

30 January 2017

## Quarterly Activities Report 31 December 2016

### Highlights

#### JUMBUCK GOLD PROJECT

##### Greenewood Gold Discovery

- Phase 2 drill program completed at Greenewood prospect
- Consistent gold results strengthen geological model, with multiple gold-bearing zones
- Strike extended beyond 600m and remaining open
- Best intersections included:
  - 16GWRC063: **14m @ 3.02 g/t gold** from 34m, inc: **4m @ 5.37 g/t gold** from 40m
  - 16GWRC058: **4m @ 4.1 g/t gold** from 72m, inc: **1m @ 8.2 g/t gold** from 74m
  - 16GWRC073: **8m @ 3.35 g/t gold** from 55m, inc: **2m @ 6.1 g/t gold** from 57m

##### Campfire Bore

- Phase 2 drilling confirms supergene gold blanket overlay at Campfire Bore
- Primary gold hits increase exploration potential
- Strike extension increased to 1.4km
- Best intersections include:
  - 16CBDH001: 7m @ 1.90/t gold from 37m
  - 16CBRC054: 4m @ 2.80 g/t gold from 49m, inc: 2m @ 4.74 g/t gold from 50m
  - 16CBRC067: 1m @ 3.51 g/t gold from 35m
- Technical team planning further drill program for March commencement

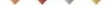
##### New Tenements

- Strategic new tenements acquired at Jumbuck Gold Project
  - Eagle Hawk – EL 4932 is 624km<sup>2</sup> about 50km east of Challenger Gold Mine
  - Deep Leads – EL 5032 is 154km<sup>2</sup> and joins up two exciting areas – Typhoon-Monsoon and South Hilga trends in the southern half of the project
- Tenement acquisitions brings Tyranna's exploration ground to 9,762km<sup>2</sup>

#### WILCHERRY JOINT VENTURE (TYX 49%/AGS 51%)

##### Zealous Tin Prospect

- Drilling at Zealous has intersected:
  - 63m @ 1.06% Pb (including 6m @ 4.02% Pb)
  - 129m @ 0.24% Zn (including 10m @ 0.84% Zn and 3m @ 747ppm U)
- Airborne electromagnetic geophysical survey over Project area to test for conductors associated with massive sulphide (tin, copper-gold, lead-zinc-silver) deposits.



Level 2, 679 Murray Street, WEST PERTH WA 6005 | PO Box 1124, WEST PERTH WA 6872  
T +61 8 9485 1040 | F +61 8 9485 1050 | E [info@tyrannaresources.com](mailto:info@tyrannaresources.com) | W [tyrannaresources.com](http://tyrannaresources.com)

### Wilcherry Heli EM Survey Commenced

- Highly encouraging results to date with many late-time conductors identified, potentially indicative of massive sulphide mineralisation
- Large conductors have been identified at the Zealous and Telephone Dam prospects
- Survey to recommence and be completed in February.

### JUMBUCK GOLD PROJECT

During the quarter, Tyranna, as manager of the Western Gawler Craton Joint Venture which includes WPG Resources Ltd (ASX: WPG) and Coombedown Resources Pty Ltd, announced that the second phase of drilling at the Jumbuck Gold Project which commenced in September was completed on 19 November. The program aimed to explore high-grade open-pit gold mineralisation within trucking distance of the Challenger gold operations. Challenger gold operations is owned and operated by joint venture partner WPG Resources Ltd.

### Greenwood Gold Prospect

Tyranna announced assay results from 11 reverse circulation (RC) holes drilled at the Greenwood Gold Prospect in November. Greenwood is part of the Jumbuck Gold Project and approximately 37km from the Challenger Gold Mine.

Holes 16GWRC030 to 16GWRC041 were drilled to test down dip of previously established gold mineralisation as well as a possible southern extension to the prospect. Total reverse circulation meters completed at Greenwood tally up to 5,170 m.

Hole 16GWRC038 was drilled beneath 16MWRC012 (which intercepted 3m@2.43g/t Au from Phase 1 drilling) and proved the down dip continuity with an intercept of **14m@5.79g/t Au** from 35m, including **1m@52.60/t**. This result established mineralisation along a continuous structure 50m down dip and remains open. Furthermore, a lower zone of mineralisation was also intersected with a grade of **2m@2.41g/t Au** from 64m in the same hole (16GWRC038).

The total strike length of the Greenwood prospect was extended to the south as a result of hole 16GWRC040 which intersected **8m@4.08g/t Au** from 20m, including **1m@23.40/t Au** (see Figure 1).

The final batch of assay results from the Phase 2 program were released in December. Planned drilling intersected multiple gold-bearing zones with similar results to the phase 1 and phase 2 programs. The high-grade section of the system is known as Greenwood Central. Phase 2 drilling comprised of a combination of infill, down-dip and diamond drilling used to improve the understanding of this section of the geological structure. The drilling program included grid spacing to at least 50m spacing and has now been completed within the central section with some sections completed down to 25m line spacing. Two diamond holes were also drilled to gather structural information as well as to aid in visualisation of ore zones. Hole 16GWRC073, which was drilled 100m north to the last mineralised line of drilling, **increased the strike length to greater than 600 metres**.

The Tyranna technical team is assessing all results from drilling at the Greenwood prospect to better understand the structure and the gold distribution with the aim of targeting the primary source of gold mineralisation.

Tyranna is in the process of planning activities for 2017, which will include approximately 15,000 to 20,000 metres of drilling. Drilling is planned to commence early to mid-March 2017 at the Typhoon and Monsoon prospects which to date have shown that the mineralisation is closer to the surface than the northern prospects.

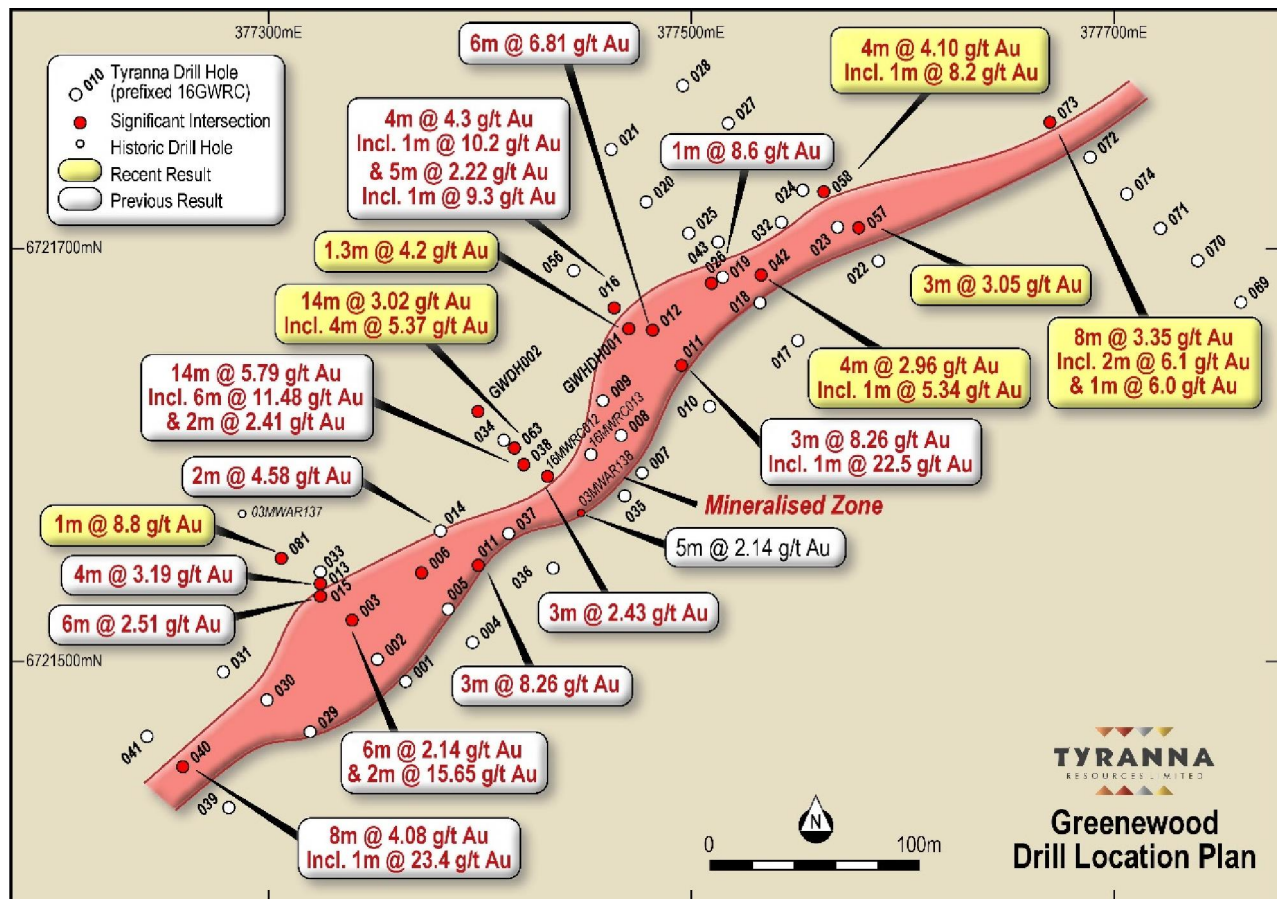


Figure 1: Drill hole location plan at Greenwood gold prospect

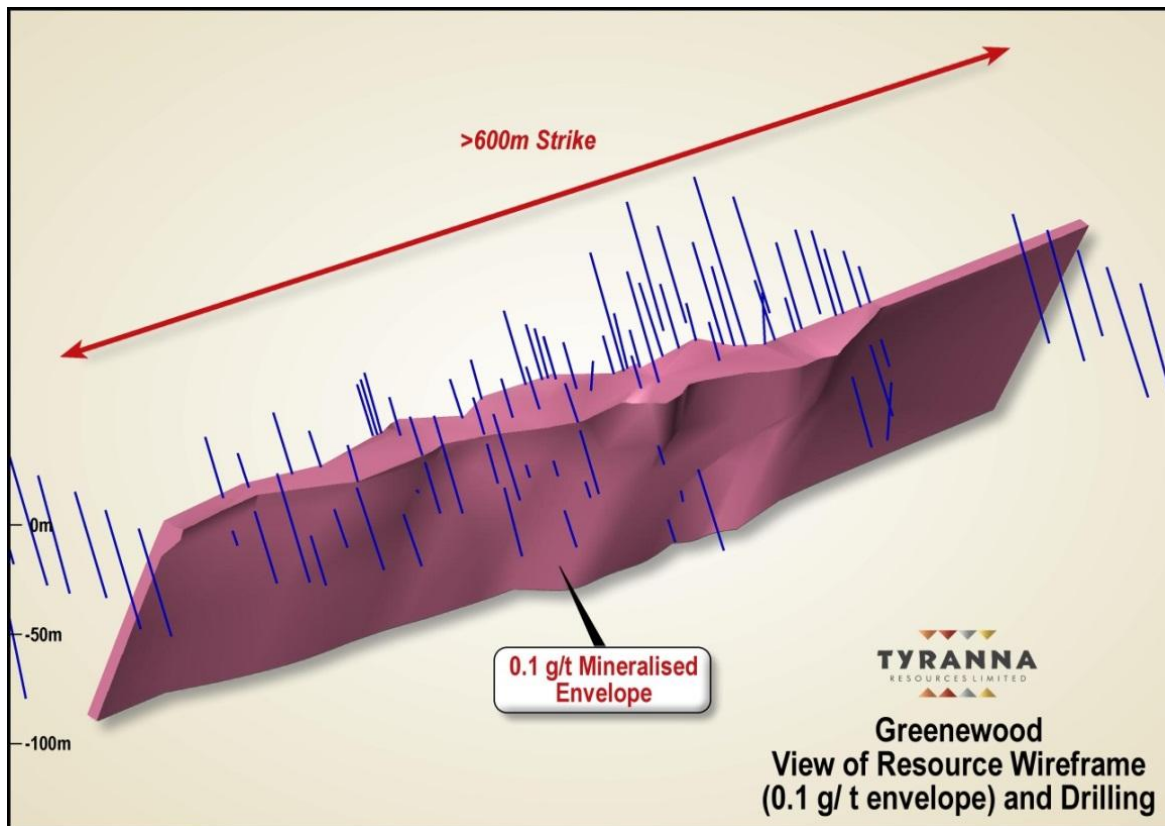


Figure 2: Greenwood 3D Model Long Section

## Campfire Bore

Phase 2 of the drilling at Campfire Bore, 5km from Greenwood, was completed in the quarter and all assays received. A total of 37 RC holes were drilled for 2,658 metres, and one diamond hole completed for 100 metres. Drilling results indicated that the targeted structure is continuous along strike. Results from 18 RC holes and one diamond hole were reported in November with results including:

- 16CBRC038: 14m @ 2.67 g/t gold from 74m
- 16CBRC035: 16m @ 1.55 g/t gold from 46m, inc: 1m@11.5g/t Au
- 16CBRC040: 6m @ 2.00g/t gold from 35m
- 16CBRC044: 11m @ 1.70 g/t gold from 33m

Holes 16CBRC034 to 16CBRC051 were drilled to test different possible orientations of gold-bearing structures discovered by Tyranna earlier in 2016. Historically, Campfire Bore has been the target of multiple generations of drilling however the orientation of the ore zones has never been clearly understood. The first results appeared to identify the prevailing strike of one of these structures and opened the possibility that many parallel structures exist.



The Joint Venture partners are pleased that the drilling to date at Campfire Bore has delineated a consistent supergene gold blanket at the transition zone between the oxidised and fresh rock boundary. This is evident from multiple drill intercepts with grades greater than 30 g/t Au that have been attributed to supergene enrichment (refer figure 3):

- 16CBRC022 1 m @ 37.8 g/t Au from 47m
- 16CBRC015 1 m @ 36.8 g/t Au from 42m
- 16CBRC038 1 m @ 30.8 g/t Au from 56m
- 16CBRC029 1 m @ 30.5 g/t Au from 41m

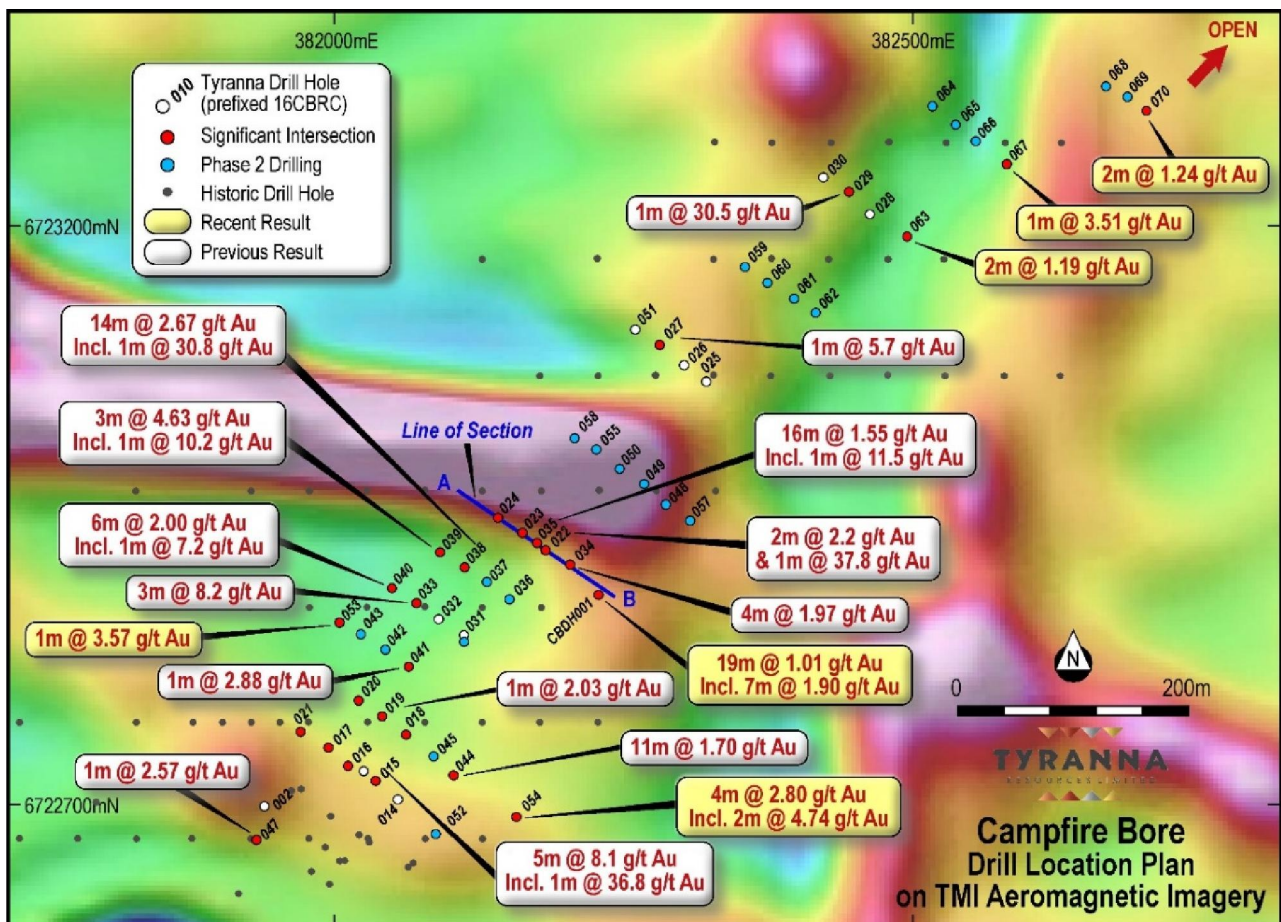


Figure 3: Drillhole location plan at Campfire Bore

In addition to the supergene enrichment, the results of this program of drilling proves the mineralised structure extends below the supergene blanket and into a primary zone. The implication is that deeper drilling is required to extend the gold zone and thus increase resource potential. Refer to figure 4 which shows diamond drill hole 16CBDH001 and 16CBRC035 which both intersected primary style gold mineralisation.

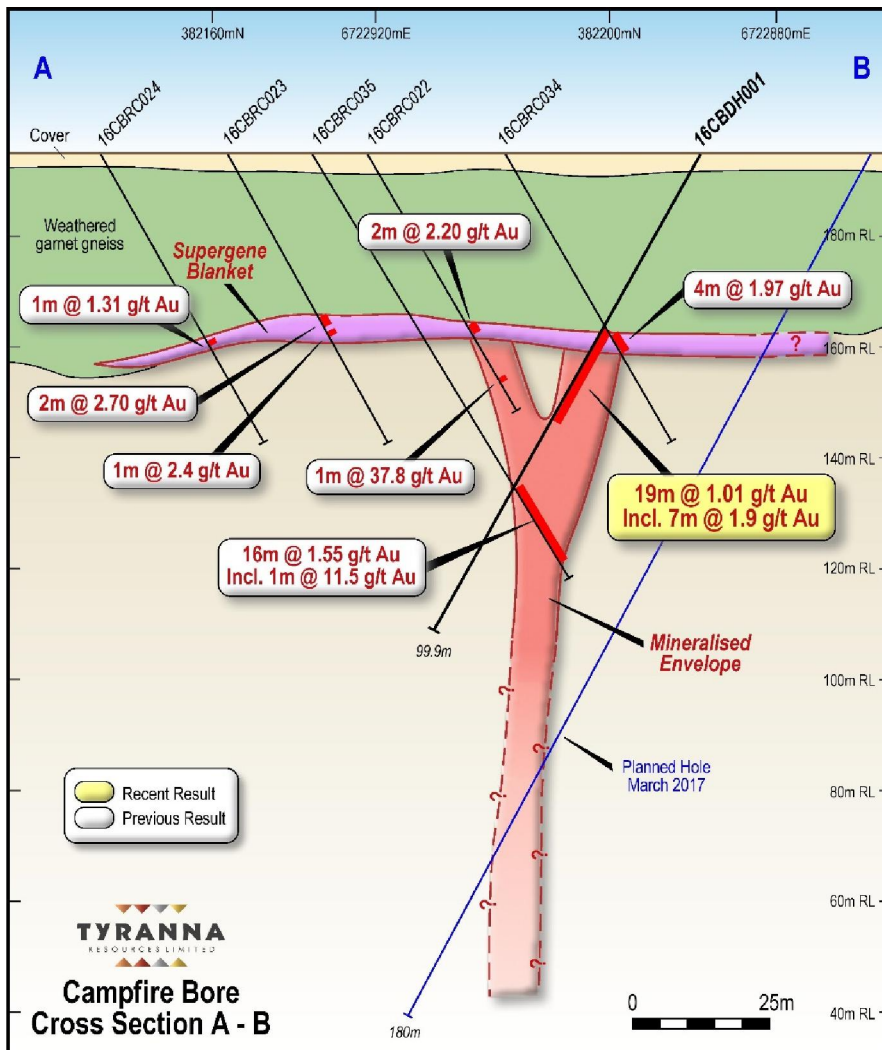


Figure 4: Cross Section at Campfire Bore

Diamond hole 16CBDH001 intersected 19m @ 1.01 g/t Au from 37m, including 7m @ 1.9 g/t Au from 37m. In the mineralised zone, evident from this diamond hole, sampling was taken at 1 metre intervals however the intervals sampled did not replicate the mineralised structures known as the “blue quartz vein” which ranges from 10cm to 60cm in length. A new sampling program will be undertaken to sample only the blue quartz veins in the mineralised structures to show a true reflection of the irregular distribution of the nuggetty gold which is similar to the gold mineralisation at the Challenger Gold mine (refer to WPG Resources September 2016 Quarterly Report).

The JV plans to undertake further exploration at Campfire Bore in the coming months.

### Other areas

Planned drilling at the Typhoon and Monsoon prospects (located 40km south of Challenger gold mine) has been deferred until March 2017 due to delays in conducting required Aboriginal heritage surveys. The heritage surveys were completed in November and all clearances received. Typhoon and Monsoon will be drilled as a priority in the new round of drilling, which is scheduled to commence in March 2017.

### New Tenements

#### **Eagle Hawk – EL 4932**

Tyranna entered a binding letter agreement to purchase EL 4932 from Mincor Resources NL for \$30,000. EL 4932 comprises an area of 624km<sup>2</sup> and adds significantly to Tyranna's land holding at Jumbuck, located approximately 50km to the east of Challenger Gold Mine. Historic work has primarily concentrated on the IOCG potential due to the presence of Hiltaba age geology within the eastern half of the tenement, and this remains exciting. Challenger-style gold exploration however has been minimal and there is plenty of scope for further work as numerous geochemical targets have not yet been drill tested. As Tyranna's understanding of an effective exploration model from regional to prospect scale for this terrain develops, the company's status as the largest land holder in the region will become increasingly important.

#### **Deep Leads – EL 5032**

Tyranna entered an agreement to purchase EL 5032 from FMG Resources Pty Ltd for \$30,000. EL5032 comprises an area of 154km<sup>2</sup> and joins up the two most exciting areas in the southern half of the Jumbuck project area – the Typhoon-Monsoon and South Hilga trends. Historically it has been ignored due to a paleochannel that occurs within the licence which obfuscates the geochemical data. Tyranna recognises this as an opportunity as it works towards an updated model of gold exploration using geochemical data. Tyranna is planning to drill in the Jumbuck South area in the first quarter of 2017 which gives added importance to the addition of this tenement to the portfolio. Furthermore, exploration at the Durkin and Aristarchus prospects which are within the same geological terrain in Jumbuck South, has proven there to be the potential for ultramafic, nickel-copper-PGE style mineralisation.

The agreement reached in October to transfer of all mineral rights to the joint venture ground to Tyranna (from WPG Resources Ltd) now means that the company has 9,762km<sup>2</sup> of ground for exploration.

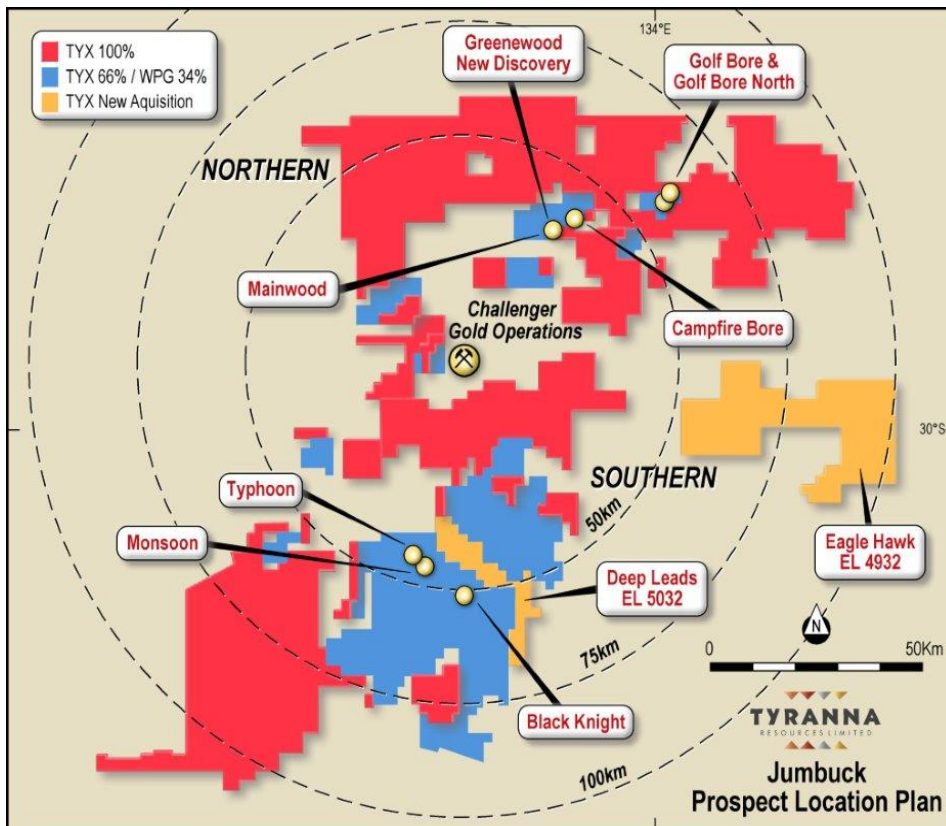


Figure 5: Jumbuck Tenement Location Map

## WILCHERRY JOINT VENTURE

### Zealous Prospect

The Zealous Prospect is located within the Wilcherry Project, a joint venture between Alliance Resources Ltd ("Alliance", ASX: AGS) which holds 51% and Tyranna which holds 49%.

A three-hole drilling program, completed prior to the commencement of the joint venture, primarily targeted a magnetic anomaly thought to represent a potential source for the tin previously intersected at the prospect, however there is insufficient magnetism in the core to explain the anomaly.

Only one hole intersected anomalous tin, 28m @ 469ppm Sn from 41m in 16ZLDH003.

However, significant lead (Pb), zinc (Zn) and uranium (U) results were intersected, e.g. 63m @ 1.06% Pb from 36m and 129m @ 0.24% Zn from 69m, including 3m @ 747ppm U in 16ZLDH003.

Level 2, 679 Murray Street, WEST PERTH WA 6005 | PO Box 1124, WEST PERTH WA 6872  
T +61 8 9485 1040 | F +61 8 9485 1050 | E [info@tyrannaresources.com](mailto:info@tyrannaresources.com) | W [tyrannaresources.com](http://tyrannaresources.com)

ASX TYX | ABN 79 124 990 405



Alliance geologists revisited drilling results from 2012-2014 by Trafford Resources Ltd based on these results, and results of the review indicated a significant number of large, low grade lead-zinc intercepts at Zealous, which in conjunction with the tin results and known geology of the district, supports a distal mineralised environment which may be suitable for the development of a replacement sulphide-hosted tin deposit similar to Renison, Tasmania.

The 2012 discovery of high-grade tin in this region indicates that a reduced tin-bearing granite has intruded the Paleoproterozoic sediments, which include multiple fold-repeated horizons of dolomite (the favourable host rock for replacement tin deposits), and potentially represents a new and significant tin province in South Australia.

Alliance is continuing to review the extensive existing drilling database and commenced an helicopter based electromagnetic (HEM) geophysical survey over the Project area to test for conductors associated with massive sulphide (tin, copper-gold, lead-zinc-silver) deposits.

### Wilcherry Heli EM Survey

A regional helicopter-based electromagnetic (HEM) survey at the Wilcherry Project commenced in early December. The survey, using the Xcite™ system, tested for conductors associated with massive sulphide base metal deposits including tin, copper-gold, and silver-lead-zinc deposits. The survey is being flown on 800 metre spaced east-west oriented lines and infilled to 400 metre line spacing in areas of significant conductivity.

Production from the HEM survey was slower than expected due to a smaller aircraft being available for the survey and high wind conditions. In late December, 1,085 line kilometres (86%) of the original planned survey area was completed and an additional 76 line kilometres of infill surveying had been flown.

The survey was paused over the Christmas-New Year period, due to prior commitments of the aircraft, and is planned to recommence in February 2017.

Results received to date have been highly encouraging with many late-time conductors identified, potentially indicative of massive sulphide mineralisation.

Most of these conductors still require infill flying, however surveying is complete at the Zealous tin prospect and the Telephone Dam silver-lead-zinc prospect where strong late-time conductors have been identified.

The conductor at Zealous is arcuate and approximately 1.7 kilometres long. The anomaly is located 450 metres to the northwest of previous drilling at the prospect and presents a high priority target for future exploration.

The conductor at Telephone Dam strikes north-south and is approximately 3.0 kilometres long. While some drilling has been completed at this prospect, its effectiveness at testing the conductor is uncertain at this stage.

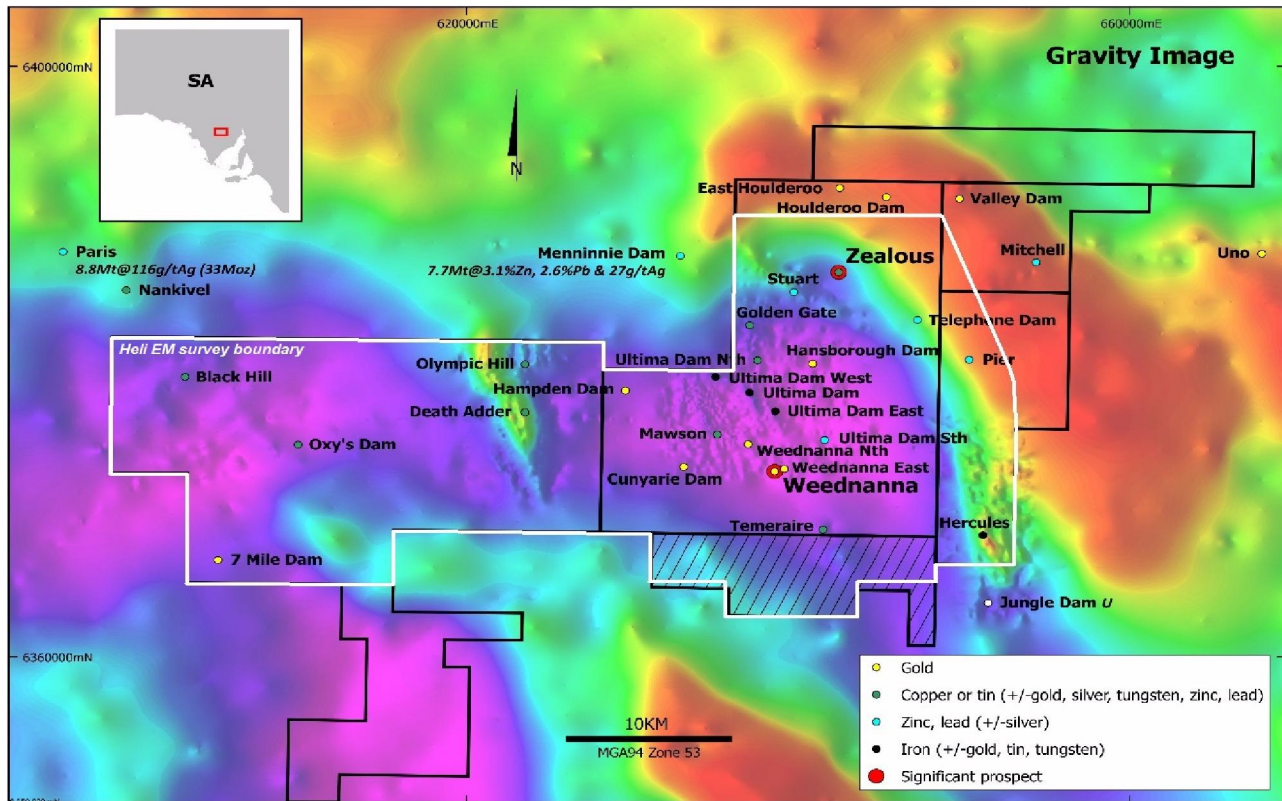


Figure 6: Wilcherry Project: Location of HEM survey area on a gravity image with prospects. Gravity lows are indicated by purple colour (indicating prospective Hiltaba Granite)

## CORPORATE

### Orinoco Investment

Tyranna has a 5.1% shareholding in ASX-listed Orinoco Gold Ltd ("Orinoco") which operates the high-grade Cascavel gold project in Brazil. During the quarter, Tyranna agreed to provide a convertible loan to Orinoco amounting to \$500,000, with Orinoco agreeing to appoint Tyranna's Technical Director Nick Revell as an Orinoco director. Orinoco required the funding to recommence the Cascavel plant after technical consultants determined that operational issues at the plant could be resolved with minor modifications and refinements with additional developments to improve access and infrastructure underground during trial mining.

### Kairos Minerals Ltd

During the quarter, the Company received 9 million shares in Kairos Minerals as part consideration of Tyranna vending its 90% interest of the Lynas Find assets (renamed The Mount York Gold-Lithium Project) pursuant to the Term Sheet announced to ASX by both Companies on 28th January 2016. This 9 million shares in Kairos was issued as a result of

the conversion of the Mount York Gold Lithium exploration tenement applications to granted exploration licenses. Tyranna now has a total of 28,335,000 shares in Kairos amounting to 7.28% of the issued capital of Kairos Minerals Ltd.

### **Wilcherry Joint Venture**

During the quarter, Tyranna received \$2 million from Alliance Resources Ltd (Alliance) for the sale of 51% equity interest in the Wilcherry Project (Project).

### **Results of Meeting**

At Tyranna's Annual General Meeting of shareholders, held on 30 November 2016, resolutions 12 and 13 were withdrawn at the meeting and all remaining resolutions put to the meeting were passed by a show of hands. Resolution 7 was approved as a Special Resolution.

#### **For further information contact:**

Bruno Seneque,  
Managing Director  
P: +61 8 9485 1040

Peter Taylor  
Investor Relations  
P: +61 412 036 231  
[peter@nwrcommunications.com.au](mailto:peter@nwrcommunications.com.au)

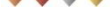
## **About Tyranna**

Tyranna is a gold exploration company focused on the large Jumbuck Gold Project in the Northern Gawler Block of South Australia. Tyranna is planning an exploration program for 2017 comprising a drilling campaign of 15,000 – 20,000 metres at Jumbuck which is planned to commence in March 2017. A total of 14,389 metres was drilled at the Jumbuck Gold Project during the 2016 calendar year with the aim to explore for high grade open pit, gold mineralisation within trucking distance of the Challenger gold operations. The Challenger gold operations is owned and operated by Tyranna's joint venture partner WPG Resources Ltd.

Jumbuck is a highly prospective and underexplored area, similar in style to the Albany/Fraser belt adjacent to the Yilgarn Craton in Western Australia which is host to the large 6.3M Au Oz Tropicana gold deposit. Tyranna controls over 9,762 km<sup>2</sup> of ground in this area, which also hosts the Challenger gold mine (owned by WPG Resources Ltd). Challenger has produced in excess of 1 million ounces of gold to date.

The Jumbuck Project has numerous gold occurrences over large areas with strong potential for significant resources of shallow oxide ore and repeat Challenger style deposits.

Tyranna's strategy is to target those more advanced gold prospects which are situated within 50 km's of the Challenger gold processing operations and increase the economic scale of these prospects via focused and extensive exploration drilling.

  
Level 2, 679 Murray Street, WEST PERTH WA 6005 | PO Box 1124, WEST PERTH WA 6872  
T +61 8 9485 1040 | F +61 8 9485 1050 | E [info@tyrannaresources.com](mailto:info@tyrannaresources.com) | W [tyrannaresources.com](http://tyrannaresources.com)

**Competent person statement:** The information in this announcement that relates to Exploration Results is based on information compiled by Nicholas Revell, who is a Member of The Australian Institute of GeoScience and who has more than five years' experience in the field of activity being reported on. Mr. Revell is the Technical Director of the Company.

Mr. Revell has sufficient 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Revell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



**Appendix 1: Mining Tenements as at 31<sup>st</sup> December 2016**

South Australia Tenement Schedule				
Exploration License No	Tenement Name	Registered Holder	Interest at Beginning of Qtr	Interest at End of Qtr
5470	Valley Dam	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
5299	Wilcherry Hill	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
5164	Eurilla Dam	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
5590	Peterlumbo	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
4748	Mt Miccollo	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
4870	Pinkawillinie	Trafford Resources Pty Ltd	100%	49% <sup>1</sup>
4942	Irra Outstation (Jumbuck)	Trafford Resources Pty Ltd	100%	100%
4943	Garford Outstation West	Trafford Resources Pty Ltd	100%	100%
4944	Garford Outstation East	Trafford Resources Pty Ltd	100%	100%
5098	Wildingi Claypen	Trafford Resources Pty Ltd	100%	100%
5168	Indooroopilly	Trafford Resources Pty Ltd	100%	100%
5282	Hilga Crutching Shed	Trafford Resources Pty Ltd	100%	100%
5283	Mt Christie	Trafford Resources Pty Ltd	100%	100%
5284	Commonwealth Hill	Trafford Resources Pty Ltd	100%	100%
5285	Ingomar	Trafford Resources Pty Ltd	100%	100%

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South Australia Tenement Schedule				
5460	Mt Christie Siding	Trafford Resources Pty Ltd	100%	100%
5680	Isthmus	Half Moon Pty. Ltd.	100%	100%
5510	Mathews Tank	Trafford Resources Pty Ltd	100%	100%
5551	Brickies - Wynbring	Trafford Resources Pty Ltd	100%	100%
5526	Galaxy Tank	Trafford Resources Pty Ltd	100%	100%
4932	Eagle Hawk	Trafford Resources Pty Ltd	0%	100% <sup>2</sup>
5032	Deep Leads	Trafford Resources Pty Ltd	0%	100% <sup>2</sup>
ELA2015/118	Sandstone	Half Moon Pty. Ltd.	100%	100%
ELA2015/120	Lake Anthony	Half Moon Pty. Ltd.	100%	100%
ELA2015/122	Irra	Half Moon Pty. Ltd.	100%	100%
ELA2015/121	Barton Area	Half Moon Pty. Ltd.	100%	100%
ELA2012/291	Barton Siding	Trafford Resources Pty Ltd	100%	100%
ELA2015/201	Warrior Outstation	Half Moon Pty. Ltd.	100%	100%

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Exploration License No	Tenement Name	Registered Holder	Interest at Beginning of Qtr	Interest at End of Qtr
5183	Campfire Bore	Challenger Gold Operations Pty Ltd, Coombedown Resources Pty Ltd	53% rights to the gold	59% rights to the gold
5298	Mulgathing	Challenger Gold Operations Pty Ltd	59% rights to the gold	66% rights to the gold
5732	Sandstone JV	Challenger Gold Operations Pty Ltd, Coombedown Resources Pty Ltd	53% rights to the gold	59% rights to the gold
4468	Jumbuck	Challenger Gold Operations Pty Ltd	59% rights to the gold	66% rights to the gold
4532	Mobella	Challenger Gold Operations Pty Ltd	59% rights to the gold	66% rights to the gold
4644	Sandstone	Challenger Gold Operations Pty Ltd	59% rights to the gold	66% rights to the gold
4951	Blowout	Challenger Gold Operations Pty Ltd	59% rights to the gold	66% rights to the gold

<sup>1</sup>Pending the completion of the tenement transfer in accordance with agreement signed with Alliance Resources Ltd (Alliance) for the sale of 51% equity interest in the Wilcherry Project.

<sup>2</sup>Pending the completion of tenement transfer in accordance with agreement signed with FMG Resources Pty Ltd and Mincor Resources NL.