generate mining or joint venture income.

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WEBSITE www.eclipsemetals.com.au Survey boundaries were expanded due to the level of anomalism at several sites, in particular at Eel Creek and final data was collected in February.

Finalisation of the data, especially the passive-seismic (PS) results, is taking longer than anticipated due to the complexity of the data. The market will be provided with the finalised gravity anomaly images and interpreted seismic cross-sections in due course.



Figure 1. Location Plan for Eclipse's Mary Valley Manganese Project

While final geophysical results are awaited, the Company is planning a supplemental campaign of fieldwork to review gravity data against outcrop and previous mapping. The Company is also

planning to collect bulk samples from known workings suitable for preliminary metallurgical testing in Perth.

Drill testing will be planned following receipt of full gravity/PS report, results of the field visit and sample analysese.

Geophysical Surveys

Gravity is a commonly used geophysical tool for mapping of structure, alteration and rock density variations in exploration activities. The passive seismic method has only recently been made available in Australia to assist with mapping depth of soil and weathered rock (overburden) in areas of significant contrast in fresh rock environments that are near flat lying to shallow dipping.

Gravity data processing and corrections are made more complex where cover and weathering profiles vary significantly spatially or a more complex basement contact trajectory is encountered. This is where passive seismic units and gravity data can be combined to enhance processing and correction of the gravity data to provide more meaningful exploration information and targeting criteria.



Figure 2. Regional location of the three prospects (from top, in grey outlines): Eel, Amamoor and Upper Kandanga

Eel Creek Prospect

The large gravity "high" (Figure 3) extends to the east and south of known manganese mineralisation, confirming field observations of the orientation and likely continuation of the mineralisation. The manganiferous horizon dips into the hillside (i.e. dips east) of the old workings which removed only the surface cap. The gravity anomalies indicate manganese mineralisation can be expected to extend to the east into the hillside with a strong possibility of continuity of mineralisation along strike, especially to the south, down plunge of minor folds.



Figure 3. Eel Creek Preliminary Gravity anomaly map



Figure 4: Amamoor preliminary Gravity anomaly map

Amamoor Prospect

Strong gravity anomalism (Figure 4) down-dip (towards the NE) from the central and southern workings confirms field observations and the very strong anomalism along-strike to the SE in indicates presence of further, unmapped manganese mineralisatoin.

Upper Kandanga

Results from the gravity survey are yet to be evaluated and will be reported in a subsequent release.



Figure 5. Undertaking gravity surveys at Mary Valley Project



Figure 6. Example of high grade Mn mineralisation from Mary Valley Project

BACKGROUND

The Mary Valley Manganese Project tenements are located approximately 14 road kilometres southwest from Gympie in Queensland. The project area is comprised of three granted Exploration Permit's for Minerals, EPM's 17672, 17938 and 25698, with a combined area of 210km². The Project area is easily accessed via the Brooloo Road from Gympie and is only 165 rail kilometres from the port of Brisbane. Refer Figure 1.

Historically approximately 32,000 tonnes of ore was mined from the area with a manganese grade ranging from 42% to 51% Mn. Limits of all the deposits are not known either along strike or at depth. The largest mine on the tenements controlled by Eclipse was at Amamoor No.1 manganese deposit which has produced 19,630t at 51% Mn. Historical assays indicate that the silica, iron and phosphate levels are all within direct shipping ore parameters, which supports the potential for stand-alone mining operations in the Mary Valley Manganese Project. In the past 50 years little to no geological activities have been recorded over the Mary Valley prospects for manganese.

Geological surveys by the Company have indicated structural potential for development of approximately 167,000 tonnes of high grade manganese mineralisation within 15m from surface. Geological mapping suggests that the observed mineralised formations could have a larger aerial extent and continue to a greater depth.



Figure 7. Mary Valley geological interpretation map with tenements and main prospects

Historically, it appears that mining concentrated on selectively extracting high grade manganese mineralisation. Now, with development of more efficient ore beneficiation technologies, there is potential to develop much larger manganese resources consisting of higher and lower grade mineralisation, amenable to lower cost mining to produce a high grade product.

Manganese is a critical ingredient for the booming battery market. Demand is increasing for Lithium batteries and the Company believes it is important to further develop the Mary Valley Manganese project in parallel with Uranium projects in the Northern Territory.

For the four main cathode chemistries, the metal proportions (excluding lithium) in Lithium-ion batteries are listed in the table below which shows an estimate percentage of other metals needed.

Cathode Type	Chemistry	Metals needed	Example Use
NCA	LINICoAlO2	80% Nickel, 15% Cobalt, 5% Aluminum	Tesla Model S
LCO	LiCoO2	100% Cobalt	Apple iPhone
LMO	LiMn204	100% Manganese	Nissan Leaf
NMC	LiNiMnCoO2	Nickel 33.3%, Manganese 33.3%, Cobalt 33.3%	Tesla Powerwall

Manganese is one of the important metals for lithium-ion cathodes and is also a cheaper metal with substantial market potential for the battery industry and iron / steel market. As the demand for cleaner energy is growing, the Company is well focused in delivering value by exploring its Manganese and Uranium projects.

HILL?

Carl Popal Executive Chairman

The information in this report that relates to Exploration Results together with any related assessments and interpretations is based on information compiled by Mr Rodney Dale, a Non-Executive Director of Eclipse Metals Limited. Mr Dale is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

For further information please contact:

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