



## QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDING 30 JUNE 2016

### HIGHLIGHTS

#### Pinnacles JV Gold Project

- **Second Earn-in milestone completed in the Pinnacles JV with Saracen Mineral Holdings (ASX:SAR) with Nexus now holding a 50% interest in the project;**
- **2,500m Pinnacles East Resource Area drill planning complete, with drilling to commence early in September quarter;**
- **Extensive gold soil geochemical anomaly identified;**
- **Southern Geoscience Consultants complete aeromagnetic data processing – multiple targets identified for follow up;**
- **IP Geophysical survey completed – major intrusive related alteration system signature – Drill ready gold targets;**
- **850m Regional drill program to test coincident geophysical / geochemical gold targets to commence early September quarter.**

#### Triumph Gold Project

- **IP Geophysical survey completed – processing and interpretation underway.**

Eastern Goldfields gold explorer, **Nexus Minerals Limited (ASX: NXM) (Nexus or the Company)** is pleased to announce that during the June quarter it completed a number of successful work programs at both the Pinnacles JV Gold Project (**Pinnacles**) and the Triumph Gold Project (**Triumph**)(Fig. 1).

At Pinnacles, the Pinnacles East Resource Area drill planning has been completed, with the next phase 6 hole 2,500m RC/DDH drill program planned for commencement early in the September quarter. A 1.6km x 300m geochemical coincident gold (>15ppb Au) and arsenic (>50ppm As) anomaly was identified. This work, in conjunction with aeromagnetic data processing / interpretation, and results from processing of a ground geophysical IP survey has provided the Company with drill ready gold targets, which will also be tested with a 6 hole 850m RC program.

At Triumph, a ground geophysical IP survey was completed, covering both areas where previous drill testing had returned elevated gold results as well as in an area where no previous work has been undertaken, in an attempt to identify potential repeat mineralised structures under cover. Data processing and interpretation is underway.

#### ASX: NXM

#### Capital Structure

Shares on Issue 70.4 million

Unlisted Options 2.5 million

Cash on Hand \$5.1 million  
(30/6/16)

#### Corporate Directory

Mr Paul Boyatzis  
Non-Executive Chairman

Mr Andy Tudor  
Managing Director

Dr Mark Elliott  
Non-Executive Director

Mr Bruce Maluish  
Non-Executive Director

Mr Phillip Macleod  
Company Secretary

#### Company Projects

Eastern Goldfields WA  
Company and Farm-In JV  
tenements

Pinnacles JV Project (Gold)

Pinnacles Project (Gold)

Triumph Project (Gold)

Mt Celia Project (Gold)

Nexus Minerals Limited (ASX: NXM)

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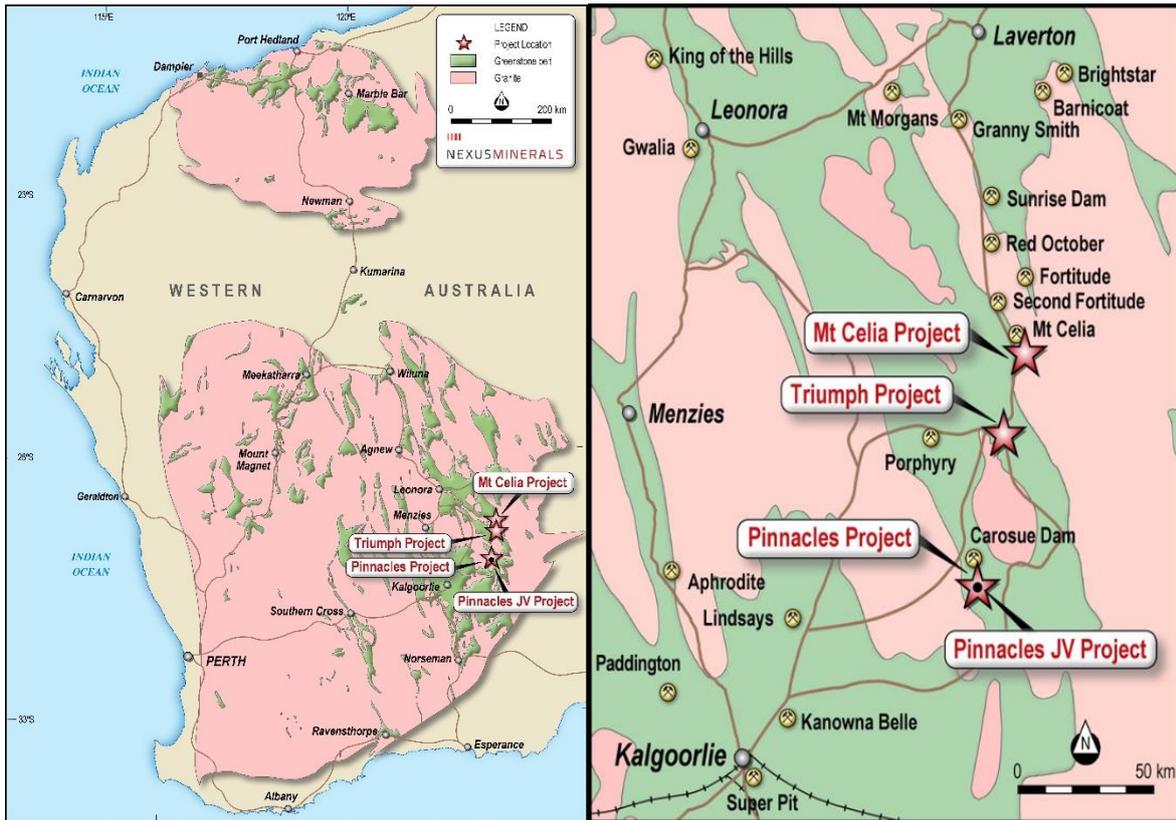


Figure 1: Nexus Project Locations – Eastern Goldfields, Western Australia.

## Pinnacles JV Gold Project

The Pinnacles Project covers part of a highly deformed Archaean greenstone sequence of basalts, dolerites, and co-magmatic high-level intrusions. This mafic volcanic association is overlain by a series of medium to coarse grained volcanoclastic sandstones and subordinate felsic volcanic rocks. These greenstones have been intruded and disrupted by the forceful intrusion of a series of granitoid rocks. This geological and structural setting is considered to be highly prospective for gold mineralisation.

## Pinnacles East Resource Area

In the Resource area (Fig.2 and 3), gold mineralisation occurs within a sub-vertical shear zone hosted by a silicified black shale unit. Gold is associated with elevated sulphides (pyrite), quartz veining (1-10cm) and sheared altered host rocks.

The Pinnacles East Resource (from surface to 130m) is being evaluated for its high grade underground gold potential, with Nexus drilling to test extensions to previously identified high grade mineralisation (refer announcement 15/09/2015 and 21/01/2016) including:

- 6m @ 17.4g/t Au
- 6m @ 12.3g/t Au
- 11m @ 5.6g/t Au
- 8m @ 7.7g/t Au
- 7m @ 5.9g/t Au
- 4m @ 7.6g/t Au



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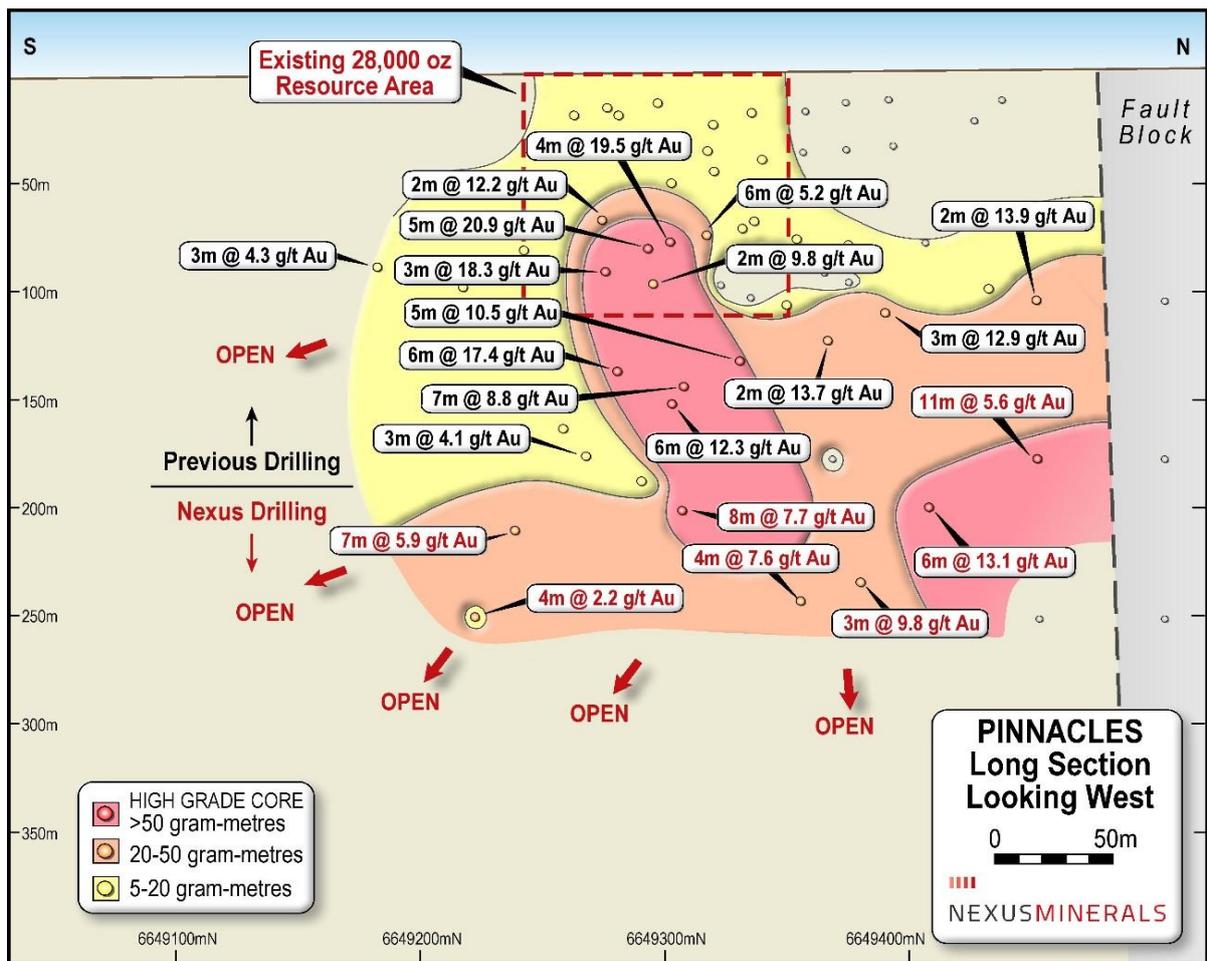


Figure 2: Pinnacles JV Long Section

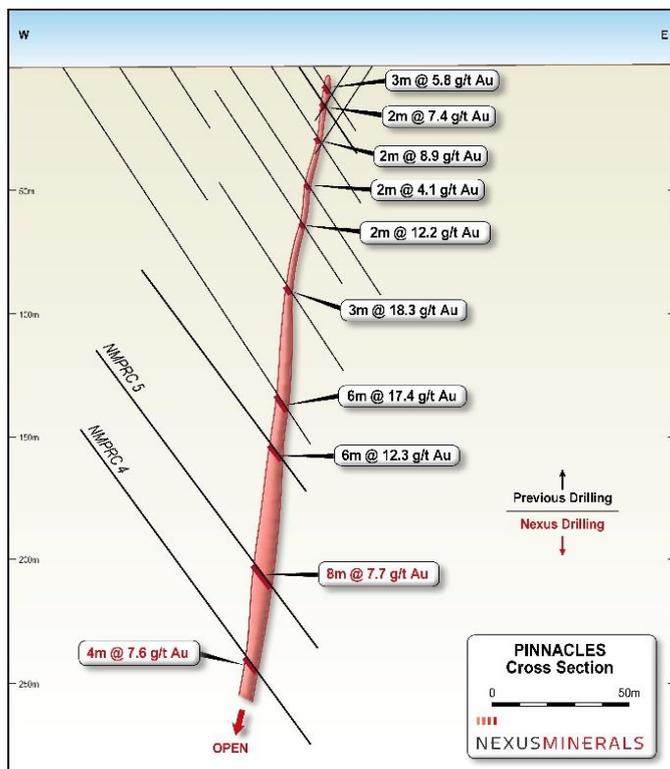


Figure 3: Pinnacles JV Cross Section



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## Pinnacles JV (outside resource area)

Soil geochemistry and aeromagnetic interpretation has resulted in the development of anomalies beyond the resource area, within the JV tenement (Fig. 4).

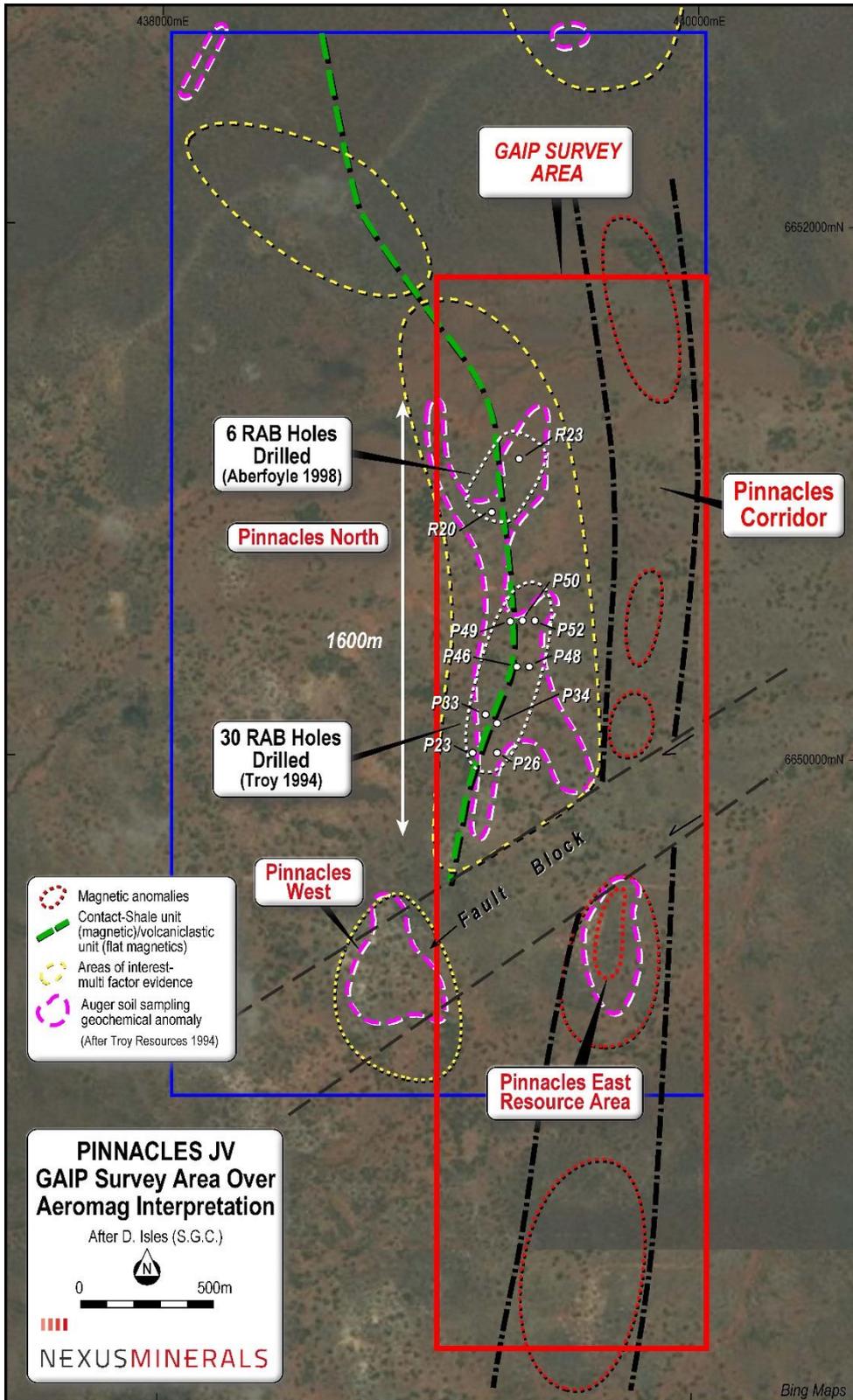


Figure 4: Pinnacles JV Tenement with GAIP Survey Area & Aeromagnetic anomalies.



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## Soil Geochemical Anomalies

Research by Nexus of the Department of Mines and Petroleum database reveals work by previous operator (Troy Resources, 1994 (**Troy**)) identified five coincident gold arsenic soil geochemical anomalies (Fig. 4). Troy undertook a soil auger program on a 200m x 50m spaced grid using a truck mounted rig with all samples collected at a depth of 1m.

A total of 853 soil samples were collected in 1993 and analysed for gold and arsenic. Maximum values of 280ppb Au and 450ppm As were recorded. The largest anomaly, Pinnacles North, covers an area of 1.6km x 300m. Two of the anomalies were associated with exposed areas of mineralisation being Pinnacles East (covering the Resource area currently being assessed/drilled by Nexus, and Pinnacles West (drilled by previous operators). Anomalies four and five are located in the very northern part of the tenement and are based on a limited number of anomalous data points.

A total of 70 shallow RAB holes were drilled in 1994 (Troy) and a further 30 shallow RAB holes by Aberfoyle Resources Limited (**Aberfoyle**) in 1998, testing the five soil anomalies.

The Pinnacles East anomaly is located over the resource area currently being assessed by Nexus and is well documented in company releases.

The Pinnacles West anomaly is the most dominant feature in the district and is exposed as a topographic high. The size of the soil anomaly is exaggerated because of “shedding” of the main ridge mineralized zone over the surrounding lower landform. The area has been drilled by previous operators with forty RC drill holes drilled under the exposed ridge. This area will be fully assessed by Nexus in conjunction with its regional exploration program.

The two anomalies located in the very northern part of the tenement are based on a limited number of anomalous data points and are on the JV tenement boundary. Nexus’ regional tenement is contiguous with the northern boundary and the area will be fully assessed by Nexus in conjunction with its regional exploration program.

Troy undertook the drilling of 30 shallow RAB holes in 1994 into the southern part of the Pinnacles North anomaly, which resulted in several anomalous intersections. The northern part of this anomaly was tested by Aberfoyle (1998) with the drilling of 6 shallow RAB holes. This program also resulted in anomalous intersections (Table 1 and Fig. 4). The anomalous intersections identified in these programs have never been followed up with further work.

Hole ID	From (m)	To (m)	Length (m)	Grade g/t Au	Grade ppm As
P23	20	27	7	0.57	115
P26	30	35	5	0.71	610
P33	15	19 (eoh)	4	0.10	820
P34	0	10	10	0.14	345
P46	25	38 (eoh)	13	0.53	590
incl	35	38 (eoh)	3	1.13	1100
P48	25	30 (eoh)	5	0.14	240
P49	40	42.5 (eoh)	2.5	0.10	370
P50	15	20	5	0.15	60
P52	35	40.2 (eoh)	5.2	0.28	230
R20	8	12	4	0.18	125
R23	0	4	4	0.11	0
R23	12	16	4	0.23	75

**Table 1. Composite sampling RAB Drill Results (>0.1g/tAu).**

**(P series after Troy 1994 / R series after Aberfoyle 1998).**

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## Aeromagnetic Interpretation Anomalies

Southern Geoscience Consultants (**SGC**) were engaged to undertake aeromagnetic data processing, imaging and interpretation of the Pinnacles JV tenement and the surrounding Pinnacles Regional Tenement package. Data from multiple surveys previously collected by private companies – now available on open file, were combined with open file government data. This resulted in the production of a high quality tailored image of the study area.

Three main styles of features were highlighted (Fig. 4):

- **Magnetic Anomalies** – Pinnacles East Resource Area and multiple other zones of analogous magnetic anomalism.
- **Contact Zone Anomaly** – Highlights an interface of magnetic / non-magnetic rock types. This contact follows the Pinnacles North coincident gold / arsenic geochemical anomaly.
- **Areas of Interest** – Areas requiring follow up investigation based on multiple “weight of evidence” factors.

Interpretation was carried out at 1:10,000 scale providing prospect size levels of detail. Interpreted litho-stratigraphic zones, magnetic rock units and structural features were combined as “weights of evidence” to produce “Targets” and “Areas of Interest” on a solid geology and structural interpretation map.

The Pinnacles East Resource Area mineralisation style / aeromagnetic response has largely driven the initial targeting, with a “corridor” of multiple analogous targets being identified within the Pinnacles JV tenement and further multiple analogous targets identified on the Pinnacles regional tenement.

The processing has also highlighted the contact between a magnetic shale unit and the flat magnetics of a volcanoclastic unit. This contact follows the previously reported Pinnacles North 1.6km x 300m geochemical coincident gold (>15ppb Au) and arsenic (>50ppm As) anomaly, partially tested by Troy and Aberfoyle from 1994-1998. The anomalous intersections identified in these programs have never been followed up with further work.

The aeromagnetic analysis has yielded a coherent district and local geological framework – albeit preliminary at this stage. There is a suggested association between magnetic features and areas of mineralisation, the only known example to date being the Pinnacles East Resource Area. Areas of exploration interest are proposed based on multiple factors culminating in “Weights of Evidence” anomalies. The potential broader regional association will require investigation through further ground work and ultimately the integration of future drill hole data.

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## Gradient Array IP Survey

Gradient Array Induced Polarisation (**GAIP**) is a geophysical method used in gold exploration and provides two forms of results, being Resistivity<sup>1</sup> and Chargeability<sup>2</sup>. The method was selected as it allows a large area to be covered where the positions of anomalies are not well known, and also has the potential to identify zones of:

**Resistivity** – highs representing potential silica alteration / quartz veining also often associated with gold mineralisation, and;

**Chargeability** – highs representing the presence of sulphides (pyrite / arsenopyrite) often associated with gold mineralisation.

The Nexus GAIP survey was conducted over a 4km x 1km grid, with 200m spaced lines, tightened to 100m spacing over the Pinnacles East resource area for a total of 23 line kilometres. Recordings were taken at 25, 50 and 100m along the lines. The 100m data provided a reliable data set for this first pass survey, with the 50m and 25m data providing better delineation of structures, alteration and lithological distribution.

The GAIP survey has identified a number of local and regional features (Fig. 5 and 6 – 50m data shown):

- 1) The resistivity data shows a broad north - north west trending 2.5km x 600m zone of increased resistivity, with a number of higher order anomalies within it.
- 2) This broad resistivity zone contains coincident high order resistivity (up to 650 ohm.m) and chargeability (up to 40mV/V) anomalies (**GT1 anomaly**). Areas where these resistivity and chargeability anomalies coincide are considered excellent targets for gold mineralisation. These highs also coincide with previously identified aeromagnetic highs representing potential high level intrusions.
- 3) Resistivity highs also occur along contact zones of magnetic / non-magnetic rock units within the previously reported Pinnacles North 1.6km x 300m geochemical coincident gold (>15ppb) arsenic (>50ppm) anomaly, and beyond. These contact zone resistivity highs are interpreted to represent silicification of a black shale unit. This is highly prospective as this rock unit also hosts the Pinnacles East gold mineralisation (**GT2 anomaly**).
- 4) Pinnacles East gold mineralisation is defined in the GAIP data by a weak but distinct resistivity anomaly co-incident with the current resource. A potential “repeat” of Pinnacles East style mineralisation is observed in a duplicate structural position, 200m south east of the Pinnacles East resource (**GT3 anomaly**).
- 5) A narrow north south coincident chargeability & resistivity high possibly representing a deformed silicified black shale unit (**GT4 anomaly**).
- 6) The chargeability high predominantly to the west of the shale/volcaniclastic unit contact (green dashed line on Fig. 4) is likely to represent a graphitic black shale lithological unit. The presence of this graphitic unit is important, as with the correct structural and chemical factors it can aid in the deposition of gold.

<sup>1</sup> Resistivity uses voltage and current measurements to calculate the resistivity of the rocks

<sup>2</sup> Chargeability involves measuring the subsurface voltage response of some minerals at certain times after the current supply is switched off

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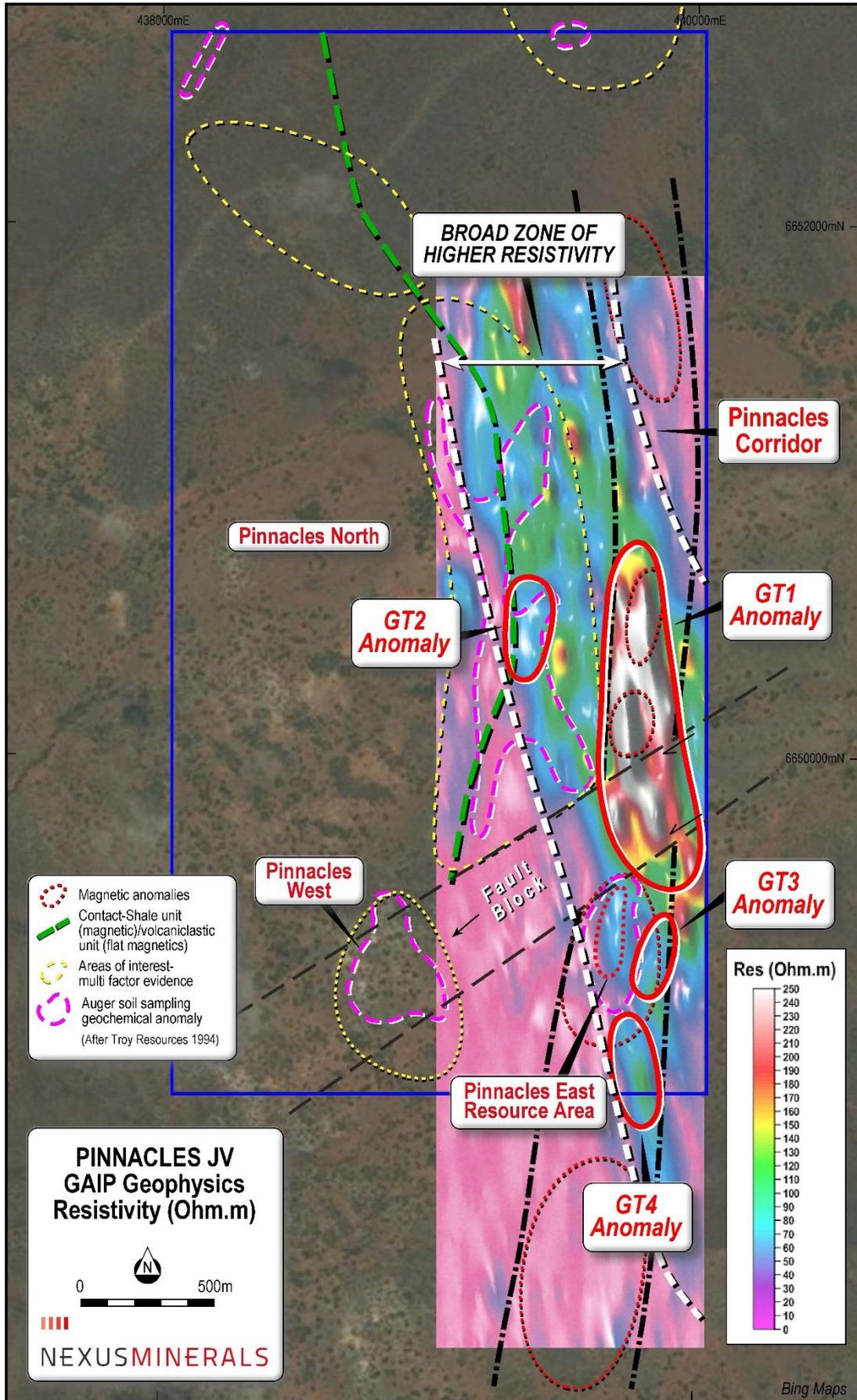


Figure 5. Pinnacles JV tenement GAIP Resistivity over Aeromagnetic & Soil Geochem Anomalies.



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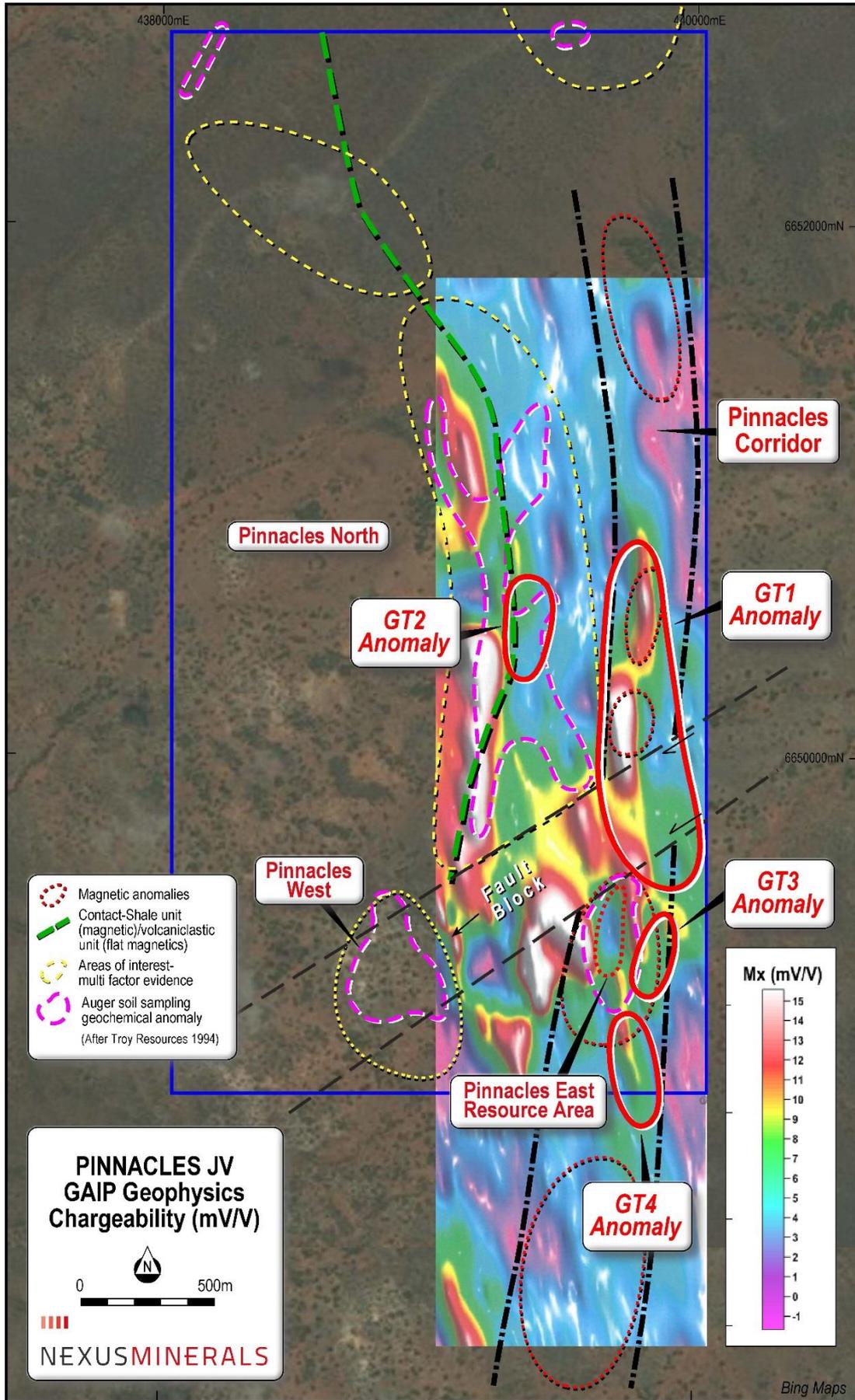


Figure 6. Pinnacles JV tenement GAIP Chargeability over Aeromagnetic & Soil Geochem Anomalies.



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The GAIP survey, in conjunction with the previous aeromagnetic interpretation, has produced encouraging results highlighting the considerable upside for the regional exploration gold potential - both within the Pinnacles JV tenement and the larger surrounding 90-100% owned Pinnacles Regional tenement package (Fig. 7).

The Pinnacles Project tenements cover approximately 100km<sup>2</sup>. The tenement area is immediately to the south of Saracen Gold Mines' Carosue Dam Operation (CDO), which includes the Karari underground gold mine currently in operation. During the 2015 year, Saracen produced 167,000 ounces of gold from CDO. CDO contains a current Mineral Resource base of 1.95 million oz and Ore Reserves of 303,000oz. Karari Underground alone contains 630,00oz of Indicated Resource and Ore Reserve of 212,447oz, with recent increases to both the project Resource and Reserves highlighting the potential for further significant increases in mine life.

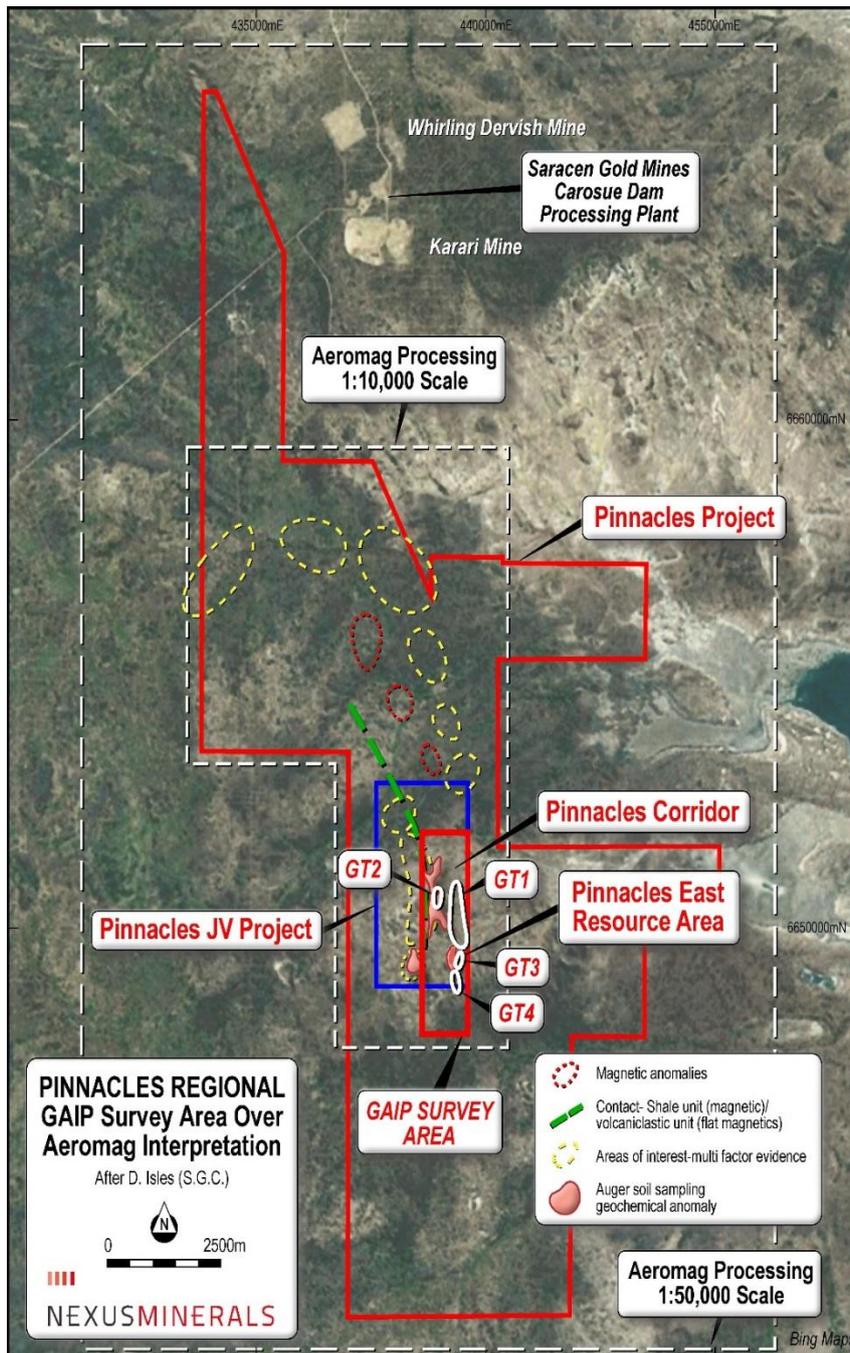


Figure 7. Pinnacles JV Gold Project (Blue) surrounded by Nexus Regional Tenement Package.



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## **Triumph Project**

The Triumph Gold Project is located 145km northeast of Kalgoorlie and comprises both 100% owned tenements (46km<sup>2</sup>) and a Farm-In/JV agreement (24km<sup>2</sup>). The total project area covers ~70km<sup>2</sup>. To date, the Company has undertaken an IP ground geophysical program, which identified a central high strain zone. When layered with geology, structural interpretation and ground magnetics, the structural controls on mineralisation are better understood. Nexus completed an RC drill program totalling 4,034m in early 2015 to test four high priority areas, with high grade mineralisation intersected at Triumph and Glengarry prospects.

A follow up IP ground geophysical program was undertaken during the June quarter, to cover the most prospective areas identified in previous IP ground geophysical and drill programs. The program data is currently being processed for interpretation.

Field mapping and geological interpretation activities were also undertaken during the Quarter.

## **Mt Celia Project**

The Mt Celia Gold Project lies 180km north east of Kalgoorlie within the southern part of the Laverton Tectonic Zone (LTZ). This structure hosts numerous major gold mines and currently contains Resources of ~20 million ounces. The project area is along strike directly south of Legacy Iron's Blue Peter project that contains an Inferred Resource of 239,232t @ 3.97g/t Au for 30,554oz gold (1g/t cut-off) (see legacyiron.com.au).

The project area contains numerous small historic gold workings, within a shear zone extending locally over 3km in length, and consisting of quartz filled shears within mafic lithologies.

No field work was undertaken during the quarter.

## **Corporate**

Andy Tudor was appointed to the role of Managing Director during the quarter. Mr Tudor has been the Company's CEO since July 2014, having joined Nexus as General Manager in February 2014. Andy has worked successfully in that time to assess a large number of prospective projects resulting in joint venture arrangements over the Pinnacles JV, Pinnacles Regional and Triumph projects as well as rationalisation of the Company's existing exploration portfolio.

During the quarter, Mr Tudor presented to stockbrokers / fund managers / family offices and high net worth individuals in Zurich, Frankfurt, Munich and London May 4<sup>th</sup> – May 13<sup>th</sup> and was well received.

He also presented to Perth stockbrokers and fund managers during the quarter.

The presentations provided an update of the Company's activities including the Pinnacles Joint Venture and Farm-In Agreement with Saracen Gold Mines, and the status of the Pinnacles JV Gold project and other company projects.

At the end of the June quarter, the Company held A\$5.1m cash and equivalents.

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## September Quarter – Work Program

During the September Quarter, the Company intends to undertake the following activities:

- Pinnacles JV
  - Pinnacles East 2,500m drill program to target areas to the south and beneath high grade gold intersections.
  - Regional 850m drill program to test high priority regional anomalies identified from geochemical, aeromagnetic and ground IP survey data.
  - Geological interpretation and field investigations on full extent of tenement.
- Pinnacles Regional
  - Geological mapping and field investigations across the tenement package.
- Triumph
  - Processing and interpretation of IP ground geophysical program.
  - Integration of IP survey result data with geological mapping and field investigation data across the tenement package.
- Corporate
  - RIU Resource Investors Roadshow – the company will undertake a roadshow and provide presentations to brokers, fund managers, analysts and high net worth individuals at two events in Sydney and Melbourne (27<sup>th</sup> - 29<sup>th</sup> September).
  - Undertake extensive marketing activities including presentations to brokers, fund managers, analysts and high net worth individuals.

### About Nexus

Nexus Minerals is a well-funded resource company with a portfolio of gold projects in Western Australia. With a capable and well-credentialed Board, assisted by an experienced management team, the Company is well placed to capitalise on opportunities as they emerge in the resource sector.

- Ends -

**Enquiries**      **Mr Andy Tudor, Managing Director**  
                         **Mr Paul Boyatzis, Non-Executive Chairman**

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The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation, prepared, compiled or reviewed by Mr Andy Tudor, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Tudor is a full-time employee of Nexus Minerals Limited. Mr Tudor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The exploration results are available to be viewed on the Company website [www.nexus-minerals.com](http://www.nexus-minerals.com). The Company confirms it is not aware of any new information that materially affects the information included in the original announcements of 3/5/2016, 5/5/2016, 8/6/2016, 6/7/2016 and 18/7/2016. In the case of Mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements. Mr Tudor consents to the inclusion in the reports of the matters based on his information in the form and context in which it appears.

## SUMMARY OF NEXUS MINERALS LIMITED TENEMENTS

AUSTRALIA	Interest at beginning of Quarter	Interest at end of Quarter
<b>Pinnacles JV (Gold)</b>		
M28/243	25% Nexus Minerals Limited	50% Nexus Minerals Limited
<b>Pinnacles Regional (Gold)</b>		
P28/1185	100% Nexus Minerals Ltd	100% Nexus Minerals Ltd
E28/2526	90% Nexus Minerals Ltd	90% Nexus Minerals Ltd
E28/2487	100% Nexus Minerals Ltd	100% Nexus Minerals Ltd
<b>Triumph (Gold)</b>		
E31/1088	100% Nexus Minerals Australia Pty Ltd	100% Nexus Minerals Australia Pty Ltd
P31/2074		
P31/2075		
P31/2076		
E31/819	40% - Earning interest through Farm-In JV	40% - Earning interest through Farm-In JV
E31/820		
P31/1960		
P31/1961		
P31/1962		
P31/1963		
P31/1964		
<b>Mt Celia (Gold)</b>		
P39/5484	100% Nexus Minerals Ltd	100% Nexus Minerals Ltd
P39/5485		
P39/5486		
E39/1890	100% Nexus Minerals Ltd	100% Nexus Minerals Ltd

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