CRATER GOLD MINING

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8 November 2022

PRIORITY HEM TARGETS IDENTIFIED IN EPM 16002 – NORTH QUEENSLAND

HIGHLIGHTS

- **Preliminary results received from initial assessment of the Electromagnetic Survey (EM) flown over the Croydon Polymetallic EPM 16002**
- **EM Anomaly 5.4 in EPM 16002 is identified as a priority target co-incident with aeromagnetic anomaly A5 and SGH soil sampling Cu-Ag-Au anomalism**
- **Several other EM targets have been identified**

Crater Gold Mining Limited (**Crater, the Company, ASX:CGN**) is pleased to announce preliminary results from the recently completed XCITE Electromagnetic and Magnetic Survey (**EM**) flown over its polymetallic tenements, EPM's 16002 (Figure 1).

EM Anomaly 5.4, located within Anomaly A5 prospect in EPM 16002, is considered to be a priority target as it is co-incident with the A5 aeromagnetic anomaly and SGH soil sampling Cu-Ag-Au anomalism.

In addition, several other EM targets have been identified, including weaker strength anomalies at the A5 (EM targets 5.2 and 5.5) and A3 (EM target 3.1) aeromagnetic anomaly areas. The blue crosses on Figures 3 and 6 indicate the strongest targets, with the green crosses indicating additional moderate to weak EM anomalies.

More detailed analysis will be available when the final interpretation report is received. While the levelled data from NRG has been received by the Company's consultant geophysicist, the final report is now not expected to be available until around the end of November.

Aeromagnetic Anomaly A5

Anomaly A5 was previously identified by a Queensland Government Aeromagnetic survey. The anomaly is a small, discrete, almost circular aeromagnetic low, approximately 30 nT in amplitude, 800m in diameter and located in the central western side of the EPM block (Figures 2 and 3). It occurs immediately SW of a larger aeromagnetic anomaly complex (hosting EM Anomaly 5.1) that is elongated NW-SE, is about 20km in length and about 10km in width. EM Anomaly 5.4 was also investigated by Spatiotemporal Geochemical Hydrocarbon (SGH) soil sampling. This indicated co-incident polymetallic-silver-copper anomalism which was partly overlapped by gold anomalism all of which directly overlies the central part of the main (western) A5 aeromagnetic low (Figure 4) which is a reversed magnetic high feature (refer to ASX Announcement released 12 June 2018 entitled "Gold and Silver-Copper-Polymetallic Anomalies Identified from SGH Soil

Sampling at the A5 Anomaly Prospect, North Qld"). This has provided encouragement not only from the co-incident anomalism but also from past drilling by the Company at Anomaly A2 (EPM 13775) which intersected polymetallic mineralisation that is also associated with a magnetic low (a reversed previous magnetic high).

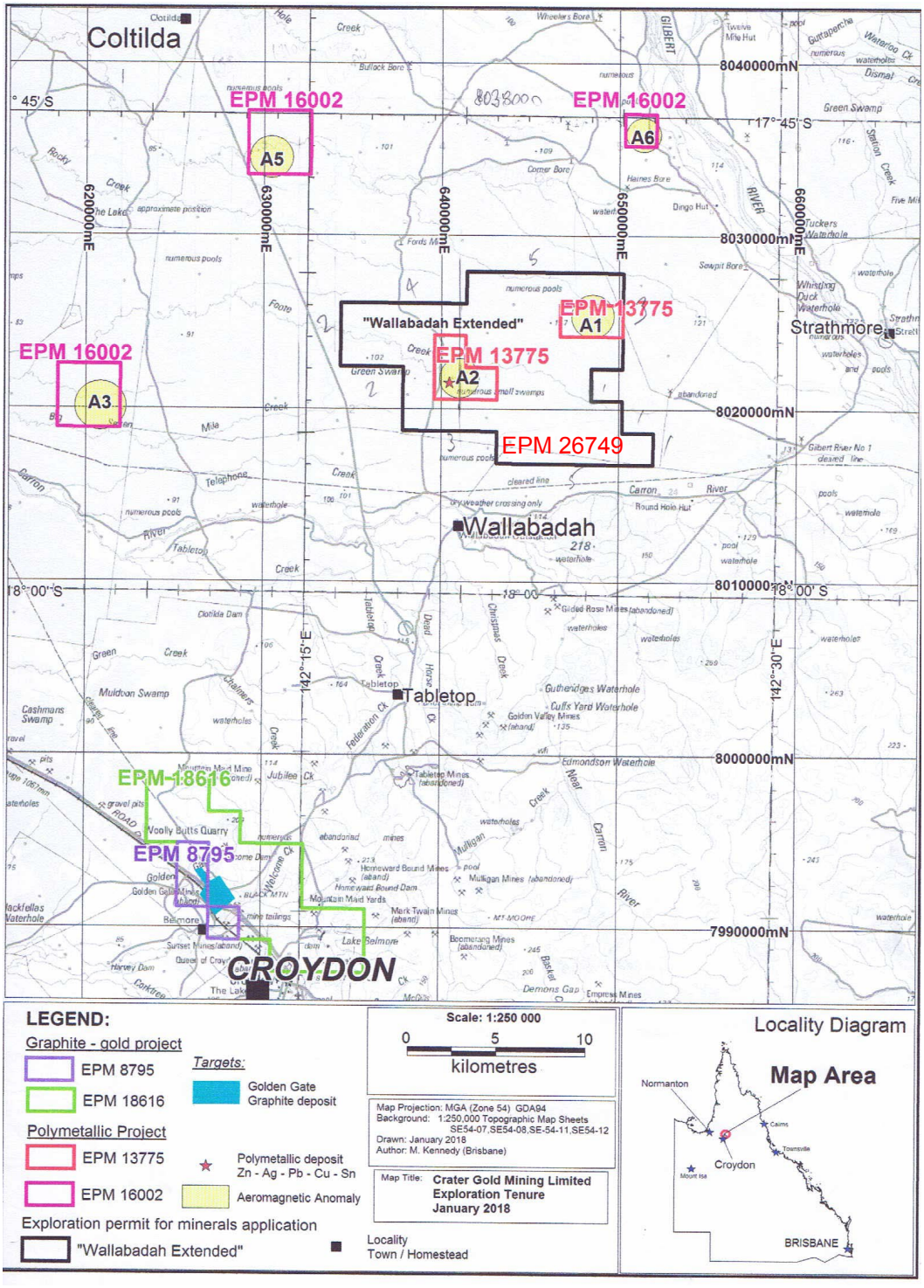

***Figure 1**: Location of aeromagnetic anomalies A3, A5 and A6 within EPM 16002*

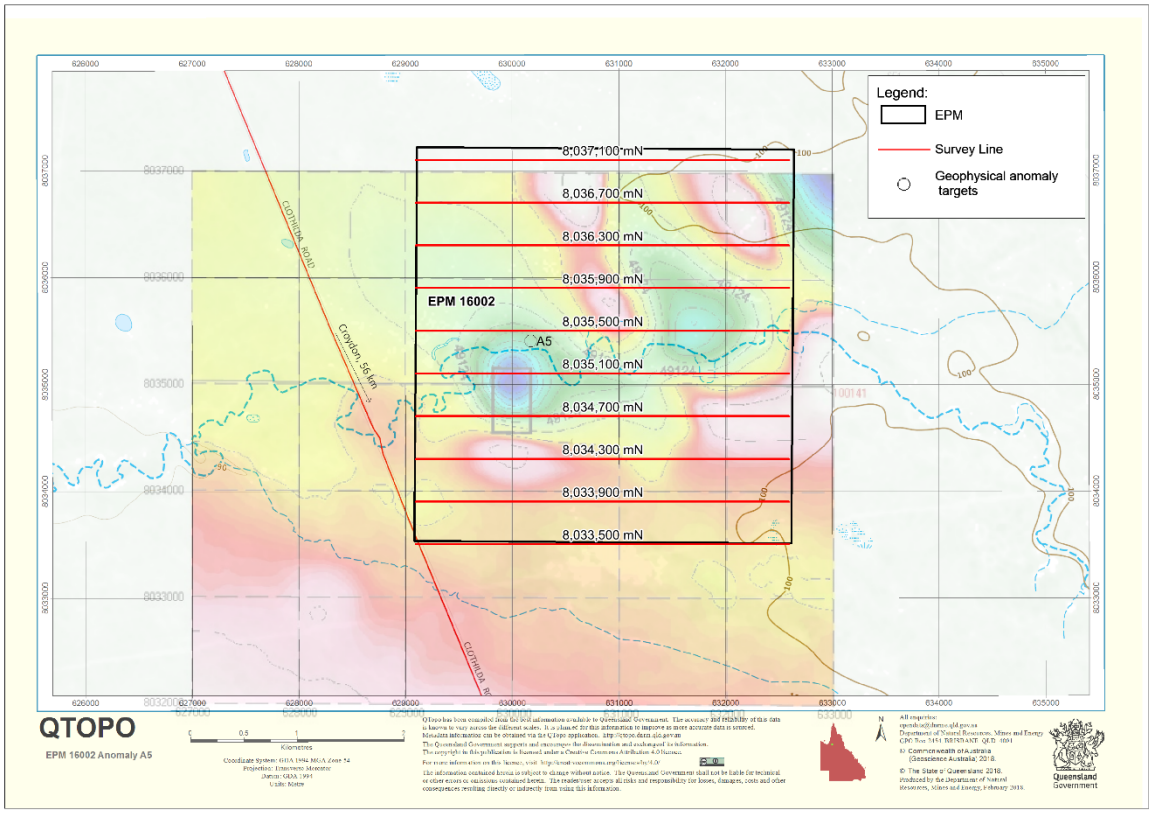

Figure 2: *Aeromagnetic Anomaly A5. HEM survey flight lines shown.*

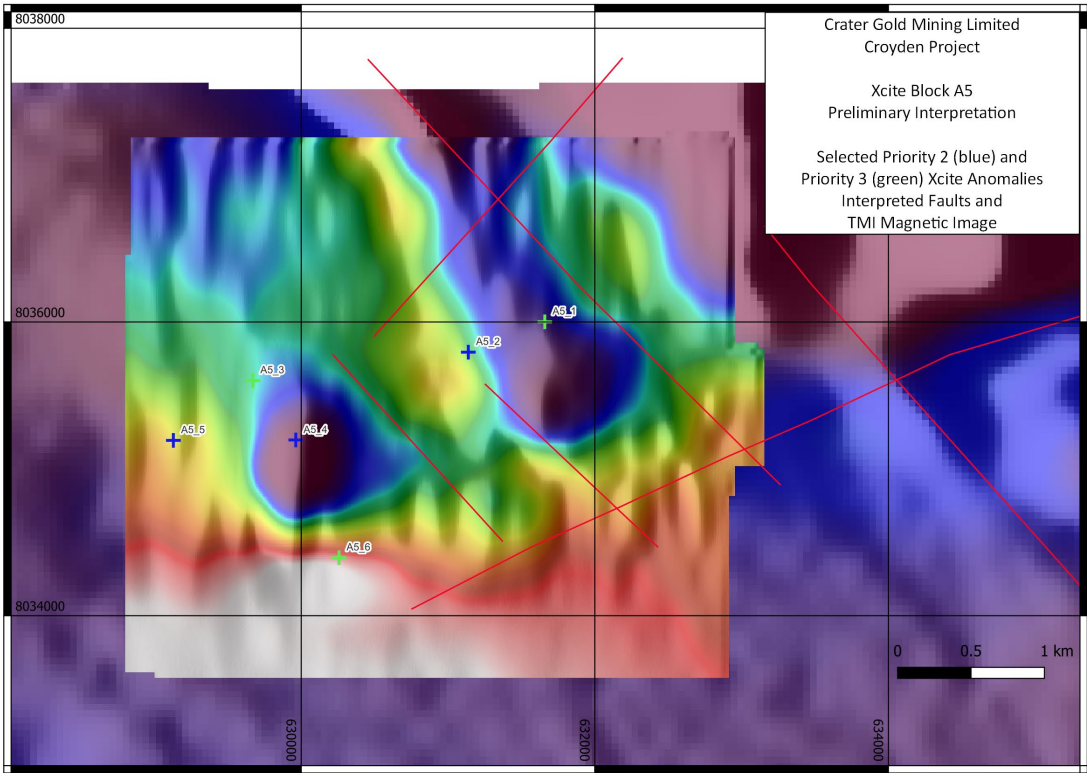

Figure 3: *Aeromagnetic Anomaly A5 with EM anomalies A5.1 to A5.6 EM anomaly A5.1 is located within the eastern magnetic low and EM anomaly A5.4 within the western magnetic low*

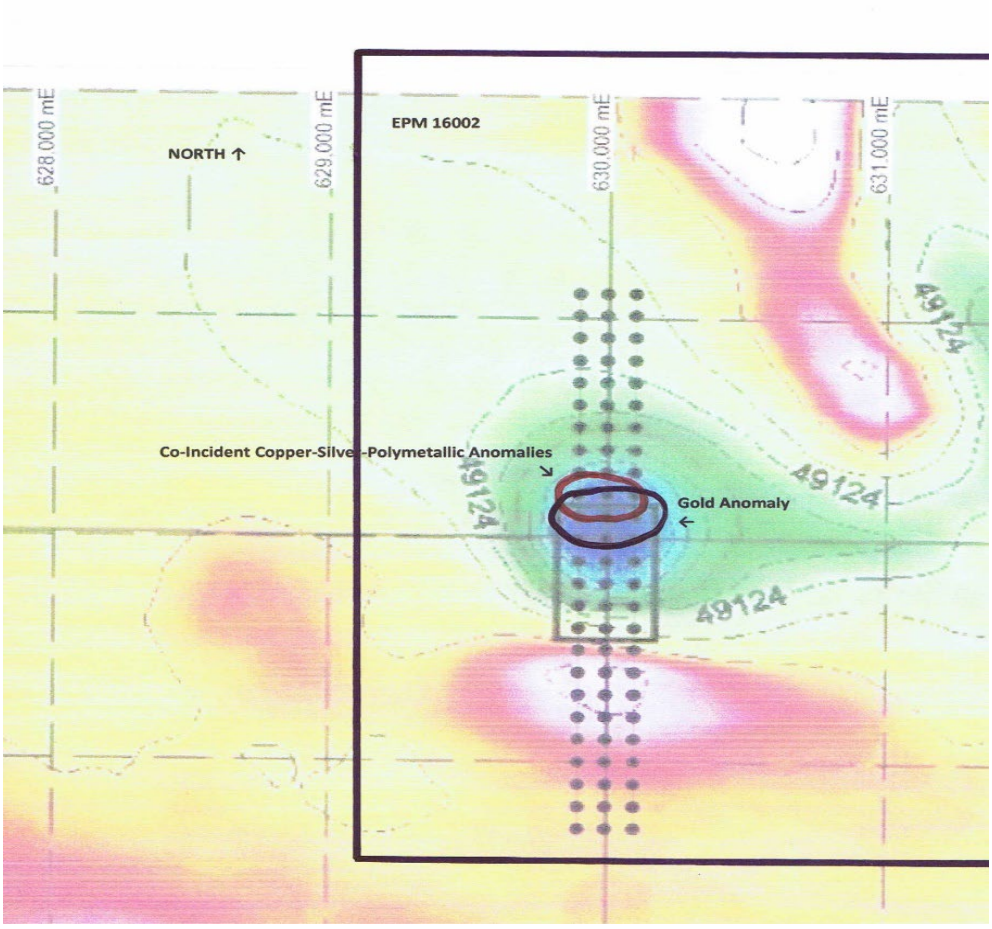

Figure 4: *SGH soil Cu-Ag anomalism co-incident with Au anomalism located within the western aeromagnetic low*

Aeromagnetic Anomaly A3

Aeromagnetic anomaly A3 is a small discrete, almost circular magnetic low, of approximately 20nT amplitude and around 1500m in diameter. It is possibly part of, or at least associated with, relatively subtle, WNW and NW trending positive linear anomalies that are more apparent further to the SE. It appears from the data that the anomaly is caused by a body with reversed remanent magnetisation. The depths below ground surface to the main possible sources range from 170 to 245m.

Figure 5 shows the 4 sub-block tenement area of EPM 16002 that covers Anomaly A3. An EM Anomaly, A3.1, has been identified within A3 which is co-incident with the magnetic low (Figure 6). This co-incident is considered to be of particular interest.

Anomaly A6 (EPM 16002) and EPMs 13775 and 26749

Interpretation of the EM data for these areas in still in progress, but is expected to be completed later in November.

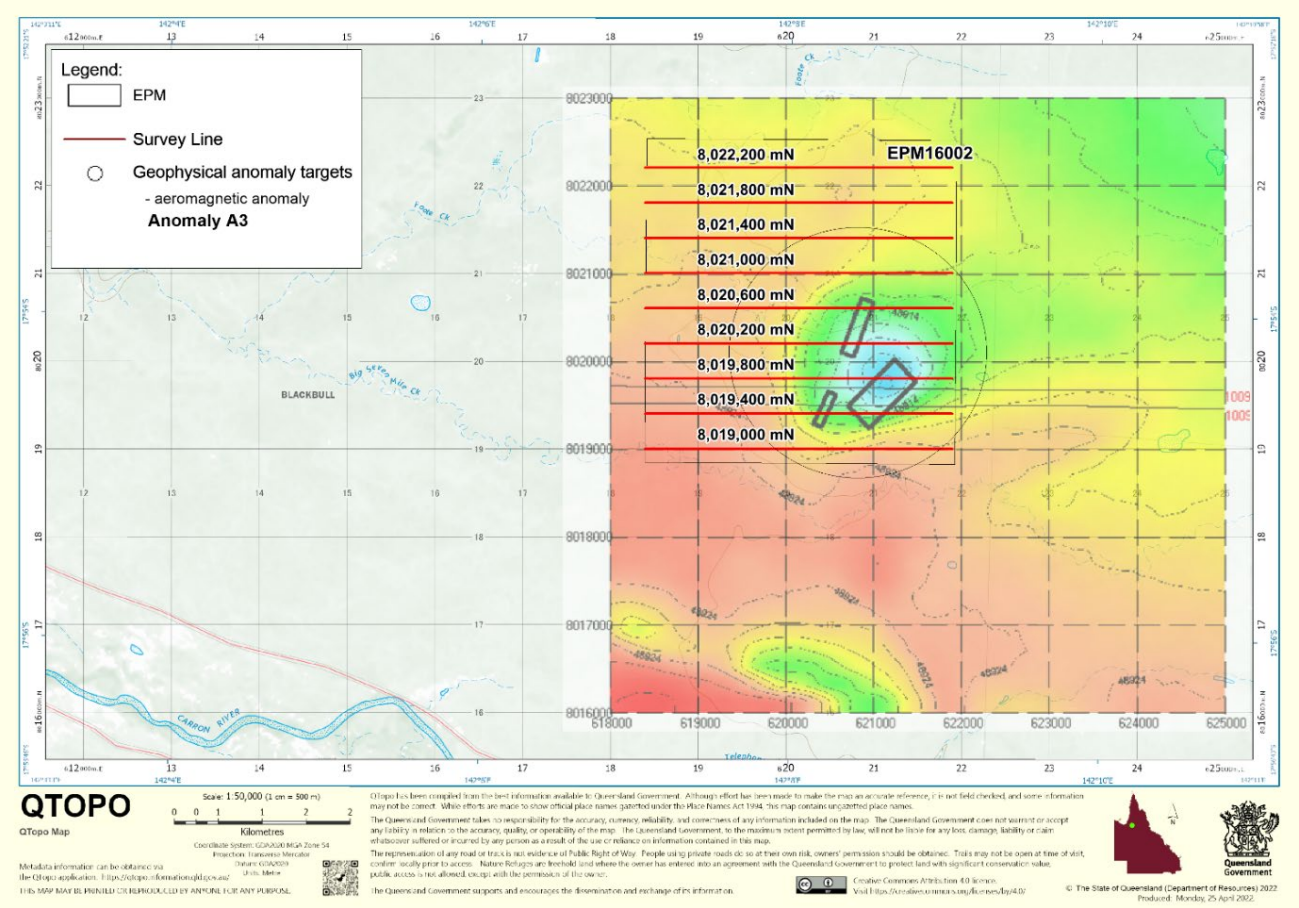

***Figure 5**: Aeromagnetic Anomaly A3 located within a 4 sub-block segment of EPM 16002 (the rectangular shapes are associated with magnetic data modelling). HEM survey flight lines shown.*

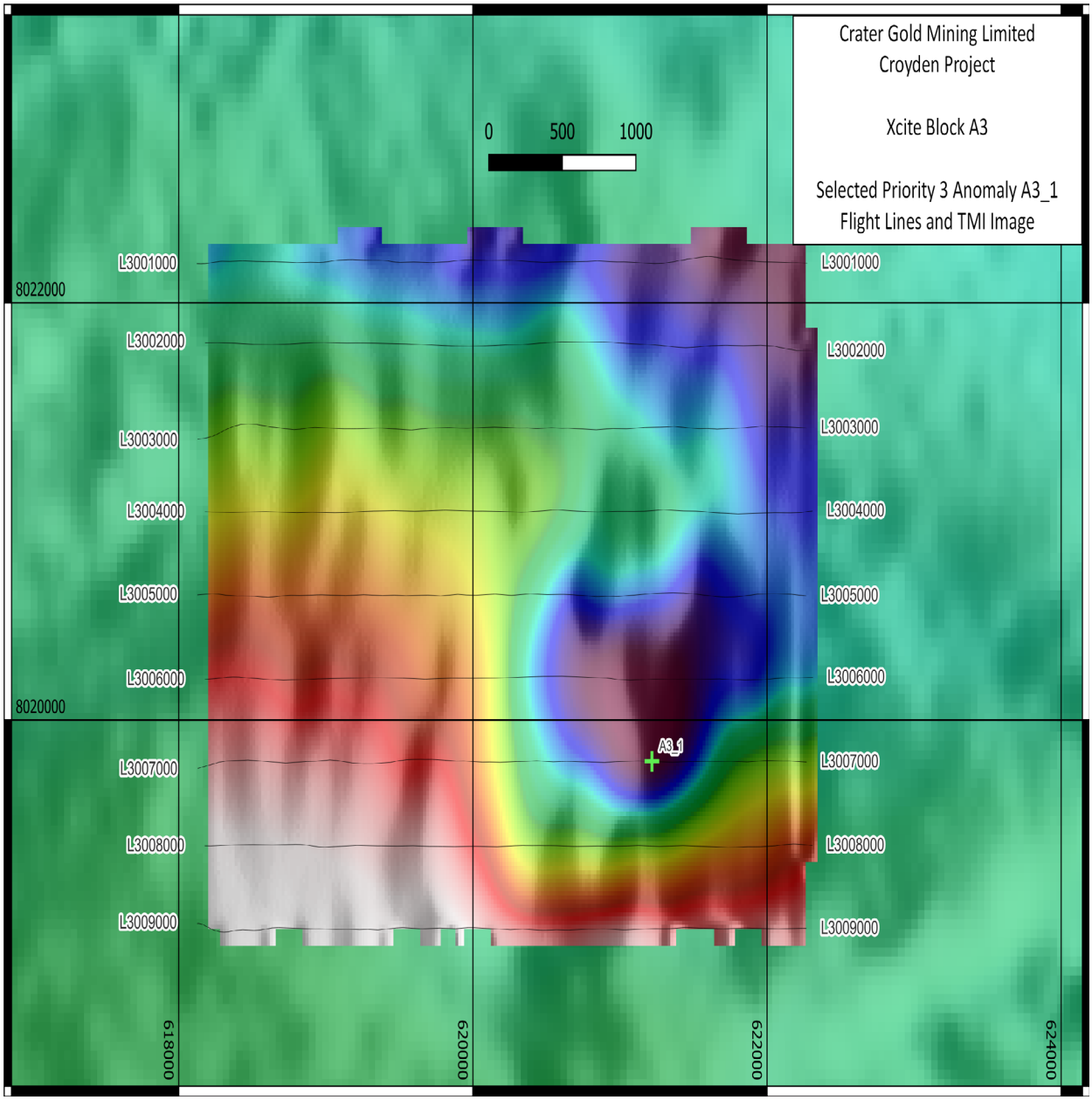

***Figure 6**: Aeromagnetic Anomaly A3. EM Anomaly A3.1 is co-incident with the aeromagnetic low.*

Further information is detailed in Table 1.

This announcement has been authorised for release to ASX by Russ Parker, Managing Director of Crater Gold Mining Limited.

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COMPETENT PERSON STATEMENT

The information contained in this report relating to exploration activities at Croydon is based on and fairly represents information and supporting documentation prepared by Mr Ken Chapple or by appropriately qualified company and consultant personnel and reviewed by Mr Chapple, who is an Associate Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Chapple has sufficient experience relevant to the style of mineralisation and type of deposit involved to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Chapple is an independent principal geological consultant with KCICD Pty Ltd and consents to the inclusion in this report of matters based on his information in the form and context in which it appears.

Forward Looking Statements: *This Announcement contains certain forward looking statements. The words 'anticipate', 'believe', 'expect', "optimism", 'project', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan', 'encouraging', 'significant' and other similar expressions are intended to identify forward looking statements. Forward-looking statements are subject to risk factors associated with the Company's business, many of which are beyond the control of the Company. It is believed that the expectations reflected in these statements are reasonable at the time made but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements. You should therefore not place undue reliance on forward-looking statements.*

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr>
<td>Sampling techniques</td>
<td>

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.
Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.
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.

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A combined Airborne Electromagnetic and Magnetic survey was flown by NRG (New Resolution Geophysics Australia Pty Ltd) over Crater Gold Mining Limited’s Croydon EPMs in North Queensland. The acquisition component of the survey was commenced 23 July 3022 and was completed 27 July 2022.
NRG used their helicopter installed Xcite time-domain Airborne Electromagnetic (AEM) system.
NRG’s equipment and data sampling specifications are summarised as follows;

Xcite Survey Specifications
<table>
<tr><th colspan="2">Electromagnetic System</th></tr>
<tr><td>Type</td><td>Xcite™</td></tr>
<tr><td>Weight</td><td>~450kg</td></tr>
<tr><td>Structure</td><td>Fully inflatable frame</td></tr>
<tr><td>Aircraft Type</td><td>AS350B Series</td></tr>
<tr><td>Engine Type</td><td>Turbine</td></tr>
<tr><td>Fuel Type</td><td>JetA1</td></tr>
<tr><th colspan="2">Acquisition System</th></tr>
<tr><td>Type</td><td>NRG RDAS II</td></tr>
<tr><td>CPU</td><td>Dual Core ARM 1.5Ghz</td></tr>
<tr><td>Operation Temperature</td><td>-10 to 65 Degrees C</td></tr>
<tr><td>Standard Sampling Rate</td><td>20 Hz (capable of >1kHz)</td></tr>
<tr><th colspan="2">Magnetometer Counter</th></tr>
<tr><td>Type</td><td>NRG RDAC ll</td></tr>
<tr><td>Internal System Noise</td><td><0.0001 nT</td></tr>
<tr><td>Adc Inputs</td><td>24</td></tr>
<tr><td>Magnetometer Inputs</td><td>4</td></tr>
<tr><td>Recording Rate</td><td>20 Hz (capable of >1kHz)</td></tr>
</table>
</td>
</tr>
</table>

Criteria	JORC Code explanation	Commentary

Magnetometer Sensor

Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)

Xcite Geometry

X, Y and Z COORDINATES IN DATABASE ARE ALL LOCATED AT RX POSITION

Rx -Bird GPS

Horizontal offset [m] (GPS in front of Rx)	9.2
Vertical offset [m] (GPS higher than Rx)	0.5

Helicopter - Mag Bird

The mag bird is mounted on the Tx frame
Coordinates are corrected to locate the magnetic data at the EM Receiver

Helicopter - Receiver

Effective tow rope length in flight [m]	38.5
Tow rope angle with horizontal [deg]	60
Tow rope vertical [m]	33.34
Tow rope horizontal [m]	19.25

Receiver (Z-component)

Diameter [m]	1.00
Area [m^2]	0.79
Turns	100.00
Effective Area [m^2]	78.54

Receiver (X-component)

Diameter [m]	Not Round
Area [m^2]	0.13
Turns	200.00
Effective Area [m^2]	26.39

Criteria	JORC Code explanation	Commentary
		Bucking Coil Diameter [m] 3.2 Area [m^2] 8.0 Turns 1.0 Effective Area [m^2] 8.0 **Transmitter** Diameter [m] 18.4 Area [m^2] 265.9 Turns 4.0 Effective Area [m^2] 1063.6 **Transmitter-Receiver** Horizontal offset of centre [m] 0 Vertical offset of centre [m] (Tx below Rx) 0.5
Drilling techniques	• *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).*	• N/A – preliminary report of EM geophysical survey – no drilling undertaken
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• N/A – preliminary report of EM geophysical survey – no drilling undertaken
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• N/A – preliminary report of EM geophysical survey – no drilling undertaken

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• N/A – preliminary report of EM geophysical survey – no drilling undertaken
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• The survey was flown on 400m spaced E-W traverse lines with 200m infill lines flown over identified priority anomalies to provide better definition. • The E-W orientation of the flight lines was considered appropriate for the NW to NNW trending graphitic horizons. • A nominal survey altitude of 30 to 40m (Tx-Rx array) and 60-70m (helicopter) was maintained subject to safety considerations, cultural features and tree canopy height. The magnetometer sensor was located mid-way between the Tx-Rx loop and the helicopter. • A minimum survey line length of 3 km was employed. • The area of the survey coverage was approximately 240sq km. • 400m spaced survey lines totaled 634 km and 200m spaced infill lines totaled 163 km. • Acquisition data was considered to be of high quality and passed the required specifications set by NRG. No data gaps were encountered. • QAQC criteria are not applicable to the type of data collected.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• N/A – preliminary report of EM geophysical survey – no sampling undertaken
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Recorded data points were captured via GPS positioning instrument (Novatel DL-V3L1L2) reported in GDA 94 grid co-ordinates.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied*	• 400m spaced E-W traverse lines for the total area with 200m spaced E-W lines to provide better definition of detected EM anomalies.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The E-W orientation of traverse lines was considered appropriate for the NW to NNW trending graphite mineralised horizons.
Sample security	• *The measures taken to ensure sample security.*	• Acquisition data held by NRG and processed, then released directly to Crater Gold's geophysical consultants, Southern Geoscience Consultants Pty Ltd.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audit reviews of the data has been undertaken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.*	• The Crater Gold Mining Limited's 100% owned properties over which the airborne EM survey was flown, comprised Queensland tenements EPM 8795, EPM 13775, EPM 16002, EPM 18616 and EPM 26749. Of these, all are current and in good standing including EPM8795 for which renewal has been applied for. • There are no known impediments to exploration in any of the tenements except for several State Heritage Places in which exploration is restricted unless an exemption is sought and granted. Crater Gold is currently submitting exemption applications.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration has been undertaken in the area by a number of companies, mainly in the period 1968 to the early 1990s. These included; Pickands Mather Pioneer Mining and Exploration Pty Ltd Aminco and Associates Pty Ltd Argosy Gold Mies NL Pan Continental Mining Limited Central Coast Exploration NL Barrack Mines Pty Ltd In the period 1987 to 1991 gold was mined at Croydon in a Joint Venture between Central Coast (2/3) and Pan Continental (1/3).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Outcrop in the Croydon area is dominated by the co-magmatic Esmeralda Granite and the Croydon Volcanics. Their age was thought to be Proterozoic, but there is some evidence to suggest they are Paleozoic in age which would be in keeping with the association of the majority of similar mineralising systems in Queensland. • The contact between the granite and the volcanics is gently dipping to the NW and is considered to represent a roof zone of the granite batholith. • Gold occurs in association with quartz veining and graphite mineralisation in shallow dipping zones in the granite and also within quartz veining in steep dipping zones in the volcanics. Both occur

Criteria	JORC Code explanation	Commentary
		within close proximity of the granite/volcanic contact. • Graphite up to 10m in width occurs in close association with gold mineralised zones/quartz reefs and also in prominent shallow dipping zones in both the volcanics and the granites in thicknesses of up to 60m or more (the latter usually very low in Au - trace to < 0.1g/t). Drilling has identified two or more separate graphitic mineralised horizons, mainly within the granite. • Graphite occurs in flake form and is considered to be of hydrothermal origin. • The volcanics and granite in the Croydon area are partly overlain by a thin cover of Cretaceous and recent sediments. • To the NE of Croydon in the Wallabadah area, polymetallic veining has been intersected in drilling beneath the 100m+ Cretaceous sedimentary cover.

Drill hole Information	• *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:*
	  ○ *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.*
	• *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.*
		• N/A – preliminary report of EM geophysical survey – no sampling undertaken

Data aggregation methods	• *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.* • *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.*	• N/A – preliminary report of EM geophysical survey – no sampling undertaken

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• N/A – preliminary report of EM geophysical survey – no sampling undertaken
Diagrams	• *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.*	• N/A – preliminary report of EM geophysical survey – no sampling undertaken
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• N/A – preliminary report of EM geophysical survey – no sampling undertaken
Other substantive exploration data	• *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.*	• The main other meaningful data has been obtained from Government airborne magnetic and ground gravity data. • Extensive evaluation of the aeromagnetic data has been undertaken which has resulted in Crater and its predecessor companies evaluating the aeromagnetic anomaly and gravity data and acquiring the Wallabadah tenements EPM 13775, EPM 16002 and EPM 26749.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work will involve completing assessment of the EM data and compilation of a detailed interpretation report which is expected to be compiled by Southern Geoscience Consultants Pty Ltd and submitted to Crater Gold by the end of October. The current report presented here covers the initial interpretation and provides the preliminary EM anomaly maps. • The final report will present the priority targets and depths and select drill collar co-ordinates to drill test these targets in the next and subsequent drilling programs.