



MINOTAUR EXPLORATION LIMITED ACN 108 483 601 ASX:MEP

MINOTAUR
EXPLORATION

Quarterly Report

Period ended 31 December 2017

Corporate

Minotaur actively utilised the December Quarter with significant work done on its Cloncurry (northwest Queensland) tenements and around the Prominent Hill mine in South Australia. 2017 exploration expenditure of A\$6.7 million raised Minotaur's project expenditure pattern (compared to the previous year's A\$5.6 million), where 75% of overall exploration expense was contributed by joint venture parties. Self-funded activity resulted in 2017 cash depletion of A\$2.58 million, partly reflecting Minotaur's co-investment in frontier exploration around OZ Minerals' Prominent Hill mine in South Australia. Company overheads (A\$0.9 million) represented 13.5% of exploration activity, once again positioning Minotaur in the lowest quartile of corporate expense incurred by junior explorers.

At end December 2017 cash held was A\$3.34 million, placing the Company in a sound position for a similar pace of activity through 2018.

Exploration, R&D

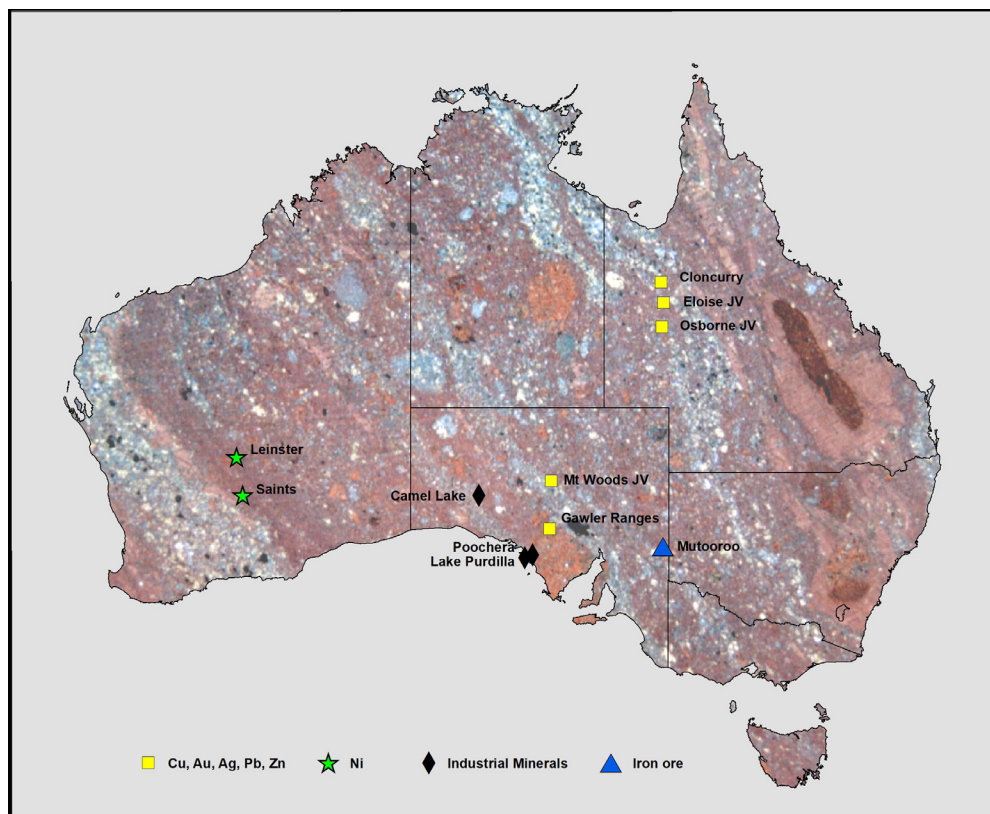


Figure 1: Minotaur Exploration's project locations



QUARTERLY REPORT 31 DECEMBER 2017

Queensland

Minotaur's exploration focus along the Cloncurry mineral belt is iron oxide copper-gold (IOCG), iron sulphide copper-gold (ISCG) and Cannington-style lead-silver-zinc mineral systems (Figure 2), under conductive Mesozoic sediment cover.

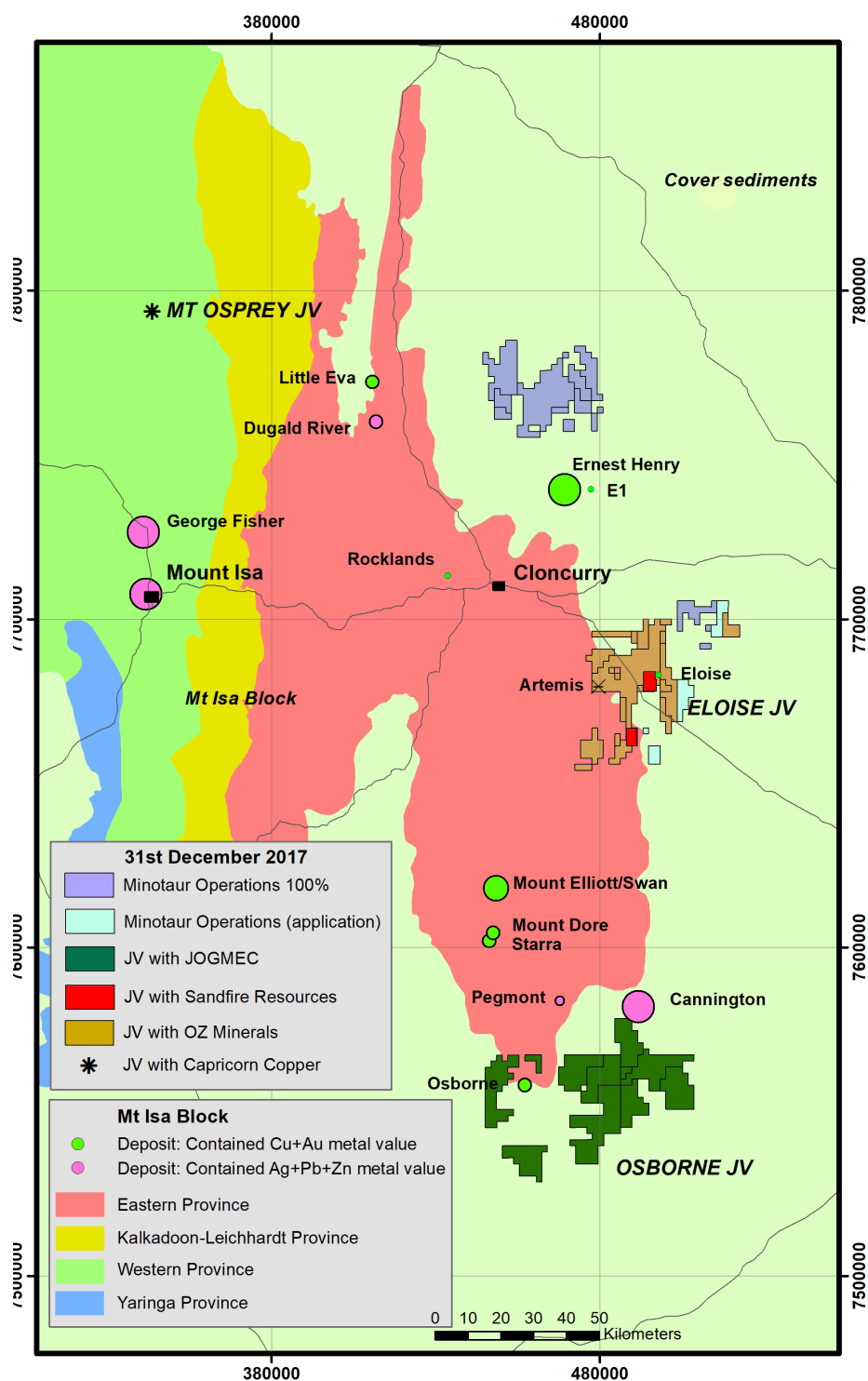


Figure 2: Location of Minotaur tenements in the Cloncurry region of northwest Queensland



QUARTERLY REPORT 31 DECEMBER 2017

QUEENSLAND

Eloise Farm-In (Oz Minerals)

Minotaur 100% (except on those parts of MDL431 and EPM17838 where Sandfire Resources NL can earn 80%), Area 644km²

OZ Minerals contributed further A\$1.3 million to joint venture activity from October through to December, bringing its cumulative expenditure to A\$4.9 million. OZ Minerals will become entitled to 51% beneficial interest in the joint venture tenements once its expenditure surpasses A\$5 million.

Three EM conductors at 'Jericho', 'Arlington' and 'St Louis', along the Levuka Shear Zone south of the Eloise copper-gold mine (*Figure 3*), were chosen for an initial 4-hole drill investigation. Two holes were planned at Jericho and one each at Arlington and St Louis.

JERICO

Drilling commenced at Jericho, targeting two points along a combined 8km long conductive zone (*Figure 4*). Both holes intersected chalcopyrite (copper sulphide) with pyrrhotite; the second hole in particular, EL17D06, intersected strong visible copper mineralisation over 27m (refer ASX report dated 3 November 2017 for details). OZ Minerals immediately endorsed 6 additional holes and these were placed in the central section of Jericho, in the vicinity of EL17D06. In total, 8 holes were completed, with strong copper-gold mineralisation intersected in 7 holes. A summary of significant intercepts from those holes is presented in Table 1.

Mineralisation at Jericho appears very similar in style to the nearby Eloise deposit where copper-gold commonly occurs in association with mafic alteration within zones of strong quartz veining. Copper-gold intersections, to date, at Jericho reflect early drill holes leading up to discovery of Eloise by BHP. These factors, combined with the scale of the Jericho conductive trend, provides guidance that Jericho exhibits potential to host a similar scale deposit.

ARLINGTON & ST LOUIS

Pyrrhotite with minor chalcopyrite was intersected in each hole at Arlington and St Louis where mineralisation is similar in style to Jericho, but of lower tenor. Both targets are around 2km long; better developed copper mineralisation may occur along strike. A review of the geology from these holes is underway.



QUARTERLY REPORT 31 DECEMBER 2017

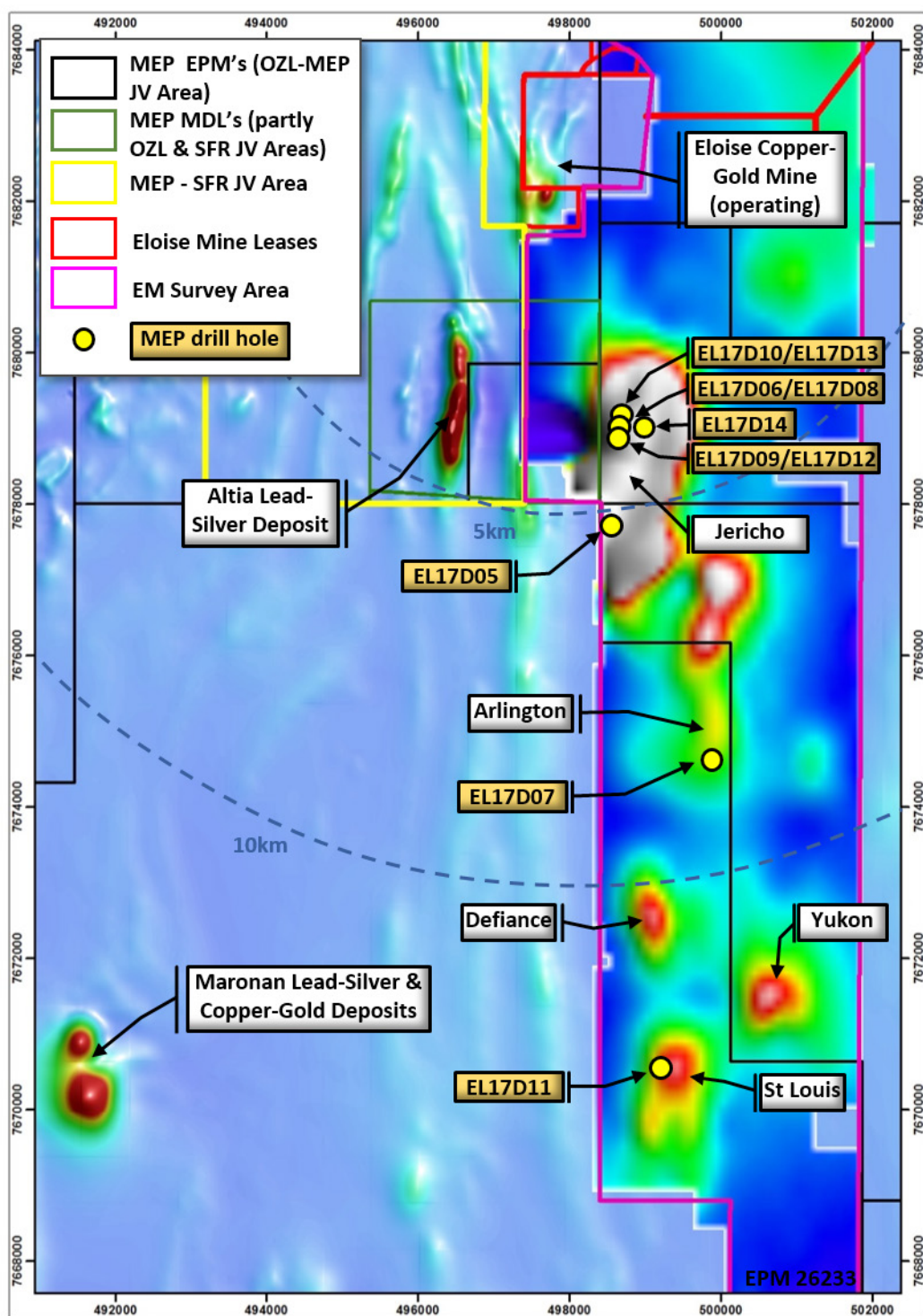


Figure 3: Priority EM drill targets to south of Eloise mine; EM image is channel 30 X-component, over RTP1VD magnetics. Locations of the Sandfire JV 'Altia' Pb-Ag deposit, the Maronan Pb-Ag and Cu-Au deposits and the Eloise Mine are shown for reference



QUARTERLY REPORT 31 DECEMBER 2017

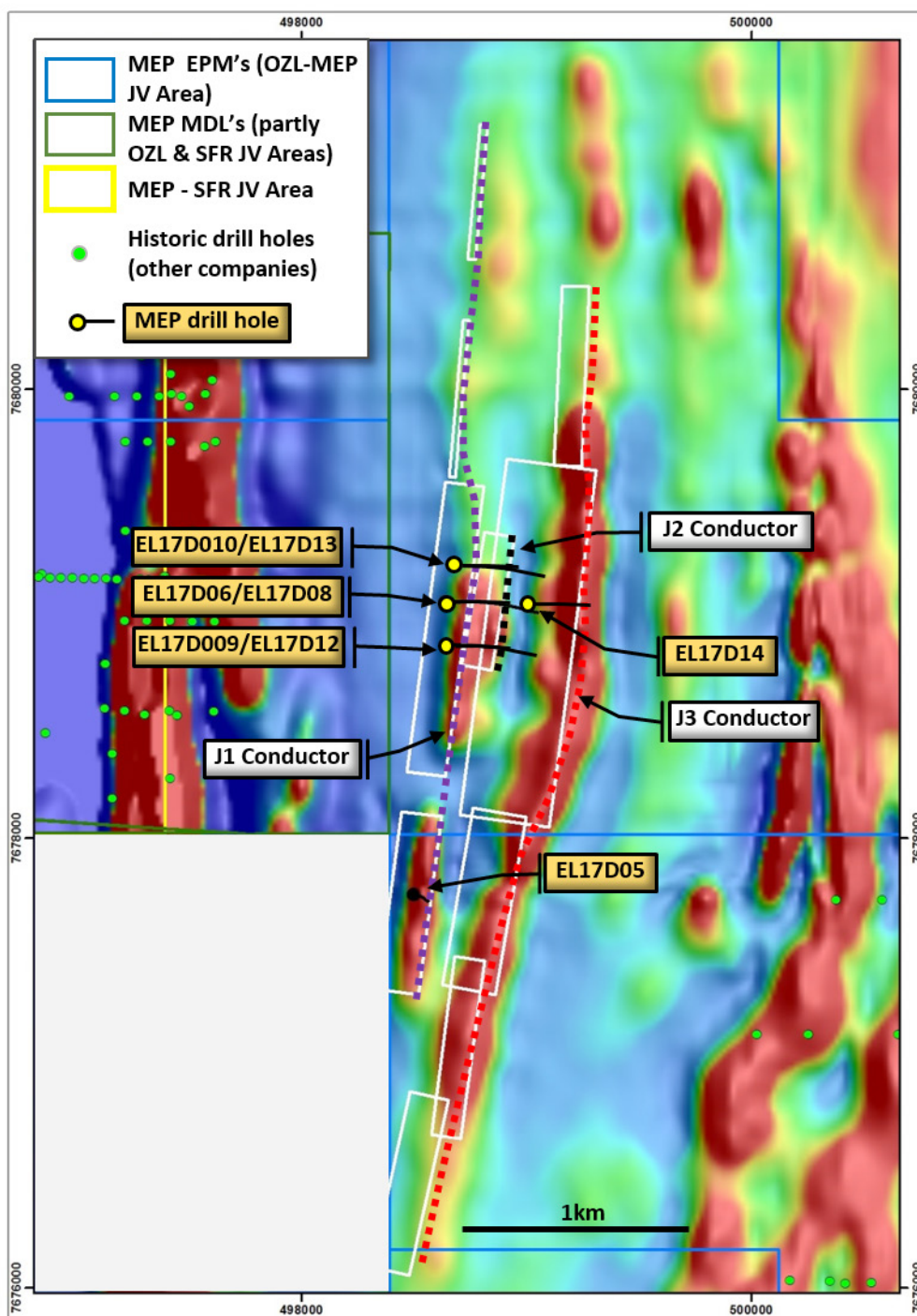


Figure 4: Jericho prospect with completed drill holes and EM conductors (white boxes and dashed lines) over 1VD magnetics



QUARTERLY REPORT 31 DECEMBER 2017

Table 1: Summary drill results for all significant copper-gold intercepts at Jericho to date. Note: depths listed are downhole depths and drill hole intercepts are not cut at a specific copper or gold grade. Drill intercepts >1% Cu are highlighted in bold red text.

Drillhole	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Target
EL17D05	97	106	9	0.75	0.48	J1
and	114	125	11	0.37	0.09	J1
EL17D06	197	232	35	0.35	0.05	J1
including	223	228	5	0.78	0.08	J1
EL17D06	435	462	27	2.42	0.71	J2
including	440	446	6	4.23	0.42	J2
and	453	462	9	3.83	1.73	J2
EL17D06	820	821	1	3.64	0.24	J3
EL17D08	143	164	21	0.82	0.25	J1
including	153	154	1	2.75	0.31	J1
and	157	160.5	3.5	2.27	1.21	J1
EL17D08	328	336	8	1.2	0.23	J2
including	330	332	2	3.58	0.85	J2
EL17D09	214	260	46	0.74	0.17	J1
including	223	224.95	1.95	2.01	0.43	J1
and	250.6	259	8.4	2.78	0.66	J1
EL17D09	456	460.4	4.4	1.6	0.5	J2
including	458	460.4	2.4	2.54	0.84	J2
EL17D10	186	230	44	0.3	0.06	J1
including	201.6	201.6	1	1.27	0.28	J1
and	218.3	219	0.7	4.1	0.28	J1
EL17D10	423	453	30	0.6	0.17	J2
including	435	437.9	2.9	3.08	1.5	J2
and	450	453	3	1.13	0.05	J2
EL17D12	149	174.35	25.35	0.9	0.16	J1
including	151.7	152.3	0.6	1.67	0.03	J1
and	162.45	174.35	11.9	1.56	0.31	J1
EL17D12	314	323.9	9.9	0.43	0.06	J2
including	323	323.9	0.9	1.7	0.24	J2
EL17D13	132	157	25	1.08	0.23	J1
including	140	147	7	3.17	0.67	J1
EL17D13	169	217	48	0.16	0.03	J1
including	177	178	1	1.64	0.42	J1
EL17D13	271	298	27	0.38	0.06	J2
including	281.4	282.3	0.9	2.61	1.13	J2
and	289	290	1	1.71	0.07	J2



QUARTERLY REPORT 31 DECEMBER 2017

QUEENSLAND

Altia Joint Venture

Sandfire 60%, Minotaur 40%

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

JOGMEC Osborne Joint Venture

Minotaur 100%, Area 1,254km²

The Osborne project is a joint venture between Minotaur and Japan Oil, Gas and Metals National Corporation (JOGMEC). JOGMEC may earn up to 51% interest in the project by spending up to A\$3.5 million. Project expenditure to date is A\$2.84 million.

JOGMEC committed to EM surveys at 'Kite', 'Curlew' and 'Cockatoo' (Figure 4) with that work completed late November; no anomalies were defined. Nonetheless, Minotaur plans to continue using ground EM survey techniques to search for basement conductors, particularly given its success for the Eloise JV.

This approach was validated by the Queensland Government, which recently awarded Minotaur exploration funding via the Collaborative Exploration Initiative (CEI) for a ground EM geophysical survey. Minotaur will receive up to \$112,750 towards the survey (50% of the estimated survey cost). The survey proposes to cover a 22km long section of an interpreted fault zone, the 'Nithsdale Corridor' (Figure 5), targeting conductive sulphide zones that may be associated with Cannington-style silver-lead-zinc mineralisation or Iron Sulphide Copper Gold (ISCG) style mineralisation similar to that developed at the Eloise copper-gold deposit further north. The survey will be conducted early in 2018, after the northern Australian wet season abates.



QUARTERLY REPORT 31 DECEMBER 2017

QUEENSLAND

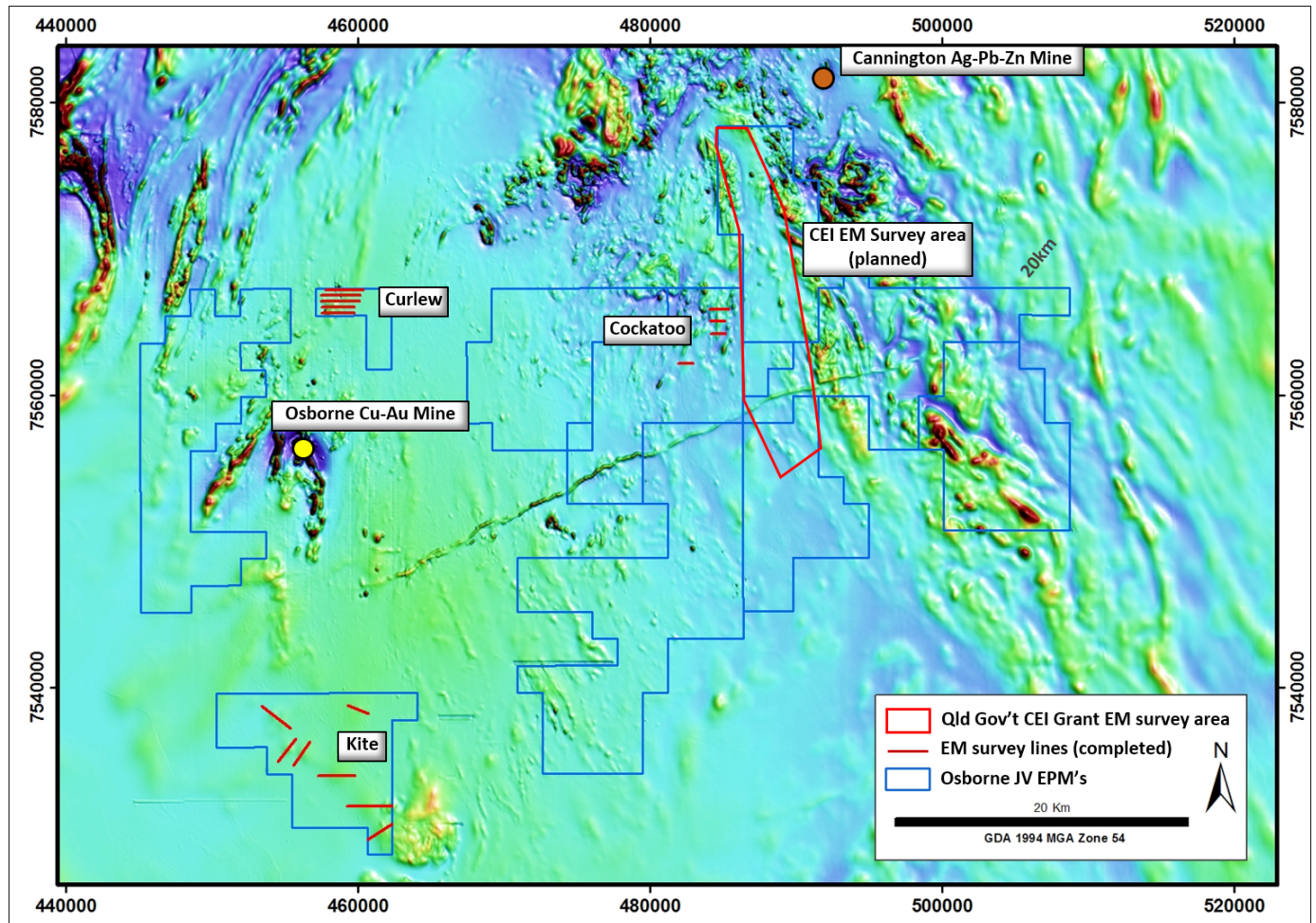


Figure 5: Regional airborne magnetic image (TMI RTP) with prospect EM survey lines in red

Regional Cloncurry Project

Minotaur 100%, except in relation to EPM 8608 which has a net smelter royalty of 2% payable to South 32;
Area 692km²

No activity during the reporting period.



QUARTERLY REPORT 31 DECEMBER 2017

South Australia

Prominent Hill Project

OZ Minerals 100% (Minotaur testing selected targets in collaboration with OZ Minerals), Area 3,532km²

Minotaur and OZ Minerals have been collaborating in exploration around the Prominent Hill mine, through the Mt Woods exploration alliance (Figure 1).

Assays from recently completed drilling of four electromagnetic ('EM') targets, located along the Skylark Shear Zone (SSZ), downgrade prospectivity of the SSZ.

One hole at each of Bellatrix East, Bellatrix Northeast and Nexus intersected mostly graphite-bearing rocks at or near the modelled EM target position, adequately resolving the source of each of those conductors. Assays confirm low-grade copper within holes at Bellatrix East and Bellatrix Northeast and no copper anomalism at Nexus, consistent with visual observations reported previously (refer ASX release dated 15 December 2017). No further work is planned at these targets.

A single drill hole at Maverick intersected strong pyrrhotite and magnetite over a 35m long interval with associated low levels of chalcopyrite. Whilst the overall sulphide content is very strong across the entire 35m interval, assays confirm the tenor of copper is low.

The objectives of the alliance are to be reassessed against the results of this latest drill program, to determine if any further work is warranted - either along the remainder of the Skylark Shear or elsewhere in the project area.

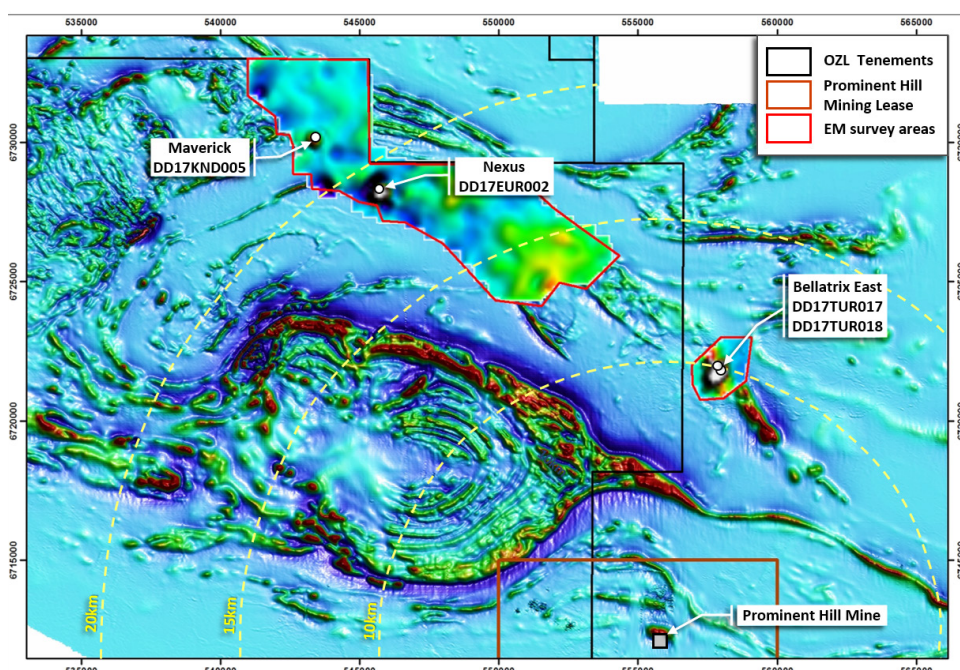


Figure 6: Location of drill holes that tested EM anomalies along the Skylark Shear Zone. Background image is RTP magnetics; EM image within the red outline is gridded Z component, channel 30 data



QUARTERLY REPORT 31 DECEMBER 2017

SOUTH AUSTRALIA

Gawler Ranges Project

Minotaur 100%, Area 311km²

No activity during the reporting period.

Border Base Metal JV

Sumitomo 52.8%, Minotaur 47.2%, Area 243km²

No activity during the reporting period.

Industrial Minerals Project

Minotaur 100%, Area 4,353km²

Research on innovative uses for halloysite as a natural replacement for carbon nanotubes continued through collaborative projects with the University of South Australia's Future Industries Institute and Nanotechnology Centre. This work is looking at nanotubular properties and potential new technology applications of natural halloysite nanotubes, including energy storage. Additional studies are also being undertaken into purification procedures for upgrading of halloysite in kaolin-halloysite admixtures and the potential for High Purity Alumina processing.

A PACE drilling supported project to investigate potash and other mineral potential of groundwater brines in the western Gawler Ranges and Coober Pedy areas was abandoned because of Native Title land access impediments.

North Flinders Project

Minotaur 10%, Perilya 90%, Area 670km²

Perilya, as Operator, conducted soil sampling programs at Eregunda Creek and Fountain Head prospects on EL5542 and Third Plan Plain South on EL5723. Fountain Head returned anomalous Zn that requires extension sampling.



QUARTERLY REPORT 31 DECEMBER 2017

Western Australia

Saints Nickel Project, Leinster Nickel-Gold Prospects

Minotaur 100%: Saints Area 20km²; Leinster Area 176km²

Minotaur intends, early in 2018, to reactivate exploration around the Saints nickel deposit and on its package of nickel-gold prospective tenements south of Leinster.

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.

Andrew Woskett

Managing Director

Minotaur Exploration Ltd

T +61 8 8132 3400

www.minotaurexploration.com.au



QUARTERLY REPORT 31 DECEMBER 2017

Note: December 2017 Quarter ASX Announcements

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

- Drilling underway at Eloise JV, 9 October 2017
- Drill program near Prominent Hill mine, 16 October 2017
- Ground EM survey commencing near Osborne mine, 18 October 2017
- Strong copper mineralisation intersected at 'Jericho', 23 October 2017
- Notification of Shortfall under SPP, 25 October 2017
- High grade copper-gold confirmed at 'Jericho', Eloise JV, 03 November 2017
- Drilling underway near Prominent Hill mine, 20 November 2017
- Multiple copper intercepts at 'Jericho', Eloise JV, 24 November 2017
- AGM Presentation 2017, 30 November 2017
- Assays confirm wide Jericho copper-gold zones, 11 December 2017
- Copper sulphides intersected at Maverick, South Australia, 15 December 2017
- QLD Government recognises Minotaur through CEI grant, 18 December 2017
- Copper-gold assays establish discovery potential at 'Jericho', 24 January 2018