



MINOTAUR EXPLORATION LIMITED  
ACN 108 483 601  
ASX: MEP

MINOTAUR  
EXPLORATION

14 September 2020

# ASX Release



## Company Activities Report

Minotaur Exploration provides this update on present and pending project activities. A supplementary announcement concerning the current Share Purchase Plan (SPP) will follow and participating shareholders are encouraged to refer to that statement.

### Queensland

#### Eloise JV

Minotaur Exploration reports on drilling progress on behalf of the Eloise Joint Venture (OZ Minerals 70%; Minotaur 30% with all expenses being carried by OZ Minerals, OZL).

Two electromagnetic (EM) targets have been tested by diamond drilling. The 4km long Seer low conductance anomaly was tested by an initial hole (EL20D01). Minor copper sulphide mineralisation was observed over 16m from 250m down hole. The zone of mineralisation coincides with one of the modelled ground EM conductors however down hole EM data collected subsequently does not appear to support the design EM model. Drilling has been suspended pending receipt of geochemical assays and further modelling of the EM data.

The rig relocated to the Big Foot target, a 2km long strong EM conductor north of the Iris and Electra copper prospects. Three holes (EL20D02-EL20D04) tested 900m of strike of the conductor with each hole intersecting abundant pyrrhotite at the modelled EM plate positions. As only minor copper sulphide was observed drilling has been suspended pending receipt of assays.

Little Foot slightly south-west, is more conductive albeit with a lesser strike extent of 350m and probably similar lithologies so its drill worthiness has been down graded pending a technical review of core from Big Foot.

Seer and Big Foot (Figure 1, drill hole details in Table 1) failed to deliver the desired results, a disappointing outcome, especially in view of Big Foot's proximity to the Iris-Electra Cu-Au mineralised systems. Nonetheless, OZ Minerals has an ongoing obligation to fund the Eloise JV with a further \$2 million through 2020-2021 and the parties will convene to review alternative prospects.

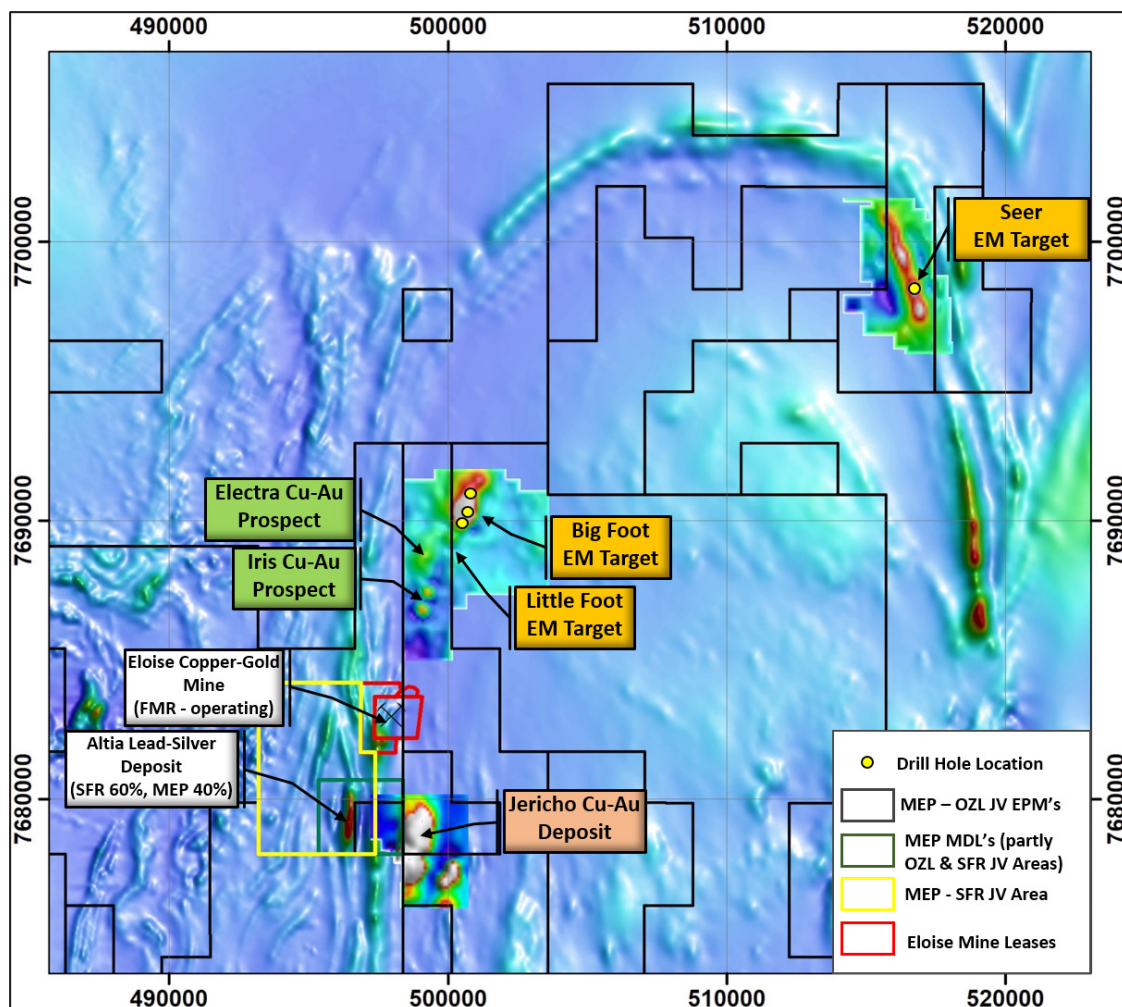


Figure 1: Big Foot and Seer drill hole locations with other EM anomalies and base metal occurrences over TMIRTP magnetics image

Separate to the Eloise JV work Minotaur manages a portfolio of complementary base metal and gold exploration prospects, as outlined below.

### Breana Plains JV

The inaugural work campaign across the Breana Plains joint venture tenements (SFR 100%; OZL-MEP earning up to 75%; funding by OZ Minerals) involves several ground EM surveys. The first will commence late September, after a long delay due to border restrictions under COVID protocols and is expected to take around 2 months to complete.

### Windsor Project (MEP 100%)

An 3D IP/resistivity geophysical survey to map subsurface sulphide with potential to host gold and/or base metal mineralisation at the Warrawee prospect, 50km south of Charters Towers, will commence late September once special equipment arrives from Canada. Data collection and modelling will take around four weeks.



## Pyramid Project (MEP may acquire 100%)

Pyramid is an advanced gold project located 180km south of Townsville in NE Qld. Minotaur's due diligence into its potential asset acquisition is underway. A site visit to conduct a ground assessment of geology and past exploration activity will occur late September. Subject to transaction completion Minotaur expects to activate field work by late October-early November.

## South Australia

### Peake & Denison Project (MEP 100%)

The Peake & Denison project, some 750km north of Adelaide, covers 2500km<sup>2</sup> of tenure over the Peake and Denison Inlier. The project offers potential for basement hosted Broken Hill type (BHT) zinc-lead-silver and IOCG style copper-gold mineralisation. A site visit confirmed accessibility following rains and a trial AMT geophysical survey is to proceed from late October. An interesting article authored by David Upton, in Mining Monthly, explains Minotaur's unconventional approach; read at <https://www.minotaurexploration.com.au/wp-content/uploads/2020/09/Project-generation-lesson.pdf>

### Great White Kaolin JV

Minotaur currently retains 49% tenement interest in the Great White Kaolin project (formerly the Poochera Kaolin JV where Andromeda Metals [ASX: ADN] is earning 75% and MEP is diluting to 25%). Andromeda (Manager) is working towards issue of a definitive feasibility study at the end of calendar 2020. Andromeda's PFS<sup>1</sup> released in June 2020 provided project metrics, predicting Minotaur's 25% share of annual EBITDA before tax to be \$20 million. Minotaur anticipates contributing its share of pre-development expenditure through 2021 and thereafter to provide its 25% share of pre-production Capex & Working Capital of \$7 million<sup>2</sup>. For project details go to <https://www.minotaurexploration.com.au/wp-content/uploads/2020/08/MEP-company-profile-20-Aug-2020.pdf>

Hole No.	Target	Easting (m)	Northing (m)	Dip	Azimuth (True)	Depth (m)
EL20D01	Seer	516805	7698300	-60	90	497.9
EL20D02	Bigfoot	500672	7690301	-65	120	566.4
EL20D03	Bigfoot	500520	7689975	-65	120	528.8
EL20D04	Bigfoot	500845	7690862	-65	130	624.8

Table 1: Drill hole details

<sup>1</sup> Andromeda Metals Ltd report to ASX date 1 June 2020, *Pre-feasibility Study further improves Poochera economics*

<sup>2</sup> ibid



## Authorisation

This report is authorised by Mr Andrew Woskett, Managing Director of Minotaur Exploration Ltd. For project information please contact Mr Glen Little, Manager Business Development and Exploration on 0428 001 277.

### 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 mineralisation 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.

## 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	<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
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Not applicable
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	No grade estimates are included in this report. All comments about mineralisation, noted as minor, imply that mineralisation is expected to be low grade and likely to be insignificant.
	<i>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.</i>	Not applicable
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>	<p>Drilling contractor DDH1 completed the drilling. Rotary Mud method was used to drill through the cover sequence into basement then changed to HQ coring or NQ2 coring to end of hole.</p> <p>A north-seeking gyro downhole survey system was used every ~30m by drilling contractors DDH1 to</p>

Criteria	JORC Code explanation	Commentary
		<p>monitor drillhole trajectory during drilling.</p> <p>The cored portions of the drillholes have been oriented for structural logging using the Reflex ACT III core orientation tool.</p> <p>The drilling program was supervised by experienced Minotaur geological personnel.</p>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable
	<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
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>	<p>Geological and structural logging of the cover sequence and the cored basement has been conducted by experienced geologists. The level of detail of logging is sufficient for this stage of exploration drilling. Magnetic susceptibility and gravity measurements were taken but are not material to this report.</p> <p>No Mineral Resource estimation, mining studies or metallurgical studies have been completed.</p>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<p>Geological logging is qualitative. Magnetic susceptibility, specific gravity and structural measurements are quantitative.</p> <p>Core tray photos have been taken for the entire cored section of each completed drillhole.</p>
	<i>The total length and percentage of the relevant intersections logged.</i>	All holes have been geologically logged for their entire drilled length.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet</i>	Not applicable

Criteria	JORC Code explanation	Commentary
	<i>or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Not applicable
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Not applicable
	<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
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Not applicable
<i>Quality of assay data and laboratory tests</i>	<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
	<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>	Not applicable
	<i>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.</i>	Not applicable
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable
	<i>The use of twinned holes.</i>	Not applicable

Criteria	JORC Code explanation	Commentary
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All geological logging data have been validated using Minotaur's data entry protocols and will be uploaded to Minotaur's geological database for data storage.
	<i>Discuss any adjustment to assay data.</i>	Not applicable
<i>Location of data points</i>	<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>	Collar details for EL20D01-EL20D04 reported in Table 1 include coordinates obtained from a handheld GPS which is sufficiently accurate for early-stage exploration drill holes.
	<i>Specification of the grid system used.</i>	Grid system used is GDA2020, Zone 54.
	<i>Quality and adequacy of topographic control.</i>	Not applicable
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Drill hole spacing is considered appropriate for assessing if the targeted EM conductors hosted mineralisation of any significance
	<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>	Not applicable
	<i>Whether sample compositing has been applied.</i>	Not applicable
<i>Orientation of data in relation to geological structure</i>	<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>	Holes were drilled at a high angle to the modelled EM conductors. Structural logging of core supports those models at Big Foot. The geology data at Seer does not explain the orientation of the modelled conductor and further work is being conducted on those models.
	<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>	Holes were drilled at a high angle to the modelled EM conductors. Structural logging of core supports those models at Big Foot. The geology data at Seer does not explain the orientation of the modelled conductor and further work is being conducted on those models.



Criteria	JORC Code explanation	Commentary
Sample security	<i>The measures taken to ensure sample security.</i>	Not applicable
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews 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	<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.</i>	<p>The drilling reported here relates to drillholes completed within EPM's 26703 and 27052 which are jointly owned by OZ Minerals (OZL) (70%) and Minotaur Exploration (MEP) (30%) under the Eloise Joint Venture Agreement effective 1 April 2019.</p> <p>A registered native title claim exists over EPM 27052 (Mitakoodi and Mayi People #5). Native title site clearances were conducted at each drill site prior to drilling.</p> <p>Conduct and Compensation Agreements are in place with the relevant landholders.</p>
	<i>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>	EPM's 26703 and 27052 are secure and compliant with the Conditions of Grant. There are no known impediments to obtaining a licence to operate in the Eloise JV area.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Prior to Minotaur commencing exploration in the Seer and Big Foot target areas the only available pre-existing exploration data were open file aeromagnetic data and ground gravity data. The open file aeromagnetic data were used to interpret basement geological units to aid Minotaur's regional targeting.</p> <p>The Seer and Big Foot targets were delineated solely by work completed by Minotaur as part of the Eloise Joint Venture with OZL.</p>
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>Within the eastern portion of Mt Isa Block targeted mineralisation styles include:</p> <ul style="list-style-type: none"> <li>iron oxide Cu-Au (IOCG) and iron sulphide</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Cu-Au (ISCG) mineralisation associated with ~1590–1500Ma granitic intrusions and fluid movement along structural contacts e.g. Eloise and Jericho; and</p> <ul style="list-style-type: none"> <li>• sediment-hosted Zn+Pb+Ag±Cu±Au deposits e.g. Cannington.</li> </ul>
<i>Drill hole Information</i>	<p><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></p> <ul style="list-style-type: none"> <li>▪ <i>easting and northing of the drill hole collar</i></li> <li>▪ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>▪ <i>dip and azimuth of the hole</i></li> <li>▪ <i>down hole length and interception depth</i></li> <li>▪ <i>hole length.</i></li> </ul>	<p>Details are provided in Table 1 in the report.</p>
	<p><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></p>	<p>No data deemed material to the understanding of the exploration results from either Seer or Big Foot have been excluded from this document.</p>
<i>Data aggregation methods</i>	<p><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></p>	<p>Not Applicable</p>
	<p><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></p>	<p>Not Applicable</p>

Criteria	JORC Code explanation	Commentary
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not Applicable
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not Applicable
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Holes were drilled at a high angle to the modelled EM conductors. Structural logging of core supports those models at Big Foot. The geology data at Seer does not explain the orientation of the modelled conductor and further work is being conducting on those models.
	<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
<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>	The location of the drill holes and EM targets at Seer and Big Foot are presented in Figure 1.
<i>Balanced reporting</i>	<i>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.</i>	Information reported is brief due to the lack of data currently available (no assays are reported), visible copper sulphide mineralisation appears only very weakly developed and assay results are not expected to be material, that is, drilling results as reported here imply limited prospectivity at both Seer and Big Foot.
<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</i>	No meaningful and material exploration data have been omitted.



Criteria	JORC Code explanation	Commentary
	<i>contaminating substances.</i>	
<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>	Samples are not yet submitted and thus assay data is not available but is not expected to provide values of any significance. Interpretation of those results will be conducted once data is received which will guide if further work is warranted.
	<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>	Refer to Figure 1 for location of drilling.