## **CORPORATE**

Minotaur's corporate strategy advances. The Company's plan for growth is based on four principal drivers: expand our footprint over base metal (primarily copper) prospective terranes; move discovery into mine development; strengthen our joint venture arrangements thereby attracting higher levels of investment into projects, and; divest non-core assets, unlocking value.

Good progress was achieved across several of these fronts during the reporting period:

- Andromeda Metals Ltd (ASX: ADN) and Minotaur entered into a joint venture allowing Andromeda to invest up to A\$6 million over 5 years to earn 75% interest in Minotaur's Poochera kaolin deposits in South Australia. Andromeda is obliged to spend A\$400,000 by 26 January 2019. Andromeda is manager of the JV, releasing Minotaur from day-day involvement. Andromeda's new managing director has decades of international experience in kaolin marketing and product development and, upon joining Andromeda, quickly engaged with prospective off-take customers in China to test market appetite.
- Minotaur completed due diligence on Andromeda Metals 'Rover' copper project near Tennant Creek in the Northern Territory. Minotaur declined to proceed with the proposed joint venture.
- Minotaur terminated the sale agreement for its package of nickel prospective tenements, in Western Australia near Leinster, due to the purchaser being unable to fulfil a condition precedent to sale completion. The tenements remain available for outright sale or joint venture.
- An indicative and non-binding proposal submitted to Minotaur for the Saints nickel deposit is under development.
   The promoting party has acquired exclusivity from Minotaur until mid August in which time it will endeavour to secure agreement with a suitable listed shell into which Minotaur may, subject to terms, vend the Saints tenements.
- Purchase of the 'Highlands' group of tenements east of Mt Isa was completed on 20 July 2018 for consideration of \$125,000 cash plus \$275,000 of Minotaur shares. Minotaur has the view that the area is highly prospective for copper. Field activity will proceed early in August.
- Applications were lodged for ~2500km² over 4 exploration tenements in South Australia; 'Peake and Denison'.
   Refer Exploration Report for rationale.

At end June 2018 cash held was A\$2.0 million, inclusive of \$0.8 million in joint venture payments received in advance. Planned expenditure in the new Quarter is approximately \$1 million.

# **EXPLORATION, R&D**

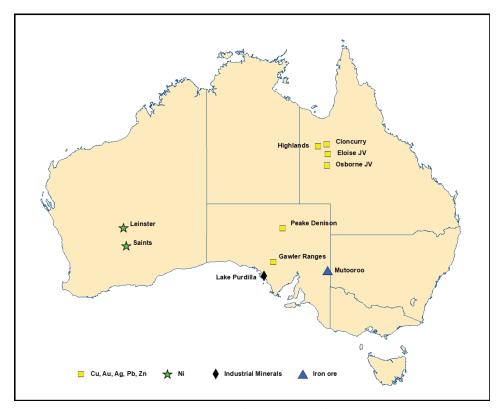


Figure 1: Minotaur Exploration's project locations

Project Location	Tenement Area km²
South Australia <sup>§</sup>	7,577
Queensland <sup>§</sup>	3,187
Victoria	120
Western Australia	196
Total Area	11,902

Table 1: Minotaur Exploration's tenement areas, under application and/or held 100% and/or in joint venture  $\S$ 

# Queensland

Minotaur has a significant tenement holding across the Cloncurry mineral belt of Northwest Queensland, prospective for iron oxide copper-gold (IOCG), iron sulphide copper-gold (ISCG) and Cannington-style lead-silver-zinc mineral systems (Figure 2).

Activity during the Quarter included drilling at Eloise and ground geophysical surveys at Osborne joint ventures plus acquisition of a new project called Highlands.

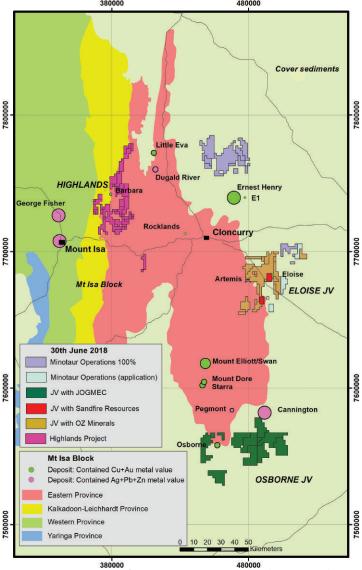


Figure 2: Location of Minotaur tenements in the Cloncurry and Mount Isa regions of Northwest Queensland



## Eloise Farm-In (OZ Minerals)

Minotaur 49%, OZ Minerals 51% (except on those parts of MDL431 and EPM17838 where Sandfire Resources NL can earn 80%); Area 644km<sup>2</sup>

The Eloise project, 55km south-east of Cloncurry, is a joint venture ('Eloise JV') between Minotaur and OZ Minerals Ltd (ASX: OZL). OZ Minerals has 51% beneficial interest in the tenements. Work currently underway forms part of the Stage 2 earn-in where OZ Minerals may earn additional 19% equity by spending an additional A\$5M over the next three years. Minotaur continue to manage and operate the joint venture.

The Eloise JV is seeking Eloise-style copper-gold and Cannington-style silver-lead-zinc mineralisation, with both styles evident in the well-endowed mineral camp around the Eloise, Altia and Maronan deposits and the Jericho prospect recently discovered by Minotaur (Figure 3).

Infill ground Electromagnetic (EM) was completed. Data was used to help refine the location of drill holes for the next phase of drilling.

Sixteen drill holes for 5515.3m were completed during the Quarter testing Jericho, Arlington, Defiance, Yukon and St Louis EM targets (Figure 3). Twelve holes tested Jericho with one hole completed at each of the other four targets. Three holes for an additional 1084.6m have been completed at Jericho since Quarter end.

#### **Jericho**

The Jericho system comprises 3 extensive EM conductors named J1, J2 (North and South) and J3¹ (Figure 4). Following the inaugural drill program at Jericho in 2107, J1 and J2 North continue to deliver strong results. Eleven holes on J1 conductor all intersect copper sulphide mineralisation along 3.3km strike; two of those holes pushed through to test J2 North with mineralisation there extended to at least 900m². Assays for the first 6 holes (EL18D01-EL18D06), all testing J1, are summarised below. Assays for holes EL18D15-EL18D19 (J1 and J2 North) are not yet available however, based on visual inspection of core, results are expected to be similar to those presented below. Two holes from the current drill program, testing the northern portion of J1, are yet to be drilled. The tenor of copper values and mineralising characteristics from the J1 and J2 North plates continues to provide encouragement that the Jericho system has potential to host copper mineralisation of a scale similar to lodes within the nearby Eloise mine.

Summary assays for holes EL18D01-EL18D06 are as follows:

- Hole EL18D01;
  - 24m @ 0.26% Cu and 0.03g/t Au from 206m

MEP report to ASX 23 October 2017, Strong copper mineralisation intersected at 'Jericho' for Eloise JV, Cloncurry

<sup>2</sup> MEP report to ASX 20 July 2018, Drilling campaign expanded along Jericho copper system

- Hole EL18D02;
  - 44m @ 1.05% Cu and 0.22g/t Au from 159m including;
    - 17m @ 2.3% Cu and 0.5g/t Au from 165m
- Hole EL18D03;
  - 13m @ 1.04% Cu and 0.28g/t Au from 157m,
  - 6m @ 1.02% Cu and 0.28g/t Au from 278m,
  - 13m @ 0.68% Cu and 0.29g/t Au from 433m
- Hole EL18D04;
  - 50.5m @ 0.51% Cu and 0.14g/t Au from 344.5m including;
    - 9m @ 1.43% Cu and 0.5g/t Au from 368m
- Hole EL18D05:
  - 17m @ 1.29% Cu and 0.22g/t Au from 135m including;
    - **3m @ 4.46% Cu** and **0.69g/t Au** from 147m
- Hole EL18D06;
  - 11m @ 0.85% Cu and 0.13g/t Au from 97m

Four holes tested J3 conductor (EL18D11-EL18D14) with one of those holes (EL18D13) also passing through J2 South (Figure 4). Sulphides were intersected at each conductor position - adequately resolving the anomaly. In each case the principal sulphide was pyrrhotite with only small amounts of chalcopyrite (copper sulphide) present. Sulphide bearing intervals have been sampled for geochemical analyses and assays will inform further attention, however the holes are not expected to contain significant copper mineralisation.

### Arlington, Defiance, Yukon and St Louis

Drilling of one hole at each target revealed all four conductive responses are due to sulphide mineralisation which, for Arlington, Yukon and St Louis, is mostly pyrrhotite with only trace chalcopyrite (copper sulphide).

Defiance shows more encouragement where weak but persistent chalcopyrite mineralisation occurs intermittently over more than 200m down hole (192-438m). Whilst copper grades are expected to be relatively low based on visual estimates (assays are pending), the host rock sequence is strongly altered - indicative of widespread hydrothermal activity. The conductor is around 1km long and, having been tested by only a single hole to date, continues to present as an intriguing target deserving further investigation.

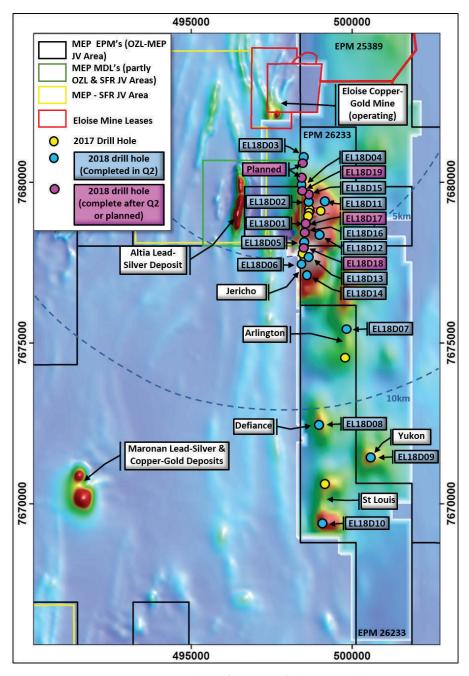


Figure 3: EM conductors, updated with data from new infill lines, and drill hole locations completed during and after the Quarter; Eloise joint venture

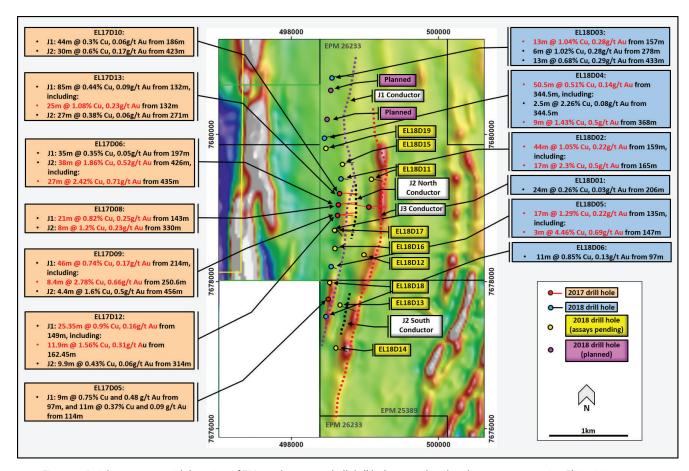


Figure 4: Jericho prospect with location of EM conductors and all drill holes completed to date over magnetics; Eloise joint venture



## Altia Joint Venture

Sandfire 60%, Minotaur 40%

No activity reported for the Quarter by Sandfire Resources (Operator).

## **JOGMEC Osborne Joint Venture**

Minotaur 100%; Area 1,171km<sup>2</sup>

The Osborne project 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\$3M with further A\$0.5M budgeted through to the end of 2018. The ground EM survey southwest of the Cannington mine (Figure 5), for which Minotaur was awarded exploration funding for up to \$112,750 of the survey costs as part of the Queensland Government's Collaborative Exploration Initiative, started late in the Quarter.

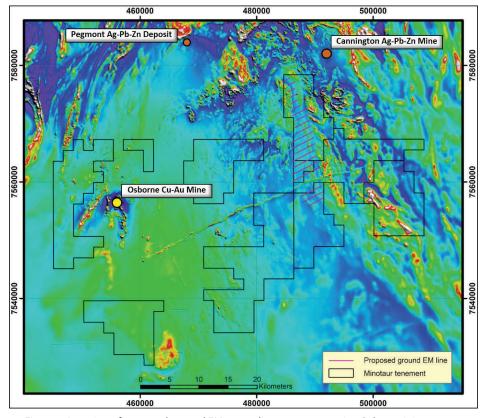


Figure 5: Location of proposed ground EM survey lines over magnetics; Osborne joint venture



# **Highlands Project**

Minotaur 100%; Area 753km<sup>2</sup>

Minotaur entered into a Tenement Sale Agreement with Syndicated Metals Limited (ASX: SMD, 'Syndicated') to acquire 100% of nine (9) Exploration Permit(s) for Minerals collectively to be known as the Highlands Project. The tenements, covering 753km², are located 50km northeast of Mount Isa and 80km northwest of Cloncurry in northwest Queensland (Figure 2).

Payment to Syndicated comprised A\$125,000 cash, plus Minotaur shares to the value of \$250,000. Minotaur completed the purchase on 23 July 2018.

The Highlands Project lies adjacent a major geological boundary between the Kalkadoon-Leichhardt Domain to the west and the Eastern Domain to the east, separated by the regional-scale Mt Remarkable Fault (Figure 6). Copper mineralisation is known to occur in the area, most notably at the Barbara copper-gold deposit owned by Round Oak Minerals Pty Ltd (formerly CopperChem Ltd). Barbara, located adjacent to the tenement group (Figure 2), contains a JORC 2012 Indicated and Inferred Resource of 4.75Mt grading 1.6% Cu, 0.15g/t Au, 2.76g/t Ag and 309g/t Co . Copper-gold mineralisation at Barbara is associated with pyrrhotite, an iron sulphide, as at FMR's Eloise copper-gold mine and Minotaur's unfolding Jericho prospect (55-60km southeast from Cloncurry). Pyrrhotite is conductive and generates an electromagnetic (EM) response rendering it amenable to electrical geophysical search methods widely employed by Minotaur.

Minotaur's initial approach to exploration at Highlands will focus on ISCG style mineralisation associated with EM conductors, some of which are hosted in the same geological units as the Barbara deposit. Minotaur's field reconnaissance during the Quarter assessed VTEM targets reported previously by Syndicated, some of which are presented in Figure 6, selecting 3 targets exhibiting mineralised geology at surface - Coolibah, YM8 and Gospel – and prioritising these for follow-up . EM surveys will proceed early August, aimed at providing better resolution of the VTEM conductors to aid drill planning, with a 1,200m drilling program of scout RC holes expected to commence in September.

## Regional Cloncurry Project

Minotaur 100%, except in relation to EPM 8608 which has a net smelter royalty of 2% payable to South 32; Area 477km<sup>2</sup>

Minotaur seeks to introduce a new JV partner into the tenement package.

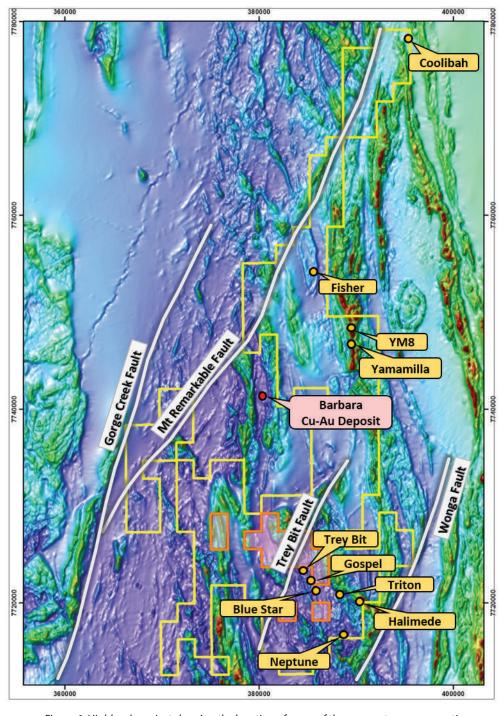


Figure 6: Highlands project showing the location of some of the prospects over magnetics



# **South Australia**

# **Gawler Ranges Project**

Minotaur 100%; Area 311km<sup>2</sup>

No activity during the reporting period.

## Border Base Metals JV

Sumitomo 52.7%, Minotaur 47.3%; Area 243km<sup>2</sup>

No activity during the reporting period.

## **Industrial Minerals Project**

Minotaur 100%; Area 5,068km<sup>2</sup>; Andromeda Metals in joint venture to earn up to 75%

Andromeda Metals (ASX: ADN, 'Andromeda') completed its due diligence on the deposit's potential to meet market requirement for HPA product and elected in late June to enter the earn-in phases of the joint venture, under which it must expend a minimum A\$400,000 by late January 2019.

Andromeda may acquire up to 75% beneficial interest in the kaolin-halloysite tenements EL5308, EL5814, EL6096 and EL6128, for total expenditure of A\$6 million over 5 years.

Andromeda's newly appointed managing director Mr James Marsh, an industrial chemist and world kaolin industry expert, quickly capitalised on links established by Minotaur with Asian kaolin consumers, leading to expansion of potential off-take interest. Minotaur continued to assist Andromeda during the option period and beyond with ongoing testwork for HPA potential, further halloysite definition analysis, statutory reporting and resource upgrade data.

Minotaur continues its research and development investigations, through the University of Newcastle, into innovative industrial applications for halloysite nanoparticles, a rare, porous nanoclay form of kaolin present in Minotaur's kaolin resource.



### **SOUTH AUSTRALIA**

## Peake and Denison

Minotaur 100%; Area 2547km<sup>2</sup>

A new project comprising 4 tenements currently under application. The project, covering around 2,500km<sup>2</sup>, is located near Lake Eyre in South Australia, approximately 800km northwest of Adelaide. Basement geological units are concealed by younger sediments, historically inhibiting exploration. However, some holes drilled into basement contain alteration assemblages very similar to those present in the Cloncurry district where Iron Oxide Copper Gold (IOCG) mineralisation is well documented. Minotaur reasons the Peake and Denison project area has potential for IOCG style mineralisation and has commissioned petrology on samples from available drill core and specialised magnetic processing to assist with interpretation.

# North Flinders Project

Minotaur 10%, Perilya 90%; Area 601km<sup>2</sup>

Perilya (Operator) report field activities comprising reconnaissance mapping, soil and rock chip sampling only.



## **Western Australia**

# Saints Nickel Project

Minotaur 100%; Area 20km<sup>2</sup>

Saints is a modest nickel-cobalt resource located 65km north of Kalgoorlie, Western Australia. With the improving nickel price and the high value of cobalt, Minotaur resumed a ground EM survey in late March, extending the 2014 EM survey, to locate additional targets for possible drill testing (Figure 7). That survey is complete with new data revealing new drill targets close to the St Patricks lode. Two areas south of St Andrews lode were also to be surveyed, however wet conditions prevented site access.

Strong EM conductors are evident at St Patricks, including a new zone named St Julian, suggesting nickel sulphide mineralisation could extend well beyond current models (Figure 7).

#### St Patricks

New EM data around St Patricks refined the two known conductive plates representing sulphide mineralisation. Of particular note is the revised scale of the modelled conductors relative to the drilled resource. An undrilled area immediately south of the St Patricks resource presents a significant drill-ready target with potential to extend the current resource. A gap in the drilling on the northern side of the resource is also evident.

The data also revealed a new 600m long conductor along strike, immediately north of St Patricks (Figure 7); an area sparsely drilled and only to shallow depths. The position of this conductive zone correlates well with the interpreted basal contact of the ultramafic unit hosting mineralisation at St Patricks. If nickel mineralised it could add significant tonnes to the current resource estimate.

#### St Julian

A previously unknown zone of high conductivity, St Julian, is also identified in the new EM data. The zone, at least 800m long, lies parallel to and 150m west of the St Patricks conductor (Figure 7). Minimal historic drilling over the conductive zone comprises 7 aircore/RAB holes to an average depth of 14m, with one hole returning 0.14% Ni. The conductor has not been closed off as full access was denied at the time of the survey due to minor flooding.

### **WESTERN AUSTRALIA**

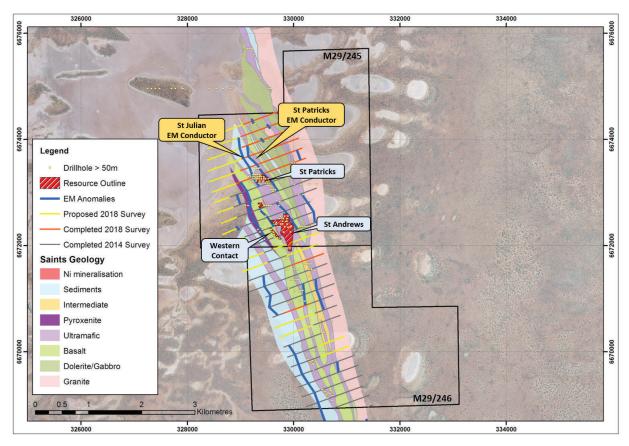


Figure 7: EM survey area, previously defined EM conductors, drill holes and Saints Ni-Co mineral resource.

Note: the resource dips moderately west therefore the eastern edges are the top of mineralisation which matches well with EM conductors. New EM conductors at St Patricks and St Julian labelled with orange boxes.

# **Leinster Nickel Prospects**

Minotaur 100%; Area 176km<sup>2</sup>

No exploration activity during the Quarter.



# **Northern Territory**

# Rover Copper-Gold Project, Tennant Creek

Andromeda Metals 100%, EL27292, 27372; Minotaur relinquished its Option to farm-in

Minotaur carried out geophysical trials over known Rover copper-gold lodes to assess their ability to respond to geophysical techniques alternative to traditional methods. The mineralisation did not generate satisfactory profiles, as sought. Minotaur elected to discontinue its association with the project.

### **COMPETENT PERSON'S STATEMENT**

Information in this report that relates to Exploration Results is based on information compiled by Mr G. Little, a Competent Person and a Member of Australian Institute of Geoscientists (AIG). Mr Little is a full time employee of the Company and 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.

This report contains information extracted from previous ASX releases which are referenced in the report and which are available on the company's website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



## **Note: June 2018 Quarter ASX Announcements**

The following significant announcements were lodged with ASX during and since the March Quarter:

- Drilling resumes at Eloise JV, Cloncurry, 11 April 2018
- Minotaur farms-in to Rover Cu-Au project, Tenant Creek, 16 April 2018
- Minotaur sells Leinster tenements, WA, 16 April 2018
- MEP Investor Presentation, 16 April 2018
- Strategic farm-out to advance kaolin-halloysite assets, 26 April 2018
- Change of Registered Office, 8 May 2018
- Drilling progresses at Eloise JV, 11 May 2018
- EM extends conductors at Saints nickel-cobalt project, Kalgoorlie, 22 May 2018
- Minotaur acquires Cu prospects near Mt Isa, 23 May 2018
- Expansive copper-gold system proven at Jericho for Eloise JV, 13 June 2018
- Termination of Sale of Leinster tenements, WA, 16 July 2018
- Drilling campaign expanded along Jericho copper system at Eloise JV, 19 July 2018
- Field work initiated at Highlands Cu project, Mt Isa, 23 July 2018

#### **Andrew Woskett**

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