

# HIGH RESOLUTION AIRBORNE MAGNETIC SURVEY COMMENCES

**Constellation Resources Limited** ("the Company" or "Constellation") is pleased to advise that the Company has commenced a detailed high resolution airborne geophysical survey over tenements E28/2403 and E28/2738. The tenements are located on the eastern margin of the northern Fraser Range gravity high and sit in between Legend Mining Limited's (ASX: LEG) Area D discovery and Galileo Mining Limited's (ASX: GAL) Lantern Prospect. The tenements form part of the Company's Orpheus Project which includes a 70% interest in E28/2403 by way of a joint venture with Enterprise Metals Limited (ASX: ENT) and a 100% interest in E28/2738.

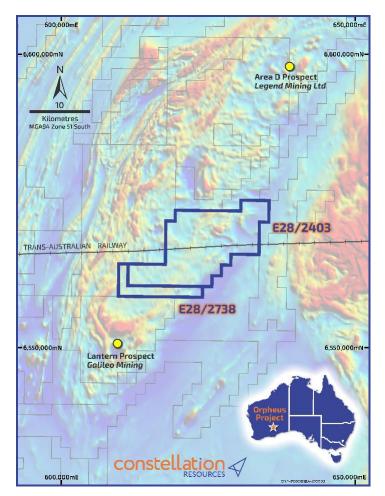


Figure 1: E28/2403 and E28/2738 over existing magnetics

## For further information, please contact:

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# **AIRBORNE MAGNETIC SURVEY**

Constellation has engaged Magspec Airborne Surveys to conduct a detailed low level airborne magnetic survey using 50 metre spacing between lines and a planned sensor height of 25 metre. The survey area covers 248 square kilometres (all of the tenure) and has commenced.

The airborne survey is the culmination of a review and recommendations by Peter Muccilli of Unearthed Geological Consulting and Russell Mortimer of Southern Geoscience Consultants, of all work undertaken on the tenements to date and is the first step in a renewed tenement wide appraisal for mafic hosted nickel-copper mineralisation.

The new survey data will assist in refining local structures and potential areas of interest. Follow up work such as completion of ground gravity surveys (to complete tenement coverage) and if warranted, subsequent air core drilling to search for prospective host rocks for nickel-copper mineralisation is planned.

Existing magnetic data line spacing is mainly 200-400 metre and was flown at a high level from the ground surface. The resulting data is considered coarse compared to current planned survey resolution (Figure 2). The current magnetic data indicates potential intrusions in circular anomalies within Constellation's tenements, with magnetic trends potentially linked to olivine gabbronorites.

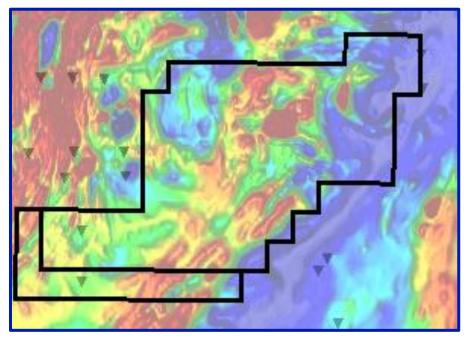


Figure 2: E28/2403 and E28/2738 over existing magnetics

A gravity survey was completed in 2017 over portions of the northern part of E28/2403 based on the existing magnetic data and covered 55% of the tenement. The survey returned two clear broad, elliptical to circular gravity anomalies, which contained a number of more localised gravity targets/features of potential interest – some against strong magnetic lows as shown below in Figure 3.



9 December 2019

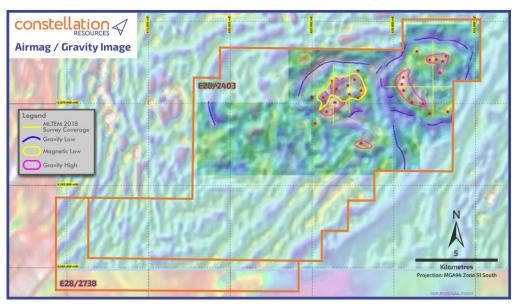


Figure 3: E28/2403 and E28/2738 over gravity/existing magnetics

A broad spaced moving-loop transient electromagnetic (MLTEM) survey was completed in mid-2018 over the two main broad gravity anomalies. A total of 158 stations were acquired (four extended lines, 15.4 kilometres coverage). This initial reconnaissance surveying was aimed at testing the conductance of the cover/weathered profile (>70 metre), definition of any stratigraphic/formational type conductors and whether any immediate local bedrock conductors of potential interest were present.

Highly conductive cover conditions were encountered across all four MLTEM survey lines, with background signal apparent until late channels and no clear bedrock conductors returned. It is likely the elevated late channels/background levels are purely related to highly conductive cover conditions. This indicates that a lower base frequency should be utilised for any future MLTEM surveying efforts (0.125-0.25Hz base frequency), rather than the 0.5Hz base frequency used.

## Future Work Planned

Further gravity surveying in the unsurveyed portions of tenement E28/2403 is planned for the coming months.

Upon completion/processing of the airborne magnetic and gravity survey, air core drilling is planned over defined targets to confirm the presence of prospective host rocks (gabbronorites/peridotites/troctolites).

Future MLTEM is planned at 200-300 metre line spacing over defined targets to provide suitable and effective coverage over target zones prior to any deeper drilling to search for sulphide mineralisation.

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### **COMPETENT PERSONS STATEMENT**

The information in this report that relates to Exploration Results (MLTEM) is extracted from an announcement dated 24 October 2018. This announcement is available to view on constellationresources.com.au. The information in the original ASX Announcement was based on and fairly represents information complied or reviewed by Mr Peter Woodman, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Woodman is a holder of shares and options in, and is the Managing Director of, Constellation Resources Limited. Mr Woodman has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Exploration Results (Gravity) is extracted from the Company's Prospectus lodged with ASIC on 4 May 2018. This Prospectus is available to view on constellationresources.com.au. The information in the Prospectus was based on and fairly represents information complied or reviewed by Mr Andrew Boyd, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Boyd is a consultant of the Company, a director of Cairn Consulting Limited and an indirect holder of shares and options in the Company. Mr Boyd has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Prospectus.

#### FORWARD LOOKING STATEMENTS

Statements regarding plans with respect to Constellation's project are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by the Company's Managing Director, Peter Woodman.

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