



## QUARTERLY ACTIVITIES REPORT

For the period ended 30 September 2018

30 October 2018

Corporate Directory

ASX: CY5

Non-Executive Chairman

Michael Bohm

Managing Director

James Merrillees

Non-Executive Directors

Amanda Buckingham

Simon Jackson

Oliver Kreuzer

Company Secretary

Michael Naylor

**Cygnus Gold Limited**

Level 3, 20 Parkland Rd,  
Osborne Park, WA 6017

T: +61 8 9489 2680

E: [info@cygnusgold.com](mailto:info@cygnusgold.com)

W: [www.cygnusgold.com](http://www.cygnusgold.com)

### Exploration

#### *Burracoppin Project*

- Ground gravity survey defined 14 high priority targets at the Anomaly 47 Prospect where historical drilling defined broad zones of Au-Ag-Pb-Zn mineralisation
- New targets have a gravity signature similar to known Volcanogenic Massive Sulphide ("VMS") belts globally
- A follow up airborne EM survey confirmed the 14 targets and identified further new targets at Anomaly 47
- Drill testing of high priority targets planned for Q4 2018

#### *Lake Grace Joint Venture*

- Ground gravity program defined new targets on the Holland Rock Prospect
- Surface sampling at HR3 identified an 850m x 250m gold pathfinder anomaly coincident with high priority gravity target
- New ground gravity data at the Panhandle Prospect with surface sampling results pending
- Drilling to commence in Q4 2018

#### *Bencubbin Project*

- Planning is underway for drilling in Q4 2018 at Bencubbin where the Company has received additional co-funding from the WA State Government to drill high priority targets on the Jefferies Prospect

#### *Stanley Project*

- Targeting review defined priority targets for follow up on the more than 20km of prospective greenstone at the Stanley Project with drilling planned to initially focus on the Brays and Stanley Hill prospects.

### Corporate

- As at 30 September 2018, Cygnus Gold held \$3.3m in cash (June 2018: \$3.9m).



## Exploration

Cygnus Gold's (**Cygnus** or the **Company**) exploration activities are focused on the Southwest Terrane of the Yilgarn Craton, Western Australia. The Company has more than 8,000km<sup>2</sup> in granted tenements and applications covering interpreted and known greenstone rocks where previous explorers have identified numerous prospects with widespread high grade, near surface gold mineralisation (Figure 1).

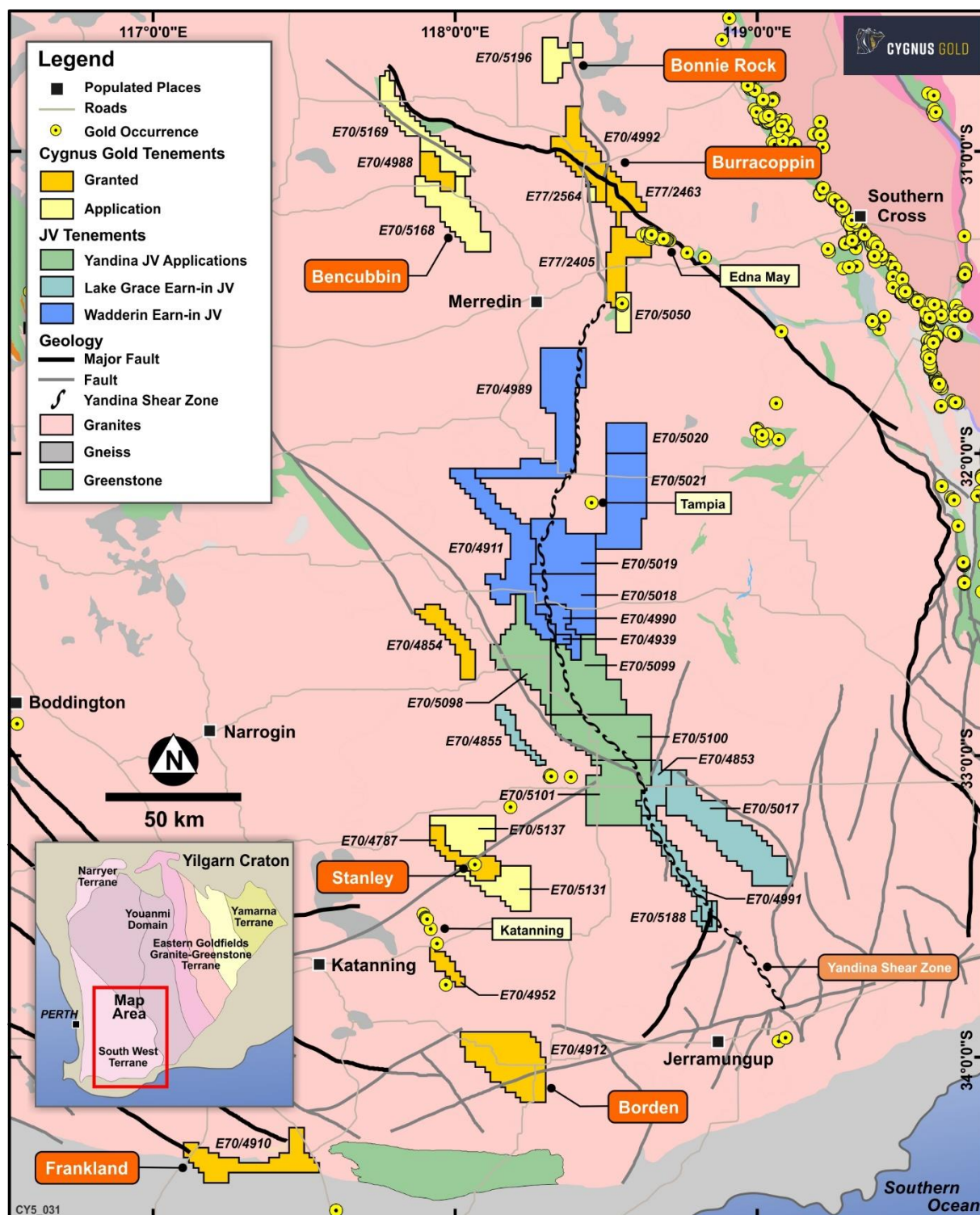
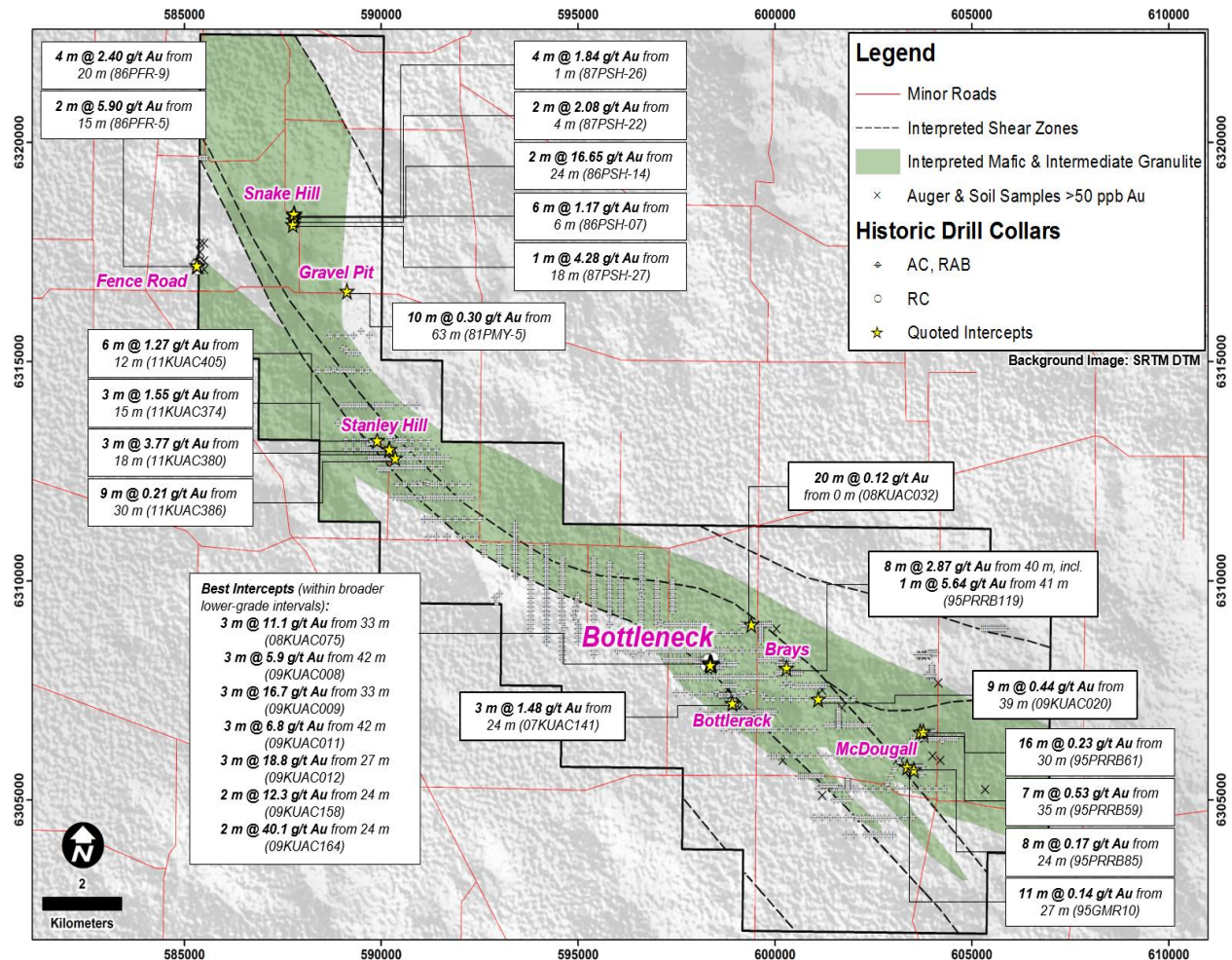


Figure 1: Cygnus Gold granted tenements and applications in the Southwest Terrane, Western Australia.

## Stanley Project (Cygnus 100%)

The ~160km<sup>2</sup> Stanley tenement covers a more than 20km strike length of prospective greenstone including numerous prospects where previous explorers have intersected high grade gold mineralisation (Figure 2).



**Figure 2:** Cygnus' Stanley Project highlighting significant intersections drilled by previous explorers<sup>2</sup> with main prospects labelled.

## Diamond Drilling

During the period Cygnus reported final assay results from six diamond (DD) tails drilled at the Bottleneck prospect targeting extensions to gold mineralisation intersected in hole BNDD006 (Figure 3).

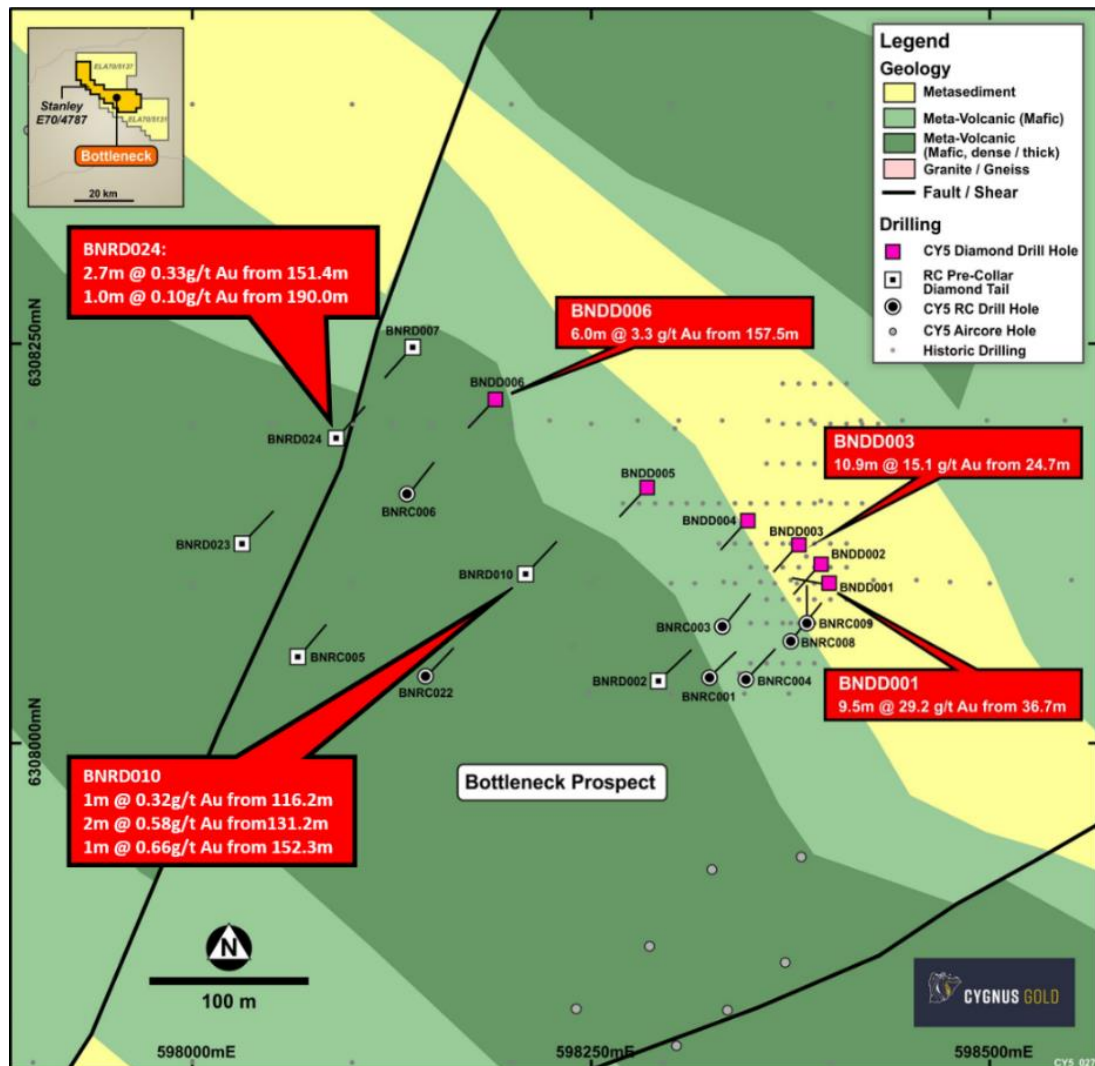
BNDD006 was the first hole drilled in the 20km long Stanley greenstone belt to intersect mineralisation in fresh basement rock including 6m @ 3.27 g/t Au from 157.5m within a higher-grade zone of 2m @ 8.82 g/t Au from 161.5m (refer CY5 ASX announcement dated 7 March 2018)<sup>1</sup>.

Significant intersections from these new holes included (refer CY5 ASX announcement dated 4 July 2018)<sup>1</sup>:

- BNRD010:
  - 1m @ 0.32g/t Au from 116.2m
  - 2m @ 0.58g/t Au from 131.2m
  - 1m @ 0.66g/t Au from 152.3m



- BNRD024:
  - 2.7m @ 0.33g/t Au from 151.4m
  - 1.0m @ 0.10g/t Au from 190.0m



**Figure 3:** Plan view of Cygnus' drilling at Bottleneck over interpreted geology. Holes BNDD001 - BNDD006 are previously reported Cygnus holes (refer CY5 ASX announcement 7 March 2018)<sup>1</sup>.

Although drilling successfully tested the mineralised position intersected in BNDD006, overall these narrow, lower grade zones demonstrated that mineralisation in this part of the Bottleneck system is variable. Detailed structural review of the core is now focused on confirming the strike and dip of the mineralising system to determine remaining scope for new targets here.

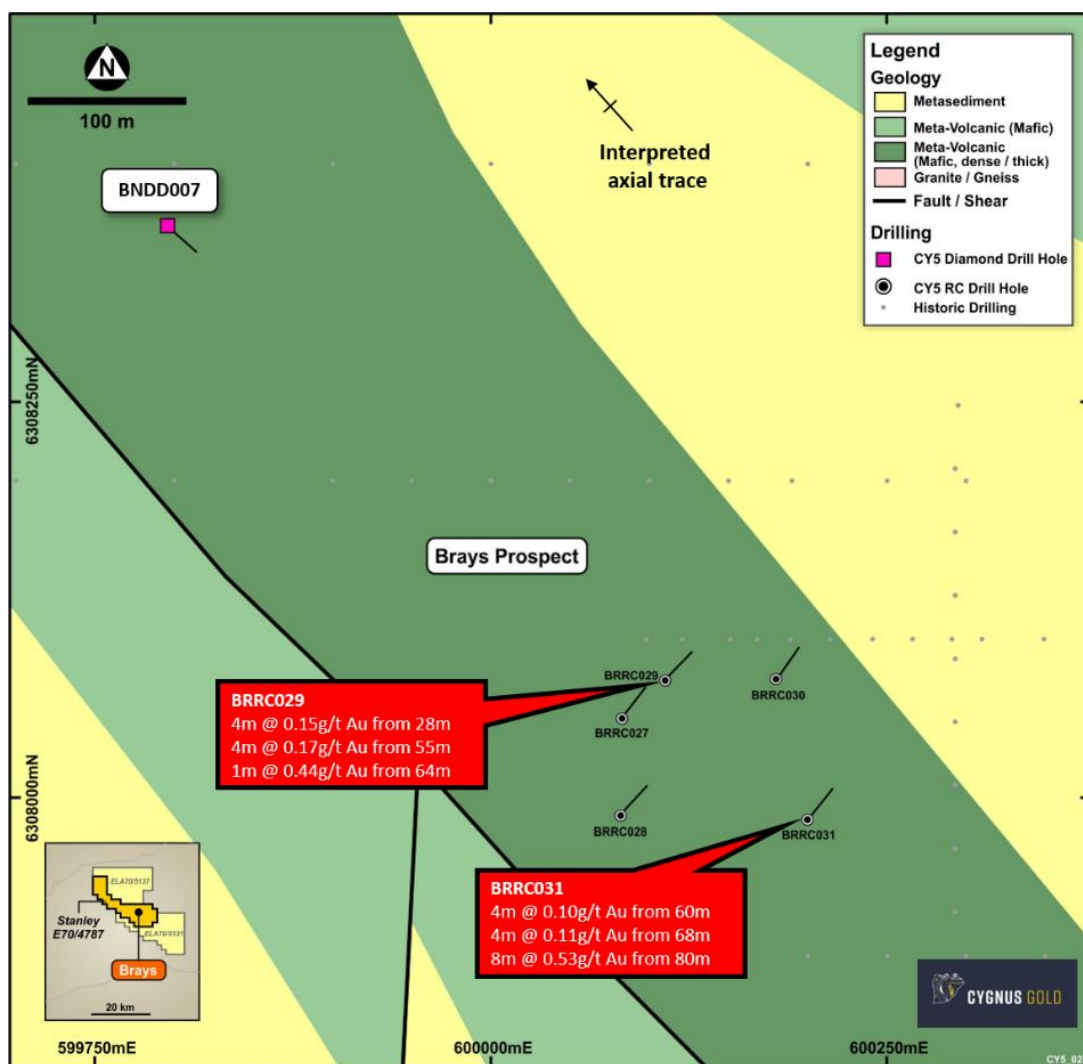


In addition to the diamond holes at Bottleneck, the Company also reported results from hole BNDD007, drilled ~600m to the NW of the Brays Prospect (Figure 4).

BNDD007 intersected a dense, magnetite and sulphide-rich (pyrite, pyrrhotite and trace chalcopyrite) mafic-ultramafic unit. Detailed structural logging demonstrated that the hole was drilled down the limb of a fold away from the potentially more prospective fold nose position.

Further drilling at Brays will include testing this fold nose position as well as follow up of mineralisation intersected by the Company in RC drilling which included 8m @ 0.53 g/t Au from 80m in hole BRRC031 (refer CY5 ASX announcement 8 June 2018)<sup>1</sup>.

The diamond drilling program was co-funded by a grant from the WA government's Exploration Initiative Scheme, and the Company has now received the grant back in full during the quarter.



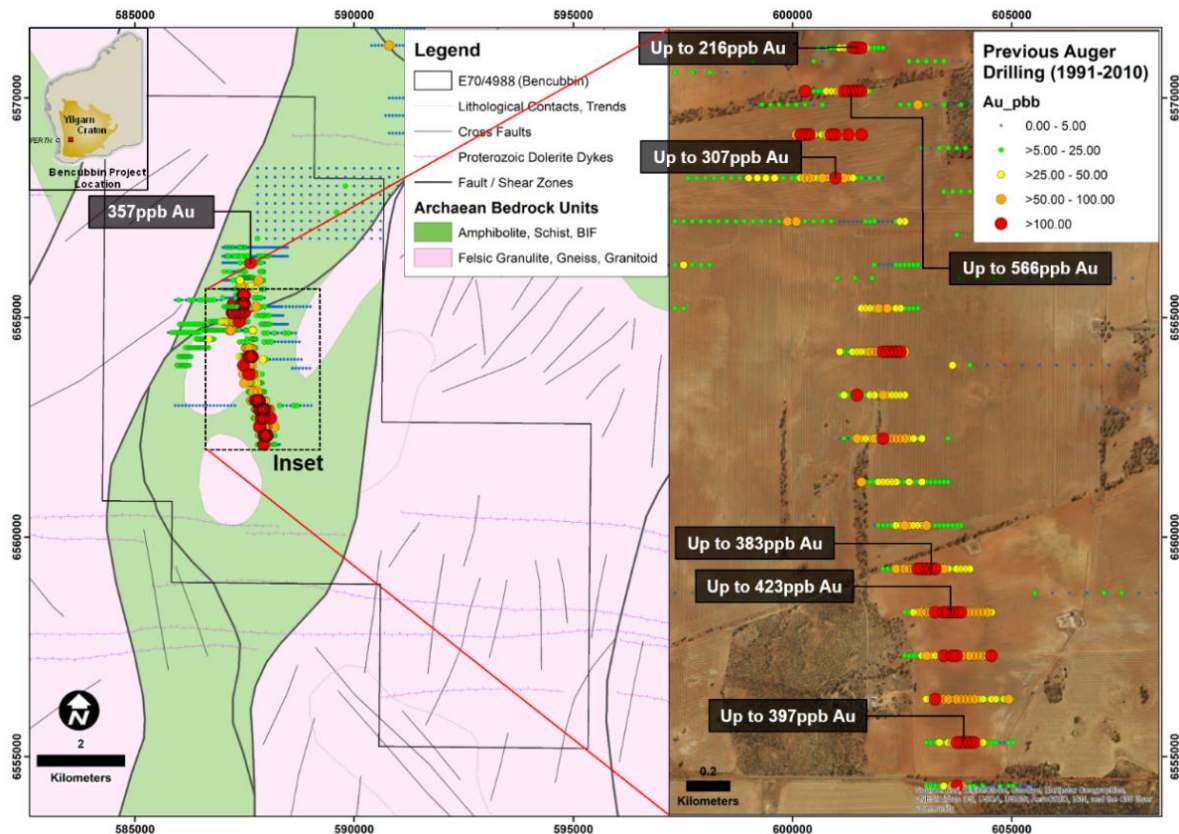
**Figure 4:** Plan view of Cygnus' drilling at Brays over interpreted geology with arrow on axial trace indicating location of fold nose and location of BNDD007.



## Bencubbin (Cygnus 100%)

Cygnus Gold's Bencubbin tenement, located ~220km northeast of Perth, is centred on a 10km long section of the Bencubbin Greenstone Belt.

The Company's initial focus at Bencubbin is on the Jefferies gold prospect, where previous explorers defined a ~3.5km long auger gold anomaly with assay values up to 566ppb Au broadly coincident with a contact between greenstone belt successions and internal granite intrusions (Figure 5)<sup>2</sup>.



**Figure 5:** Bencubbin Project interpreted geology and historical auger samples<sup>2</sup>. The geology is based on geophysical interpretation and modelling as explained in the Company's Independent Technical Assessment Report within Cygnus' Prospectus dated 22 November 2017.

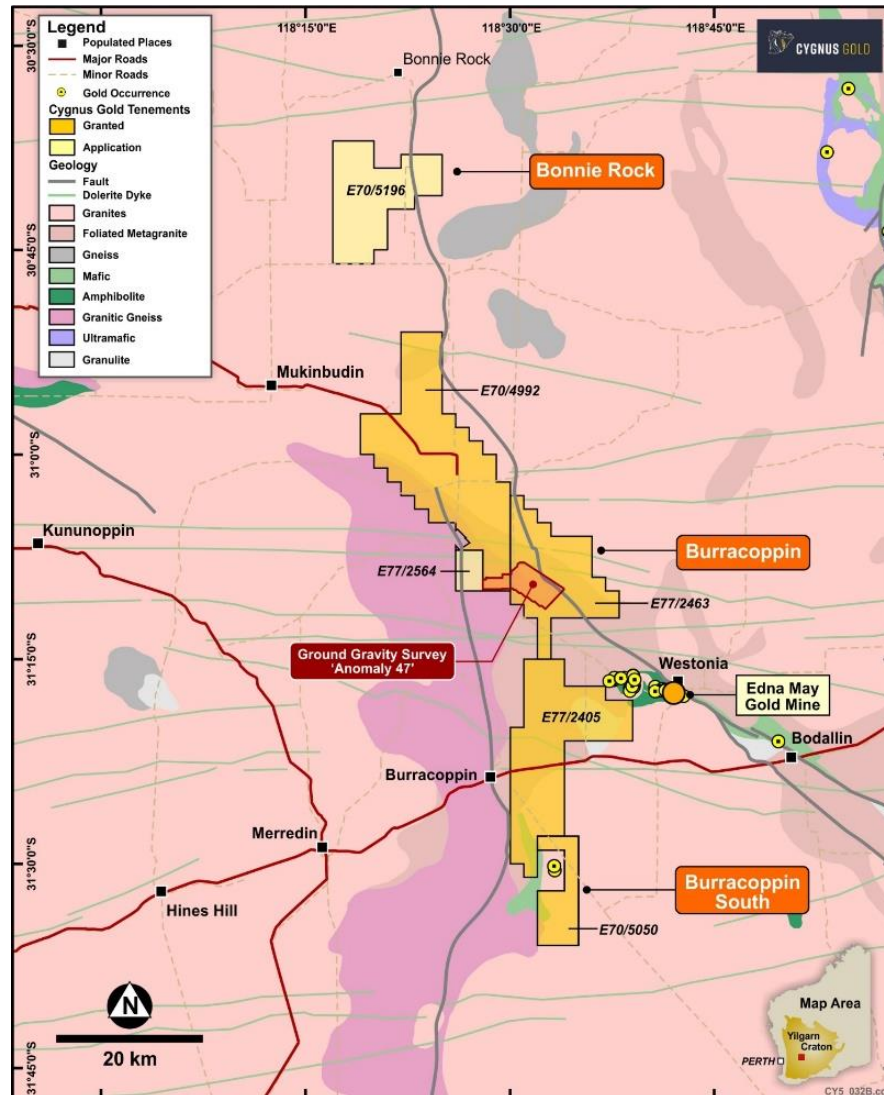
Planning is underway for drilling in Q4 2018 where the Company has received additional co-funding from the WA State Government to drill high priority targets on the Jefferies Prospect (refer CY5 ASX announcement 14 June 2018).



## Burracoppin Project (Cygnus 100%)

Cygnus' wholly owned Burracoppin tenements are located ~25 km east-northeast of Merredin with excellent access via the Great Eastern Highway that crosses the tenements and a network of local roads and local farm tracks. The Edna May gold mine owned and operated by Ramelius Resources Ltd (ASX:RMS), is located approximately 4 km from the corner of Cygnus' Burracoppin Project (Figure 6).

The Burracoppin Project is underlain by Archaean granite and greenstone that were metamorphosed to amphibolite and granulite facies grade. Outcropping bedrock is rare with the area being dominated by an intensely developed regolith rarely more than 50 m thick.



**Figure 6:** Cygnus' Burracoppin Project and location of Cygnus' ground gravity survey. Regional geology from 1:500,000 GSWA mapping.

Exploration by previous explorers at Burracoppin identified a more than 2.5km long by 0.7km wide gold-in-soil anomaly at Anomaly 47, which is open to the east where it is cut by a paleochannel system. These explorers also recognised the base metals potential of the region with follow-up auger sampling at Anomaly 47 having identified coherent Au-Pb-Zn anomalies as well as an arsenic (As) "pipe" at Dicks Reward defined by a >100ppm As anomaly more than 2.6km long and up to 1.5km wide, also open to the east.

The geochemical signature of mineralisation at Anomaly 47 is similar to known Volcanogenic Massive Sulphide ("VMS") deposits globally, with the Au-Ag-Zn-Pb rich mineralisation located to date potentially being the distal signature of a more proximal Cu-Zn rich system, the target of Cygnus' planned follow up.



## 2018 Ground Gravity

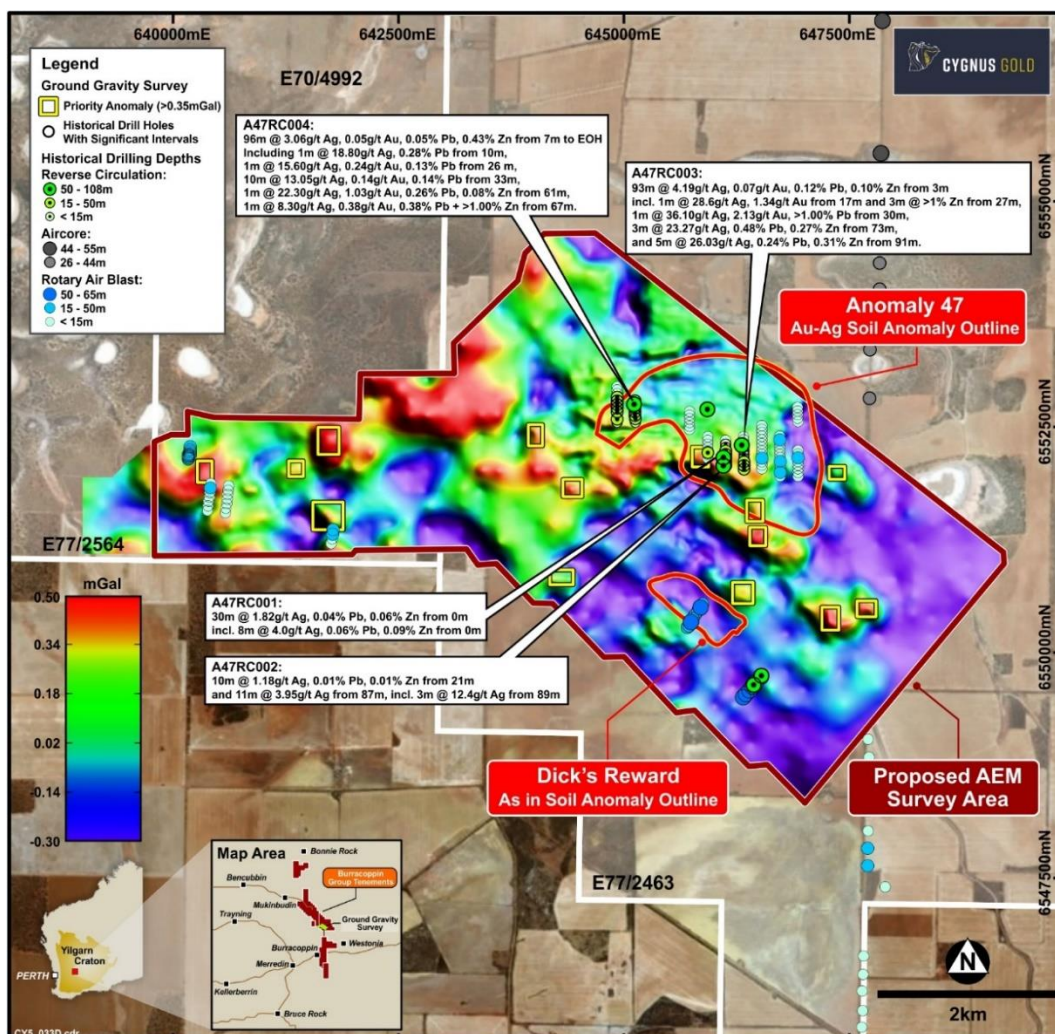
VMS deposits worldwide often produce significant gravity responses due to the density of the massive sulphides relative to the host rocks. In addition to being dense compared with surrounding rocks, the massive sulphides associated with VMS deposits are often also good conductors, and therefore favourable to exploration with electrical methods depending on the nature of mineralisation, the conductivity of overburden and groundwater, and the presence of stratigraphic conductors.

During the reporting period Cygnus completed a detailed ground gravity survey with a total of 4,142 stations acquired at three different station spacings (50m, 100m and 200m) over the broader Anomaly 47 target horizon

To prioritise gravity targets for follow-up, the Company used the following modelling criteria considered to represent a typical mineralised VMS system:

- 1g/cc density contrast;
- Less than 100m depth to the top of the target; and
- Sub-vertical depth extensive body with a thickness of at least 25m.

Thirty-one discrete positive gravity anomalies were identified, and of these anomalies, 14 fit the Company's targeting criteria and are considered high priority targets for follow-up (Figure 7).

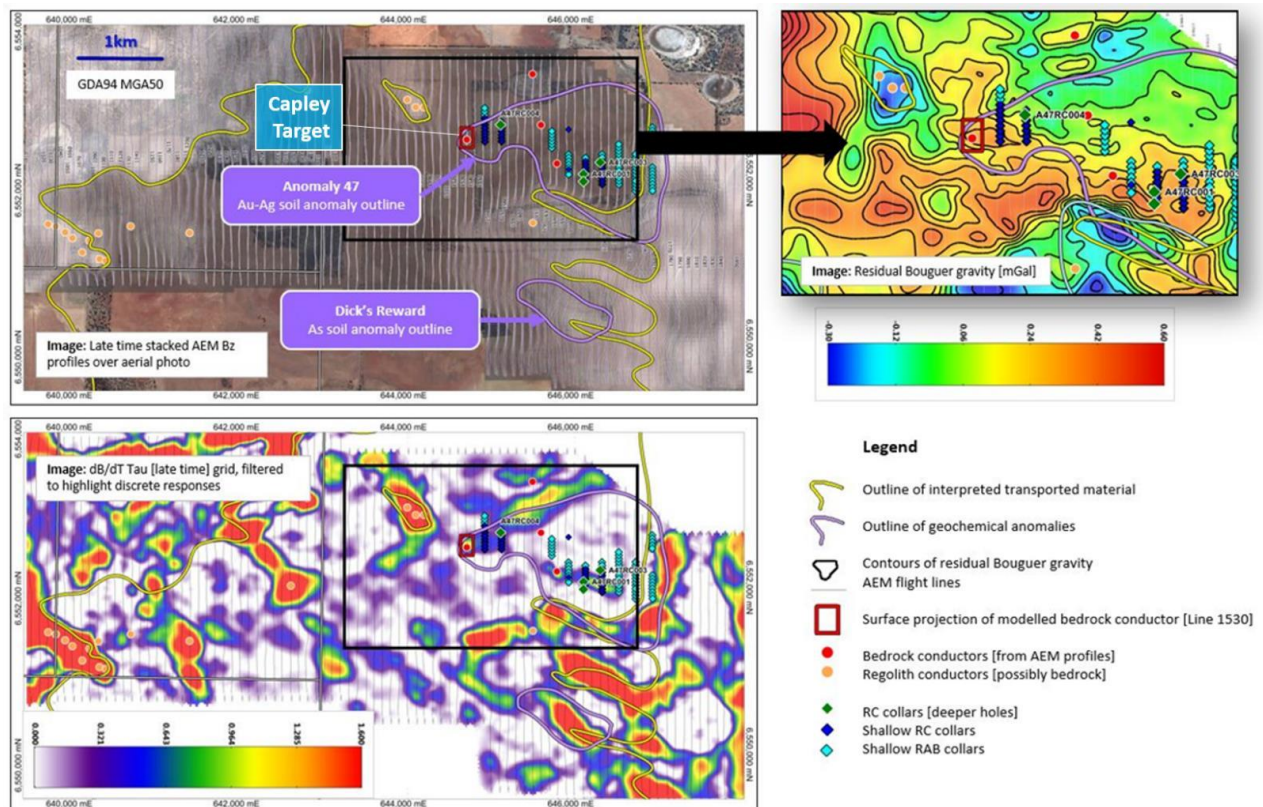


**Figure 7:** Image of Cygnus Gold's ground gravity survey (residual of the Bouguer gravity) with compilation of historical exploration at Burracoppin² and boundary of planned airborne electromagnetic (AEM) survey completed in October 2018.

## 2018 Airborne Electromagnetic Survey

Cygnus flew a 246-line km airborne EM survey at Burracoppin using NRG's Xcite™ Airborne Electromagnetic system in October 2018. The EM survey was collected on lines spaced 100m apart to cover all the gravity anomalies, with the aim to delineate conductors associated with the gravity targets and mineralisation identified to date at Anomaly 47.

Preliminary results from this survey, reviewed by geophysical consultants Newexco, indicated a discrete bedrock source (the Capley target) of a favourable conductance for VMS mineralization at a depth of 80 m along line 1530 (Figure 8). Newexco's review of additional anomalies identified in the EM survey is ongoing.



**Figure 8:** TOP LEFT: AEM survey location with respect to the Anomaly 47 and Dicks Reward prospects. The location of previous drilling, discrete AEM conductors and the modelled bedrock conductor at the newly identified Capley target [on Line 1530] is shown. The red polygon indicating the location of the modelled body on line 1530 is the surface projection of the 3D plate. BOTTOM LEFT: Gridded image of Tau [decay constant] derived from dB/dT, long wavelength removed.

RIGHT: Inset over the Anomaly 47 prospect showing the ground gravity anomaly coincident with the Capley AEM bedrock conductor, and historical drill collars.

The Capley target is coincident with a gravity anomaly located on the western edge of the strong Au-Ag-Zn-Pb anomalism at Anomaly 47 (refer CY5 ASX Announcement 19 September 2018<sup>1</sup>).

The nearest historical drilling (which is shallow RC drilling only assayed for gold) is 200m east of Capley, with the only deeper RC hole 400m to the east. This deeper RC drilling intersected narrow higher-grade zones within broader mineralised intervals including<sup>2</sup>:

- A47RC003 4m @ 0.69g/t Au, 14.7g/t Ag, 0.52% Pb, 0.75% Zn from 27m

Drill testing of targets identified from the gravity and EM surveys is now planned to commence in late Q4 once approvals are received.



### **Bonnie Rock**

The Company has recently applied for a new tenement over the Bonnie Rock Prospect, approximately 50km northwest of Anomaly 47.

Bonnie Rock comprises a series of pods of massive magnetite, franklinite (Zn-Fe oxide) and garnet schists with Zn, Pb, Ag mineralisation hosted in felsic granulites considered the metamorphic equivalent of altered felsic rocks.

The similarities with the Au-Ag-Zn-Pb mineralisation at Anomaly 47, suggest this is a regionally extensive style of mineralisation, with the greenstone sequences at Burracoppin and Bonnie Rocks being underexplored for both VMS and gold mineralisation.

Exploration at Bonnie Rock will commence after tenement grant anticipated in early 2019.

### **Gold Potential**

In addition to the potential for VMS style mineralisation identified at Anomaly 47 and Bonnie Rocks, the Burracoppin Project tenements cover Archaean greenstones including interpreted extensions of the greenstone package hosting the nearby Edna May gold mine ~20km southeast of Anomaly 47.

The Burracoppin tenements also cover the northern extensions of the Yandina Shear Zone and related metamorphosed greenstones, extending northwards from Explaurum's (ASX:EXU) Tampia Hill deposit some 100km to the south. The Yandina Shear Zone is a major crustal scale structure running through Cygnus Gold's Joint Venture tenements with Gold Road Resources (ASX:GOR) to the south and is a focus for gold exploration within these tenements.

Given the limited historical exploration, and extensive post mineral cover across the Burracoppin Project the package is considered highly prospective for Archaean "orogenic" lode style gold mineralisation and Cygnus will continue to target and test for this deposit style over the coming months.

### **Other Cygnus 100% Projects**

In addition to Stanley and Bencubbin the Company has an additional ~1,700km<sup>2</sup> of granted tenements and 997km<sup>2</sup> of applications, covering prospective greenstone rocks of the Southwest Terrane of the Yilgarn Craton.

During the period the Company identified and met with landowners of properties covering prospects and targets identified from Cygnus Gold's review of historical data. The response from landowners was generally positive and field reconnaissance has commenced on several targets that will be the focus of exploration during the upcoming quarter once access has been negotiated.

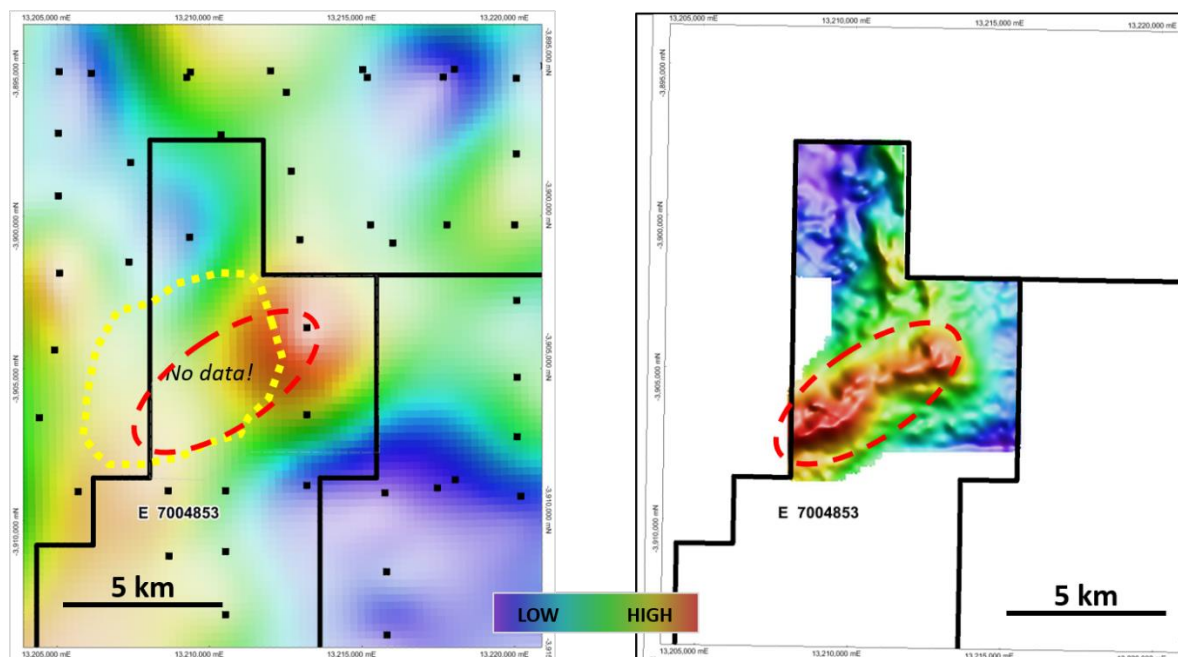
## Gold Road Resources Earn-in Agreements (Cygnus diluting to 25%)

In October 2017 the Company entered into earn-in joint venture agreements with ASX-listed developer Gold Road Resources (ASX:GOR) over Cygnus Gold's Lake Grace and Wadderin Projects. These agreements provide Gold Road with the opportunity to earn up to a 75% interest in the ~3,400km<sup>2</sup> area of Cygnus' Wadderin and Lake Grace exploration projects by spending \$3.7m over four years (refer GOR ASX announcement 10 October 2017). Cygnus is initially managing the exploration programs on these projects.

During the quarter Cygnus completed semi-detailed ground gravity and surface sampling surveys over prospects defined in historical work<sup>2</sup> by previous explorers including the **Panhandle** and Holland Rock (**HR3**) prospects in the Lake Grace Earn-in Project, and the **Hardies** prospect at Wadderin (refer ASX Announcement 7 August 2018<sup>1</sup>):

The **Panhandle** prospect is a >500ppb Au-in soils anomaly that the Company believes was only partly drill tested in the early 1990's however drilling appears to have missed the core of the gold system.

At Panhandle, Cygnus' new gravity data defines a dense and structurally complex unit sitting proximal to a jog in the regionally extensive Yandina shear zone (Figure 9). This unit is interpreted as a prospective mafic-ultramafic sequence within the Lake Grace greenstone belt.

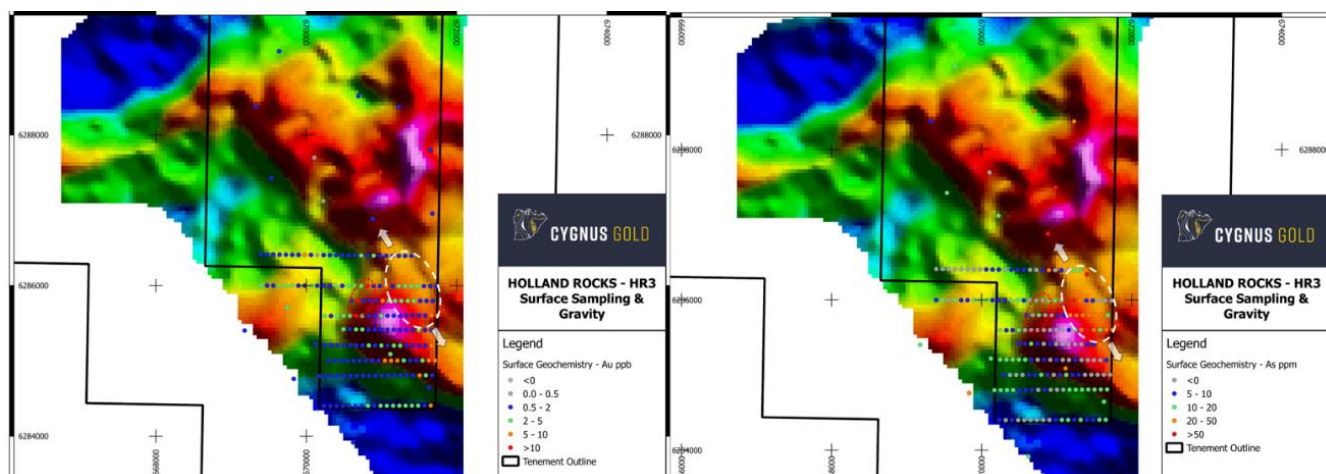


**Figure 9:** Plan view of ground gravity data over the Panhandle Prospect. Left hand image is historical Residual bouguer gravity anomaly data [0-2k] from the GSWA. Right hand image is the new semi-detailed Cygnus bouguer gravity data, imaged using a histogram equalized stretch and illumination from NE. The new dense target is circled by the red dashes. Scale in mGals.

Results from the Company's detailed surface sampling over Panhandle will be reported in the coming quarter.

The **HR3** prospect is the extension of a ~6 km-long and up to 1.5 km-wide gold-in-soil anomaly ranging from 5 to 128 ppb Au. There has been no historical drilling at HR3.

At **HR3** the Company's newly acquired gravity survey defines a distinct fold nose coincident with a narrow gold anomaly and a broader multi-element (As-Sb-Bi-Te-Mo-Pb) anomaly considered to be 'pathfinder' elements for gold mineralisation in the region (Figure 10).



**Figure 10:** Surface sampling over target HR3 (Holland Rock) overlain on Cygnus bouguer gravity image. Left frame Au (ppb); Right frame As (ppm). Gold anomaly outlined in red and multi-element (As-Sb-Bi-Te-Mo-Pb) pathfinder anomaly in yellow.

### Forward Work Program Earn-in Projects

Ongoing interpretation of the ground geophysics and multi-element geochemistry at **Hardies** and the pending assays over Panhandle will be used to define follow up aircore and RC drilling programs planned to commence in late 2018.

### Yandina Joint Venture (Cygnus 25%)

The Yandina Joint Venture comprises four tenement applications covering an area of approximately 1,727km<sup>2</sup> over the prospective Yandina Shear which is known to host gold mineralisation elsewhere in the Southwest Terrane.

The four tenements comprising the Yandina JV were granted during the quarter with field work planned to commence during the coming quarter.

### Corporate

#### Cash Position and Movements

As at 30 September 2018, Cygnus Gold held \$3.3m in cash (June 2018: \$3.9m). For further movements in cash during the quarter, refer to the Appendix 5B.


**Cygnus Gold Limited Tenements (As at 30 September 2018)**

| Tenement                             | Location          | Registered Owner             | Structure and Ownership       |
|--------------------------------------|-------------------|------------------------------|-------------------------------|
| E70/4787                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4854                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4910                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4912                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4952                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4988                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/4992                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/5050                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/5131                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E70/5137                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E70/5168                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E70/5169                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E70/5196                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E70/5203                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E70/5206                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| E77/2405                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E77/2463                             | Western Australia | Cygnus Gold Limited          | 100%                          |
| E77/2464                             | Western Australia | Cygnus Gold Limited          | Pending, 100%                 |
| <b>Wadderin Earn-In Project</b>      |                   |                              |                               |
| E70/4911                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/4939                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/4989                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/4990                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5018                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5019                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5020                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5021                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| <b>Lake Grace Earn-In Project</b>    |                   |                              |                               |
| E70/4853                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/4855                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/4991                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5017                             | Western Australia | Cygnus Gold Limited          | 100%, diluting to 25%         |
| E70/5188                             | Western Australia | Cygnus Gold Limited          | Pending 100%, diluting to 25% |
| <b>Yandina Joint Venture Project</b> |                   |                              |                               |
| E70/5098                             | Western Australia | Gold Road (Projects) Pty Ltd | 25%                           |
| E70/5099                             | Western Australia | Gold Road (Projects) Pty Ltd | 25%                           |
| E70/5100                             | Western Australia | Gold Road (Projects) Pty Ltd | 25%                           |
| E70/5101                             | Western Australia | Gold Road (Projects) Pty Ltd | 25%                           |



Mining Tenements disposed: Nil

Mining Tenements acquired: E70/5196, E70/5203, E70/5206, E77/2564.

Beneficial percentage interests held in farm in or farm-out agreements: Refer above.

Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed: Nil.

### **Forward Looking Statement**

This announcement may contain certain forward-looking statements and projections regarding estimated, resources and reserves; planned production and operating costs profiles; planned capital requirements; and planned strategies and corporate objectives. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors many of which are beyond the control of Cygnus Gold Limited. The forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved.

Cygnus Gold Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Cygnus Gold Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. Accordingly, to the maximum extent permitted by law, none of Cygnus Gold Limited, its directors, employees or agents, advisers, nor any other person accepts any liability whether direct or indirect, express or limited, contractual, tortious, statutory or otherwise, in respect of, the accuracy or completeness of the information or for any of the opinions contained in this presentation or for any errors, omissions or misstatements or for any loss, howsoever arising, from the use of this announcement.

### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on information and supporting documentation compiled by Mr James Merrillees, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr Merrillees is Managing Director and a full-time employee of Cygnus Gold and holds shares in the Company.

Mr Merrillees has sufficient experience relevant to the style of mineralisation under consideration and to the activity which 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". Mr Merrillees consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

### **End Notes**

- 1 Refer ASX announcement on the said date for full details of these exploration results. Cygnus is not aware of any new information or data that materially affects the information included in the said announcement.
- 2 Information on historical results, including JORC Code Table 1 information, is contained in the Independent Technical Assessment Report within Cygnus' Prospectus dated 22 November 2017. Cygnus is not aware of any new information or data that materially affects the information included in the Prospectus.