

## Key Points

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### Lignum Dam Project (Nickel / Gold)

- Follow-up drilling has commenced at the Mexi Nickel Prospect with results expected by early June 2017.
- Mexi characterised by a broad zone of anomalous nickel – copper – PGE's within weathered ultramafic rocks including:
  - 36m @ 0.30% nickel, 294ppm copper, and 61ppb PGE's from surface,
- Presence of elevated copper and PGE's along with nickel potentially indicative of nickel sulphide mineralisation at depth within fresh rock.

### Nanadie Well (Copper - Nickel - Cobalt)

- Resampling of drill spoils from Nanadie Well Copper Deposit highlights cobalt potential.
- Previous exploration activities focussed primarily on copper with vast majority of higher grade copper intervals not analysed for cobalt.
- Nanadie Well hosts an existing 2004 JORC Inferred Resource of 36.07Mt @ 0.42% copper, 0.064 g/t gold - 151,506t copper and 74,233ozs gold.

### Coompana (Nickel - Copper)

- Mithril and OZ Minerals Limited (**ASX: OZL**) preparing to assess South Australia's far western Coompana Province for magmatic nickel – copper - PGE deposits.
- Geological Survey of South Australia (GSSA) and Geoscience Australia (GA) have commenced a fully funded scientific regional diamond drilling program at Coompana.

### Exploration Plan for next Quarter

- Drilling at the Mexi Nickel Prospect and Nanadie Well Copper Deposit.
- Ground EM at the Stark Copper Nickel Prospect.
- OZ Minerals to commence discussions with Far West Coast Aboriginal Corporation (FWCAC) to develop a Native Title Mining Agreement for exploration.
- Continuation of Coompana desktop assessment activities.

### Corporate and Cash

- Cash reserves of \$1.08M at 31 March 2017.

## Exploration Overview

Mithril Resources (“Mithril”) and its joint venture partners are exploring for gold, nickel and copper throughout the Kalgoorlie and Meekatharra Districts of Western Australia, and nickel-copper-PGE’s throughout the Coompana Province of South Australia (Figure 1).

During the March 2017 Quarter (the “Quarter”) Mithril identified the new **Mexi Nickel Prospect** at Lignum Dam (*Kalgoorlie*), highlighted the cobalt potential of the **Nanadie Well Copper Deposit** (*Meekatharra*) and continued to assess the nickel – copper prospectivity at Coompana.

Chesser Resources (**ASX: CHZ**) Mithril’s gold exploration partner at Kurnalpi (*Kalgoorlie*) identified a new gold target and Doray Minerals (**ASX: DRM**), intersected low level gold anomalism in aircore drilling at Duffy Well (*Meekatharra*).



Figure 1: Project Location Plan

## Corporate

During the Quarter, the Company spent \$0.08M on its exploration activities outlined in this report and at 31 March 2017, the Company had cash reserves of \$1.08M.

During the Quarter, the Company raised an additional \$808,103 (before costs) through a share placement pursuant to Section 708 of Corporations Act (Cth).

The placement, comprising 161,620,706 fully paid ordinary shares at an issue price of \$0.005 (0.5 cents) per share, was made to sophisticated investors eligible under section 708 of the Corporations Act (Cth). 10M unlisted Options exercisable at \$0.01 (1 cent) and expiring on 31 December 2020 were also issued.

The proceeds of the share placement will be used to underpin geophysical and drill testing of the Mexi Nickel Prospect, the Nanadie Well Copper Deposit and the Stark Copper Prospect (located 80 kilometres southeast of Meekatharra, WA), and provide for working capital.

Following the Placement, Mithril has 848,103,831 fully paid ordinary shares on issue.

## Lignum Dam Project (Nickel / Gold)

### (Mithril 100%)

During the Quarter, the Company identified a new nickel prospect (called “**Mexi**”) following a 2,524 metre *first-pass* aircore drill program completed during the December 2016 Quarter at the 100% owned Lignum Dam Project (located 50 kilometres north-northeast of Kalgoorlie Western Australia - Figure 1).

At Mexi, 3 of 4 holes (KNAC030 to 033) drilled to test a surface nickel - copper geochemical anomaly intersected a broad zone of anomalous nickel - copper - platinum + palladium (PGE’s) within weathered ultramafic rocks adjacent to a steeply - dipping mafic contact, with the following significant intercepts returning;

- 36m @ 0.30% nickel, 294ppm copper, and 62ppb PGE’s from surface in KNAC033,
- 40m @ 0.28% nickel, 348ppm copper, and 65ppb PGE’s from 4 metres in KNAC032, and

- 16m @ 0.33% copper, 449ppm copper, and 68ppb PGE's from 8 metres in KNAC031.

Within the intercepts, maximum values (for any individual 4 metre composite sample) are 0.57% nickel, 603ppm copper, and 119ppb PGE's.

The presence of elevated copper and PGE's along with nickel at Mexi is highly significant as they are potentially indicative of nickel sulphide mineralisation at depth within fresh rock.

A ground EM survey conducted towards the end of the Quarter identified a number of weak geophysical responses along strike from the aircore anomalism that could be related to variations in weathering along the prospective ultramafic / mafic contact.

Mexi remains open both along strike and down-dip, and lies within a broader structural corridor that is interpreted from aeromagnetic and gravity data to extend from known high-grade nickel sulphide mineralisation at the Silver Swan nickel deposit located 9km to the south.

In addition to Mexi, there were also several other aircore holes that ended in zones of gold anomalism and require further sampling and inspection to understand their potential significance, i.e.; 2m @ 0.167g/t gold from 40 metres in KNAC008, 4m @ 0.189g/t gold from 32 metres in KNAC017, and 3m @ 0.113g/t gold from 12 metres in KNAC038.

At the time of writing, follow-up drilling had commenced at Mexi with results expected by early June 2017.

## Nanadie Well Project (Copper-Nickel-Cobalt)

### Nanadie Well (Mithril 100% and earning up to 75%),

A review undertaken by Mithril during the Quarter of previously completed drill hole sampling, has highlighted the cobalt potential of the Nanadie Well Copper Deposit (*2004 JORC Code Compliant Inferred Resource of 36.07Mt @ 0.42% copper, 0.064 g/t gold - 151,506 tonnes copper and 74,233 ounces gold estimated by Intermin Resources Limited ASX: IRC in 2013*) which is located 80 kilometres southeast of Meekatharra, Western Australia (Figure 1).

Previous drilling at Nanadie Well has focused on copper and gold, with the overwhelming majority of higher grade copper intervals (i.e. greater than 1% copper) never having been analysed for cobalt.

Mithril's selective resampling of historic RC drillholes within the deposit has returned elevated cobalt as well as nickel, platinum and palladium, the best results being;

- 1m @ 2.97% copper, 1.27g/t gold, 0.15% cobalt, 0.47% nickel and 478ppb platinum + palladium ("PGE's") from 128m hole NRC12015,
- 1m @ 5.71% copper, 0.86g/t gold, 0.07% cobalt, 0.49% nickel and 128ppb PGE's from 146m in NRC12013, and
- 1m @ 4.50% copper, 0.87g/t gold, 0.06% cobalt, 0.82% nickel and 168ppb PGE's from 128m in NRC12015,

While the resampling results highlight the deposit's cobalt potential, further work is required to better understand the grade and distribution of cobalt, nickel and PGE mineralisation at Nanadie Well and with this in mind, diamond drilling to test for further high-grade copper and associated cobalt is planned for the June 2017 Quarter.

In addition to the Nanadie Well Copper Deposit drilling, a high-powered HT SQUID ground EM survey is planned over the Stark Copper Nickel Prospect (which is located 500 metres east of the deposit) in early May 2017. The EM survey is designed to generate drill targets beneath existing massive copper-nickel sulphides at Stark.

The Nanadie Well Deposit lies on tenements subject to a Farmin and Joint Venture Agreement (Nanadie Well Joint Venture) with Intermin Resources Limited (**ASX: IRC**). Under the terms of the joint venture, Mithril can earn a 60% interest in the tenements by completing expenditure of \$2M by 14 April 2019, and an additional 15% by completing further expenditure of \$2M over a further 2 years.

## **Coompana Project (Nickel-Copper-PGE's)**

### **(Mithril right to earn 20% / OZ Minerals 100%)**

The Geological Survey of South Australia (GSSA) and Geoscience Australia (GA) scientific drilling program announced post the end of the Quarter will provide valuable information about the geology and prospectivity of the Coompana region and will inform our desktop assessments.

OZ Minerals will commence discussions with the Far West Coast Aboriginal Corporation (FWCAC) to develop a Native Title Mining Agreement for exploration.

Mithril and OZ Minerals Limited ("OZ Minerals" - **ASX: OZL**) are assessing Coompana for magmatic nickel – copper deposits, with OZ Minerals having over 6,000km<sup>2</sup> of granted tenements in the area and in which, Mithril has a right to earn a 20% interest.

## **Duffy Well Project (Gold)**

### **(Mithril 100%, Doray Minerals earning an initial 51% and operating)**

At Duffy Well, Doray Minerals Limited ("Doray" – **ASX: DRM**) is earning an initial 51% interest in Mithril's Duffy Well Project by completing expenditure of \$300,000 within two years (by 3 November 2017) and can elect to earn an additional 34% interest by completing further expenditure of \$200,000 within another one year (in total 85% by spending \$500,000 over three years).

Duffy Well (EL51/1649) is located 30 kilometres east of Meekatharra WA (*Figure 1*) and covers the interpreted southern extension of the Gnaweeda Greenstone Belt where Doray has intersected high-grade gold mineralisation in RC drilling at the Turnberry Prospect including **3m @ 10.1g/t gold** from 149 metres, **5m @ 17.4g/t gold** from 71 metres, and **4m @ 17.9g/t gold** from 45 metres (*Doray ASX Announcement dated 11 June 2015*).

Aircore drilling program undertaken by Doray during the December 2016 Quarter to test multiple gold targets returned minor gold anomalism (maximum 0.06ppm gold) and no further work on the targets is planned at this stage.

## **Kurnalpi Project (Gold / Nickel)**

### **(Mithril 100%, Chesser Resources earning an initial 51% and operating)**

At Kurnalpi, Chesser Resources Limited ("Chesser" – **ASX: CHZ**) is earning an initial 51% interest in Mithril's Kurnalpi Project by completing expenditure of \$150,000 within two years (by 5 November 2017) and can elect to earn an additional 29% interest by completing further expenditure of \$100,000 within another two years (in total 80% by spending \$250,000 over four years).

The Kurnalpi Project tenements (EL28/2506 and PL28/1271 - located 60 kilometres north east of Kalgoorlie, WA – Figure 1) cover Archaen ultramafic / mafic sequences prospective for both lode gold and nickel sulphide mineralisation.

Auger geochemical sampling undertaken by Chesser during the December 2016 Quarter has defined a new gold target at Kurnalpi.

The new target is characterised by four discrete coherent auger geochemical anomalies (defined by the +14ppb Au contour, maximum value: 17ppb Au, average background value: 3 - 7ppb Au) present over a combined strike length of approximately 300 metres that overlay and lie adjacent to, an east – west mafic / metasedimentary contact. A rockchip sample of sub-cropping ironstone material also returned 0.23g/t gold (Sample ID - 0629\_01).

The prospectivity of the target (which has not been previously drilled) is strengthened by the presence of numerous prospecting pits and dry-blowing scrapes immediately south of the target (and the E28/2506 tenement boundary) within the same east west sequence of mafic and metasedimentary unit.

Chesser plans to carry out a program of geological mapping during the June 2017 Quarter to better understand the significance of the target and determine next steps.

## Other Projects

No field work was undertaken during the Quarter on the following projects: Grey Dam South (Mithril 100%), Leaky Bore (Mithril 100%), and Spargos Reward (Mithril 35%).

## Exploration Plan for next Quarter

- Drilling at the Mexi Nickel Prospect and Nanadie Well Copper Deposit
- Ground EM at the Stark Copper Nickel Prospect
- OZ Minerals to commence discussions with the FWCAC to develop a Native Title Mining Agreement for exploration.
- Continuation of Coompana desktop assessment activities.

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## Notes Specific – March 2017 Quarter ASX Announcements

The following announcements were lodged with the ASX during, and immediately subsequent to the Quarter. Further details (**including JORC 2012 Code Reporting Tables, where applicable**) for each of the sections outlined above can be found in the announcements.

- Drilling underway at the Mexi Nickel Prospect – 21.04.2017
- Government drilling underway at Coompana – 12.04.2017
- Cobalt potential highlighted at Nanadie Well Copper Deposit – 28.03.2017
- Copper Nickel Cobalt Exploration Update – 20.02.2017
- Chesser Resources Kurnalpi Exploration Update – 31.01.2017
- Drilling identifies new nickel prospect at Lignum Dam – 30.01.2017
- Coompana - MD's Presentation to SAEMC 2016 – 02.12.2016

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### For Further Information Contact:

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### Competent Persons Statement:

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr David Hutton, who is a Competent Person, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Hutton is Managing Director and a full-time employee of Mithril Resources Ltd.

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Nanadie Well Copper deposit is based on information compiled by Mr David O'Farrell who is a full-time employee of Intermin Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr O'Farrell has more than five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr O'Farrell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### About Mithril Resources Ltd:

Mithril Resources is an Australian resources company whose objective is the creation of shareholder wealth through the discovery and development of mineral deposits.

The Company is actively exploring throughout two highly prospective areas of the Western Australian Goldfields, namely the Kalgoorlie District for gold and nickel deposits and the Meekatharra District for copper-nickel deposits.

The Company is also assessing South Australia's far western Coompana Province for magmatic nickel – copper deposits with OZ Minerals Limited.

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