

Early indications of a copper-gold belt in the southwestern Aileron Province

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The Lake Mackay Project is located approximately 400 km west-northwest of Alice Springs in the southwestern Aileron Province (**Figure 1**). In 2013, it consisted of 7247 km² of granted exploration tenements and 4981 km² of tenement applications held by ABM Resources NL (ABM).

In 2012, Independence Group NL (IGO) identified the Lake Mackay Project as being highly prospective for significant gold deposits. This area was considered a compelling target for the following reasons:

1. The Paleoproterozoic units within the southwestern Aileron Province are considered to be lateral equivalents of the Killi Killi Formation in the Tanami Region.
2. The large contiguous land package provides belt-scale opportunities.
3. Significant portions of the project are unexplored.
4. It is prospective for a range of commodities and styles of mineralisation including:
 - orogenic shear-hosted gold
 - intrusion-related gold
 - iron oxide copper gold (IOCG)
 - ultramafic intrusion-related Ni-Cu-PGE.

Based on this rationale, ABM was approached and a confidentiality agreement was signed. An Option agreement was signed with ABM in August 2013 that gave IGO a two year period to determine if it wanted to enter into the Lake Mackay joint venture (JV).

The objective during the Option period was to confirm the potential of the Lake Mackay Project to contain a significant deposit by August 2015. Due to the remote location of the project area, the best primary target was considered to be a relatively shallow, large and/or high-grade orogenic shear-hosted gold deposit. Soil geochemistry was selected as the preferred technique to screen a large area rapidly because this target style would not be directly detectable using geophysics.

The two-year exploration plan involved soil sampling Project areas that had not been systematically sampled by previous explorers. Two phases of orientation sampling were undertaken over known prospects to select an appropriate surface geochemical technique for this environment. Reconnaissance sampling was conducted on an 800 m grid. Anomalous areas underwent several phases of infill soil sampling and coherent soil anomalies were tested for bedrock mineralisation by air core drilling.

Soil sampling was undertaken by XM Logistics using All-Terrain Vehicles supported from mobile camps that were established along temporary cross-country tracks. This eliminated the requirement for clearing of access tracks for reconnaissance exploration. The elements selected for analysis were Au, Ag, As, Bi, Ca, Cu, Fe, Ni, Pb and Zn. This allowed for the identification of gold pathfinders and potential base metals deposits.

During the option period, a total of 9251 reconnaissance soil samples, 8084 infill soil samples and 225 rock samples were collected. The gold results from the reconnaissance program (**Figure 2**) returned a mean value of 0.36 ppb Au with 0.81 ppb Au (ie 2 standard deviations above the mean) considered anomalous at this sample density.

An anomalous Ag-Co-Mn-Ni rock chip collected in 2014 from a laterite on the Andrew Young Igneous Complex (AYIC) prompted the opportunistic pegging of tenement applications. Open ground interpreted to host AYIC adjoining EL24915 was pegged.

Air core drilling was undertaken by Bostech Drilling Australia Pty Ltd. Their equipment could operate on temporary cross-country tracks and eliminated the need to clear access tracks. Drilling was conducted on the existing Tekapo prospect and at 19 new targets (**Figure 3**). This consisted of 235 holes for a total of 15 548 m drilled. Anomalous mineralisation was identified on the Bumblebee, Springer and Prowl prospects (**Table 1**), all located within EL24915.

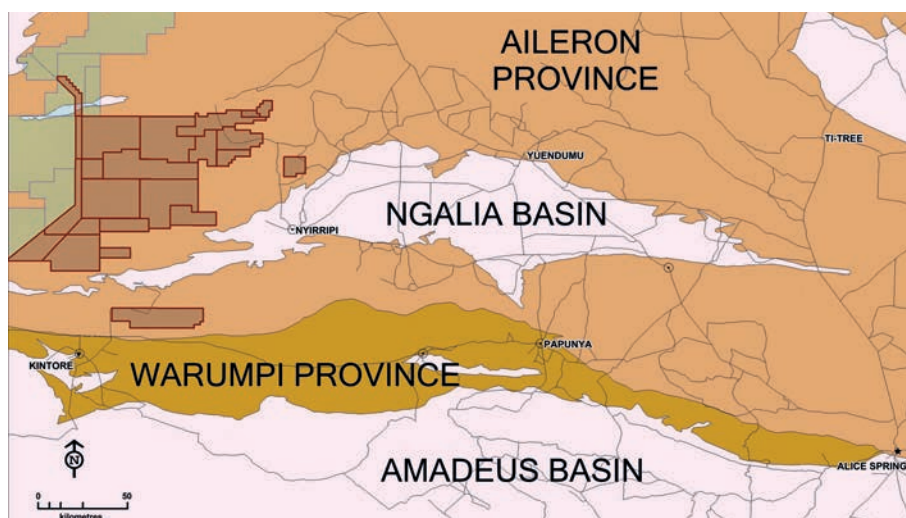


Figure 1. Regional geological map showing location of Lake Mackay Project tenements in 2013.

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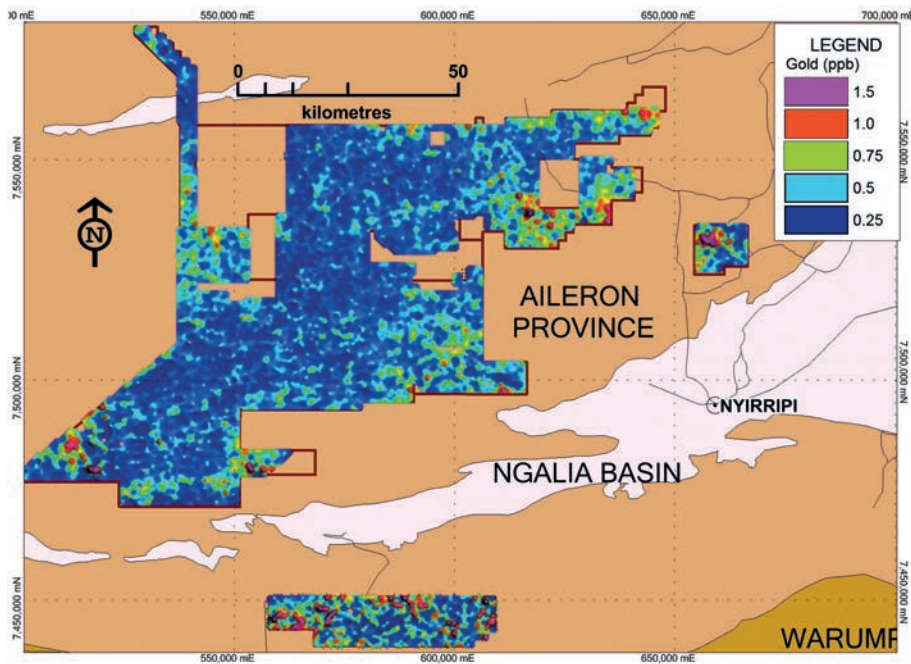


Figure 2. Reconnaissance soil gold (ppb) grid.

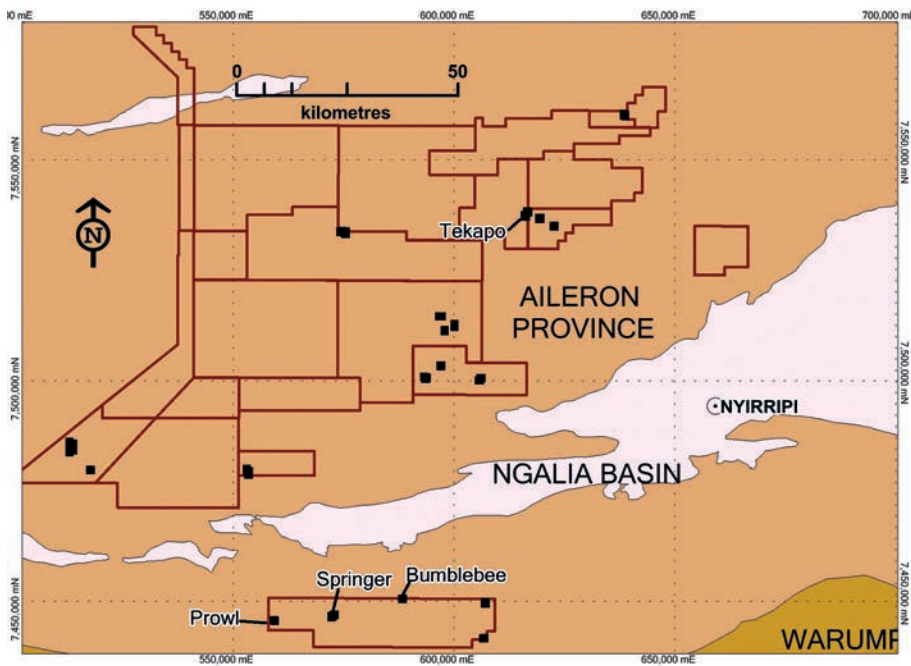


Figure 3. Drilling locations with anomalous targets labeled.

Table 1. Significant drill intercepts from prospects in EL24915.

Prospect	Hole No	Depth From (m)	Depth To (m)	Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Bi (%)	Co (%)
Bumblebee	15LMAC030	29	31	2	1.3	34.6	7.43	1.32	1.6	0.08	0.09
	15LMAC031	35	42	7	3.29	37.7	3.25	0.87	1.34	0.09	0.08
	15LMAC032	56	61	5	2.37	12.4	1.43	0.19	0.97	0.04	0.1
		65	66	1	2.05	2.53	0.03	0.12	0.01	0	NA
Springer	15LMAC033	19	20	1	2.75	0.18	0.04	0	0	0	0
	15LMAC034	51	52	1	1.35	0.16	0.01	0	0	0	0
Prowl	15LMAC071	7	8	1	2.42	<0.05	0	0	0.01	0	0
	15LMAC073	27	28	1	3.43	0.46	0.02	0	0.01	0.01	0

The Bumblebee Prospect (Figure 4) returned the most significant drill results with preliminary interpretation suggesting an affinity to an IOCG style of mineralisation.

Subsequent to the Bumblebee discovery, the Option Period was extended and a JV with Castile Resources Pty Ltd was also initiated covering an adjoining tenement application.

The focus for future work is now on the Aileron Province along the Central Australian Suture that forms the boundary with the Warumpi Province. This area has a significant amount of Du Faur Suite amphibolites and interpreted AYIC that can be seen in the regional gravity data. The tenement package included in the Project has subsequently been amended so that exploration can be

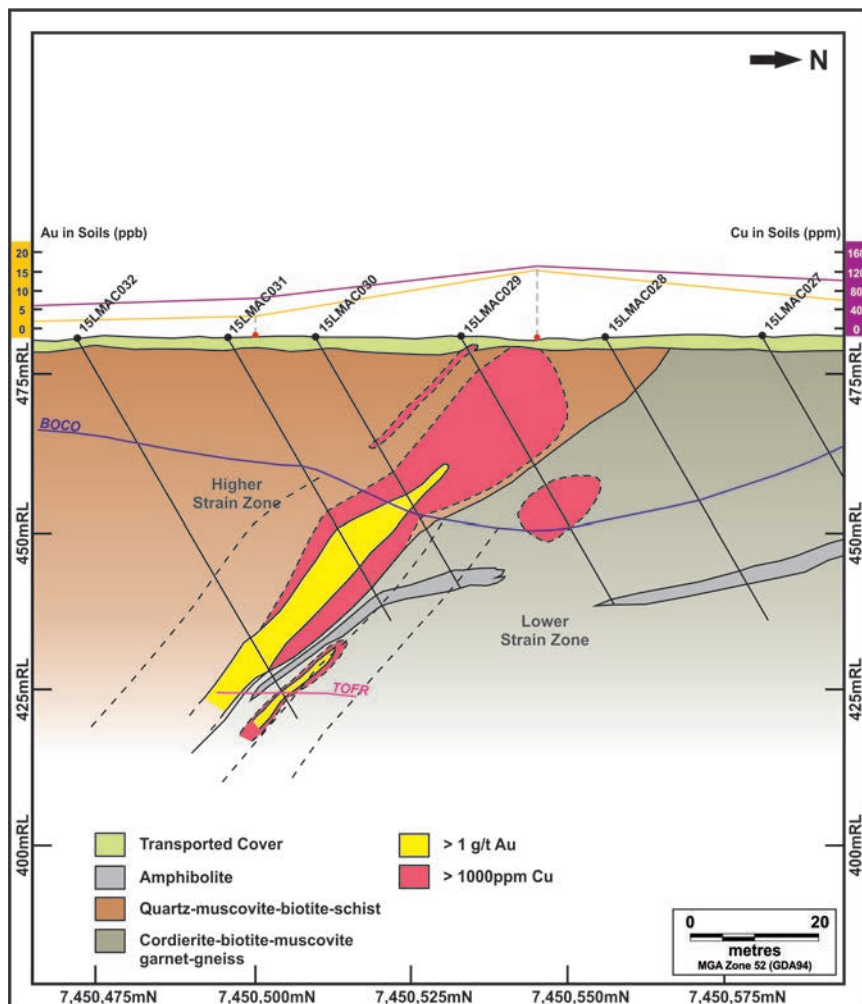


Figure 4. Simplified cross section of Bumblebee Prospect.

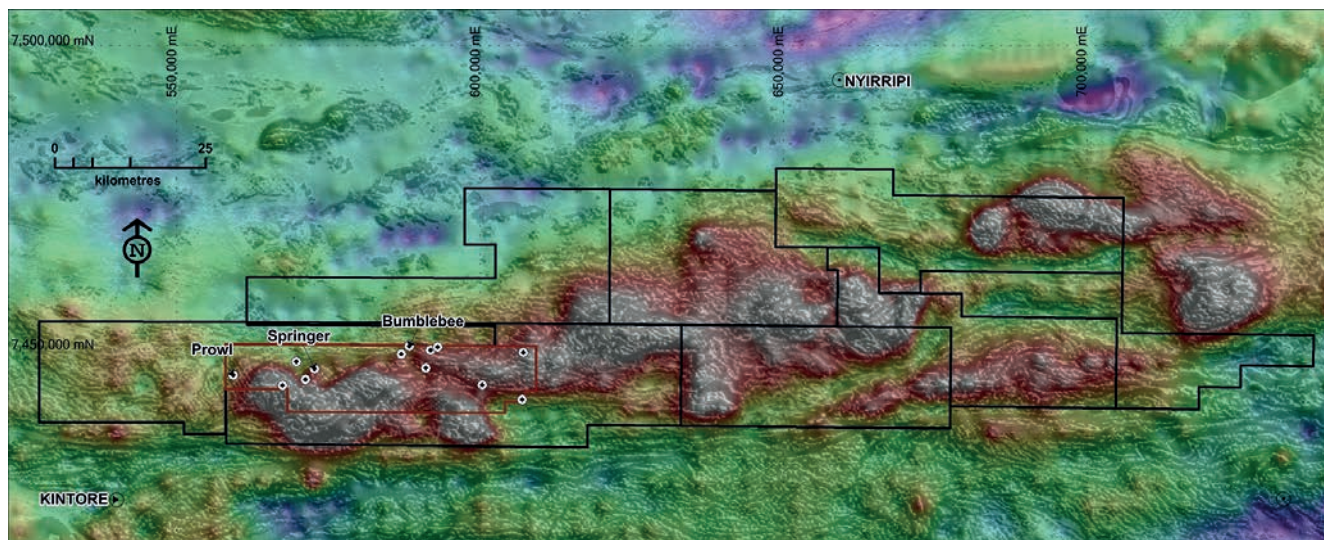


Figure 5. Current Project tenements with active prospects on grayscale Total Magnetic Intensity First Vertical Derivative draped on Pseudocolour Bouguer Gravity First Vertical Derivative upward continued to 250 m. Granted tenement brown outline, application tenement black outline.

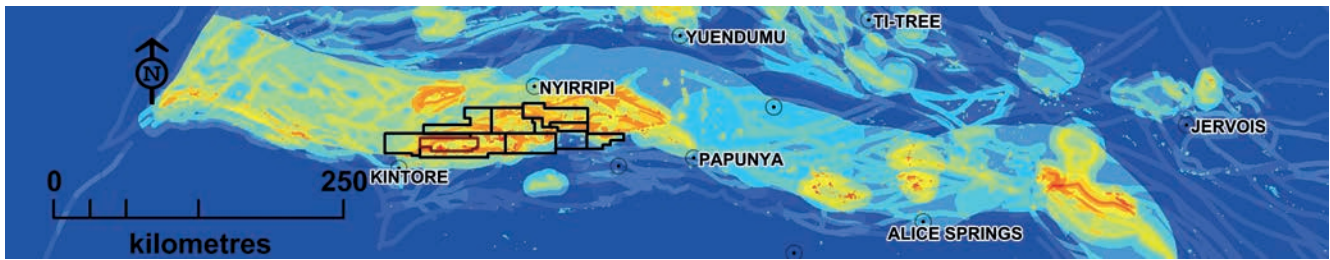


Figure 6. Current Project tenements on IOCG potential of the Southern Arunta prospectivity map (Schofield *et al* 2013). Red-High, Blue-Low.

focused on the most prospective area with early indications of a new emerging mineral belt (**Figure 5**).

The Project now consists of 518 km² of granted tenements and 5662 km² of tenement applications to secure all of the most prospective ground in this district. This new project area coincides with the western end of Zone 3 that was identified in the ‘IOCG potential of the Southern Arunta Region’ by Geoscience Australia in 2013 (**Figure 6**). At that time, Zone 3 was not associated with known copper-gold mineralisation.

Further work will involve orientation geophysics and additional drilling at Bumblebee to confirm the mineralisation style. The results from this work will allow the development of a plan to most effectively test this new target area once the tenement applications are granted.

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