

Browns Reef Gravity Survey Provides New Drill Targets

Highlights

- Processing and interpretation of last year's gravity survey data has now been completed;
- Residual gravity anomaly trends correlate well with known base metal mineralisation and its controlling structures;
- Importantly, new and largely untested anomalies have been mapped to the west of the known trends; and
- An aircore drilling program has been planned to test these anomalies and other prospective zones at Browns Reef.

Eastern Metals Limited (ASX: **EMS**, **Eastern Metals** or **the Company**) is pleased to announce that the data from last year's gravity survey at Browns Reef has now been processed and interpreted. The new survey data has been merged with existing data¹ collected by a previous holder of the project tenement. The merged data set covers most of the prospective areas within the licence area. The combined data set shows a clearly defined anomalous gravity trend that maps the prospective Preston formation and the hydrothermal breccia on its footwall. This zone contains the base metal sulphide mineralisation that has been drilled over a strike length of more than 6 kilometres. The central 2,700 metre part of this zone has been drilled in more detail. Recently EMS has focussed on a smaller part of this area known as the Evergreen zone, which the Company's 2022 drilling has shown contains higher grade, zinc-dominated, polymetallic mineralisation. The gravity survey clearly maps the main trend of the mineralisation and has also shown other anomalies with similar character that could also be associated with mineralisation. An aircore drilling program has been planned to test these anomalies and other prospective structures.

Chairman Bob Duffin said: *"The gravity survey has clearly shown that the mineralised structures at Browns Reef are associated with well-defined gravity anomalies. Importantly, other anomalies have also been mapped with similar characteristics. The Company has planned an aircore drilling program to test these anomalies, where there has been no deep drilling in the past."*

¹ Disclosures by listed companies include Admiralty Resources Limited (ASX: ADY) "Quarterly report", 23 April 2002, Comet Resources Limited (ASX: CMR) "Exploration update", 27 September 2017, and Kidman Resources Limited (ASX: KDR), "First hole in gravity high intercepts broad mineralisation", 30 September 2014.

Browns Reef

Browns Reef is a polymetallic lode of largely stratabound base metal sulphide mineralisation developed in the Late Silurian Preston formation, 5 kilometres west of Lake Cargelligo in the Cobar basin. The mineralisation lies above a hydrothermal breccia unit and closely follows a structure known as the Woorara fault. The mineralisation is known to have a strike length of at least 6 kilometres. The central 2.7-kilometre zone has been drilled in some detail in the past. Eastern Metals has focussed to date on a higher-grade area known as the Evergreen zone, and intends to do more drilling here in 2023, and in the nearby Pineview zone, once access is secured.

Gravity Survey

The residual Bouguer gravity anomaly for the area covered by the survey is shown in Figure 1. This drawing also shows the line of the Browns Reef lode, which is at least 7 kilometres long.

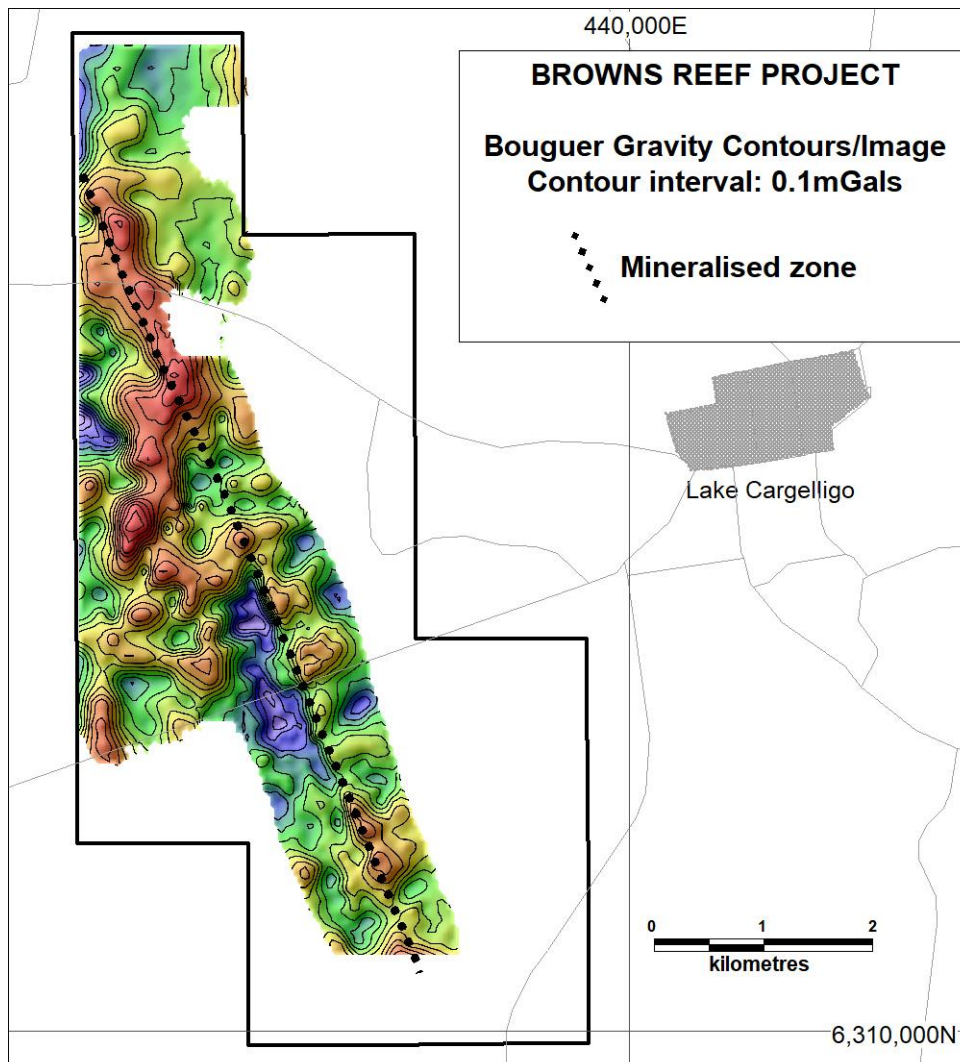


Figure 1. Residual Bouguer gravity anomaly, EL6321 Browns Reef, showing line of the Browns Reef mineralised lode

Several linear features can be recognised in the gravity data. These include a series of gravity “highs”, as well as zones having the character of contacts between rock units of higher and lower density – in other words, “contact features”. These are shown in Figure 2. This map also shows the locations of the Evergreen and Pineview zones, where the Company intends to do further diamond drilling in 2023.

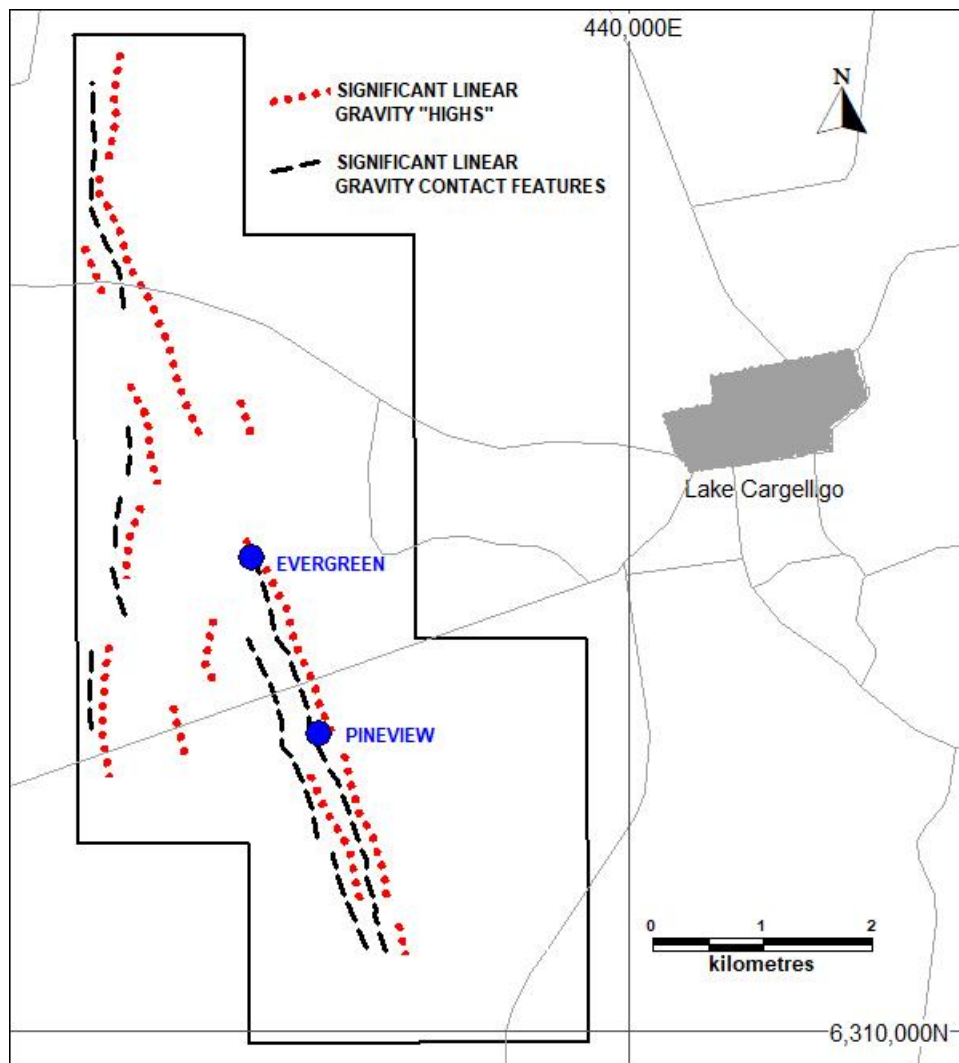


Figure 2. Interpretation of gravity data at Browns Reef

The area from a few hundred metres to the north of Evergreen and to a few hundred metres to the south of Pineview is the 2.7-kilometre zone, which has been drilled in some detail in the past. This zone is clearly associated with the gravity anomalies shown in Figure 2. There has been no deep drilling that has tested the gravity anomalies to the north and south of this zone, as well as those to the west, and only a limited amount of shallow drilling.

Further Exploration

Eastern Metals considers the untested gravity anomalies shown in Figure 2 to be high priority targets for further work. An aircore drilling program has been planned to test these zones, as shown in Figure 3.

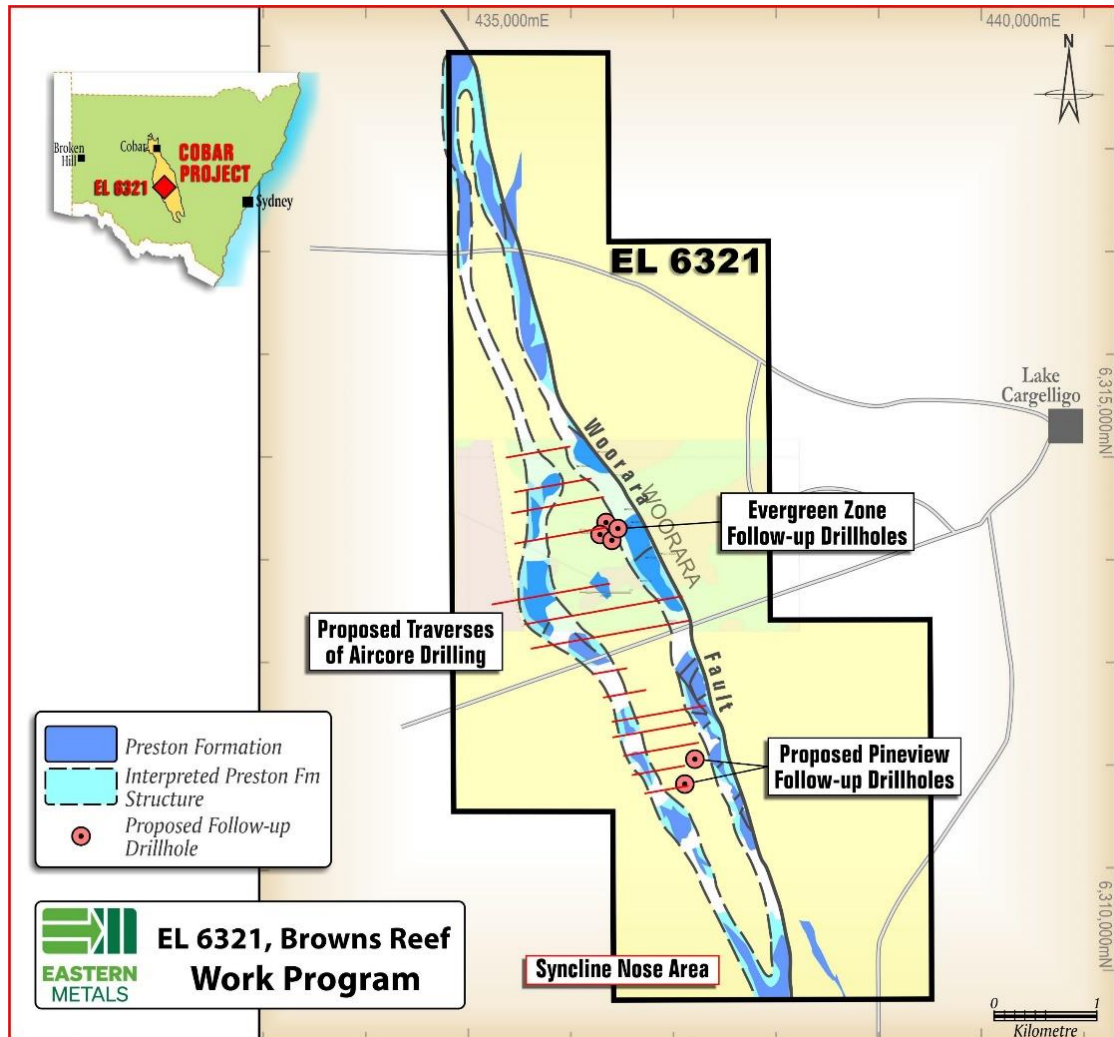


Figure 3. Proposed work program, Browns Reef

The aircore holes planned to test these anomalies will be drilled in 2023.

Also shown in Figure 3 are the diamond drill holes planned for the Evergreen and Pineview zones. The holes planned at Evergreen, along with holes drilled by a previous owner of the tenement, are expected to allow for a JORC 2012-compliant identified mineral resource estimate to be made.

Authorisation for this Announcement

This announcement has been authorised for release by the Company's Disclosure Officers in accordance with its Disclosure and Communications Policy which is available on the Company's website, www.easternmetals.com.au.

Previously Reported Information

The information in this announcement that references previously reported Exploration Results or Mineral Resources for EL 6321 *Browns Reef* is extracted from the Company's Prospectus released on 18 August 2021 (ASX: EMS 22 October 2022), and the Company's ASX releases "High Grade Zinc Zone Discovered at Browns Reef" dated 26 April 2022 and "More High-Grade Assays in Evergreen Discovery at Browns Reef" dated 18 August 2022. The Prospectus and the two ASX announcements referred to are available on the Company's website (www.easternmetals.com.au) and on the ASX website (www.asx.com.au). Other than the information in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus or the two announcements referred to, and that all material assumptions and technical parameters underpinning the Exploration Results and Resource Estimates continue to apply and have not materially changed.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the Company's planned activities, including mining and exploration programs, and other statements that are not historical facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. In addition, summaries of Exploration Results and estimates of Mineral Resources and Ore Reserves could also be forward looking statements. Although Eastern Metals believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Competent Person Statement

The Exploration Results in this announcement not previously reported is based on information compiled by Mr Gary Jones who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Jones is a full-time employee of Geonz Associates, Consultant Geologists, a former director of Eastern Metals, and Principal Consultant – Geology to the Company. Mr Jones 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 JORC Code. Mr Jones consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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APPENDIX 1 - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data: Browns Reef Project

Gravity survey only, no other exploration data or drilling reported.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Not applicable. This announcement relates to a gravity survey only. No rock or soil samples were collected, and no assaying has or will be performed. Further details of the gravity survey are set out below.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Not applicable, there was no sampling.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Not applicable, there was no sampling.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	No drilling is being reported herein, there was no drilling.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable, there were no drill sample recoveries.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	Not applicable, there were no drill sample recoveries.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Not applicable, there were no drill sample recoveries.

Criteria	JORC Code explanation	Commentary
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Not applicable, there was no logging.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</i>	Not applicable, there was no logging.
	<i>The total length and percentage of the relevant intersections logged.</i>	Not applicable, there was no logging.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken</i>	Not applicable, there was no sampling.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable, there was no sampling.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Not applicable, there was no sampling.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Not applicable, there was no sampling.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Not applicable, there was no sampling.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Not applicable, there was no sampling.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable, there was no assaying:
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	A Scintrex CG-5 Autograv gravity meter was used for gravity data acquisition. Leica GX1230 GNSS receivers were used for gravity station positional acquisition. A total of 383 new gravity stations were surveyed over the proposed area on a grid spaced 100m (east-west) by 200m (north-south). A new gravity base station was utilised for drift control and reduction for the entire survey. This gravity base station was tied to the Australian Fundamental Gravity Network.
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	Not applicable, there was no assaying.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable, there was no sampling or assaying.
	<i>The use of twinned holes.</i>	Not applicable, there was no sampling or assaying.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Raw gravity data was downloaded daily from the CG-5 instruments onto a laptop where preliminary quality control was carried out. Any erroneous station numbers were corrected and readings that fell outside of tolerance were removed. Once this was done software was used to average the two readings for each gravity station, correct for earth tides and assign each gravity positional data from the processed data (matched by timestamp). Geosoft GRAVRED software was then used to perform gravity reductions to produce a set of observed gravity values that can be used for gridding, imaging, and further analysis.
	<i>Discuss any adjustment to assay data.</i>	Not applicable – no assays involved. For the gravity data, normal free-air and Bouguer corrections were made, and a background removed to produce a residual gravity data set, which was then contoured.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Satellite data was processed using Waypoint's (Novatel) GrafNav software to produce positions accurate to within a couple centimetres for the roving antenna location at each gravity station..
	<i>Specification of the grid system used</i>	Grid system used for the Lake Cargelligo project is Geodetic Datum of Australia (GDA) 94 Zone 55S.
	<i>Quality and adequacy of topographic control.</i>	See above.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Gravity stations were located 100 metres apart on lines 200m apart.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The spacing of the stations is sufficient for the purposes of the survey. Mineral Resource or Ore Reserve estimates are not applicable for this survey.
	<i>Whether sample compositing has been applied</i>	Not applicable, there was no sampling or assaying.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable, there was no sampling.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Not applicable, there was no drilling.
Sample security	<i>The measures taken to ensure sample security.</i>	Not applicable, there was no sampling.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or review are warranted at this stage.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	EL6321 Browns Reef is located 5km west of Lake Cargelligo NSW. The tenement is held by Eastern Metals Limited and has recently been renewed until 19 October 2028. Ground activity and security of tenure are governed by the NSW State government via the Mining Act 1992. Land is Freehold and access was granted under the terms of a compensation agreement with the land holder.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Part of the area shown in Figure 1 was covered with a detailed gravity survey in 2002 by contractor Haines Surveys. The survey area measured approximately 4.6km x 1.8km and comprised a total of 524 mostly 100m spaced stations for a total 48.6 line km. The instrument used was a Scintrex CG3 Autograv with station positioning using Trimble 4000 series Geodetic receivers. The Australian Geological Survey Organisation (AGSO) Base 6491.0150 located at Lake Cargelligo was used for gravity control and Bouguer anomaly values were created using a country rock density of 2.67g/cc. EMS' principal geophysical consultant has reviewed this data and considers the methodology and results to be commensurate with accepted current industry standards.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Volcanogenic massive and disseminated stratabound Cu, Pb, Zn, Ag, (Au) deposit hosted in steeply dipping sediments.
<i>Drill hole Information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. 	No drilling results are reported herein.
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	Not applicable, there was no drilling

Criteria	JORC Code explanation	Commentary
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Not applicable, there was no data aggregation for grades.
	<i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail</i>	Not applicable, there was no data aggregation for grades.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable, there is no reporting of metal equivalent values.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not applicable, there is no reporting of the relationship between mineralisation widths and intercept lengths.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not applicable, there is no reporting of the relationship between mineralisation widths and intercept lengths.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	Not applicable, there is no reporting of the relationship between mineralisation widths and intercept lengths.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	No discoveries are reported in this announcement. But see figures 1, 2 and 3 in the body of the report for other information.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	Other exploration data are discussed in the body of the report and Eastern Metals is not reporting grade as assays are not yet available. The main body of the announcement includes references to previously reported information.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further gravity work may be undertaken but none is planned currently. Drilling of gravity anomalies is planned – see Figure 3.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	See the main body of the report, and Figures 1, 2 and 3.