

31<sup>st</sup> October 2018

ASX ANNOUNCEMENT

## ACTIVITY REPORT SEPTEMBER QUARTER 2018

### HIGHLIGHTS CLONCURRY QLD

- Bonanza High Grade Gold, Copper, and Cobalt RC drilling grades at The Trump ML including:
  - 153m @ 1.02% Cu and 1.43g/t Au from surface including 6m @ 32.9g/t Au with 4m @ 48.9g/t Au, plus 7m @ 1,555ppm Cobalt with 1.02% Cu & 0.32g/t Au
- The Golden Mile produces multiple high-grade gold intercepts including:
  - RC drill hole CO18RC001: 8m @ 6.32 g/t Au including 3m @ 15g/t Au, 5m @ 8.81g/t Au and 3m @ 13.91g/t Au.
  - RC drill hole CO18RC002: 12m @ 2.00 g/t Au including 3m @ 3.49 g/t Au.
  - RC drill hole CO18RC003: 7m @ 7.60g/t Au (8-15m) including 3m @ 12.01g/t Au (12-15m).
  - RC drill hole CO18RC004: 9m @ 2.40g/t Au (9-18m) including 4m @ 4.50g/t Au (14-18m).
- Ausmex Shares Tier 1 IOCG Target with Newcrest Mining Limited:
  - Ausmex controlled Mt Freda Complex contains approximately 30% of a massive IOCG geophysical and geochemical prospect previously identified by Exco Resources Ltd in 2012.
  - Newcrest Mining Limited (ASX: NCR) commenced farm in drilling on the Tier 1 "Canteen" IOCG target approximately 800m south of the Mt Freda Complex, with the anomaly extending into the Ausmex controlled Mt Freda Complex.
  - Mt Freda Complex hosts a large mineralised system that has the scale to host a massive Tier 1 IOCG prospect hosting shallow Au, Cu, Co and Rare Earth Elements.

### HIGHLIGHTS BURRA SA

- Stage 1 Magnetotelluric (MT) Geophysical Survey over approx. 4,500 sq kms was completed over the large 42km diameter AusLAMP identified conductive target at Burra, SA.

➤ **Additional High-Grade, Copper and Gold Identified at the Burra including:**

- Rock chip analysis returned high grade Gold (6.9 g/t Au) and Copper (25 % Cu).
- Historic drilling focused on Copper mineralization with no historic assaying for Cobalt and limited assaying for Gold.
- Existing Princess Royal JORC 2004 Inferred Mineral Resource<sup>1</sup> estimate of 216,586 te @ 0.96% Cu totaling 2,083 te of contained Copper does not include Cobalt and Gold values (ASX: PNX 19 September 2017).

**SIGNIFICANT POST REPORTING EVENTS.**

- Independent Expert Emeritus Professor Ken Collerson validates potential world class IOCG and REE magmatic sulphide deposit at the Ausmex controlled Burra, SA stating:
  - Potential mineralisation in the Burra area include another giant ~830 Ma Jinchuan deposit (>500 Mt @ 1.2% Ni, 0.7% Cu, Cu/Ni 0.58, ~0.4g/t PGE) which is the largest single magmatic sulphide deposit on Earth.
- University of Adelaide 3D MT Modeling identifies 30km long, 10km wide conductive anomaly at Burra, SA, that commences from a 200m depth below surface.
- High Grade Gold drilling expands Mt Freda Complex including
  - **SHAMROCK REEF SYSTEM** (*Historical gold mine first time ever drilled*)
    - Drill hole SH18RC008: 28m @ 4.3g/t Au (37-65m) including 2m@ 23.5g/t Au, plus 2m@ 14.9g/t Au, and 2m @ 10.7g/t Au
    - Drill hole SH18RC005: 23m @ 2.0g/t Au (102-125m) including 5m @ 4.0g/t Au and 1m @ 20.6g/t Au

(Note holes not drilled in numerical order)
  - **MT SCHEELITE REEF SYSTEM** (Never been drilled before)
    - Drill hole MS18RC001: 6m @ 3.2g/t Au (11-17m) with 3m @ 5.5g/t Au including 6m @ 0.17% W with 2m @ 0.48% W (11-17m), plus 1m @ 14.3g/t Au (23-24m)

**INTRODUCTION**

Ausmex Mining Group Limited ("Ausmex" or "the Company") Directors welcome shareholders to our September 2018 Quarterly Report. The company continued to deliver excellent exploration results through the September quarter generated from the highly prospective gold, cobalt and copper Cloncurry suite of tenements in QLD, and the extensive cobalt-copper bearing Burra tenement holdings in South Australia.

Bonanza gold grades were intersected at The Trump Mining Lease during the extension of drill hole

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<sup>1</sup> The information pertaining to the Burra Project, Princess Royal Inferred Mineral Resource was prepared and first disclosed by PNX under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

TR17RC07 with grades of up to 172 g/t gold, including a 6m gold zone within oxide material from 75 – 81m averaging over 1 Ounce per tonne of Gold (6m @ 32.9 g/t). The project is strategically located to excellent transport infrastructure and several third-party ore processing facilities and has the potential to host significant high-grade gold, copper @ cobalt mineralisation.

The recently acquired 80% beneficial interest in two exploration sub blocks named “The Golden Mile” has proven to be a very astute purchase for the Company, with maiden drilling on the Comstock reef, the first of eight historical high-grade gold mines to be tested, producing significant high-grade gold intersections. Post quarter drilling results have now intersected significant gold mineralisation at two more reefs on the Golden mile including Mt Scheelite and the Shamrock historical mines, including significant intersections of up to 28m @ 4.3g/t Au, including 2m @ 10.7g/t Au, 2m @ 23.5g/t Au, and 2m @ 14.9g/t Au from the Shamrock.

The Golden Mile is currently under a Joint Venture with Round Oak Minerals Limited, (80% Ausmex and 20% Round Oak Minerals), with an option for Ausmex to process all ore at the Round Oak Minerals Limited 600ktpa CIP ore processing facility in Cloncurry. Round Oak Minerals Limited are currently hauling stockpiles purchased from Ausmex at Mt Freda to the Great Australian Mine for processing.

The true prospectivity of the Mt Freda Complex has been identified by the international mining house, Newcrest Mining Limited. It has been revealed that Ausmex holds thirty percent of a massive IOCG target that Newcrest Mining Limited have commenced drilling approximately 800m south of the Mt Freda Complex. This highlights the potential for the Mt Freda Complex to contain a large and significant gold, copper, and cobalt mineralised system.

The Company has simultaneously progressed the Burra, SA project with the recent completion of an extensive Magnetotelluric (MT) geophysical survey conducted by the University of Adelaide (UoA). The University has recently completed initial 3D modeling of the MT survey results, identifying post reporting period a 30km long, 10km wide conductive IOCG target located 200m below the surface.

Furthermore, the Company engaged Independent Expert Emeritus Professor Ken Collerson to review surface geochemical sampling results produced by the Company from Burra including high grade gold, copper and cobalt from the Princess Royal project. The Professor has confirmed that the mineralisation fluids at Burra are similar to compositions of fluids inferred for the nearby world class Olympic Dam IOCG and that the conductivity domain identified below Burra is similar in scale and character to the large MT conductive anomaly below Olympic Dam. Professor Ken Collerson stated that **potential mineralisation in the Burra area includes another giant ~830 Ma Jinchuan deposit (>500 Mt @ 1.2% Ni, 0.7% Cu, Cu/Ni 0.58, ~0.4g/t PGE) which is the largest single magmatic sulphide deposit on Earth.**

**Managing Director Matt Morgan stated:**

*“The September quarter again has continued to deliver a focused and fast paced exploration campaign within both Burra SA, and Cloncurry QLD that has produced positive exploration outcomes for the Company.*

*Shareholders now have exposure to two potential World Class, Tier 1 IOCG targets, with MT modelling by the University of Adelaide defining a 30km long, 10km wide conductive structure at Burra, commencing 200m below surface. Independent Expert Emeritus Professor Ken Collerson has*

identified Burra to have the potential to host another giant ~830 Ma Jinchuan deposit (>500 Mt @ 1.2% Ni, 0.7% Cu, Cu/Ni 0.58, ~0.4g/t PGE) which is the largest single magmatic sulphide deposit on Earth!

Ausmex shareholders may have additional upside, with the company holding 30% of a Tier 1 IOCG target that Newcrest Mining Limited are drilling and defining 800m south of the Mt Freda Complex.

This alone is an incredible outcome for shareholders, yet the Company has also successfully identified significant gold, copper and cobalt mineralisation at the Trump Mining lease, plus successfully drill tested high-grade gold targets at The Golden Mile that have the potential to host a large, shallow, oxidized mineralised system that may be amenable to bulk mining. As Ausmex has an option to process ore from the Golden Mile at the Round Oak Minerals 600ktpa CIP ore processing facility in Cloncurry, there is the potential to fast track any economic mineralisation into production.

A lot has happened in 3 months that has set the scene for a very exciting December quarter for Ausmex Shareholders”.

#### **SEPTEMBER QUARTER ACHIEVEMENTS CLONCURRY QLD**

##### **The Trump ML** (Refer ASX Release 28<sup>th</sup> August 2018)

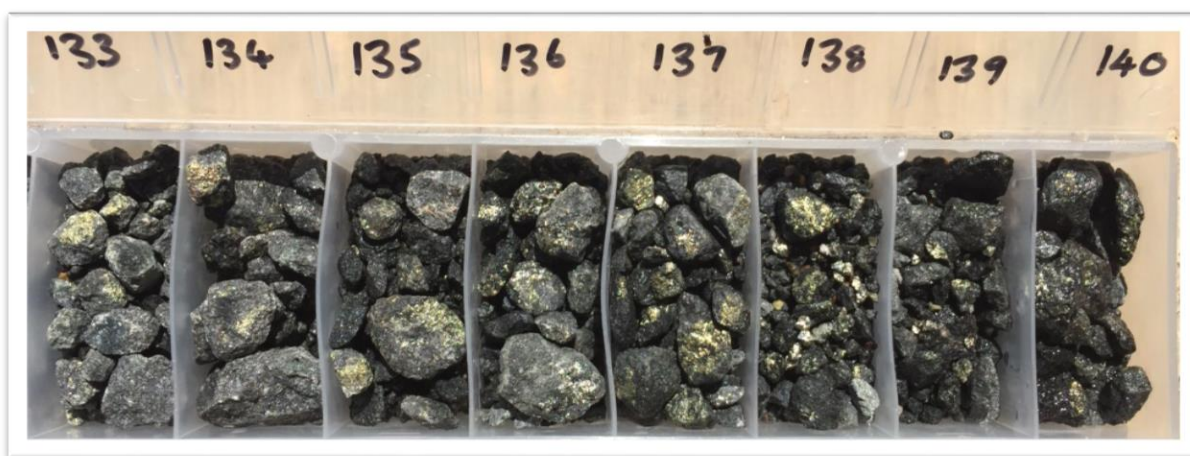
Bonanza gold grades were intersected in the extension of drill hole TR17RC07 with grades of up to 172 g/t gold, including a 6m gold zone within oxide material from 75 – 81m averaging over 1 Ounce per tonne of Gold (6m @ 32.9 g/t).

- **RC Drill hole TR17RC07: 153m @ 1.02% Cu and 1.43g/t Au from surface including 6m @ 32.9g/t Au with 4m @ 48.9g/t Au, plus 7m @ 1,555ppm Cobalt with 1.02% Cu & 0.32g/t Au.**
- **RC Drill hole TR18RC001: Intersects 3 zones of Copper with a combined 77m averaging 1.03% Cu.**
- **Strategic location, excellent infrastructure with several 3<sup>rd</sup> party mineral processing plant within short trucking distance.**
- **SIGNIFICANT HIGH-GRADE INTERSECTIONS AT “THE TRUMP” CLONCURRY, QLD GRANTED MINING LEASE ML2549 INCLUDE:**
  - **Trump RC Hole TR17RC07<sup>1</sup>**
    - **153m @ 1.02% Cu & 1.43 g/t Au from surface (re-entry<sup>1</sup> extension from 60m) including:**
      - **3m @ 2.33% Cu (0-3m)**
      - **7m @ 2.10% Cu (28-35m)**
      - **2m @ 2.42% Cu (41-43m)**
      - **5m @ 2.51% Cu (50-55m)**
      - **21m @ 1.81% Cu & 9.7g/t Au (60-81m) with 16m @ 2.01% Cu with 11.14g/t Au (60-76m)**
      - **6m @ 32.9 g/t Au (75-81m) including 4m@ 48.9g/t Au (75-79m)**
      - **7m @ 1.02% Cu with 1,555ppm Co and 0.32g/t Au (135-142m)**

<sup>1</sup>RC hole 17RC07 was initially drilled inadvertently down dip to a 60m depth in late 2017, finishing in high grade copper. (Refer ASX release 2nd February 2018.) The hole was re-entered and drilled to a total depth of 168m down dip in late June 2018.

- Trump RC Hole TR18RC001

- 157m @ 0.67% Cu (2-159m) including
  - 7m @ 1.01% Cu (5-12m)
  - 43m @ 1.03% Cu (25-68m) including 3m @ 2.03% Cu (33-36m), and 4m @ 2.04% Cu (53-57m)
  - 27m @ 1.03% Cu (111-138m) including 7m @ 2.01% Cu (117-124m)
  - 77m combined over three zones @ 1.03% Cu



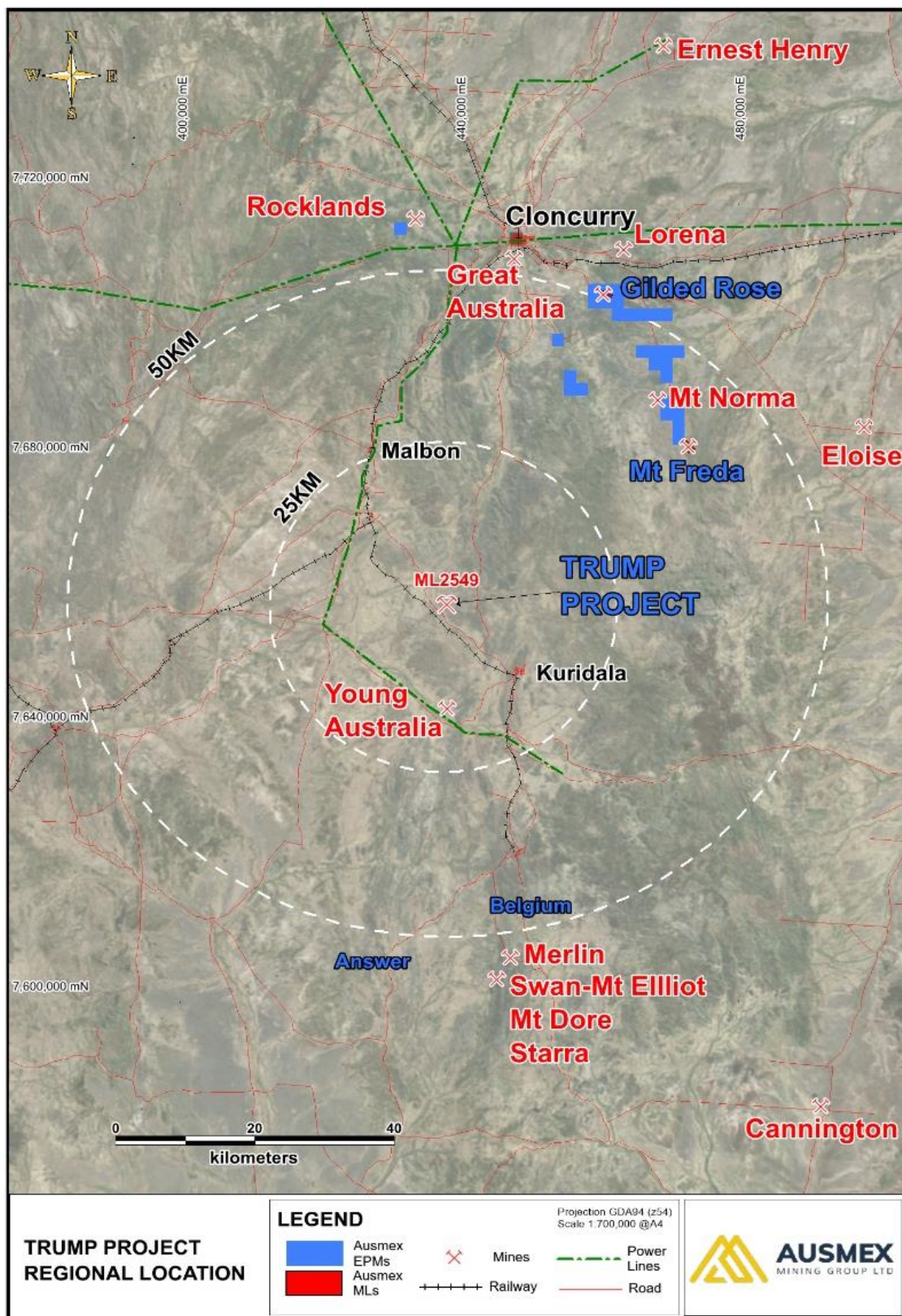
**Figure: 1** Sample Boxes of RC Drill chips from hole TR17RC07, showing Chalcopyrite with Cobalt mineralisation

**Strategic location, excellent infrastructure with road access to multiple third-party mineral processing plants**

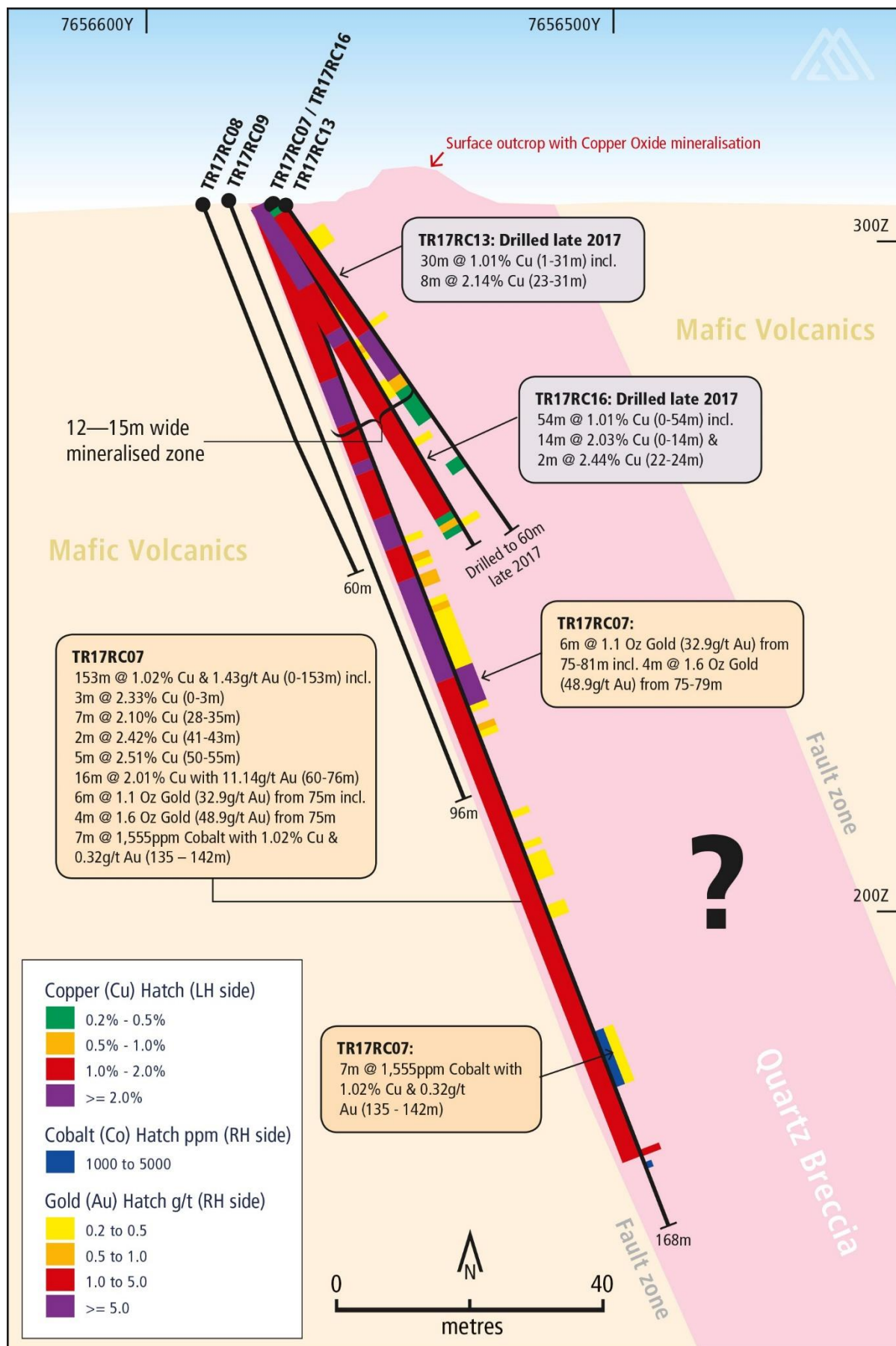
The project is proving to be a highly prospective high-grade copper-gold-cobalt project with potential to host a large and significant mineralised deposit, that is still open at depth and along strike, strategically located within trucking distance to several third-party gold and copper processing facilities.

The project is located adjacent to all weather road access and rail facilities. The combination of a granted Mining Lease within trucking distance to spare processing capacity, with significant road and rail infrastructure in place significantly reduces mining approval times and working capital requirements, that may allow the potential fast tracking to production of any economic mineral resources later defined.





**Figure 2.** The Trump ML2549 Location plan noting the proximity via road or rail to multiple ore processing facilities



**Figure 3. X-SECTION 1. TR17RC07. Note ~12-15m wide apparent width of mineralisation.**



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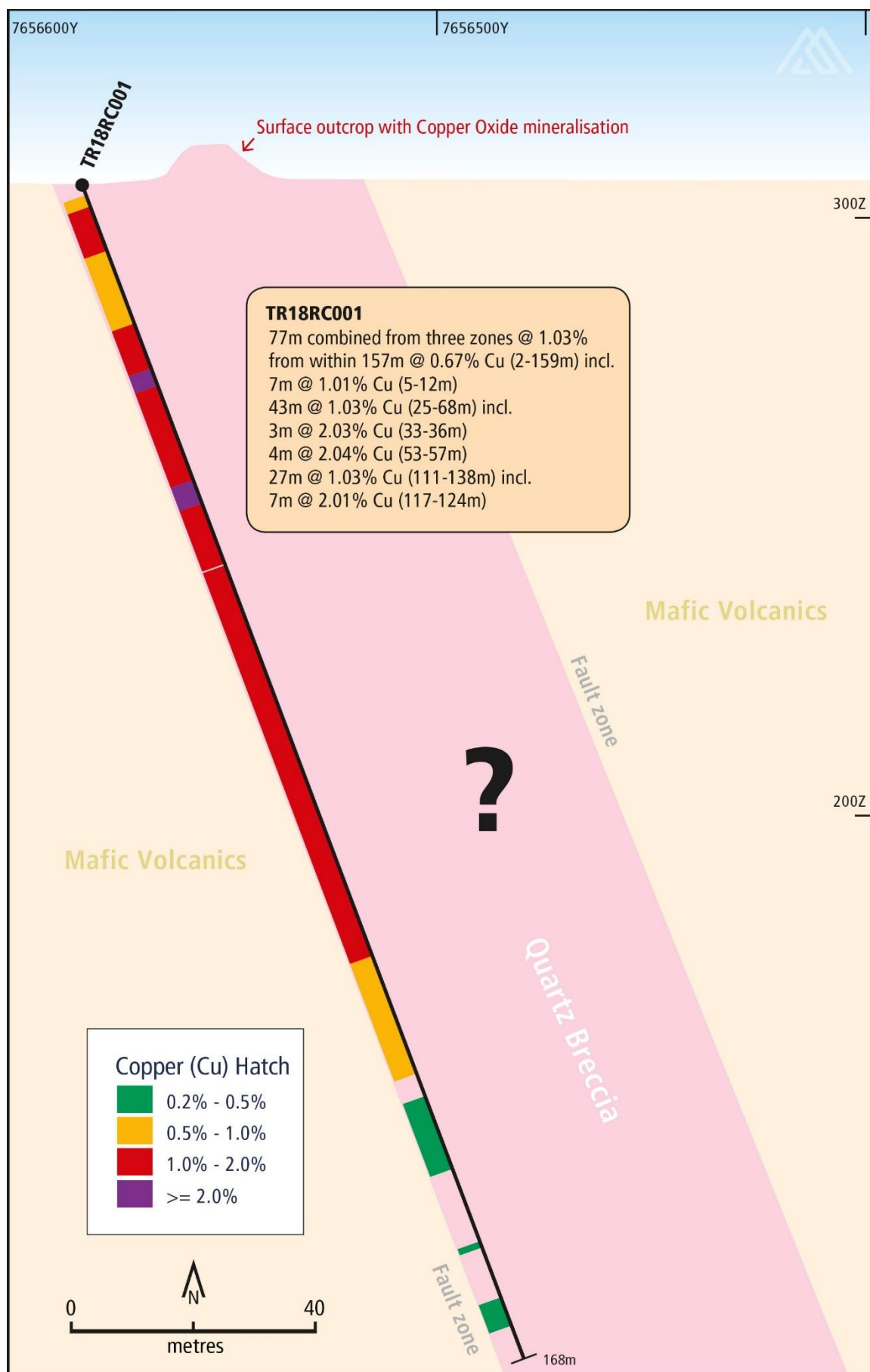


Figure 4. X-SECTION 2. TR18RC001 drilled ~ 60m to the west of TR17RC07



## **GOLDEN MILE PROJECT MAIDEN EXPLORATION RESULTS**

### **ADDITIONAL HIGH-GRADE GOLD DRILLING RESULTS AT THE COMSTOCK**

**"GOLDEN MILE PROJECT"** (Refer ASX Release 10<sup>th</sup> September 2018)

- RC drill hole CO18RC003: 7m @ 7.60g/t Au (8-15m) including 3m @ 12.01g/t Au (12-15m)
- RC drill hole CO18RC004: 9m @ 2.40g/t Au (9-18m) including 4m @ 4.50g/t Au (14-18m)
- Golden Mile gold ore would be processed at Round Oak Minerals' processing facility in Cloncurry

*The above results follow the first two holes drilled at the Comstock prospect that recorded the following high-grade gold assays:*

**CO18RC001: 8m @ 6.32 g/t Au including 3m @ 15g/t Au, 5m @ 8.81g/t Au and 3m @ 13.91g/t Au.**

**CO18RC002: 12m @ 2.00 g/t Au including 3m @ 3.49 g/t Au.**

*(Refer ASX announcement 30<sup>th</sup> August 2018)*



Drilling at the Comstock historic gold mine within the Golden Mile, Mt Freda Gold Complex.

*(Note the historic Comstock gold workings have not been mined since 1939)*

### **Gold Rich Mt Freda Complex**

Ausmex now has the capacity to significantly extend the Mt Freda mining lease for any potential mine expansion requirements as the company continues to systematically drill out these high-grade gold targets commencing at the Comstock mine. The Mt Freda Complex is proving to be an extensive gold rich province with multiple high-grade gold targets. The Comstock drilling is the first of a large drilling program targeted at defining a significant JORC mineral resource

### **Golden Mile gold would be processed at the Round Oak Minerals' Cloncurry processing facilities.**

The gold prospects of the Golden Mile are located within two sub blocks 825U & 825P that are subject to a JV, AMG 80% with Round Oak Minerals 20% (subsidiary of Soul Pattison Ltd). Under the JV agreement, Round Oak Minerals has first option to process the gold ore from the Golden Mile at their 600ktpa gold CIP processing facilities located at the Great Australian Mine in Cloncurry, 35 kms north-west of the Golden Mile Project. Round Oak Minerals have recently upgraded an extensive haul road from the Mt Freda open cut (Ausmex controlled) that passes through the Golden Mile project to their Cloncurry processing facilities. Round Oak Minerals are currently hauling, and processing gold ore stockpiled at the Ausmex controlled Mt Freda Gold Mine. The ore was recently sold by Ausmex to Round Oak Minerals for \$2.5m. *(Refer ASX announcement 27<sup>th</sup> February 2018)*

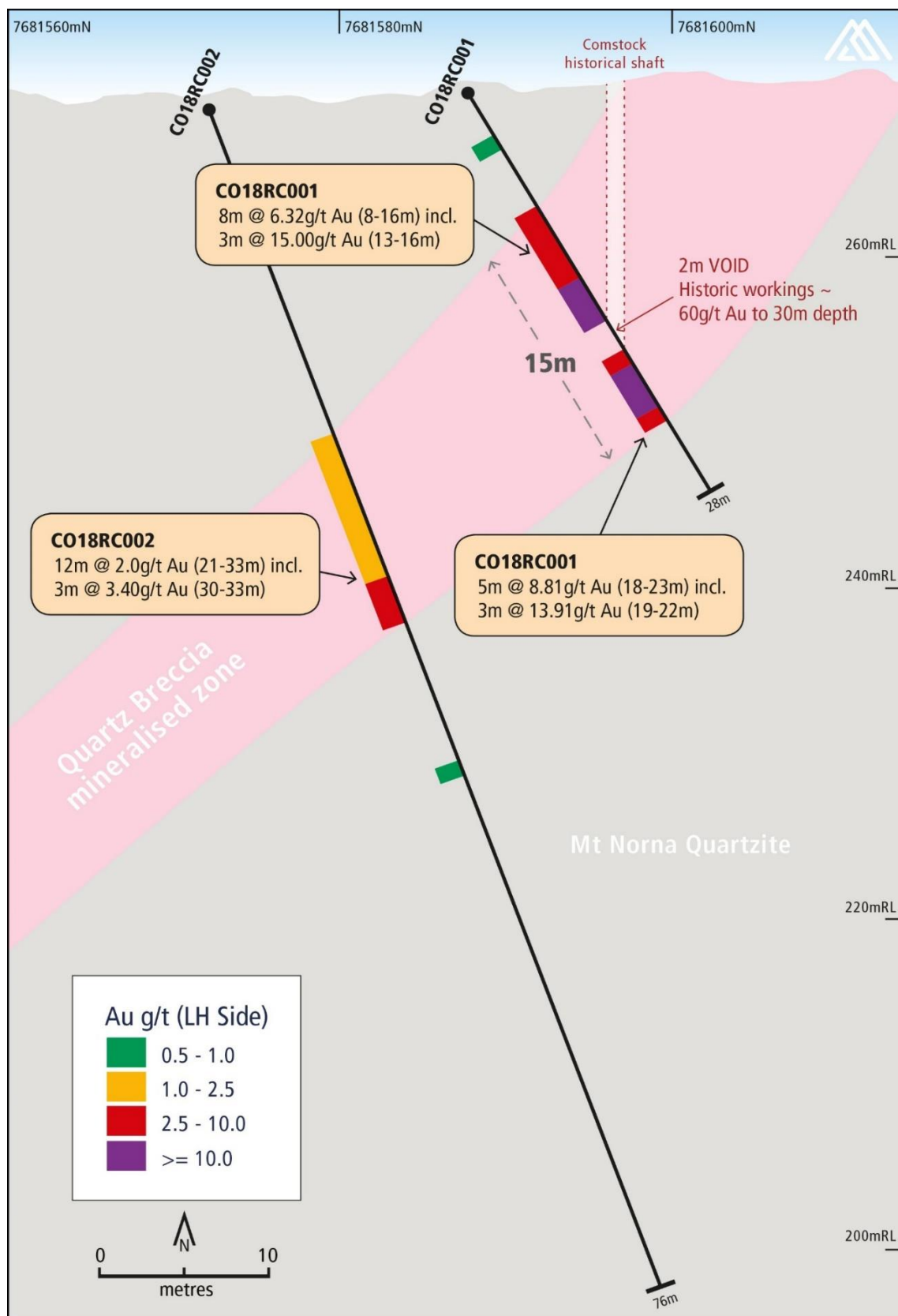


Figure 5. Comstock X-Section 1. (Refer ASX 30<sup>th</sup> August 2018)



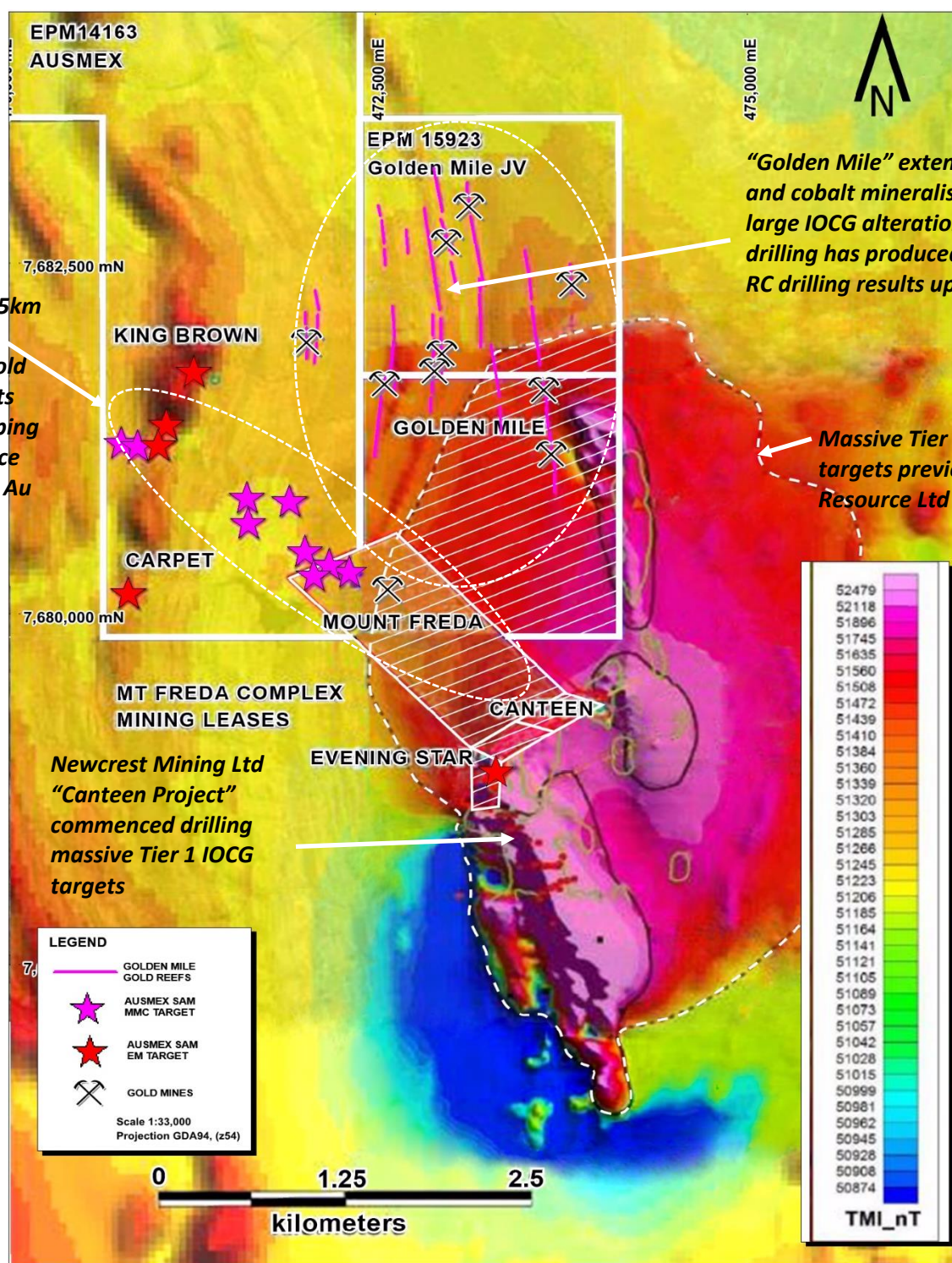
**Image 1.** Stockpiles of historic Mt Freda ore recently sold to Round Oak Minerals (formerly CopperChem) currently being trucked to Round Oak Minerals operated 600ktpa CIP processing facility in Cloncurry.

***Newcrest Mining Limited drilling Tier 1 IOCG Target – 30% of the target is within AMG controlled leases. (Refer ASX Release 27<sup>th</sup> September 2018)***

- **Ausmex controlled Mt Freda Complex contains approximately 30% of a massive IOCG geophysical and geochemical prospect previously identified by Exco Resources Ltd in 2012.**
- **Newcrest Mining Limited (ASX: NCR) commenced farm in drilling on the Tier 1 “Canteen” IOCG target approximately 800m south of the Mt Freda Complex, with the anomaly extending into the Ausmex controlled Mt Freda Complex.**
- **Mt Freda Complex hosts a large mineralised system that has the scale to host a massive Tier 1 IOCG prospect hosting shallow Au, Cu, Co and Rare Earth Elements**

Newcrest, a \$14.9bn ASX listed mining company (ASX: NCM), is drilling the area under a recently established farm in agreement with Exco Resources Limited (“**Exco**”). Exco was listed on the ASX under the code EXS before being acquired by Washington H. Soul Pattinson and Co. Limited (ASX:SOL) in 2012 valuing the company at approximately \$95m. The large IOCG target was previously identified by Exco in 2012, with approximately 30% of the anomaly now held by Ausmex within the Mt Freda Complex, Cloncurry Queensland.





**Image 2. Ausmex Mt Freda Complex** containing extensive shallow surface gold, copper and cobalt mineralisation associated with a large Tier 1 IOCG Geophysical and Geochemical target currently being drilled by Newcrest. Note the Ausmex identified EM target at Evening Star is a possible extension of Newcrest’s IOCG drilling targets. Source: QLD Gov. Mt Isa TMI GSQ open file dataset Survey GSQ1029 & [Exco IOCG Roadshow release 2012](#)



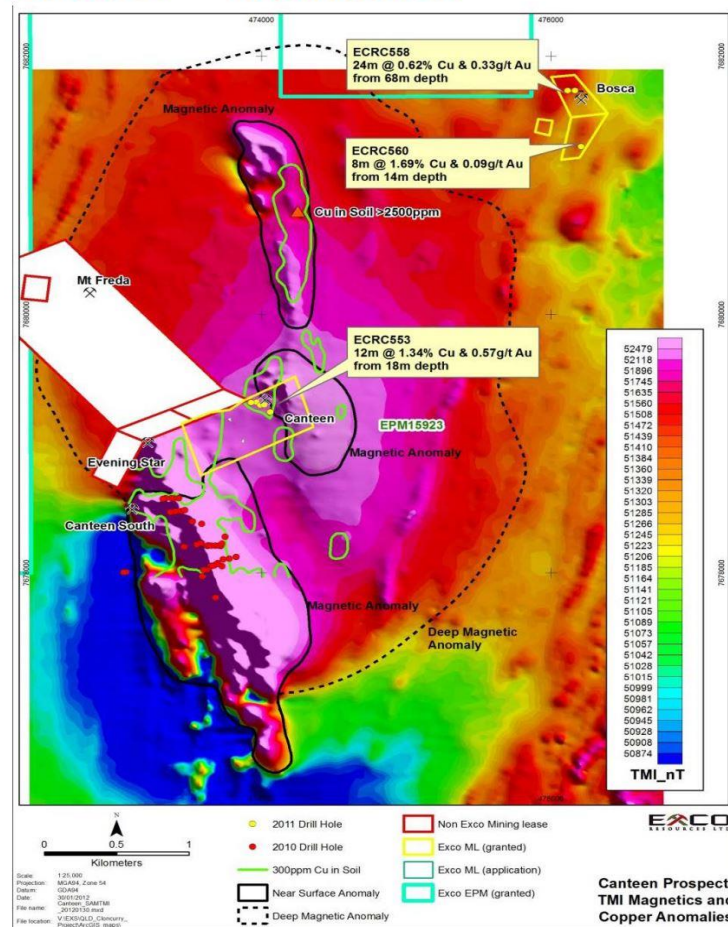
Exco Resources previously Identified a large IOCG Alteration system at Mt Freda in 2012



## Weatherly Creek – Canteen

- Recent SAM geophysical data highlights a very strong conductive anomaly and a coincident magnetic anomaly.
- Soil geochemistry has highlighted coherent copper and gold in soil.
- Exco believes the area hosts a large IOCG style alteration system.
- Initial RC drilling has intersected encouraging copper and gold grades beneath the historical Canteen Pit. Better Intercepts include:

Hole ID	Length	Cu %	Au g/t	From
ECRC115	66	0.41	0.06	0
ECRC553	12	1.34	0.57	18
Inc	4	3.05	1.11	24
ECRC556	16	0.23	0.09	42
Inc	2	2.21	0.57	64



Extract from Exco ASX announcement 2012. Source: [Exco IOCG Roadshow release 2012](#)

## Exco Resources previously identify Tier 1 IOCG Target at Canteen (Mt Freda ) in 2012

### TIER ONE TARGETS

Several previously identified targets are considered to have potential to host Tier One deposits and further work on other areas is expected to confirm additional target areas. The Turpentine/Eight Mile Creek, Salebury/Tanbah and Canteen/Weatherly Creek areas have geological, geophysical and geochemical characteristics that suggest they are within an IOCG system. Exco plans to conduct detailed exploration of the large scale multi-component anomalies that cover these areas.

#### Canteen – Weatherly Creek

The Canteen/Weatherly Creek prospect area is located on the interpreted crustal scale Cloncurry Lineament, proximal to 2 radiogenic granites and has a high amplitude regional magnetic anomaly of (approximately 6km x 2km), with associated surface mineralisation, conductivity anomalies and unusual alteration minerals. Extensive brecciation and stockworking with widespread Na-Ca-Fe alteration coincident with magnetite and hematite occurrences suggest a substantial hydrothermal system has been active. Soil surveys have revealed strong Cu-Au-Fe-K-P-U at surface, with **Cu to 0.27%** and **Au to 0.43 g/t**. Current drilling, to a maximum depth of only 250m and covering less than 10% of the prospect area, has intersected broad widths of mineralisation with peak values up to **4.43% Cu, 2.46 g/t Au and 830 ppm U**. Initial rock chip sampling at the southern portion of the prospect area revealed copper greater than 1% and U to 2440ppm.

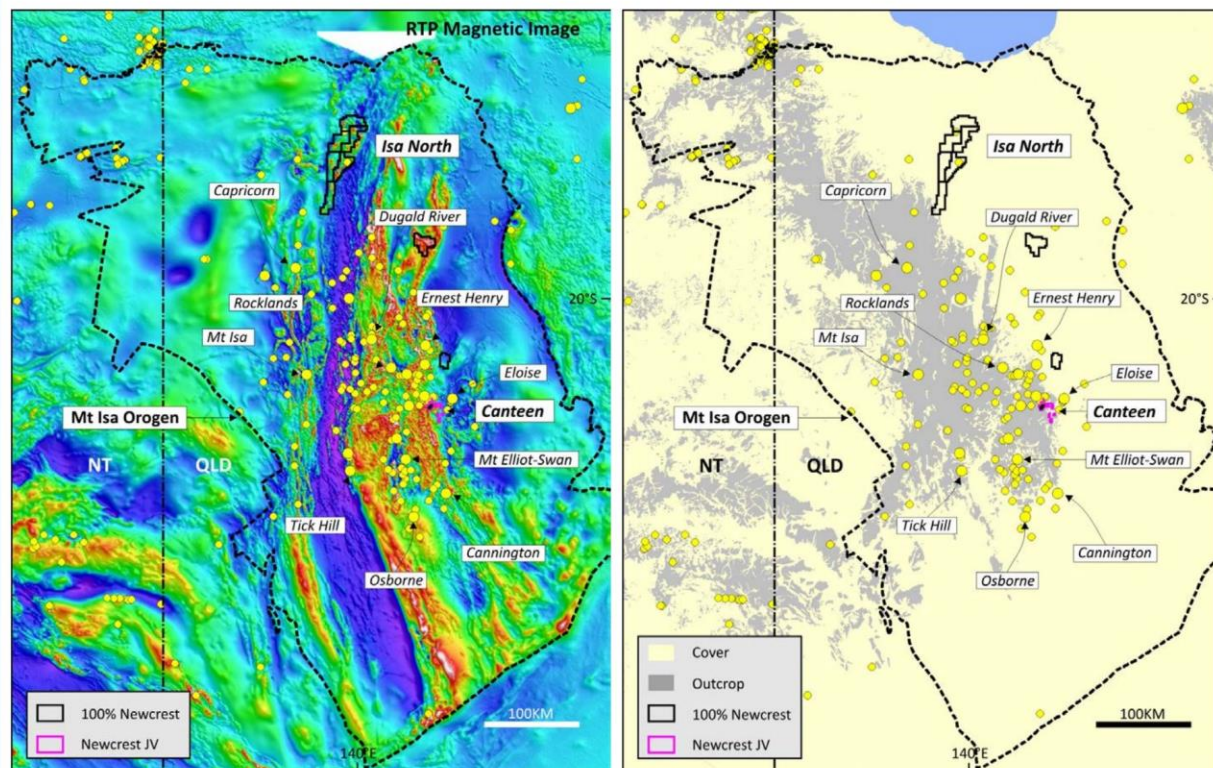
Significant amounts of magnetite, pyrite and pyrrhotite were intersected in the initial phases of drilling during 2008. The Mt Freda Au deposit and the Evening Star copper deposit (held by Queensland Mining Corporation) are examples of surface mineralisation adjacent to the multi-component geophysical and geochemical anomalies that highlight this area. Geophysical surveys completed late in 2011 suggest a large deep magnetic source and a detailed gravity survey that is about to commence will be used to help site deeper diamond drilling. (See **Figure 2** for

Extract from Exco ASX announcement 2012. Note Ausmex acquired Mt Freda and Evening Star from Queensland Mining Corp in 2017. Source: [Exco Resources QLD update 2012](#)



Newcrest Mining Limited Drilling Tier 1 IOCG Target at Canteen, (continues into Mt Freda Complex)

Mt Isa Inlier –  
Targeting  
greater than  
500m



Extract from Newcrest August 2018 Diggers and Dealers ASX announcement. Note the Canteen project sharing the same geophysical and geochemical anomaly to the Mt Freda Complex is a Tier 1 world class IOCG Target.

Source: [Newcrest Diggers and Dealers 2018](#)

## POST SEPTEMBER QUARTER ACHIEVEMENTS CLONCURRY QLD

### MT FREDA COMPLEX EXPANDS WITH DRILLING AT THE GOLDEN MILE PROJECT

INTERSECTING TWO ADDITIONAL HIGH-GRADE GOLD REEF SYSTEMS (Refer ASX Release 26<sup>th</sup> October 2018)

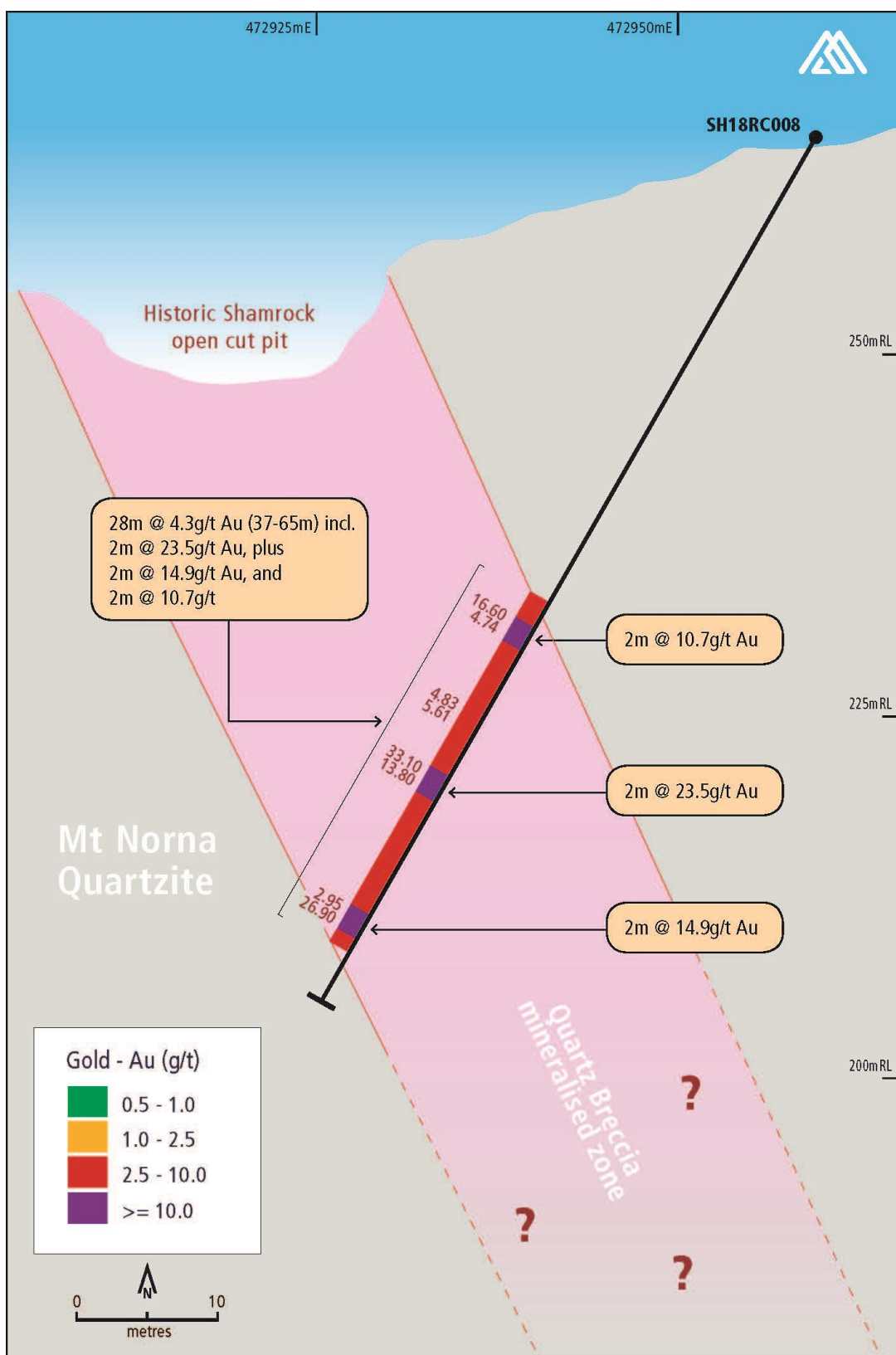
**DRILL HOLE SH18RC008 Intersects: 28m @ 4.3g/t Au from 37m, including 2m @ 23.5 g/t Au, 2m @ 14.9g/t Au and 2m @ 10.70g/t Au**

**DRILL HOLE SH18RC005 Intersects: 23m @2.0g/t Au from 102m including 5m@ 4.0g/t Au and 1m @ 20.6g/t Au.**

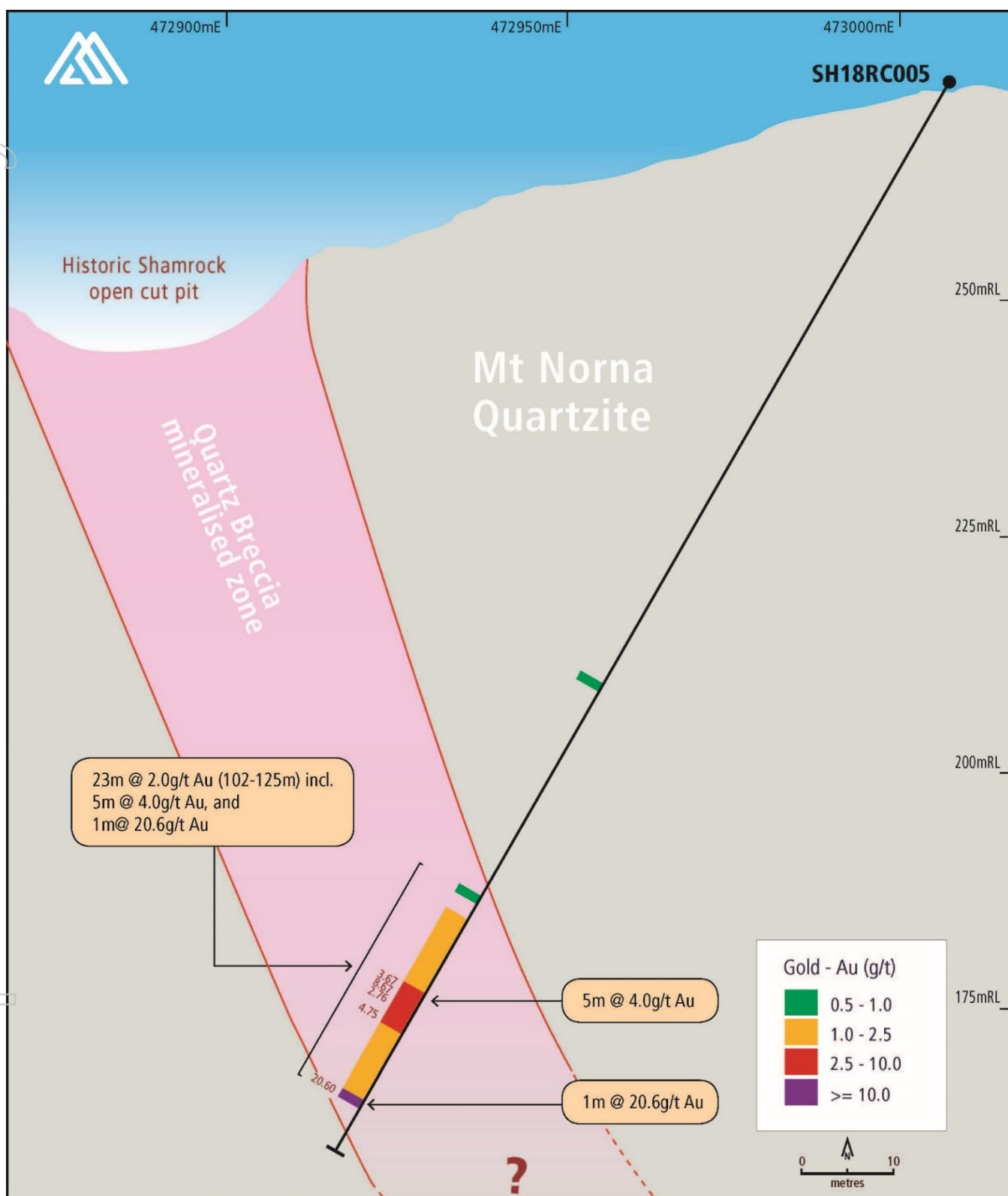
- **Maiden RC Drilling results from the Shamrock and Mt Scheelite historic high-grade gold reef systems expands the Golden Mile target width to greater than 2km, with a combined strike length greater than 8km.**
- **Significant RC drilling intersections include:**
  - **SHAMROCK REEF SYSTEM** (Historical gold mine first time ever drilled)
    - **Drill hole SH18RC008: 28m @ 4.3g/t Au (37-65m) including 2m@ 23.5g/t Au, plus 2m@ 14.9g/t Au, and 2m @ 10.7g/t Au**
    - **Drill hole SH18RC005: 23m @ 2.0g/t Au (102-125m) including 5m @ 4.0g/t Au and 1m @ 20.6g/t Au**  
(Note holes not drilled in numerical order)
  - **MT SCHEELITE REEF SYSTEM** (Never been drilled before)
    - **Drill hole MS18RC001: 6m @ 3.2g/t Au (11-17m) with 3m @ 5.5g/t Au including 6m @ 0.17% W with 2m @ 0.48% W (11-17m), plus 1m @ 14.3g/t Au (23-24m)**
    - **400m of additional surface mineralisation identified at Mt Scheelite that had remarkably never been drilled!**

**The Golden Mile project**, forms part of the **Mt Freda Gold Complex**. The latest results expand the current width of the Golden Mile to in excess of 2km wide, with a combined strike length of mineralised reefs of over 8km. To date the golden mile project consists of 8 parallel north-south striking zones of mineralisation, all of which were historical producing high-grade gold mines. The drilling at Shamrock has extended its southern strike length with drill hole SH18RC008 located at the previous southern limit of the Shamrock pits and historical workings. Drilling is also currently extending the Shamrock mineralization to the North with east-west fence drilling.

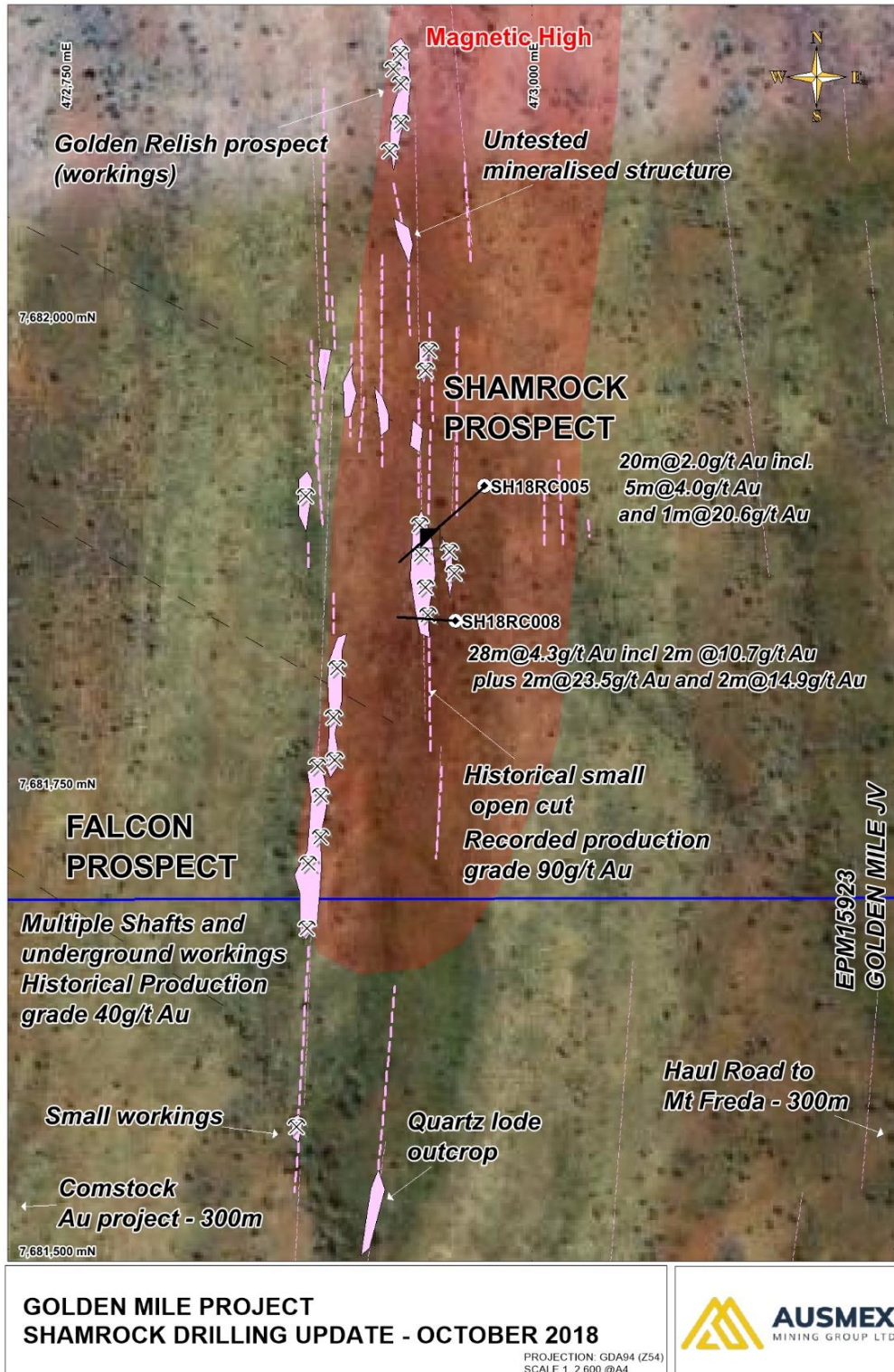




**Figure 6.** Shamrock X-section facing north through SH18RC008. Note the potential shallow, oxidised bulk mining potential.



**Figure 7.** Shamrock X-section facing north through SH18RC005, extending the potential shallow, oxidised bulk mining potential at Shamrock to the north.



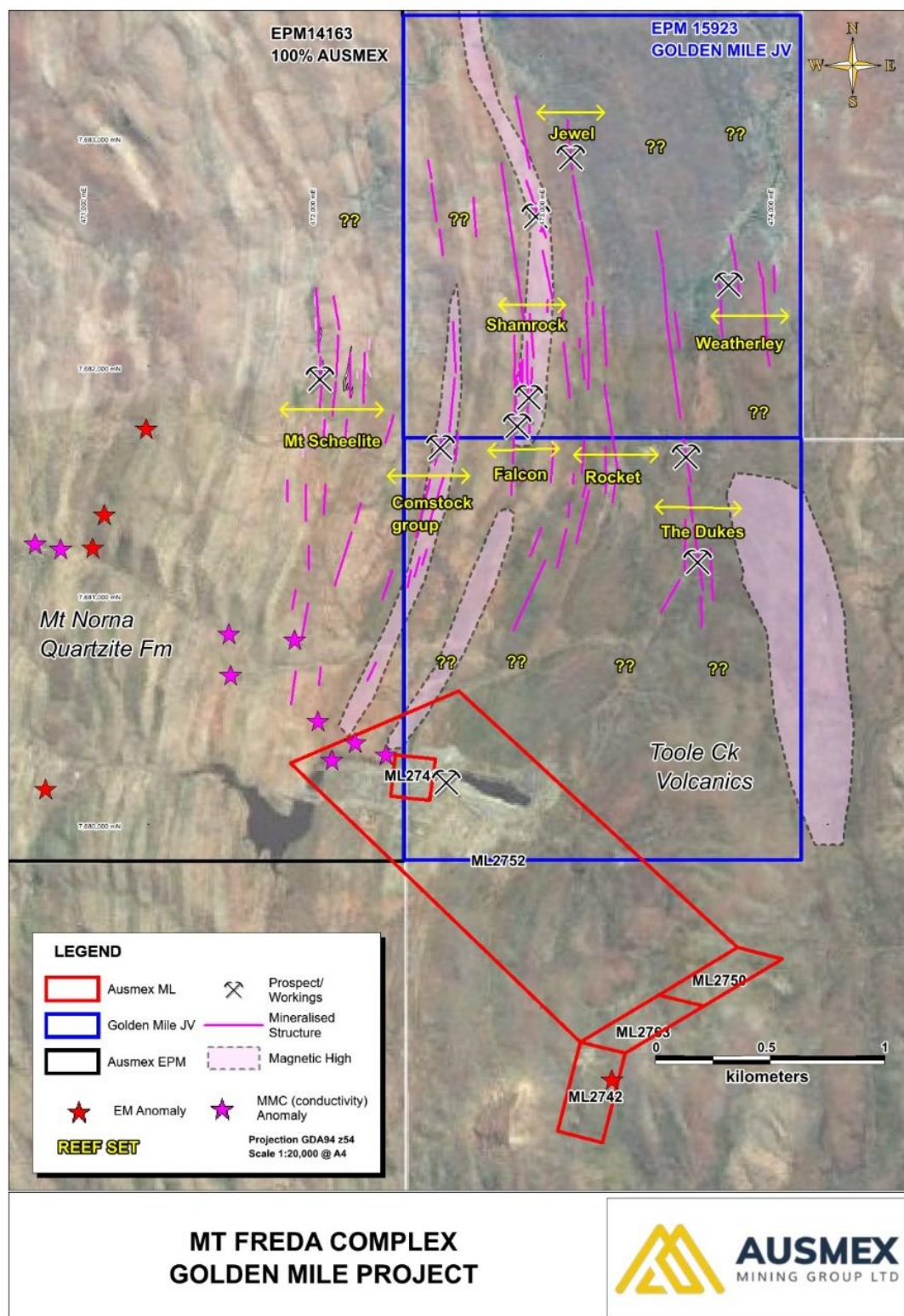
**Figure 8.** Shamrock reef drill hole location plan, note the significant potential extension to the north and south, as well as the close proximity to the historic Falcon UG gold mine. (Shamrock drill holes were not drilled in planned numerical order).





**Figure 9.** Mt Scheelite drill hole location plan note that Mt Scheelite has up to 400m potential strike length targeting high grade gold mineralisation.





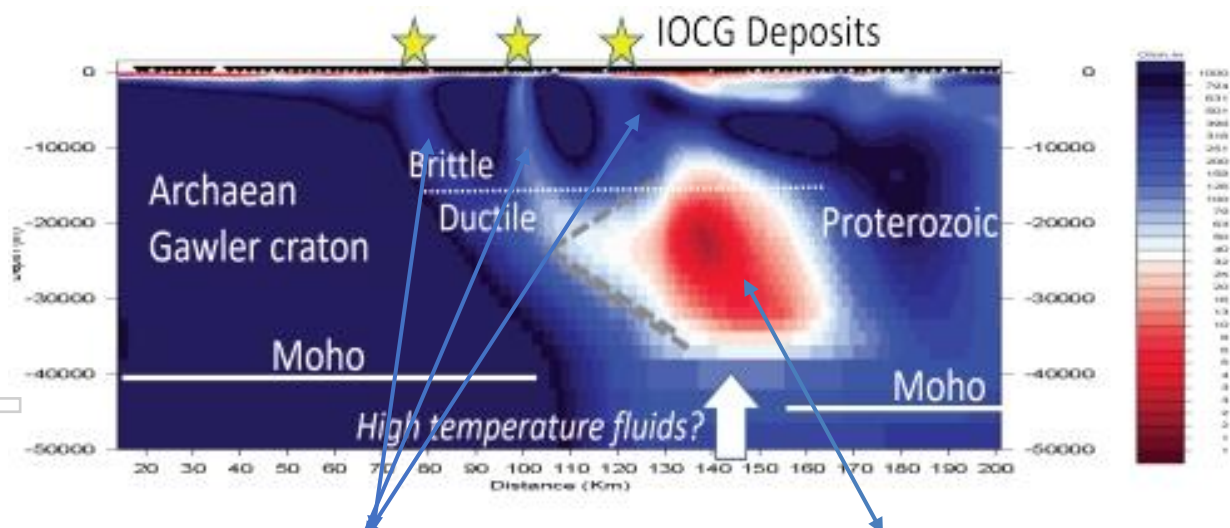
**Figure 10.** Note that the total width from Mt Scheelite to the Weatherly prospect across the Golden Mile is now greater than 2km, with eight significant mineralised systems identified to drill along an 8km strike length.

## SEPTEMBER QUARTER ACHIEVEMENTS BURRA, SA

**Ausmex completes Stage 1 of the MT Geophysical Survey** (Refer ASX Release 5<sup>th</sup> July 2018)

### Highlights

- **Stage 1 Magnetotelluric (MT) Geophysical Survey** (*Refer ASX announcement 25<sup>th</sup> June 2018*) over approx. 4,500 sq kms has been completed over the large 42km diameter AusLAMP identified conductive target at Burra, SA.
- This MT program was undertaken for Ausmex by the University of Adelaide (UoA).
- The Stage 1 program has been completed on time.
- The approvals leading to the Stage 2 component of the MT geophysical survey will commence immediately following the granting of ELA 2018/052.
- Stage 2 will complete the 10 km spaced grid over the balance (1864 sq kms) of the Ausmex controlled tenements throughout the Burra Region.



Mineralised Pathways previously identified by MT surveys under Olympic Dam that correlate with large IOCG deposits. Ausmex is aiming to repeat this outcome under Burra.

X-Section through the large Conductive structure identified by AusLamp under the Olympic Dam area. AusLAMP has identified a similar structure under Burra.

**Figure 11 Above. Conductivity pathways revealed from high resolution broadband MT survey (University of Adelaide, G. Heinson & P. Soeffky pers. Comm 2016) across the Olympic Dam area. Pathways reach the surface at the location of known IOCG deposits.**

*Ref, Poster presented by the Geological Survey of South Australia at their Discovery Day, titled "Scale reducing MT exploration funded by PACE Copper" by Kate Robertson & Stephan Thiel from the Geological Survey of South Australia and by Graham Heinson and Ben Kay from the University of Adelaide.*

### **Additional High-Grade Copper and Gold Identified at Burra SA.**

*(Refer ASX release 19<sup>th</sup> July 2018)*

#### **HIGHLIGHTS**

- **Rock chip analysis returned high grade Gold (6.9 g/t Au) and Copper (25 % Cu).**
- **Historic drilling focused on Copper mineralization with no historic assaying for Cobalt and limited assaying for Gold.**
- **Existing Princess Royal JORC 2004 Inferred Mineral Resource<sup>2</sup> estimate of 216,586 te @ 0.96% Cu totaling 2,083 te of contained Copper does not include Cobalt and Gold values (ASX: PNX 19 September 2017).**
- **Highlights the potential for further new Cobalt discoveries within Ausmex's controlled 7,010 sq. Kms of tenure along a 30 km corridor of the underexplored, highly prospective Burra Cobalt-Copper-Gold Project.**



**BUPR0047:**  
1,955 ppm Co and 5% Cu



**BUPR0087 Outcrop:**  
2,120 ppm Co, 0.388 g/t Au & 0.64% Cu

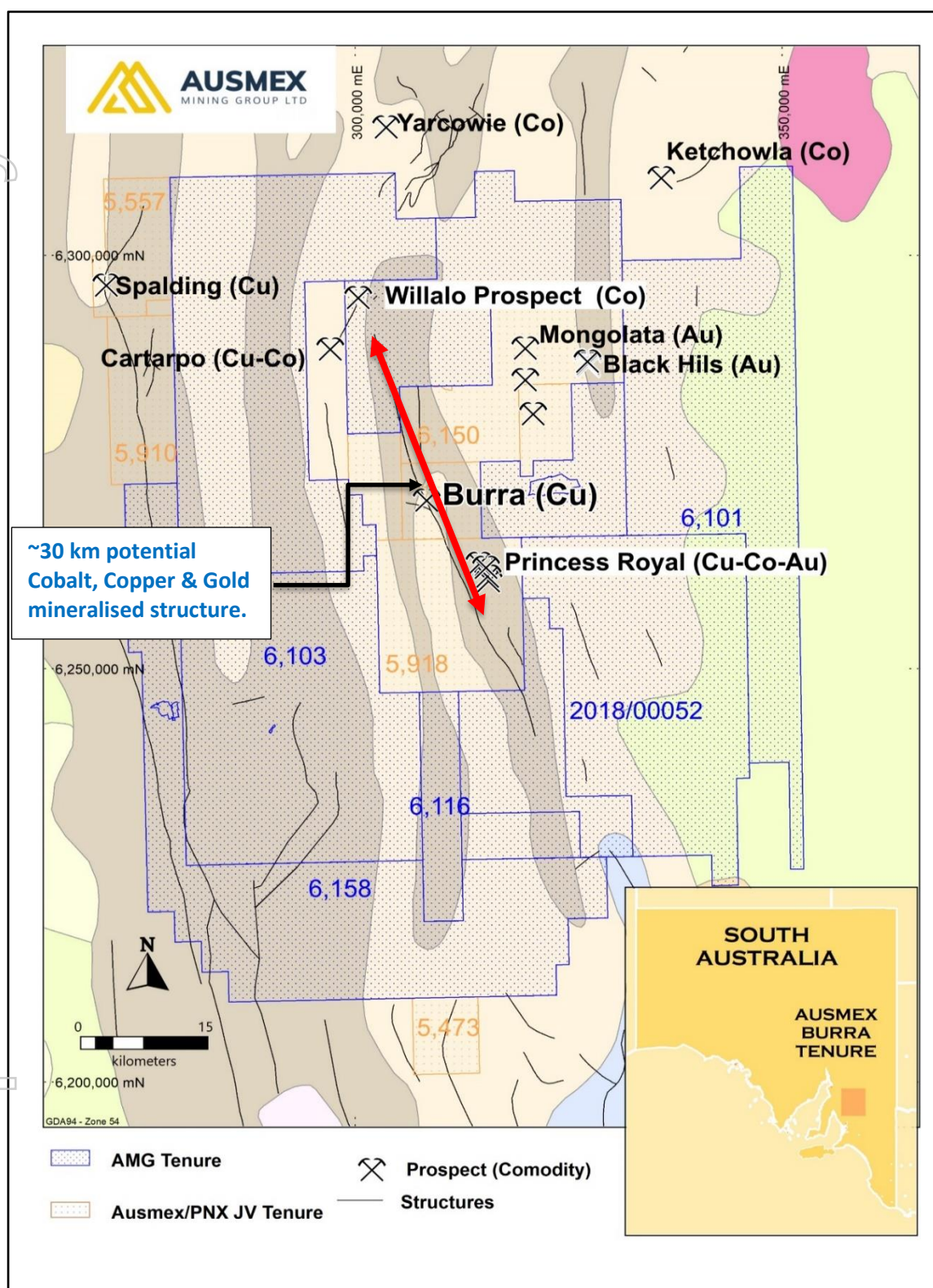


**BUPR0092:**  
13.6% Cu and 2.62 g/t Au

<sup>2</sup> The information pertaining to the Burra Project, Princess Royal Inferred Mineral Resource was prepared and first disclosed by PNX under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



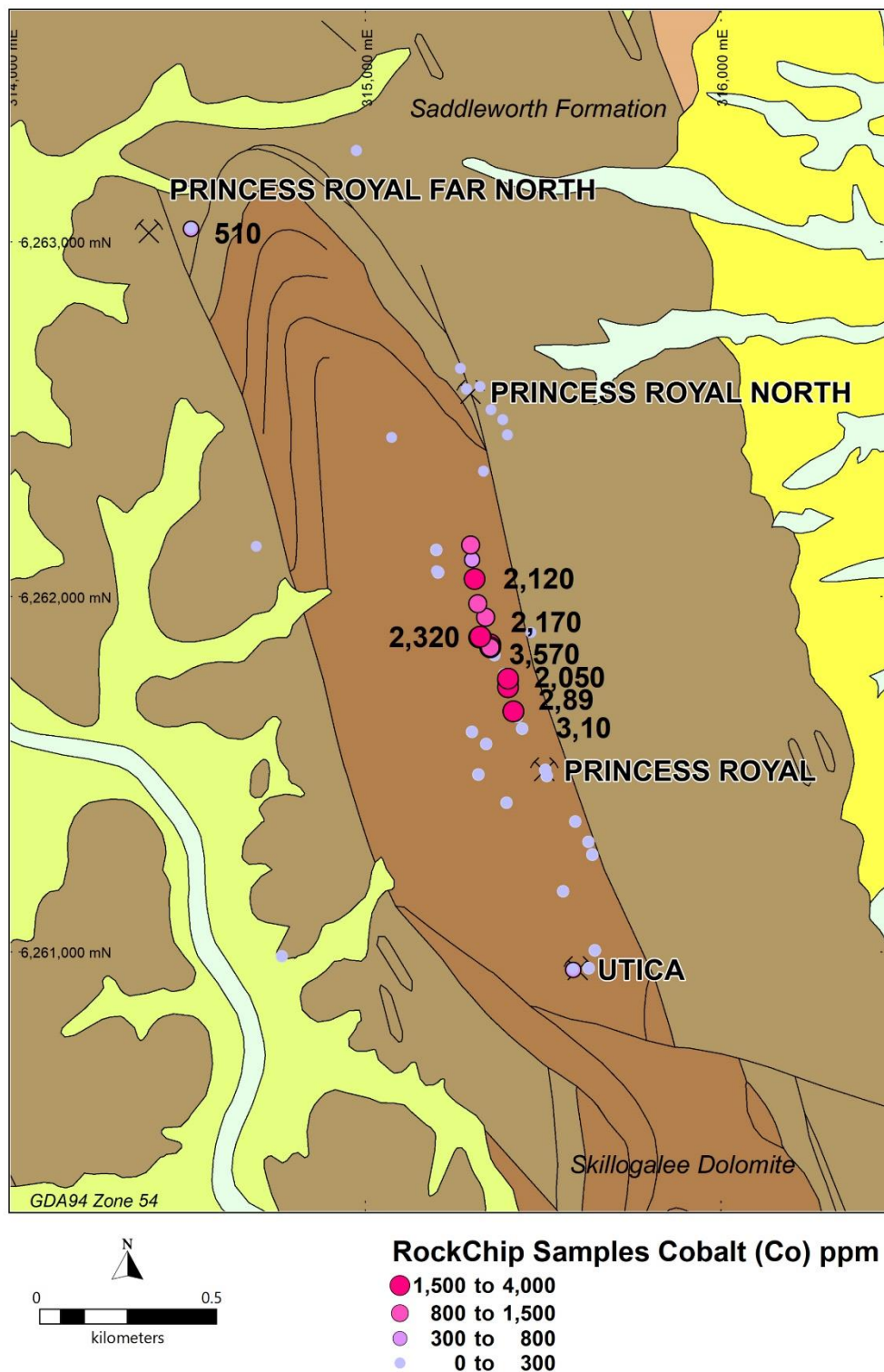
For personal use only



**Figure 12.** Ausmex Tenure in the Cobalt, Copper-Gold Burra District. Note potential ~ 30 km potential mineralised structure between the Ausmex discovered Willalo Cobalt prospect and the Copper, Gold & Cobalt bearing Princess Royal prospect.

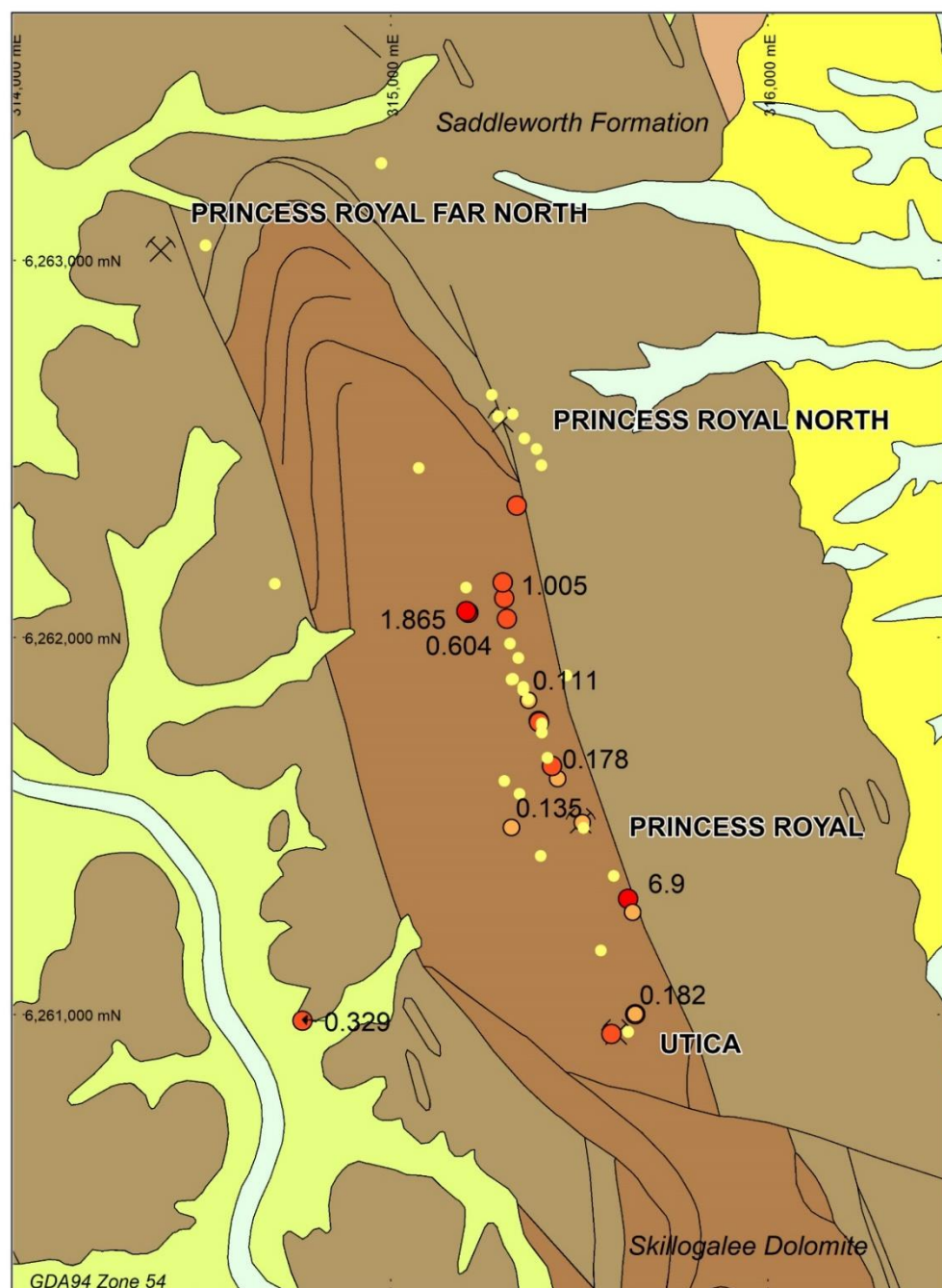


# PRINCESS ROYAL PROSPECT - COBALT



**Figure 13.** Princess Royal Prospect showing high grade Cobalt in rock chip samples

# PRINCESS ROYAL PROSPECT - GOLD



## Rock Chip Samples Gold (Au) g/t

- 1 to 8
- 0.3 to 1
- 0.1 to 0.3
- 0 to 0.1

**Figure 14.** Princess Royal Prospect showing high grade Gold in rock chip samples

## **MONGOLIAN GOLD AND TUNGSTEN PROJECT**

### **Chuluun Khoroot tungsten deposit and gold occurrence, XV-015591.**

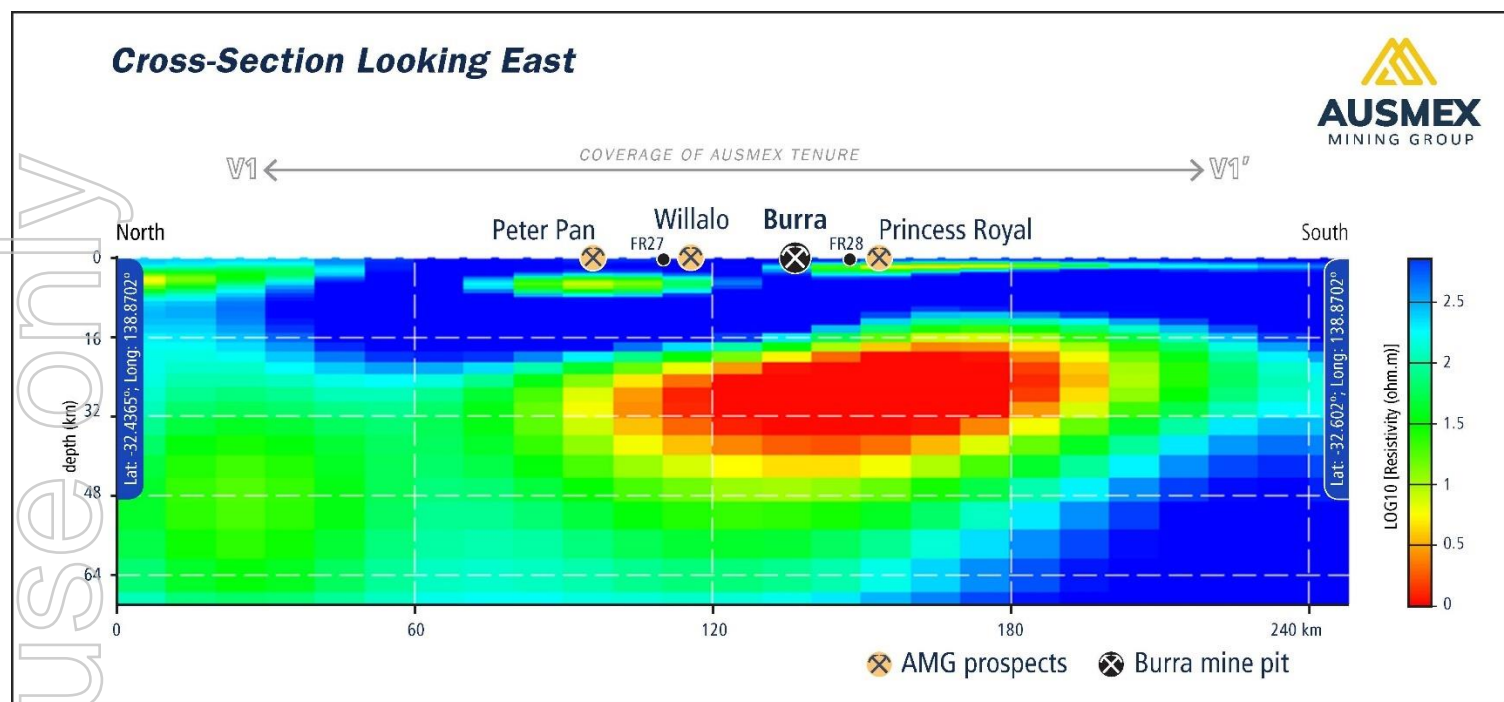
No field work was completed during the quarter on the prospective Tungsten and Gold project. Previous expressions of interest by several parties to potentially purchase the project have failed to reach a commercial transaction. The Board is reviewing all options for the project and may consider divesting.

## **POST SEPTEMBER QUARTER ACHIEVEMENTS BURRA, SA**

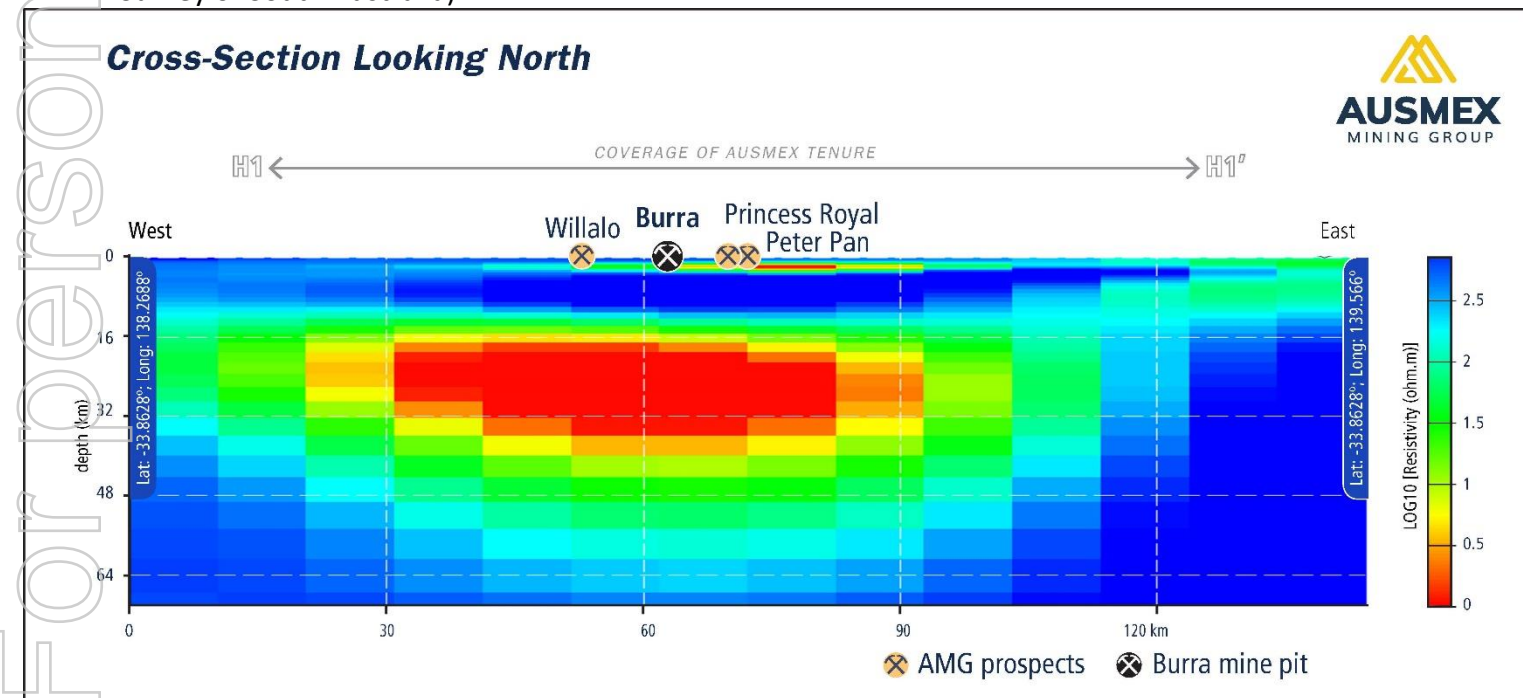
***Independent Expert Emeritus Professor Kenneth D Collerson has presented findings validating the significance of the AusLAMP Magnetotelluric (MT) anomaly identified by Geoscience Australia at Burra, SA. Key findings include:***

- Hydrothermal fluid compositions at Burra are similar to those for Olympic Dam and the Idaho Cobalt Belt in the USA.
- The AusLAMP conductivity domain identified below Burra is similar in scale and character to the large MT conductive anomaly below BHP's Olympic Dam.
- As with Olympic Dam, the Burra Conductivity anomaly is interpreted to image the metal migration region involved in formation of the mineral system.
- Significant potential for economic concentrations of Cobalt and Platinum Group Elements.
- **Potential for the Ausmex held Burra tenement suite to host another giant Jinchuan style ore deposit (>500 Mt @ 1.2% Ni, 0.7% Cu, 0.4g/t PGE) which is the largest single magmatic sulphide deposit in the World.**





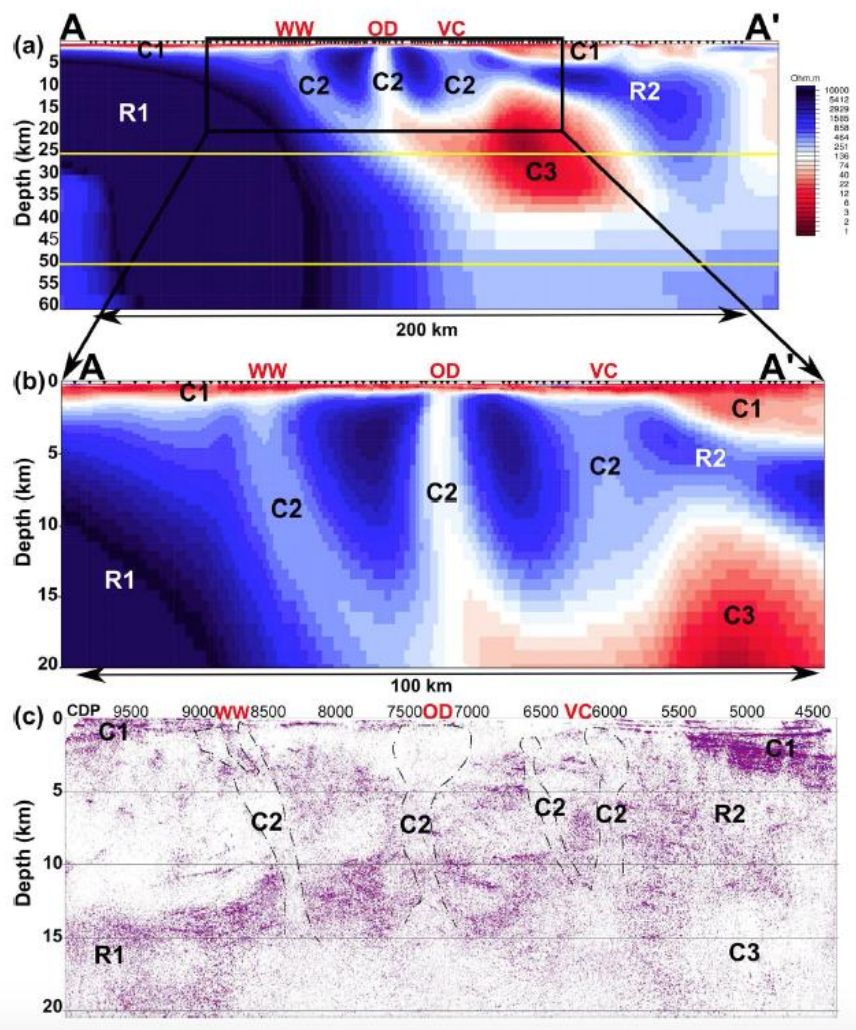
**Figure 15.** East looking X-Section through the Geoscience Australia AusLAMP conductive anomaly below Ausmex tenements in Burra SA. Note that the independent expert identified that Burra and Olympic Dam both share similar geophysical and geochemical features and sources of origin. (The base X-section of the above figure was kindly provided by the Geological Survey of South Australia)



**Figure 16.** North looking X-Section through the Geoscience Australia AusLAMP conductive anomaly below Ausmex tenements in Burra SA. Note how the Willalo, Burra, Princess Royal and Peter Pan historic mines are all located on a secondary near surface conductor.

**This report was commissioned to:**

- I. Review recent REE geochemical data collected by Ausmex from various Burra projects including Willalo, Princess Royal, and Peter Pan and provide geochemical constraints on the origin of the Princess Royal/Burra Cu-Ni-Co-REE-Au mineralisation and to assess its possible relationship with Iron Oxide-Copper-Gold systems (IOCGs) in the adjacent Gawler Craton, e.g., at Olympic Dam.
- II. An additional aim was to assess the relationship and significance of the conductivity domain identified below Burra (Figures 1 & 2 above). This "MT flare", is similar in scale and character to the large MT conductive anomaly below Olympic Dam (Figure 3) that is interpreted to image the metal migration regime involved in formation of this world class IOCG system.



**Figure 17.** Magnetotelluric data showing the large MT conductive anomaly below Olympic Dam. Seismic reflection image showing crustal reflectors and possible metal migration paths (c). Note the similarity of zone C3 under Olympic Dam to conductors under Burra in Figures 1 & 2 above.

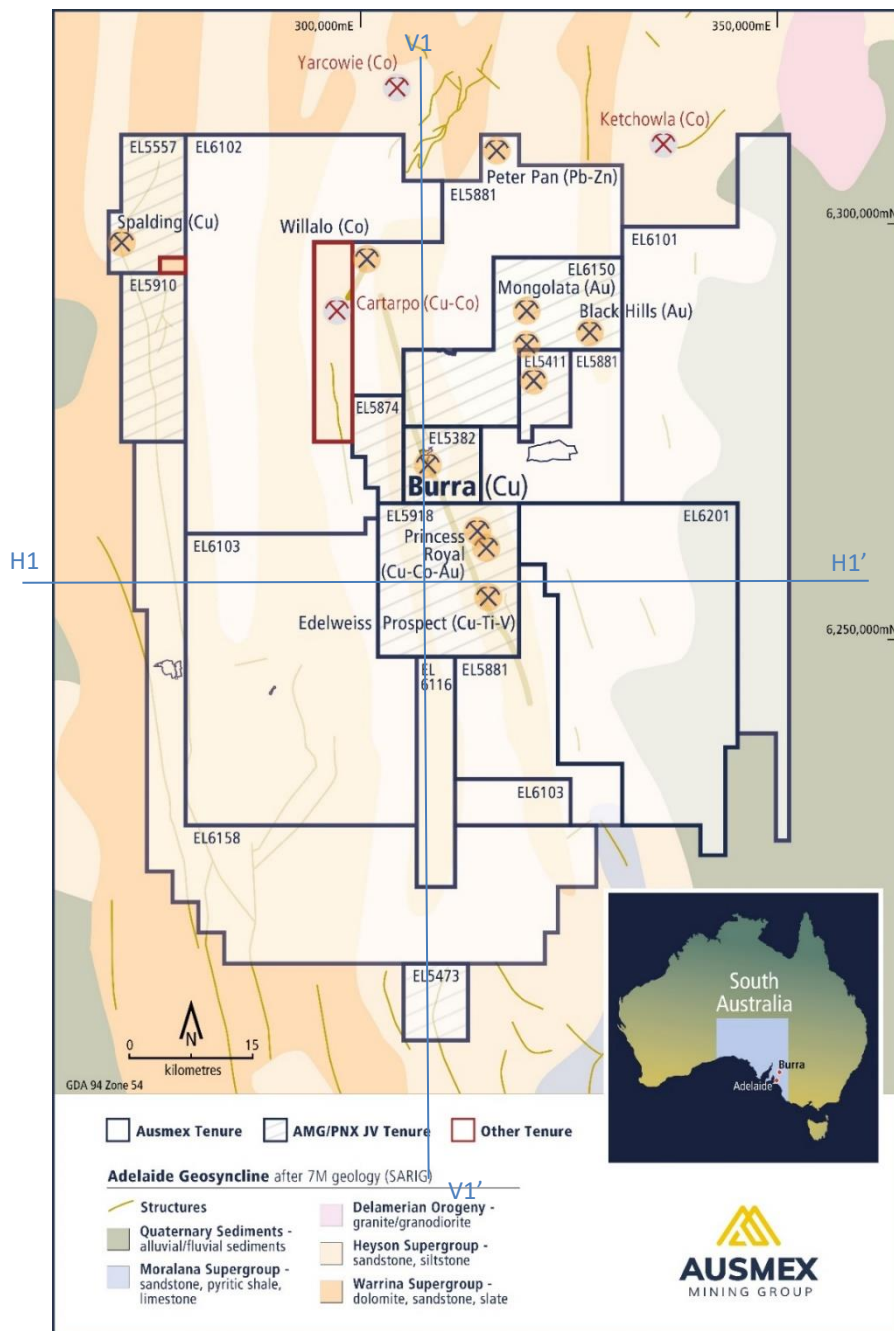
**Key findings are as follows:**

1. The Co-Cu-Ni- Zn-REE-Au mineralisation at Burra is hydrothermal in origin.
2. Hydrothermal fluid compositions at Burra are similar to those inferred for Olympic Dam and in the Idaho Cobalt Belt in the U.S.A.
3. Hydrothermal fluids in the Princes Royal mineral system were fluorine-rich and oxidizing, similar to compositions of fluids inferred for the nearby world class Olympic Dam IOCG.
4. The conductivity domain identified below Burra is similar in scale and character to the large MT conductive anomaly below Olympic Dam, ~380 km to the northwest.
5. Like at Olympic Dam, the Burra conductivity anomaly is interpreted to image the metal migration regime involved in formation of the mineral system.
6. As the Burra mineralisation (~790 Ma) is ~800 Ma younger than Olympic Dam (~1590 Ma), it is likely that Burra mineral system formed in a younger mantle plume magmatic event to that responsible for the IOCG deposit at Olympic Dam.
7. The metal enrichment of the lithosphere below Burra, is therefore interpreted to have been caused by the plume magmatic event associated with breakup of the supercontinent Rodinia, between 820 Ma and 830 Ma, forming the Gairdner Large Igneous Province (LIP).
8. The Burra area has significant prospectivity because of its position in Rodinia. The terrane lying between the Gawler and Curnamona Cratons represents the most proximal region of non-Chinese lithosphere to have experienced plume induced magmatism associated with the breakup of Rodinia at ~820 Ma. This is confirmed by the plume geochemical signatures shown by the Gairdner dykes.
9. The conductive regions seen in the AusLAMP images of lower to mid crust below Burra may reflect the presence of intrusions, similar to the Jinchuan and Lengshuiqing intrusions in SW China, that occur in the transported terrane that was previously juxtaposed against this part of Rodinia.
10. Similar elemental covariations between Ni-Cu-Co at Princess Royal, Black Hills, Peter Pan and Willalo show that they are likely to be genetically related.
11. The metal association at Burra, dominated by Cu, Co and Ni together with Zn, Au and REEs indicates that metals were derived from a mafic igneous source.
12. Princess Royal samples have non-chondritic Y/Ho and both negative and positive Ce/\*Ce anomalies. The non-chondritic Y/Ho ratios indicate that the hydrothermal system at Princess Royal was halogen-rich (fluorine-rich). The negative and positive Ce/\*Ce anomalies indicate that the fluids were oxidising.
13. Willalo rock chip samples display significant correlated enrichment in Co, Cu and Ni. This is interpreted to indicate proximity to the mafic and ultramafic source of metals in the Burra mineral system. It is recommended that magnetic, gravity and radiometric data be investigated to identify accessible anomalies for drilling to target Jinchuan and Lengshuiqing style ore deposits as discussed below.
14. **Potential mineralisation in the Burra area include another giant ~830 Ma Jinchuan deposit (>500 Mt @ 1.2% Ni, 0.7% Cu, Cu/Ni 0.58, ~0.4g/t PGE) which is the largest single magmatic sulphide deposit on Earth.**
15. As Willalo rock chip samples have similar mean Cu/Ni ratios to the Jinchuan and Lengshuiqing, viz.,  $0.52 \pm 0.12$ ;  $0.53 \pm 0.39$  and  $0.46 \pm 0.51$ , respectively, it is considered to



be a high priority target for Co, Ni, Cu, Au and platinum group elements.

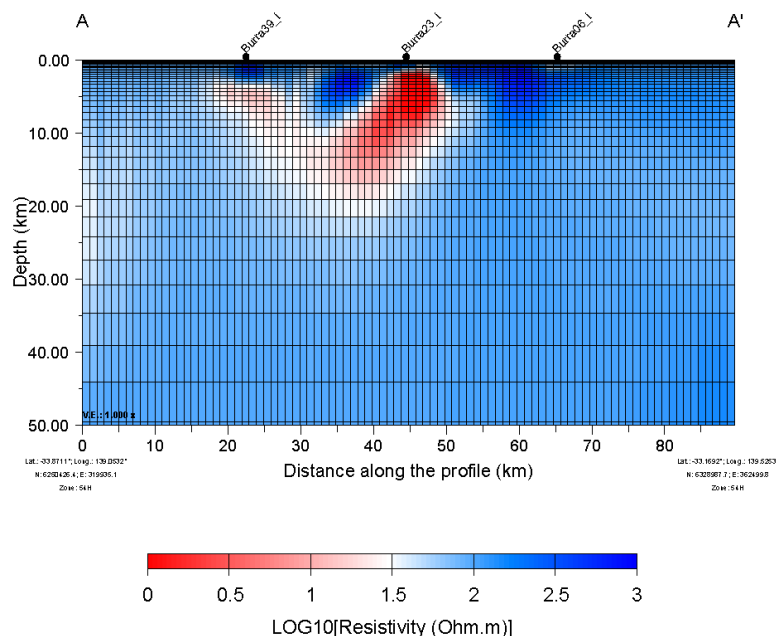
16. In addition to the significant potential for Co and PGEs, because the Burra mineral system shows the effect of halogen-rich fluid induced hydrothermal activity, there is a significant potential for occurrence of economic concentrations of heavy rare earth elements in cobalt rich lithologies, like those reported by Slack (2007) from Idaho.



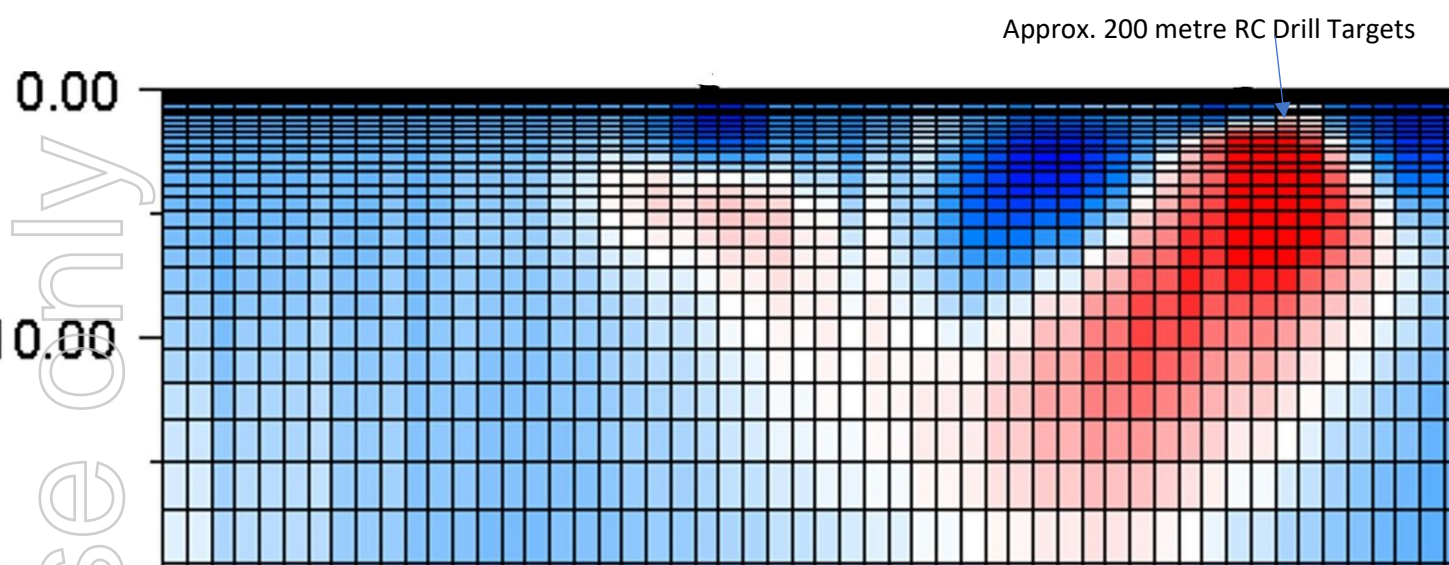
**Figure 18.** AMG Tenure showing Key Prospects with X section locations for Figures 15 & 16.

**SHALLOW CONDUCTIVE IOCG TARGET IDENTIFIED COMMENCING 200m BELOW SURFACE AT BURRA, SA** Refer ASX Release 30<sup>th</sup> October 2018)

- University of Adelaide 3D modelling indicates the large conductive IOCG target commences approximately 200 metres below surface, a suitable depth for cost effective RC drilling.
- With only 14% of modelling completed to date, there is the potential to identify multiple shallow Tier 1 IOCG drilling targets within the remaining 86% of the Ausmex tenement suite.
- Ausmex's review of the geology in this area indicates that the sedimentary stratigraphy predominantly trends north-south in contrast to the oblique MT conductive structure. The conductive structure may be the result of massive sulphide within a resistive lithology.
- Burra is located within the G2 structural corridor, host to World Class IOCG deposits Olympic Dam, Prominent Hill, and Carrapateena



**Figure 19.** X-section AA through this conductive structure, derived directly from the recent Ausmex MT Survey and located as shown on Figure 6 below.



**Figure 20.** Is an enlargement of the cross-section in Figure 19, note that the conductive target commences approximately 200 metres below the surface.

AMG considers that this result significantly increases the prospectivity of the Burra Region.

As only 14% of AMG's 3D modelling has been completed at the date of our last announcement, and IOCG deposits commonly occur in "clusters", there is the potential that a number of additional shallow drilling targets will be identified in the remaining 86% of AMG's 3D modelling which is underway and yet to be completed, utilizing some of the world's best super-computers. Of particular interest will be modelling results around the known rich copper mineralisation closer to Burra and around the Burra "Monster Mine" that produced 10% of the world's copper supply in the late 19<sup>th</sup> Century.



**Figure 21.** Copper Ore, Burra Monster mine open Cut that produced 10% of the worlds copper in late 19<sup>th</sup> Century.



**Statement by Emeritus Professor Ken Collerson (PhD and FAusIMM)**

Ausmex Mining Group Announced to the ASX on October 16, 2018 the presence of a large conductive IOCG target below Burra in South Australia. The anomaly was modelled for AMG by the University of Adelaide using magnetotellurics (MT).

Discovery of this feature is significant, as it resembles the MT anomaly that exists below the Tier 1 IOCG deposit at Olympic Dam.

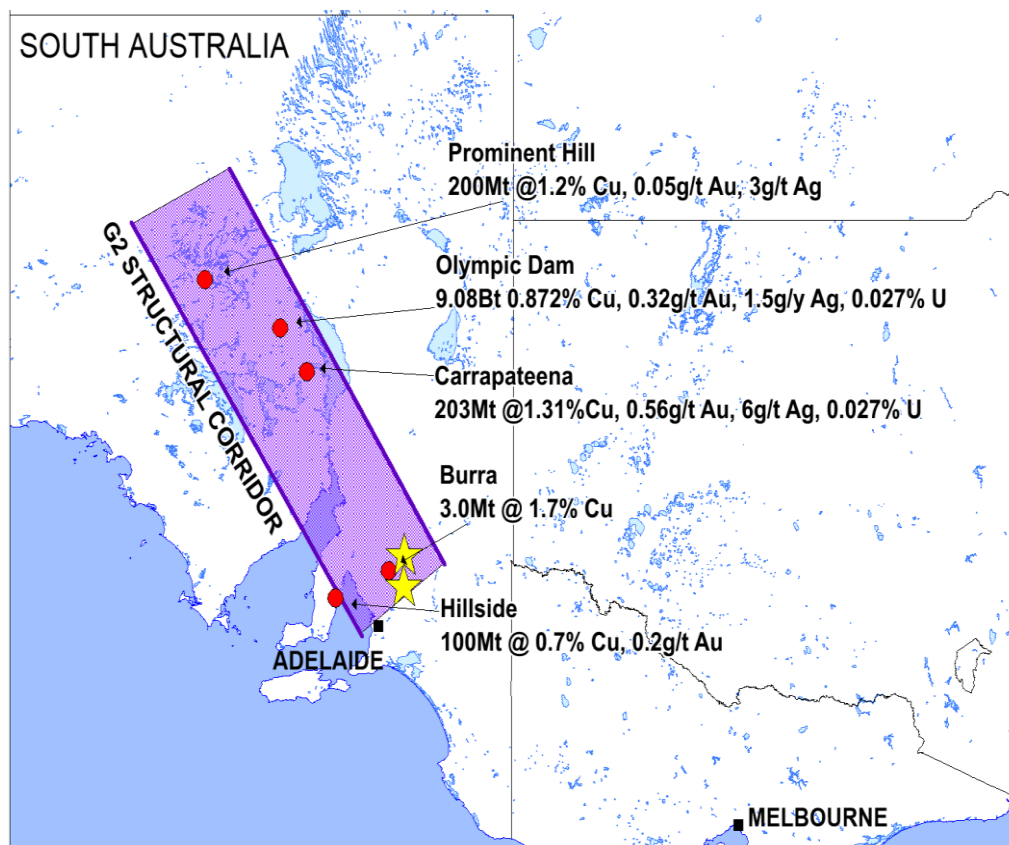
The Expert Consultant Report for Ausmex (ASX Announcement 4th October 2018) by Professor Ken Collerson interpreted the Burra mineral system to have formed during a younger mantle plume magmatic event to that responsible for the IOCG deposit at Olympic Dam. Burra mineralisation (~ 790 Ma) is ~ 800 Ma younger than Olympic Dam (~ 1590 Ma).

The presence of geochemical anomalism in Co-Cu-Ni- Zn-REE-Au has recently been reported in surface rock chips at Burra (ASX Announcement 4th October 2018).

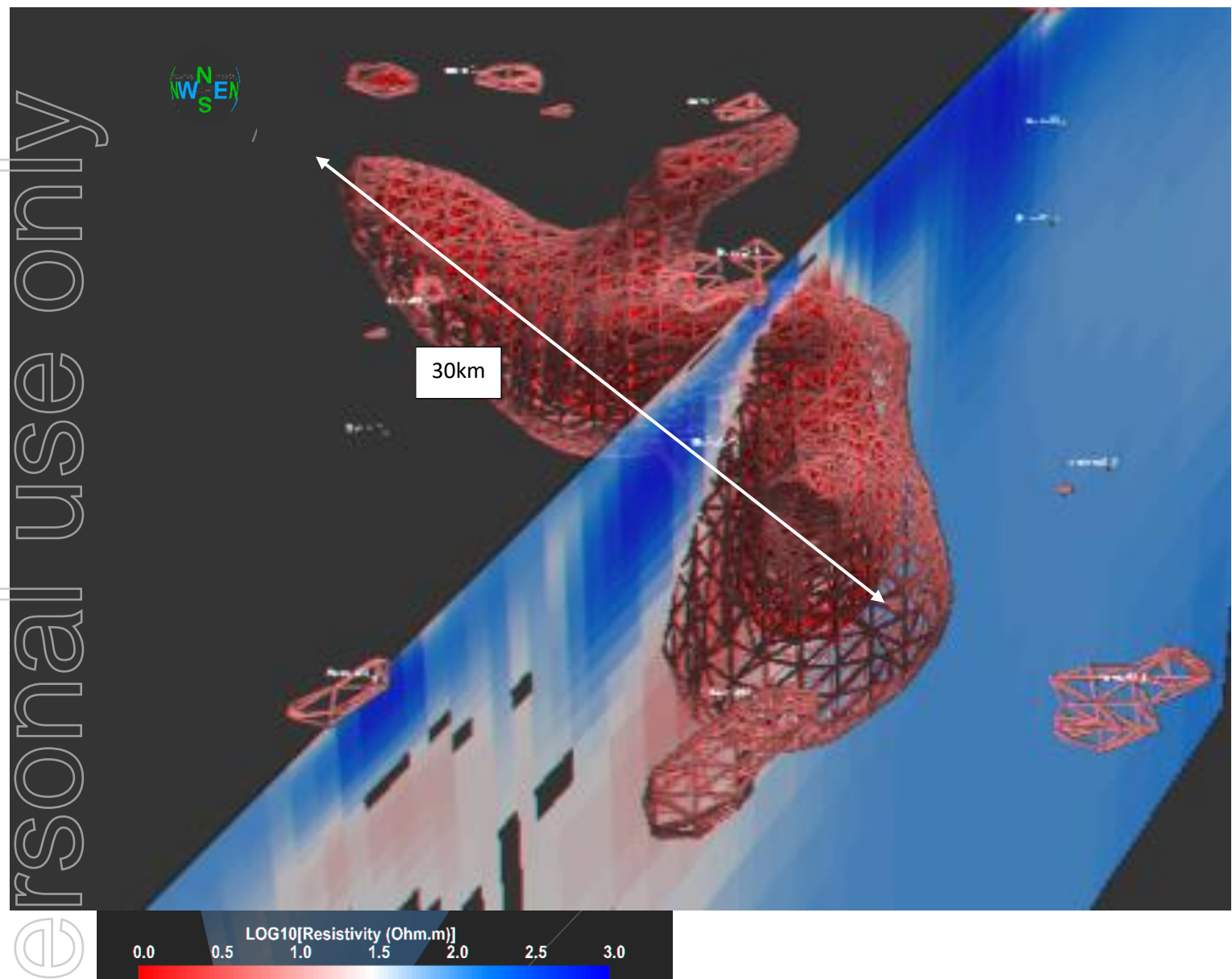
**Mineralising hydrothermal fluids that transported these elements are likely to be related to intrusions that generated the MT conductive anomaly below Burra.**

Like at Olympic Dam, the target below Burra could be quite shallow, but this remains to be tested by drilling.

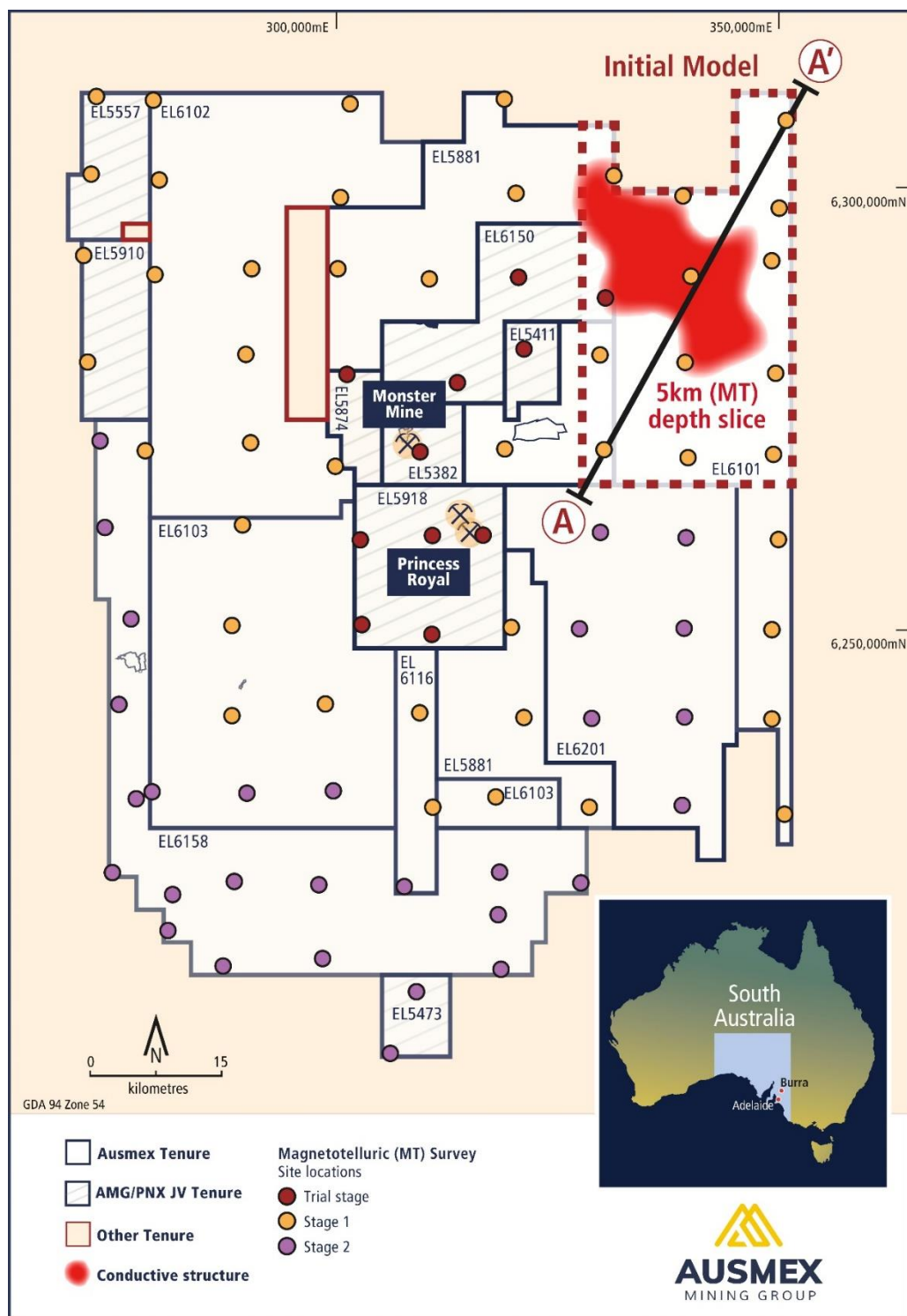
Targets identified using MT and geochemical vectors can then be confirmed by RC and DD drilling.



**Figure 22.** Location of the G2 structural corridor that hosts world class IOCG deposits Olympic Dam (~ 300 m below surface), Prominent Hill (~ 200 m below surface) and Carrapateena (~ 500 m below surface). (Source SA Gov open file data)



**Figure 23.** Is the diagram from our recent announcement and is the subject of this update. It shows the initial modelling over a small section in the NE area of the Ausmex Exploration Licenses and is a small component of what will be Ausmex's final MT Model for Burra. This 3D Model was prepared by the University of Adelaide (UoA) and shows a substantial conductive structure, the upper section of which appears to present a shallow drilling target. This conductive structure is an iso-surface wire-frame image at 5 ohm.m (the inner wire-frame in red is @ 1 ohm.m). This figure is projected facing north, with the conductive structure approximately 10 kms wide and 30 kms long.



**Figure 24** . Shows the location of this first conductive structure shown in all of the above Figures, which is the initial area modelled to date (red polygon) within the Ausmex Exploration Licenses. The cross-section 'A A' is that depicted in Figures 19 and 20 above.



### Cloncurry Group of Tenements

Tenement	Project Name	Holder	Ausmex Beneficial Interest (%)	Grant Date	Expiry Date	Area (km <sup>2</sup> /ha)	Status
<b>EPM 14163</b>	White Range #2	QMC Exploration Pty Ltd <sup>3</sup>	80	19/10/2004	18/10/2019	17	Granted
<b>EPM 14475</b>	White Range #4	Spinifex Mines Pty Ltd <sup>4</sup>	80	27/06/2005	26/06/2020	36	Granted
<b>EPM 15858</b>	Sunny Mount	QMC Exploration Pty Ltd	80	23/10/2008	22/10/2018	17	Renewal lodged
<b>EPM 18286</b>	Elder Creek	QMC Exploration Pty Ltd	80	14/01/2013	13/01/2018	20	Renewal lodged
<b>EPM 15923</b>	Golden Mile	Exco Resources	80 Sub Blocks U & P	14/01/2013	06/10/2018	20	Renewal lodged
<b>ML 2517</b>	Answer	Ausmex Mining Pty Ltd	100	01/12/1973	30/11/2025	8.09	Granted
<b>ML 2541</b>	Belgium	Ausmex Mining Pty Ltd	100	01/02/1974	31/01/2021	4.05	Granted
<b>ML 2549</b>	The Trump	Ausmex Mining Pty Ltd	100	01/02/1974	31/01/2021	12.14	Granted

<sup>3</sup> QMC Exploration Pty Ltd is a subsidiary the Company

<sup>4</sup> Spinifex Mines Pty Ltd is subsidiary the Company

Tenement	Project Name	Holder	Ausmex Beneficial Interest (%)	Grant Date	Expiry Date	Area (km <sup>2</sup> /ha)	Status
ML 2709	Gilded Rose	Spinifex Mines Pty Ltd	80	21/01/1982	31/01/2024	2.03	Granted
ML 2713	Gilded Rose Extd East	Spinifex Mines Pty Ltd	80	21/01/1982	31/01/2024	18.21	Granted
ML 2718	Gilded Rose Extd West	Spinifex Mines Pty Ltd	80	20/09/1984	30/09/2026	14.17	Granted
ML 2719	Gilt Edge Extd East 1	Spinifex Mines Pty Ltd	80	29/03/1984	31/03/2026	32.00	Granted
ML 2741	Mt Freda	Spinifex Mines Pty Ltd	80	29/05/1986	31/05/2028	3.80	Granted
ML 2742	Evening Star	Spinifex Mines Pty Ltd	80	29/05/1986	31/05/2028	8.09	Granted
ML 2750	Evening Star North Extd	Spinifex Mines Pty Ltd	80	26/01/1989	31/01/2028	5.14	Granted
ML 2752	Mt Freda Extd	Spinifex Mines Pty Ltd	80	23/02/1989	29/02/2028	116.48	Granted
ML 2763	Evening Star North	Spinifex Mines Pty Ltd	80	08/06/1989	30/06/2028	8.00	Granted

## Burra Project Group of Tenements

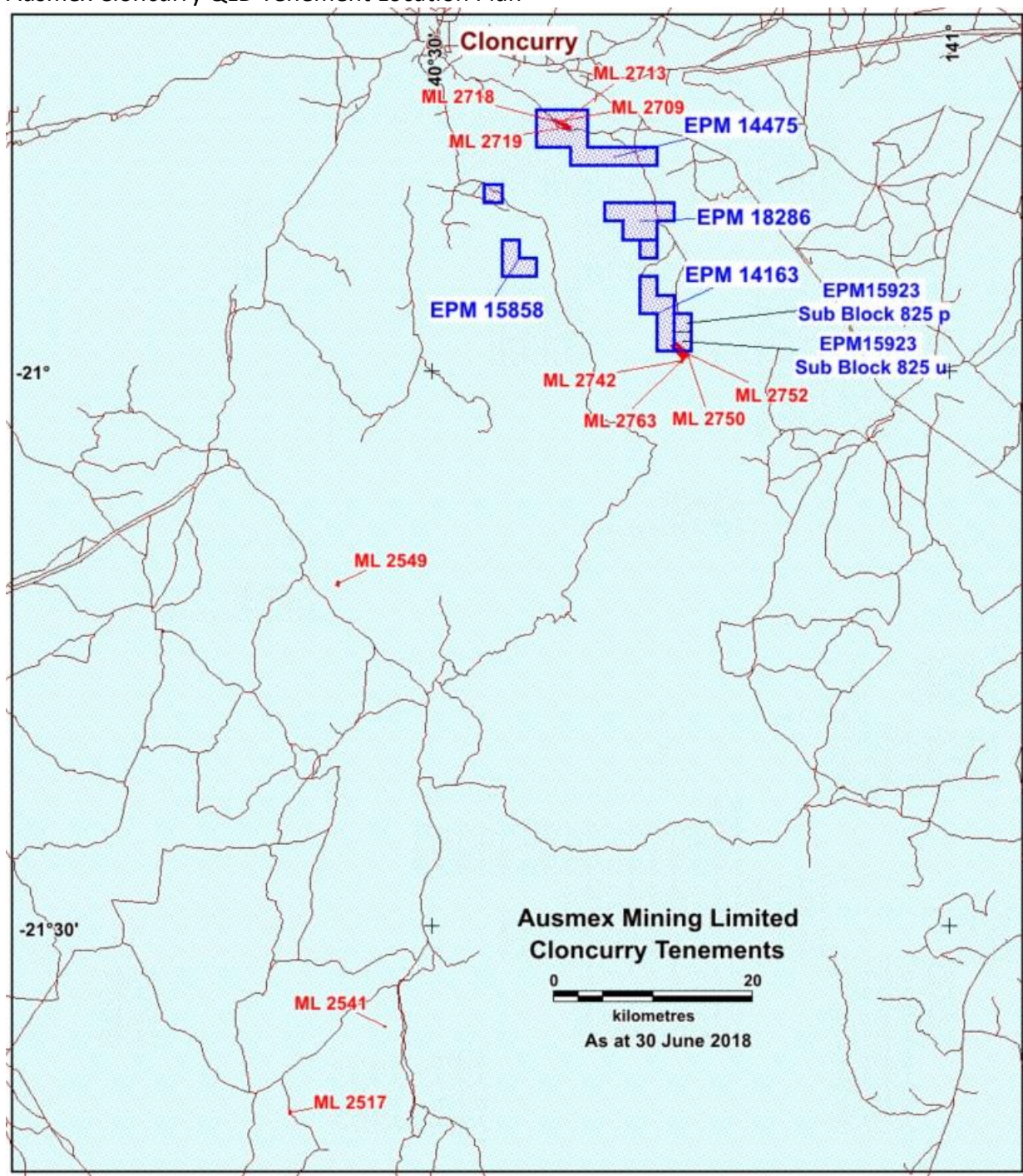
Tenement	Project Name	Registered Holder	Ausmex Beneficial Interest (%)	Grant Date	Expiry Date	Area (km <sup>2</sup> )	Status
EL 5881	Burra	Ausmex Mining Pty Ltd	100	04/11/2016	04/11/2018	970	Granted
EL 6101	Burra East	Ausmex Mining Pty Ltd	100	25/01/2018	24/01/2020	929	Granted
EL 6102	Burra North West	Ausmex Mining Pty Ltd	100	25/01/2018	24/01/2020	990	Granted
EL 6103	Worlds End South	Ausmex Mining Pty Ltd	100	25/01/2018	24/01/2020	986	Granted
EL 6116	Burra Far South	Ausmex Mining Pty Ltd	100	02/03/2018	01/03/2020	128	Granted
EL 6158	Riverton	Ausmex Mining Pty Ltd	100	22/05/2018	21/05/2020	986	Granted
EL 6201	Worlds End	Ausmex Mining Pty Ltd	100	20/07/2018	19/07/2020	818	Granted
EL 6150	PNX Burra North	PNX Metals Pty Ltd	60	6/03/2012	03/05/2019	300	Granted
EL 5382	PNX Burra Central	PNX Metals Pty Ltd	60	24/02/2014	23/02/2019	84	Granted
EL 5411	PNX Mongolata	PNX Metals Pty Ltd	60	10/03/2014	9/03/2019	60	Granted
EL 5473	PNX Bagot Well	PNX Metals Pty Ltd	60	5/08/2014	4/08/2019	71	Granted
EL 5557	PNX Washpool	PNX Metals Pty Ltd	60	10/11/2014	9/11/2019	135	Granted
EL 5874	PNX Burra West	PNX Metals Pty Ltd	60	25/07/2016	24/07/2018	69	Renewal lodged
EL 5910	PNX Spalding	PNX Metals Pty Ltd	60	2/01/2017	1/01/2019	157	Granted
EL 5918	PNX Princess Royal	PNX Metals Pty Ltd	60	23/11/2016	22/11/2018	314	Granted



**Mongolian Project Tenement**

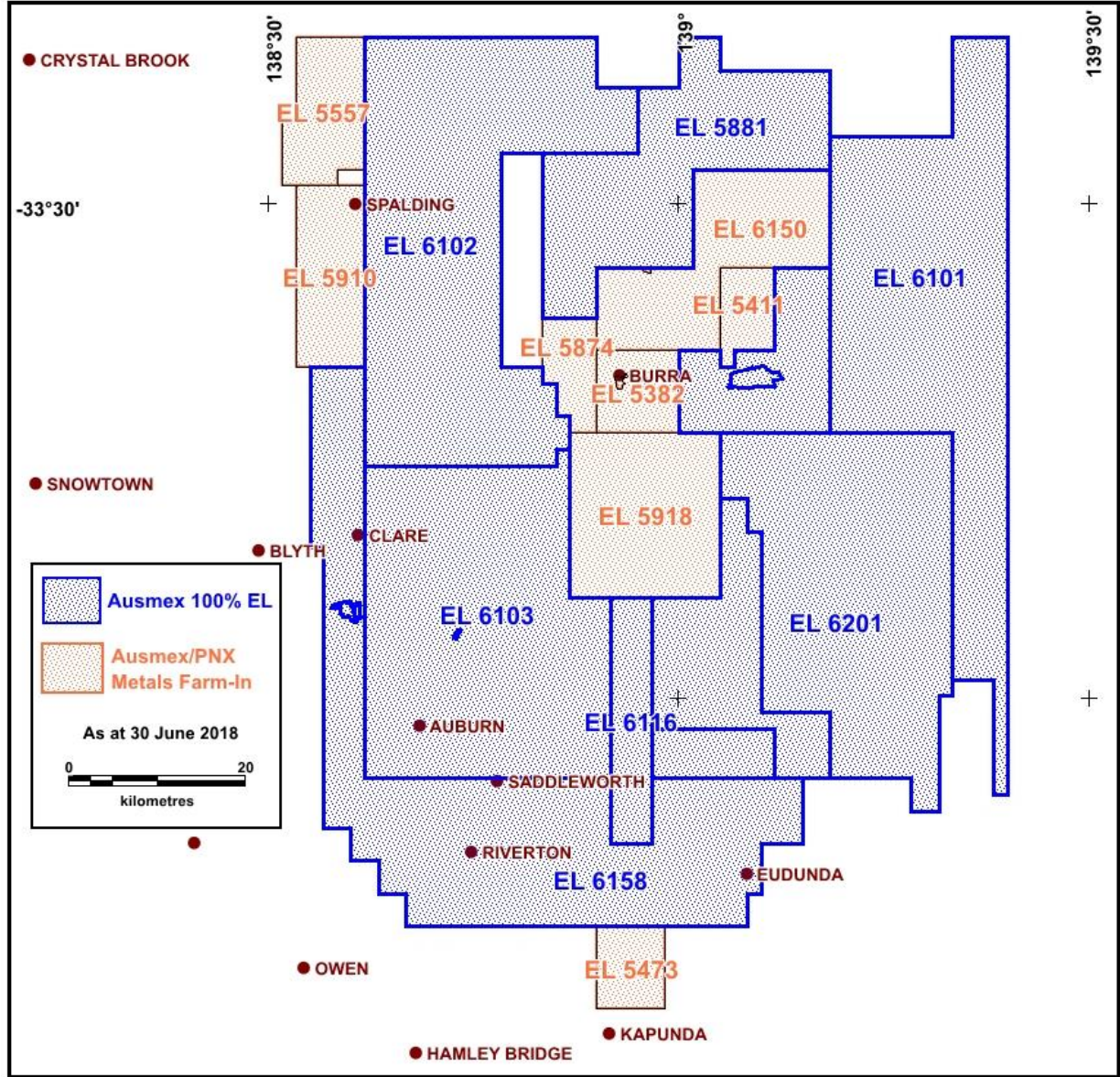
Tenement	Project Name	Registered Holder	Ausmex Beneficial Interest (%)	Status
<b>XV-015591</b>	Chuluun Khoroot Centreville LLC		100	Granted

Ausmex Cloncurry QLD Tenement Location Plan





Ausmex Burra SA Tenement Location Plan



Ends



### **Forward Looking Statements**

*The materials may include forward looking statements. Forward looking statements inherently involve subjective judgement, and analysis and are subject to significant uncertainties, risks, and contingencies, many of which are outside the control of, and may be unknown to, the company.*

*Actual results and developments may vary materially from that expressed in these materials. The types of uncertainties which are relevant to the company may include, but are not limited to, commodity prices, political uncertainty, changes to the regulatory framework which applies to the business of the company and general economic conditions. Given these uncertainties, readers are cautioned not to place undue reliance on forward looking statements.*

*Any forward-looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or relevant stock exchange listing rules, the company does not undertake any obligation to publicly update or revise any of the forward-looking statements, changes in events, conditions or circumstances on which any statement is based.*

### **Competent Person Statement**

*Statements contained in this report relating to exploration results and potential are based on information compiled by Mr. Matthew Morgan, who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Morgan is the Managing Director of Ausmex Mining Group Limited and Geologist whom has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral resources and Ore reserves (JORC Code 2012). Mr. Morgan consents to the use of this information in this report in the form and context in which it appears.*

### **Competent Person Statement**

*Statements contained in this report relating to exploration results and potential are based on information compiled by Ms. Nicole Galloway Warland, who is a member of the Australasian Institute of Geoscientists (AIG). Ms Galloway Warland is a consultant Project Manager to Ausmex Mining Group Limited and Geologist whom has sufficient relevant experience in relation to the mineralization styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral resources and Ore reserves (JORC Code 2012). Ms. Galloway Warland consents to the use of this information in this report in the form and context in which it appears.*

### **Competent Person Statement**

*Statements contained in this report relating to exploration results and potential are based on information compiled by Professor Ken Collerson, who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM). Professor Ken Collerson is an independent consultant to Ausmex Mining Group Limited and Geologist whom has sufficient relevant experience in relation to the mineralization styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral resources and Ore reserves (JORC Code 2012). Professor Ken Collerson consents to the use of this information in this report in the form and context in which it appears.*