



## Quarterly Activities Report Highlights

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### Collerina Copper Project:

#### Drilling Program

- ❑ A reverse circulation (RC) and diamond drilling program was undertaken during the quarter at the Collerina Copper Deposit and was designed to identify potential sulphide extensional zones via the drilling of downhole EM survey platforms and to target the interpreted dip plane of the Central Zone mineralisation to a depth of approximately 300m from surface.
- ❑ This program provided important structural, geological and geophysical information to assist in directing future drill targeting.

#### New EM Conductor Targets

- ❑ DHEM undertaken in several deep holes at Collerina identified a new large conductive trend extension down dip and east of the Central Zone mineralisation. This trend will form the main target zone for future drilling at the Collerina Copper Deposit.
- ❑ Regional geological mapping and sampling along the Collerina Trend was also undertaken during the quarter.

### Collerina – Regional Cobalt Potential:

- ❑ Regional review of Helix's Central NSW tenements identified cobalt-nickel targets within an 85km prospective trend.
- ❑ Field mapping and rockchip sampling identified targets returning high grade cobalt assays up to 1.2% Co from surface sampling.

### Mundarlo Project:

- ❑ Helix's initial exploration program targeting VMS-style base metal systems at Mundarlo defined a discrete bedrock EM Conductor.
- ❑ The Company is currently completing soil sampling prior to planned drill testing of the target in February 2018.

### Cobar Gold Project:

- ❑ Rock chip samples collected from the historic Lone Hand and Girl in Blue workings returned high grade gold assays (up to 17.7g/t gold).
- ❑ These historic prospects on the western side of the goldfield (Republic, Reward, Lone Hand and Girl in Blue) now define an open-ended gold bearing zone over a 3km long north-northwest trend.
- ❑ A review of exploration data is underway.

### Corporate:

- ❑ Helix completed an oversubscribed \$1.2m placement and had \$1.8m Cash in Bank at 31 December 2017.
- ❑ Subsequent to quarter end Helix entered into an agreement to sell the diluting Non-Core Yalleen Iron Ore Interests for A\$0.5M in cash and production royalties.

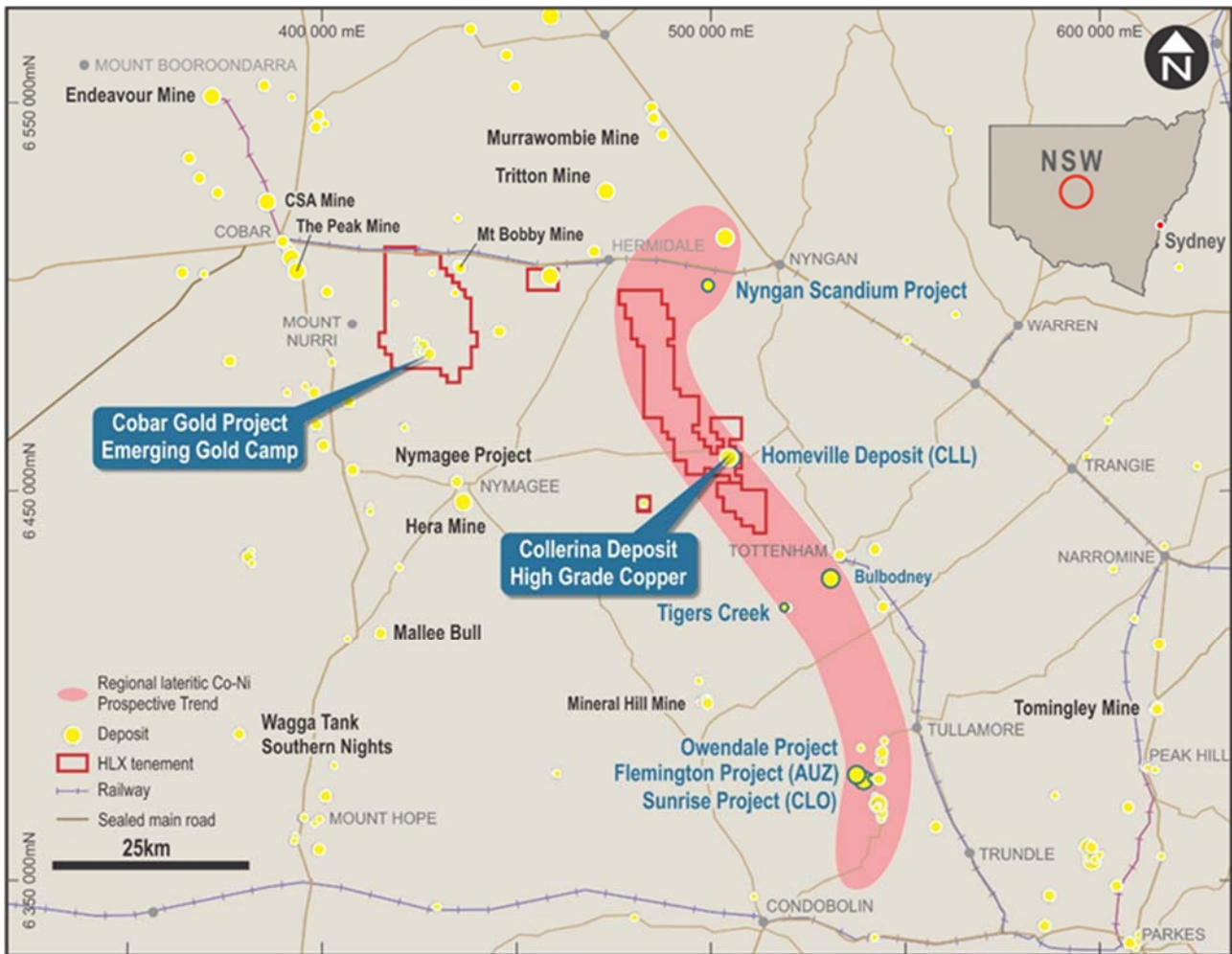


Figure 1: Helix's Central NSW Projects – strategic asset portfolio in a richly endowed mineral province

## COLLERINA COPPER PROJECT

The **Collerina Copper Project** lies within the central zone of prospective 150km volcanogenic massive sulphide (VMS) belt. The Company has approximately 85km of this prospective VMS belt. VMS belts typically contain multiple deposits and the mineralised endowment potential of Helix's portion remains generally untested by exploration. The **Collerina Copper Deposit** is a significant green field discovery and results to date indicate a copper system which displays all the hallmarks of the style and size typically found in the region.

### Activities During the Quarter

#### Exploration Drilling Program

The exploration program consisted of reverse circulation (RC) and diamond drilling. The drilling was designed to test for primary sulphide extensions below zones of shallow copper oxide mineralisation and target additional mineralisation in the dip plane of the Central Zone to a depth of approximately 300m from surface.

The drilling was designed to identify geological and structural vectors to more massive sulphide accumulations to enhance the overall scale of the Collerina copper system.

Shallow RC drilling at the Collerina Deposit completed in 2017 identified new near-surface oxide copper zones, discrete from the previously identified Central Zone. The scale and tenor of the intercept results identified on these new zones were consistent with previous oxide intersections over the Central Zone.

The new zones expanded the surface strike extent of copper mineralisation by approximately to 500 metres.

Subsequent DHEM identified EM conductors beneath these new copper zones, however it was not clear how local geology and structure was influencing the geometry of the mineralisation. A drilling program was designed to target these conductors and target areas along the same dip plane of the sulphide mineralisation identified in the Central Zone.

By way of context, the Central Zone mineralisation is characterised by broad zones of copper in oxides to approximately 50m below surface which then transitions to the high grade copper sulphide mineralisation from approximately 80m below surface. The mineralisation has exhibited a local plunge continuity displayed in drill results received to date, with the massive sulphides extending over the currently identified plunge extent for at least 300 metres.

### Initial RC Assays and New Deep EM Target Identified at Collerina

The RC exploration program consisted of three reverse circulation (RC) and three RC/DD drill holes.

The three RC drill holes were designed to test for:

- ❑ An eastern lateral extension of the Central Cone (CORC078), which has been successful; and
- ❑ Possible primary sulphide extensions within the Central Zone at shallower levels.

The three deeper RC/DD holes were designed to test for mineralisation in the Central Zone dip plane to a depth of approximately 300m from surface. DHEM undertaken on the RC pre-collars and a selected historic deep RC hole produced a partially constrained EM conductive anomaly within the interpreted Central Zone dip plane. The conductive anomaly trend was then targeted with the further drill holes to use as platforms for DHEM.

The first RC hole of the Phase 2 drill program CORC078, was drilled to a depth of 214m and was designed to target the modelled potential for an eastern extension to the Central Zone mineralisation. The hole returned an interval of **10m @ 1.4% Cu, 1.1% Zn & 0.15g/t Au** from 178m, within 16m @ 1% Cu, 0.7% Zn from 173m. The hole covers a portion of the Central Zone where a gap in the drilling pattern was present.

The intercept comprises a 10m wide zone of massive and semi-massive sulphide with variable stringer sulphide zones present either side (refer photo 1).



*Photo 1: Mineralised zone in CORC078 returning 10m @ 1.4% Cu, 1.1% Zn and 0.15g/t Au from 178m*

The results delivered an eastern extension to the Central Zone, with the interval being located approximately 60m up-dip from CORC032 (6m @ 2.2% Cu and 0.3% Zn from 192m) and 60m east of CORC022 (8m @ 2.4% Cu and 1.3% Zn). Whilst this intercept was more pyritic than previous intercepts nearby, such localised variation in copper content is not uncommon in these systems. Importantly, the drilled dip extent of the Central Zone primary sulphides is averaging approximately 150m in the dip plane.

Two further RC holes were completed at shallower levels within the Central Zone. The drill holes were designed to fill in gaps in the drill pattern between the oxide zones of the Central Zone and deeper primary sulphides already defined below. CORC082 has returned **1m @ 2.3% Cu and 0.2g/t Au** from 93m within 4m @ 0.7% Cu in primary sulphides. CORC079 intersected an East-West fault zone at the targeted depth and returned no significant assay result.

Portions of the exploration diamond tails that intersected disseminated and veinlet style sulphides were selected for assay when drilled. The cutting of core for assay was completed after detailed structural and lithological

logging was undertaken at the laboratory. This logging was completed to improve the understanding of the structures and geology controlling mineralisation at Collerina. Results from these zones will be released when available.

### DHEM Surveys

DHEM surveys were completed as part of the current exploration program in order to assist with the targeting of deeper portions of the Collerina Deposit.

Modelling of DHEM data derived from surveys of the RC pre-collars, selected previous deep RC holes and subsequent diamond tails, using several surface transmitter loop orientations, has identified a new conductive trend in the dip/plunge portion of the Central Zone mineralisation.

A partially defined off-hole DHEM conductor was initially identified east and down dip of CORC039; which is one of the deeper holes drilled at Collerina to date (392m downhole). This newly modelled EM conductor plate sat within the dip-plane target zone, had a conductance similar to the central zone mineralisation at 150-200 Siemens and importantly remained open up plunge, down plunge and down dip.

Subsequent DHEM in the deeper holes drilled (some completed with additional DDH extensions on previous holes, surround CORC039) resulted in defining further EM conductive anomalies in several the holes surveyed. The modelling of these new conductors is underway.

This EM conductive trend is considered a significant target for expanding the massive sulphide mineralisation at the Collerina deposit. Plans for further drilling to test this trend in the first quarter of 2018 are underway as part of the ongoing exploration program at Collerina.

## Collerina – Regional Cobalt Exploration:

### Regional Review Confirms Lateritic Cobalt Prospectivity

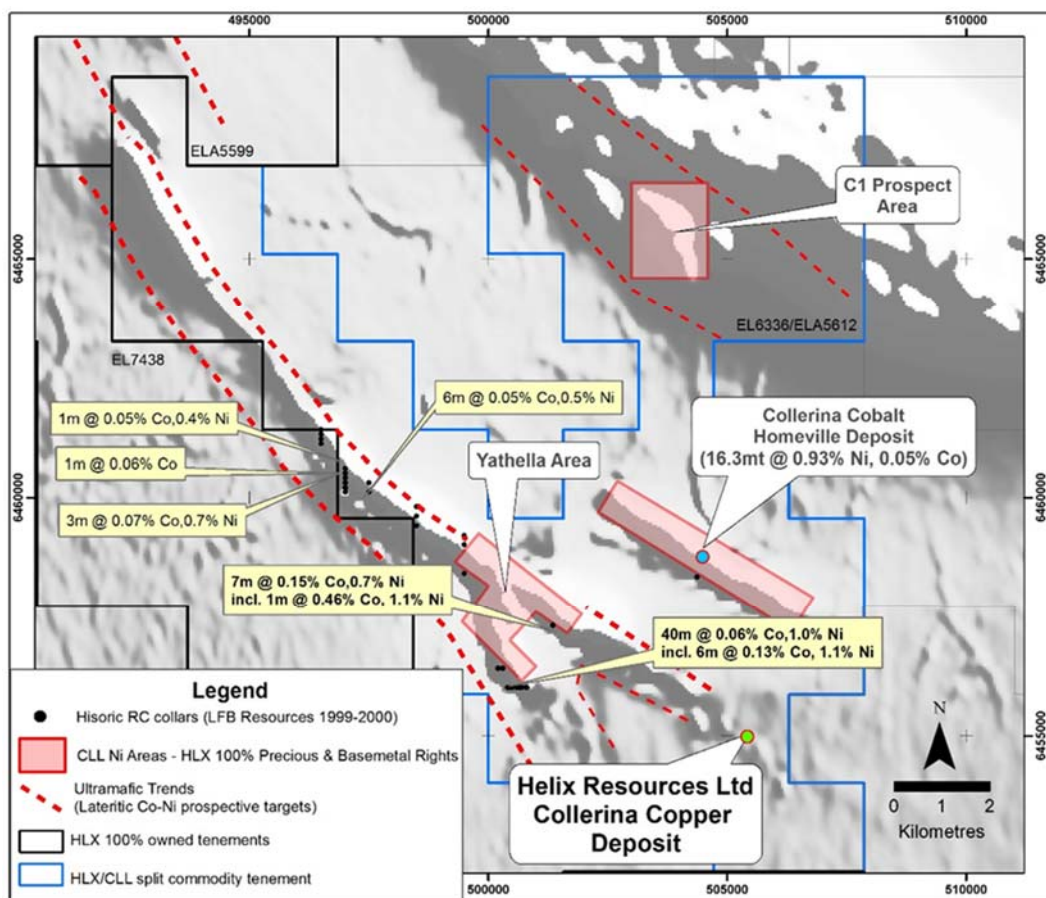


Figure 2: Previous drilling illustrating areas of lateritic cobalt potential along the Collerina Trend

An initial review of regional prospectivity was completed and identified several lateritic cobalt-nickel targets within the 85km base metal trend on the Company's tenements in Central NSW.

Helix's tenements are along the same regional trend (and host similar aged ultramafic intrusions and sills) to the hosts of CleanTeq's (ASX:CLQ) Sunrise, Australian Mines' (ASX:AUZ) Flemington and Collierina Cobalt's (ASX:CLL) Homeville lateritic cobalt-nickel deposits (refer Figure 1).

The regional review, including an assessment of historical drilling and evaluation of geophysics, identified several target areas that were assessed and prioritised. Historic results from shallow RC drilling undertaken in 1999/2000 include: 40m @ 0.06% Co, 1.0% Ni, including 6m @ 0.13%Co, 1.0% Ni from surface in TORC038 and 7m @ 0.15% Co, 0.7% Ni from 27m including 1m @ 0.46% Co, 1.1% Ni from 30m in TORC064.

An approximate 15km strike of ultramafic bearing trend was identified as a priority zone within the Collierina Project tenement (EL6336). The targets within that zone are located nearby or along strike from CLL's areas of laterite cobalt-nickel interests, which include the Homeville Ni-Co deposit. Additional prospective ultramafic trends have been interpreted from geophysics on Helix's regional tenements and can be traced over the 85km of trend that these tenements cover.

Regional field mapping and preparations for further airborne geophysical surveys on the regional tenements were commenced during the quarter. Rockchips collected during the field mapping have returned significant cobalt results from surface sampling including one sample returning 1.2% Co from lateritic float. Full details are available in the announcement lodged with the ASX on 19 January 2018.

*1 Helix holds specific exploration rights on EL6336 outside of Collierina Cobalt's defined areas of nickel laterite interests. For details refer to the section below titled "About the Collierina Project Agreement".*

*Results were derived from publicly available reports and data collected by LFB Resources NL/Anaconda Nickel in drilling activities undertaken between 1999-2001 on the Collierina Project area (ref: R00019975 [GS2002/495]).*

*Intercepts reported above are based on either a 0.05% Co cut-off or a 0.7% Ni cut-off with a maximum of 1m of internal dilution.*

### **About the Collierina Project Agreement**

Helix holds exploration rights over the Collierina Project tenement (EL6336) under a split commodity agreement with Collierina Cobalt Limited (ASX:CLL), formerly Augur Resources Ltd.

These include Helix's exclusive right to explore the entirety of EL6336 (or any replacement tenements) for:

- i. precious and sulphide-hosted base metals; and
- ii. laterite-hosted cobalt-nickel deposits outside of CLL's designated areas of interest (refer Figure 2).

Other key terms of the agreement regarding lateritic cobalt-nickel exploration on EL6336 include:

- Helix must notify CLL of any lateritic cobalt-nickel discoveries made on EL6336 outside of CLL's designated areas of interest within 30 days of making such a discovery.
- CLL then has 30 days from the time of such notification to elect either:
  - a) To take up a 49% equity interest in the new discovery, with new discoveries to be advanced in partnership under such a Joint Venture structure (51% Helix and 49% CLL); OR
  - b) Not to participate in the new discovery, whereby Helix retains a 100% interest in that discovery and can progress it on that sole basis.

## MUNDARLO PROJECT JV

The **Mundarlo Project** is located in a prospective mineral belt, bounding the Gilmore Structure, which hosts or controls significant gold and copper deposits along its entire strike. The local geology, near Gundagai NSW, is located in a sub-basin dominated by mixed volcanics, sediments and multiple localised cherty units.

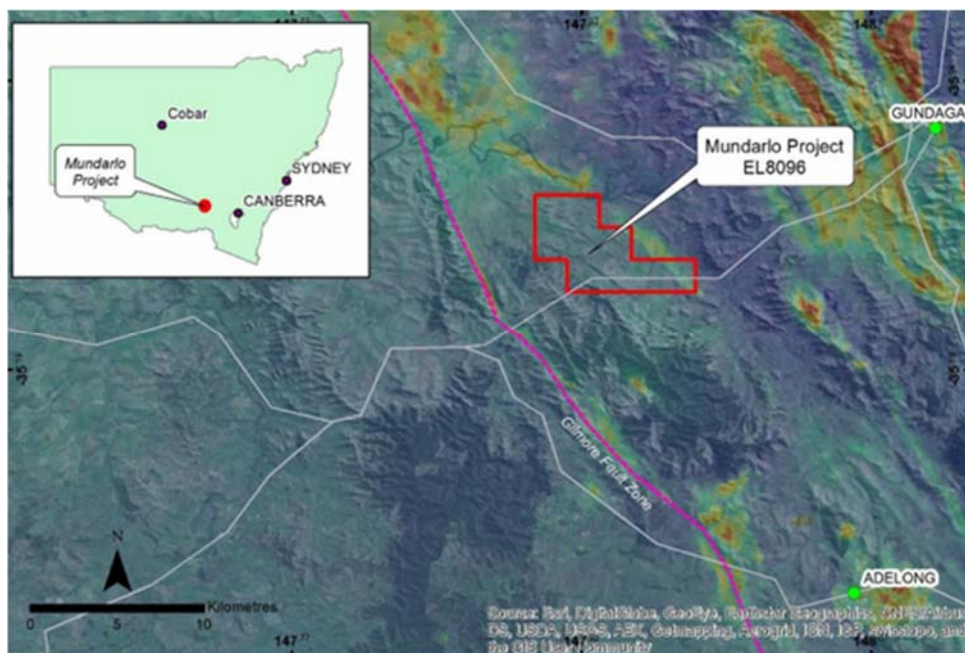


Figure 3: Mundarlo Location Map

### Activities During the Quarter

A MLEM survey was completed at the Mundarlo Project in 2017 which identified a discrete bedrock conductor in a favourable setting for VMS-style base metal deposits. The conductor sits below a zone of broad spaced historic copper-in-soil anomalism, which has never been drill tested.

An assessment of the 12 line kilometre MLEM survey data by the Company's geophysical consultant highlighted a discrete conductor associated with a subtle magnetic linear unit within the basin. The modelled conductor plate has a conductance response of 200-400 Siemens (a response consistent with base metal sulphide bearing rock). The plate dips to the southwest and appears to be associated with previously mapped gossanous banded chert horizons at surface. The top of the conductor plate models at a depth of approximately 100m below surface, with a strike of 780m and a dip extent of 460m.

Helix undertook an initial orientation geochemical survey in 2017 in order to confirm the historic soil results on the neighbouring property. During January the Company has undertaken infill auger soil sampling over the EM target area, where the surface/near-surface expression of the modelled EM plate is anticipated to project.

Helix has sought statutory approvals and plans to drill test the EM target in February and also satisfy the minimum earn-in commitment for the project.

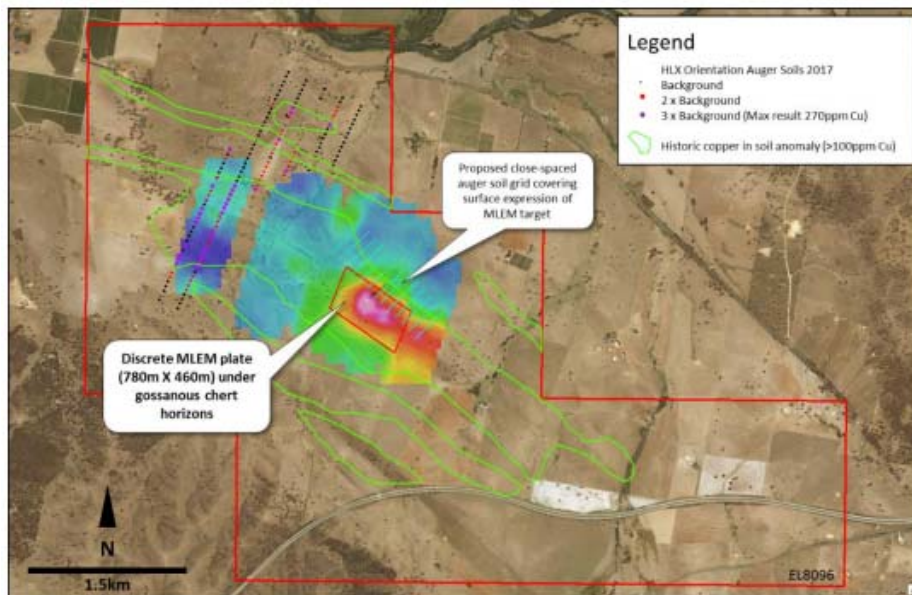


Figure 4: Mundarlo MLEM Conductor outline on a late-time EM image and regional copper contours

**JV Terms:** Helix must spend A\$100,000 inclusive of the completed program of work, and including a minimum two hole drilling program by February 2018, to earn 60% equity in the Project from the private vendors of Mundarlo. Helix will then have the sole right to move to 80% equity in the Project by spending a further A\$150,000 by February 2019.

## COBAR GOLD PROJECT

The **Cobar Gold Project** covers a contiguous tenement package area of ~500km<sup>2</sup> located approximately 70km east south-east of Cobar and central western NSW. The area was mined in the late 1800s and early 1900s prior to being abandoned during the Centenary drought due to lack of water to process the gold enriched ore at the Battery Tank head stamp battery. Helix acquired the ground in its own right and further tenure via an earn-in joint venture with a subsidiary of nearby copper producer, Glencore.

### Activities During the Quarter

Results from rock chip samples collected during reconnaissance mapping at the Lone Hand and Girl in Blue workings returned very encouraging gold assays (17.7g/t gold from Lone Hand and 2.17g/t gold from Girl in Blue (refer to announcement lodged with the ASX on 2 October 2017). A third sample, collected from an area of quartz float located 600m west of Girl in Blue, did not return a significant result.

The workings define a 3km long north-northwest (NNW) oriented mineralised trend (also hosting the Republic and Reward prospects) comprising the Western Gold Prospects. This trend corresponds to an interpreted regional structure derived from aeromagnetism located 1.5km to the west of the Central Gold Prospects (Figure 5). This regional NNW structural orientation is considered an important control to mineralisation in the gold field and is a similar orientation to the controlling structures seen at the +4Moz Au Peak Gold Trend, located 35km to the northwest.

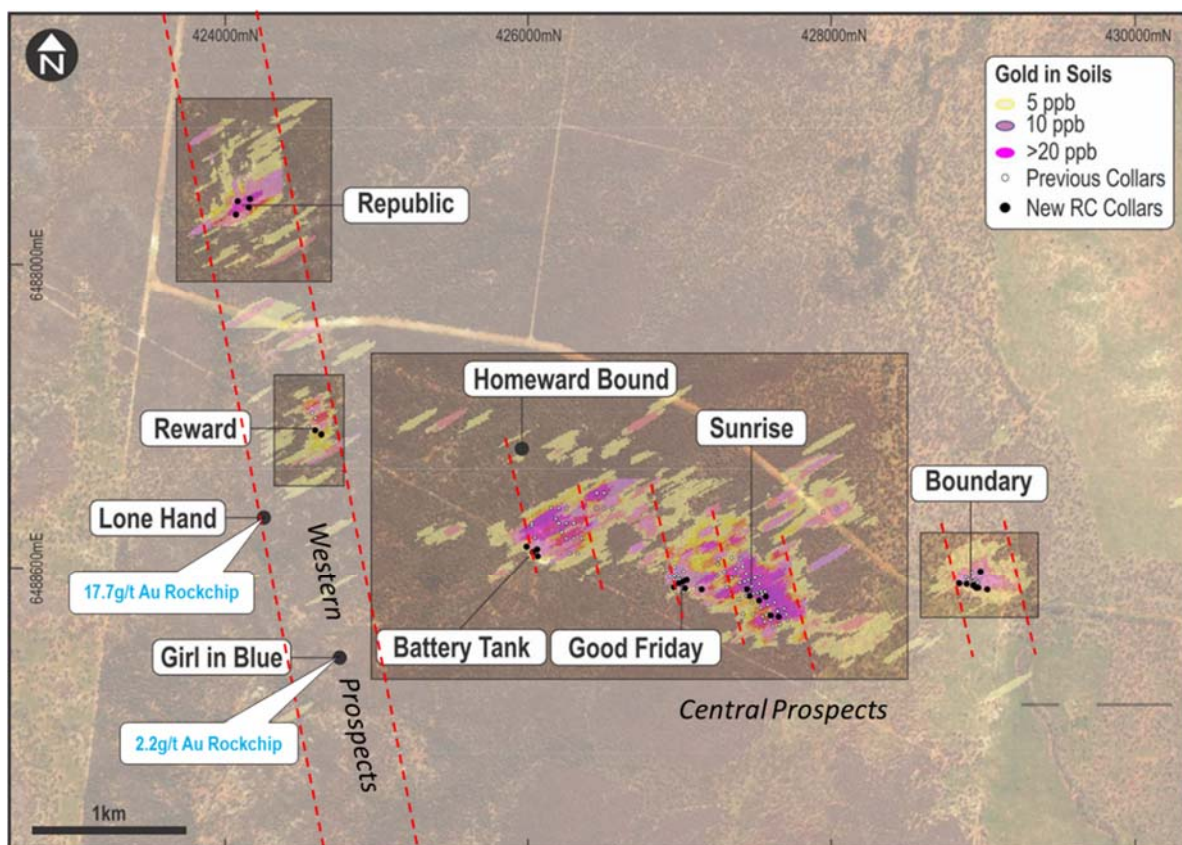


Figure 5: Goldfield Prospect Plan, showing gold in soil anomalism and recent rock chip results

At the prospect scale, mineralisation at Lone hand is interpreted to trend toward 350 degrees, parallel to that seen at Reward. The sample that returned 17.7g/t gold was from ferruginous quartz located adjacent to the main collapsed shaft.

At Girl in Blue, ferruginous, weakly quartz veined shear zone material located adjacent to the central and western shafts returned 2.17g/t gold. The sampled quartz veined shear structures observed in historic shafts appear to lie on secondary structures trending 075 degrees (as seen at Battery Tank and Sunrise).

## CORPORATE

### Activities During the Quarter

During the quarter the Company completed a share placement to raise gross proceeds of \$1.2 million. The oversubscribed placement was undertaken at \$0.03 per share, a nil discount to the last market price (as at the close of trade on 21 November 2017). Funds were raised from both institutional and sophisticated investors.

The sole Lead Manager of the placement was Taylor Collison. The 40,000,000 ordinary shares were issued using a portion of the Company's available capacity under ASX Listing Rule 7.1.

### Subsequent Events

Helix announced the sale of its diluting share of the Yalleen Iron Ore Project to its JV partner in an ASX announcement dated 15 December 2017.

Sale Proceeds include:

- Cash payment of A\$0.5 million payable upon completion (anticipated in the first quarter of 2018);
- Uncapped 1% FOB royalty on all iron ore sales from the Tenement Area; and
- Uncapped 1% NSR on certain precious or base metal production from the Tenement Area



## Notes

<sup>1</sup> For full details of exploration results refer to ASX announcements dated:

### Collerina Copper

1 April 2015, 10 November 2015, 18 February 2016, 26 May 2016, 29 June 2016, 2 November 2016, 1 December 2016, 13 July 2017, 3 August 2017, 2 October 2017, 11 October 2017, 8 November 2017

### Cobar Gold

7 April 2011, 17 November 2016, 3 April 2017, 26 April 2017, 11 May 2017, 30 June 2017, 17 July 2017, 23 August 2017  
25 November 2010, 15 February 2011, 24 May 2011, 13 July 2011, 17 August 2011 and 4 October 2012.

### Collerina Cobalt

7 December 2012, 19 January 2018

Helix Resources is not aware of any new information or data that materially effects the information in these announcements.

## Competent Persons Statement

The information in this announcement that relating to previous reported Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr M Wilson who is a full time employee of Helix Resources Limited and a Member of The Australasian Institute of Mining and Metallurgy. Mr M Wilson 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr M Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Details of the assumptions underlying any Resource estimations are contained in previous ASX releases or at [www.helix.net.au](http://www.helix.net.au)