MINOTAUR EXPLORATION

26 July 2017

ASX Release

Drilling completed at Osborne JV, Cloncurry

Minotaur Exploration Ltd (ASX: MEP, 'Minotaur') completed 5 drill holes for the Osborne JV in north-west Queensland.

Background

The Osborne project (*Figure 1*), centred 175km south of Cloncurry, is a joint venture between Minotaur and Japan Oil, Gas and Metals National Corporation (JOGMEC). JOGMEC may earn up to 51% equity in the project by spending up to A$3.5M. Project expenditure to date is A$2.1M with further A$1M budgeted through to March 2018.

Six targets drilled represent frontier exploration in a poorly investigated region very prospective for Cannington-style silver-lead-zinc and Eloise-style copper-gold mineralisation. Depth to basement, conductive cover and lack of previous drill history raise significant challenges. While the outcome of this campaign was mostly unrewarding, Minotaur remains positive about the regional potential for discovery and notes the unequivocal success of its geoscientific targeting techniques.

Lark Targets

Lark comprises two EM conductors; a western plate lying parallel to but adjacent a linear magnetic anomaly and an eastern conductor occurring along strike northwest of a discrete moderate-amplitude magnetic anomaly. Two diamond holes, OS17D07 and OS17D08 (*Table 1*), successfully tested both EM conductors. Each hole intersected metasediments and pegmatites with graphite-rich lithologies, adequately explaining the source of each anomaly at the modelled conductor position.

Winter Targets

The Winter targets, a discrete low to moderate-amplitude magnetic anomaly with two coincident and subjacent EM conductors, was tested with one diamond drill hole OS17D06 (*Table 1*). The drill intersected a sequence of metasediments with weakly disseminated and vein-hosted sphalerite (zinc sulphide) noted within graphitic lithologies. Field portable XRF (fpXRF) readings indicate the level of anomalism to be minor. The upper conductor is explained by graphite-rich lithologies, while the lower conductor source is thin concordant pyrrhotite veins. A more complete evaluation of the target will be appraised once core assays are available, however follow-up drilling is unlikely.

Robin Targets

Two EM conductors are identified at Robin; a western conductor lying adjacent a discrete moderate-amplitude magnetic anomaly and an eastern conductor occurring coincident with the magnetic anomaly. Two diamond holes, OS17D09 and OS17D10 tested the conductors (*Table 1*). Graphite-rich lithologies within a sequence of metasediments and pegmatites adequately explain the eastern conductor tested by drill hole OS17D09. The source of the western conductor in drill hole OS17D10 appears due to a clay-rich fault zone, approximately 5m wide, where fpXRF readings show weakly anomalous Zn and Pb. Final analysis will be completed once assays are available, however follow-up drilling is unlikely.

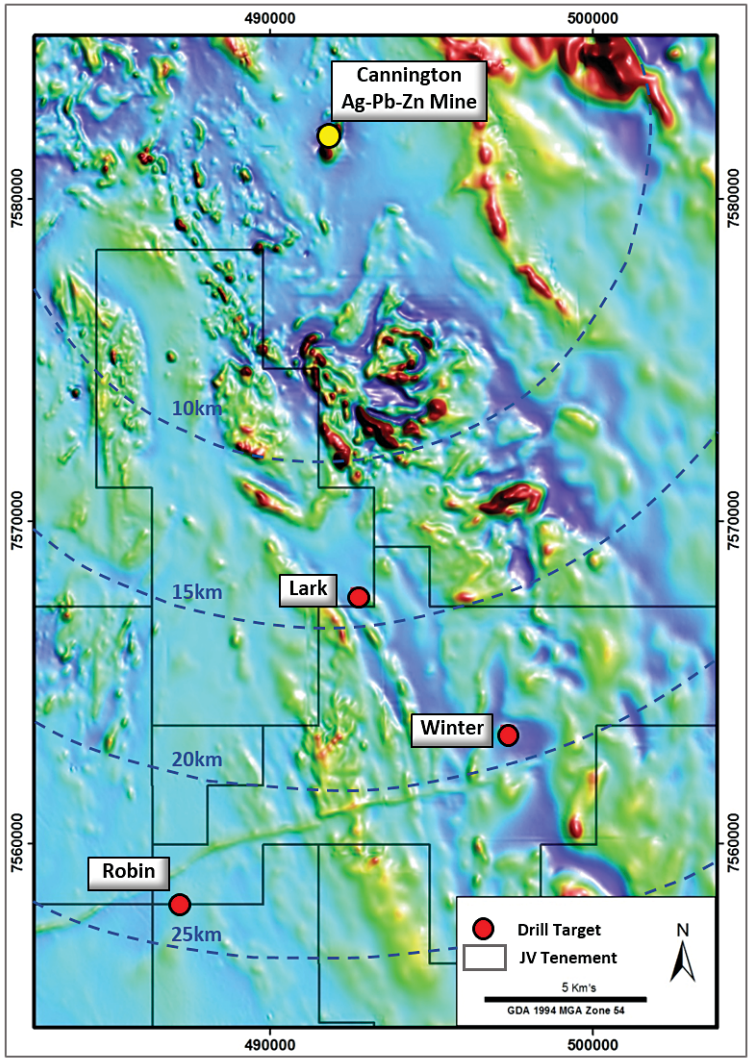

Figure 1: Minotaur's 'Osborne JV' tenements and the Winter, Lark and Robin EM targets over magnetics, referenced to the Cannington silver-lead-zinc mine (owned and operated by South32 Ltd).

Prospect	Drillhole	East	North	Dip	Azimuth	EOH Depth (m)	Drill Type
Winter	OS17D06	497452	7563425	-60.3	270.3	696.1	DD
Lark	OS17D07	492454	7567815	-60	45	449.7	DD
Lark	OS17D08	491870	7567442	-60.7	49	333.8	DD
Robin	OS17D09	487192	7558057	-60	288	389.3	DD
Robin	OS17D10	486640	7557740	-60	90	425.1	DD

Table 1: Drill collar details. Coordinates are GDA94, Zone 54. EOH denotes End of Hole depth, DD denotes diamond drilling technique.

Next Phase of Work

Further target generation across the tenements using ground geophysical techniques, given their positive performance in this challenging terrain, is being considered.

COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration Results is based on information compiled by Mr Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr Little has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that 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 (JORC Code). Mr Little consents to inclusion in this document of the information in the form and context in which it appears.

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JORC Code, 2012 Edition, Table 1

Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	No assays are reported in the body of the report however reference is made to anomalous Zn and Pb readings from a field portable XRF (fpXRF). These readings are only semi-quantitative and no reference is made to actual values other than they are anomalous meaning they are above background and for the purpose of this announcement they are likely to have no economic significance. The five completed drill holes were rotary mud drilled through the cover sequence then drilled with HQ core from the top of basement, reducing the diameter to NQ2 core once into solid fresh rock. The diamond coring drilling technique was employed to appraise the nature of basement lithologies for gold and base metal mineralization. The drill bit sizes employed to sample the zones of interest are considered appropriate to indicate the degree and extent of mineralisation. The drill core was routinely read with the fpXRF at 1m intervals and at closer spacing down to 0.1m intervals in areas of geological interest in hole OS17D10. Cutting of the drill core is in progress and areas of interest will most likely be sampled at 1m intervals within zones where prospective geology and/or visible sulphides are apparent. Shorter spaced intervals will be dependent on geological factors but are unlikely.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For the expected low tenor of mineralisation in all holes presented in the report reading with the fpXRF was done at 1m intervals and down to 0.1m intervals in short intervals in hole OS17D10 on whole core; this is considered representative of the mineralisation. The fpXRF has a set of standards that are regularly read to ensure the instrument is calibrated.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The entire length of all drill holes have been geologically logged in detail. fpXRF measurements were systematically recorded every 1m (or at 0.1m intervals in a 5m section of hole OS17D10), core orientation determined where possible and photographs taken of all drill core trays plus detailed photography of representative lithologies and mineralisation. This detailed information was used to determine zones of mineralisation for subsequent lab assay and appropriate sample lengths.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.	1 metre samples (or 0.1m samples in a 5m zone in OS17D10) were considered appropriate for field checks of logged mineralisation. All areas considered worthy of lab geochemical analysis will be sent to ALS Townsville laboratory for gold analysis and to ALS laboratory in Brisbane for base metals analysis.

Criteria	JORC Code explanation	Commentary
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).*	Drilling contractor DDH1 completed drill holes OS17D06 to OS17D10. Drill holes were rotary mud drilled (4 7/8 inch diameter polycrystalline diamond tipped bit) through the cover sequence to basement then cored with HQ to solid ground and then NQ2 cored to end of hole. A north-seeking gyro downhole survey system was used every ~30m by drilling contractors DDH1 to monitor drillhole trajectory during drilling. The NQ2 cored portions of the drillholes have been oriented for structural logging using the Reflex ACT III core orientation tool. The drilling program was supervised by experienced Minotaur geological personnel.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Drill core recovery was determined by measuring the length of core returned to surface against the distance drilled by the drilling contractor. Core recovery for most of the drilling was >99% but will be reported in more detail if lab analysis indicate significant mineralisation is present that is currently not expected.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Ground conditions were suitable for standard core drilling. Recoveries and ground conditions have been monitored during drilling. There was no requirement to conduct drilling with triple tube.
	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.	There is no apparent relationship between sample recovery and fpXRF readings.
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.*	Geological logging of the cover sequence and the cored basement has been conducted by Minotaur staff geologists. The level of detail of logging is sufficient for this early stage exploration program. The drill core has been oriented where possible and structural data has been recorded. Rock quality data (RQD) have been measured and recorded for all core drilled in OS17D06 to OS17D10. A comprehensive geotechnical assessment is not required to adequately evaluate the significance of the drilling results at this preliminary stage of exploration drilling. Magnetic susceptibilities have been recorded for every metre of the drill core and specific gravity measurements have been conducted at approximately 5m intervals.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative. Core photos have been taken for the entire cored section of each completed drillhole.
	The total length and percentage of the relevant intersections logged.	Drill holes OS17D06 to OS17D10 have been geologically logged for their entire length in sufficient detail to make informed assessment of the geology and subsequent assay results.
Sub-sampling techniques and sampling preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Drill core is currently being cut and sampled for lab analysis and thus isn't reported here, however it will be sawn half core.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All samples that will be submitted for lab analysis will be half core.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	When sampled, 1m half-core samples (or as close as reasonable) in the zone of geological interest are considered to be appropriate sample sizes for the style of mineralisation being targeted.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sampling preparation *continued*	*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	Detailed logging of the drillcore was conducted to sufficient detail to maximize the representivity of the samples when deciding on cutting intervals.
	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.	Measures will be taken when samples are sent for analysis but those results are not presented here.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes will be appropriate for samples that are sent for analysis but those results are not presented here.
Quality of assay data and laboratory teste	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	No assays are presented in this report.
	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.	No assays are reported in the body of the report however reference is made to anomalous Zn and Pb reading from field portable XRF (fpXRF). These readings are semi-quantitative only and no reference is made to actual values other than they are anomalous meaning they are above background and for the purpose of this announcement they are likely to have no economic significance. For clarity, the instrument used was a Niton XLt (592KWY), readings had a 30 second duration. Calibrations are regularly conducted.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Standards were used to check the instrument before and after each reading run.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No assays are reported and no significant intersections were found in the drilling and from logging that are material to the report. There was no requirement to have the data verified by other persons.
	The use of twinned holes.	No twinned holes have been completed as the exploration program is at an early stage.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All core logging and sampling data for OS17D06 to OS17D10 has been uploaded to Minotaur's geological database and validated using Minotaur's data entry procedures.
	Discuss any adjustment to assay data.	No adjustments to assay data were 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.*	Drill collar positions are located with a handheld GPS. The level of accuracy of the GPS is approximately +/- 3m and is considered adequate for this first-pass level of exploration drilling. Downhole surveys have been conducted at 30 metre intervals using a north-seeking gyro with drillhole orientation. Survey data spacing is considered adequate for this early stage of exploration.
	Specification of the grid system used.	Grid system used is GDA94, Zone 54.
	Quality and adequacy of topographic control.	The prospect areas are flat lying with a 1-2m of elevation change over the extended prospect area. Detailed elevation data is not required for this early stage of exploration in flat-lying topography.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	fpXRF measurements were read at 1 metre downhole sample intervals (or as close as reasonably possible to 1m) or at 0.1m intervals for part of OS17D10.
	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.	This document does not relate to a Mineral Resource estimation. The drillhole spacing and downhole data spacing are sufficient to enable an initial interpretation of the data and development of a preliminary geological model. OS17D06 to OS17D10 are early stage drill holes for the prospect areas, providing a guide for future drilling if that were to occur. The prospects are in too early a stage of exploration for more detailed analysis.
	Whether sample compositing has been applied.	No sample compositing has been applied.
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.*	All holes were drilled targeting modelled EM conductors and were drilled at angles designed to cut across those conductors at as high an angle as possible so as to represent as close as possible to true width. The geology of the area is complex with folding of the rock units event in each of the holes. All targets are under younger cover and therefore knowing the exact orientation of the geology prior to the drilling is difficult. Structural data collected from each hole shows that some geological units were in orientations that weren't optimal, however the source of the EM conductors in each hole was intersected close to the modelled depths indicating that for each hole the orientation is not likely to bias any sampling, particularly given the overall lack of mineralisation in each hole.
	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.	No orientation based sampling bias is apparent.
Sample security	*The measures taken to ensure sample security.*	Drill core is stored at Minotaur Exploration's premises in Cloncurry. Samples, when taken to the lab, will be driven by Minotaur personnel directly to the laboratory in Mt Isa for sample preparation. Pulps will be returned to Minotaur Exploration premises in Cloncurry as soon as practical.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews of geochemical sampling techniques and data have been undertaken at this time.

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 drilling data reported herein were collected from drill holes OS17D06 to OS17D10. Drill hole OS17D06 was drilled within EPM 25960, OS17D07 and OS17D08 were drilled within EPM 26230, and OS17D09 and OS17D10 were drilled within EPM 25886 which are 100% owned by Minotaur Exploration as part of a Farm-in agreement with JOGMEC. JOGMEC are yet to earn any equity in any of the EPM's. A registered native title claim exists over EPM 25886 (Yulluna People). Native title site clearances were conducted at each drill site prior to drilling. Conduct and Compensation Agreements are in place with the relevant landholders.
	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.	EPM's 25960, 26230, 25886 are secure and compliant with the Conditions of Grant. There are no known impediments to obtaining a licence to operate in the Prospect areas.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous exploration has been conducted by other parties in the project area. The principal data collected over the project areas where Minotaur has drilled includes airborne magnetic and gravity surveys, ground magnetic surveys, regional drilling into selected targets (there is no known drilling at any of the 3 prospects drilled by Minotaur as reported here). Minotaur acknowledges that the previous airborne surveys and the regional geology from the previous drilling aided our interpretation of the targeted basement rocks but was not used directly for our specific drilled targets.
Geology	*Deposit type, geological setting and style of mineralisation.*	Within the project area Minotaur targeted mineralisation styles including: • iron oxide Cu-Au (IOCG) and iron sulphide Cu-Au (ISCG) mineralisation associated with ~1590–1500Ma granitic intrusions and fluid movement along structural contacts e.g. Eloise Cu-Au; and • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • sediment-hosted Zn+Pb+Ag±Cu±Au deposits e.g. Cannington and Pegmont.
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.*	Collar easting and northing plus drill hole azimuth, dip and final depth for OS17D06 to OS17D10 are presented in *Table 1* of the body of this document.
	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.	No data deemed material to the understanding of the exploration results from drill holes OS17D06 to OS17D10 have been excluded from this document.

Criteria	JORC Code explanation	Commentary
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.*	No assay data is presented in the body of this report.
	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.	No assay data is presented in the body of this report.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No assay data is presented in the body of this report.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	No assay data is presented in the body of this report.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The geometry of the mineralisation with respect to the drill hole angle is uncertain at this early stage of exploration.
	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').	True widths of mineralisation are unknown. No assay data is presented in the body of this report. There is one reference in this report to width in hole OS17D10 which is downhole width.
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.*	The locations of Winter, Lark and Robin targets are shown in *Figure 1* in the body of this document. There are no other maps or sections provided as the results are not considered to have economic significance and no assay data has been reported.
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 practised to avoid misleading reporting of Exploration Results.*	The data presented in this report is for the purpose of notifying of Minotaur's completion of the Osborne JV drill program. There is no assay data presented as samples are still being prepared for analysis. Minotaur does not expect any of the holes will return significant mineralisation and the data presented indicates that only weak base metal (Zn+Pb) mineralisation is present. Minotaur does not purport the drill holes have intersected mineralisation of any significance and states that follow-up drilling is unlikely.
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.*	No meaningful and material exploration data have been omitted.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Minotaur awaits assays of selected intervals from each of drill holes OS17D06 to OS17D10, however unless there is unforeseen anomalism in that data it is unlikely there will be any follow-up work on any of the 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.	Refer to *Figure 1* of the main body of the report to show where drilling has been conducted. As there is unlikely to be any follow-up drilling no other diagrams have been included.