



OreTeck
Mining Solutions

Tenement Review and Exploration Strategy-EL007301 Pitfield

Client: Red Rock Australasia

Prepared by:	Dave Sharp
Reviewed by:	Kirsty Sheerin
Revision:	0

1 Pitfield- EL007301

Tenement ID	Local ID	Size (km ²)	Mapping Sheet (1:100,000)	Municipality	Current Status
EL007301	Pitfield	85	Ballarat	Golden Plains	Application

EL007301 commences north of Rokewood and extends north to Linton (Figure 1).

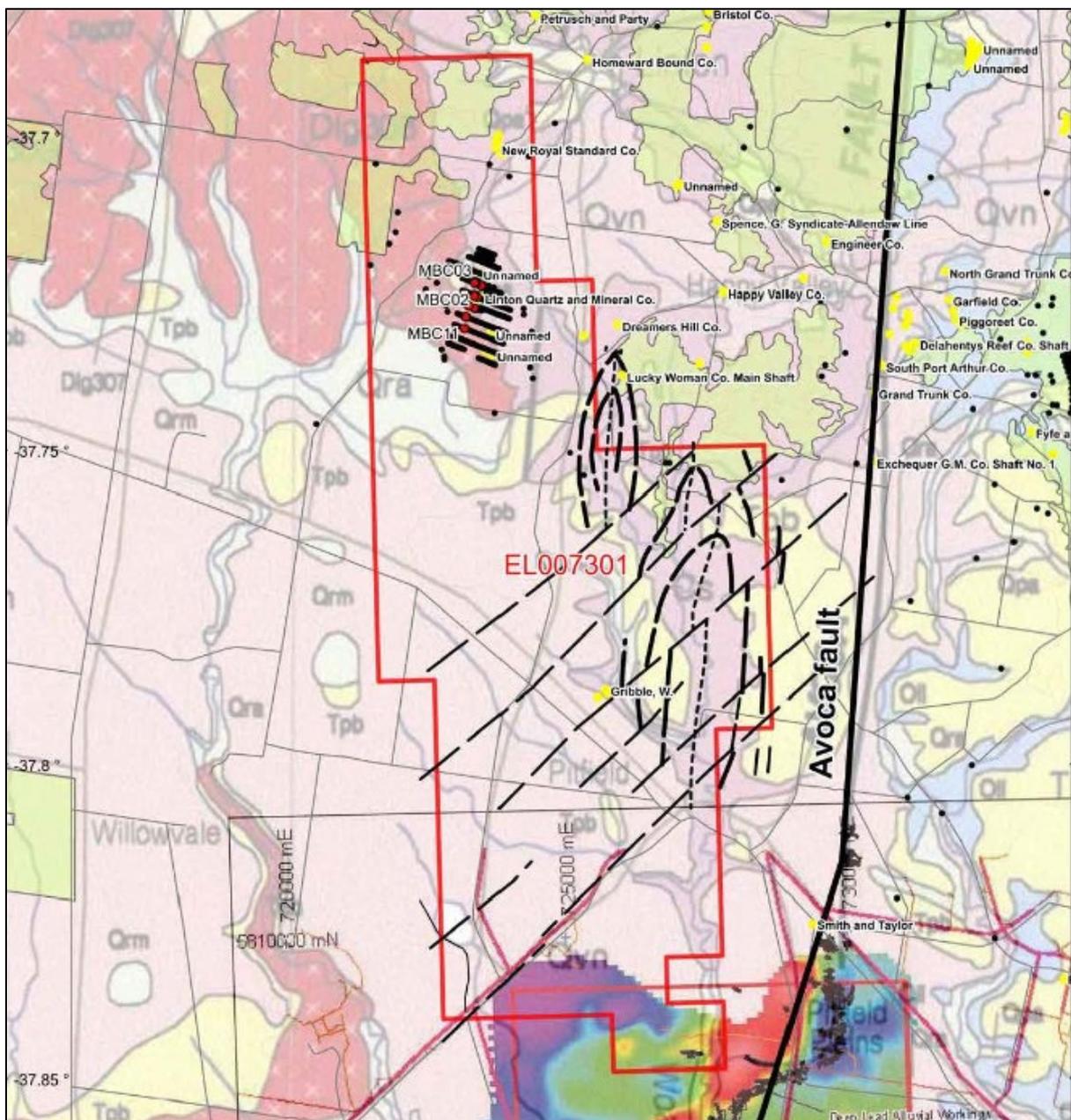


Figure 1. EL007301 Location and geology

2 Regional Geology

The north trending Avoca Fault that marks the boundary between the Bendigo-Ballararat and Stawell zones is located to the east of EL007301, positioning the tenement in the Stawell Structural Zone.

The Stawell zone is underlain by deformed deep marine turbidites sequences, known as the Cambrian St Arnaud Group. The St Arnaud Group can be further subdivided into the structurally lower Beaufort Formation and a structurally higher Pyrenees Formation. The Beaufort Formation is characterised by a high proportion of thinly bedded turbidites including black shales. The Pyrenees Formation contains more thick-bedded turbidites. Regional folding consists of a single generation of extremely regular, parallel trains of gently plunging, upward facing, flattened chevron folds with steep north-trending axial surfaces (Hughes 2001).

2.1 Local Geology

Granites and adamellites intrude the stratigraphy in the north-western portion of the tenement. Tertiary basalts have infilled a paleo-drainage through the central portion of the area and remnant expanses of thin Quaternary gravels are scattered throughout. (McMickan, 1995). The Palaeozoic rocks do not outcrop on the tenement due to sediments and basalt flows.

The Linton Fault is interpreted to intersect the northern portion of the tenement. This fault is a parallel subsidiary fault characterised by polydeformed rocks (Morand et al., 1995), with magnetics indicating that this fault may also have associated greenstone (Taylor et al., 1996) which is important for Stawell style mineralisation. (Hughes, 2001)

To the south east of the tenement, The Pitfield Volcanics (similar to the Stawell Magdala basalt) are located. These are greenstones of probable Cambrian age which do not outcrop are completely covered by the Newer Volcanics. They appear to occur in thin, elongate slices incorporated into the Avoca Fault zone. The fault slices are at least tens of metres wide and up to thousands of metres long and appear to be continuous through the Pitfield Plains area. The Avoca Fault can be recognised continuously between the junction of Smythes lead and Linton lead in the north (Happy Valley), to Pitfield Plains in the south, by the presence of these greenstones on mine dumps since the fault itself is mostly concealed (Hughes, 2001).

2.2 Mineralisation

There are numerous minor deep lead and alluvial gold workings throughout the tenement, mostly to the north with a small cluster of workings associated with Flagstaff and Royal Standard leads.

The presence of a granite intrusive in the western portion of the tenement enhances the potential of the area (McMickan, 1995).

The Mt Bute prospect that was drilled in 1995, showed that extensive zones of alteration, contact metamorphism and deformation were noted. Quartz veining is extensive and associated with structural deformation, while workings suggest that higher grade gold values are associated with a series of narrow (< 1m) discontinuous quartz veins. (McMickan, 1995) This prospect is associated with the Linton Fault.

3 Mining History/Production

Most of the major mines in the area are off the tenement and are associated with the Pitfield Plains and along the Avoca fault to the east of EL007301. There are no major historical mines located on the tenement.

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Another cluster of workings to the central area of the tenement are attributed to the Linton Fault. Production figures are incomplete with records not available for most mines. The larger mines with production figures are shown in Table 1.

Table 1. Primary gold production figures EL007301 (Hughes, 2001)

Mine	Production (Oz)
Linton GM	995
Gribble	2011
Corbett's Freehold	1136
Total	4142

The largest producing placer mine was The Hanlon Consols mine on the Hanlon Lead produced 648 ounces.

The Pitfield Plains produced approximately 390,000 oz of gold from both placer and primary gold sources (Hughes, 2001).

3.1 Nearby Mining Activity

To the east of EL007301, Cape Clear Minerals have the Glenfine Project, with a series of intersections adjacent to the Avoca Fault, associated with the British Banner and the Glenfine South historical gold mines. Mineralisation has been intersected at both sites in structural settings similar to both the Stawell and Ballarat gold mines.

4 Exploration History

Most of the exploration activities conducted by previous tenement holders has focused on the Pitfield Plains to the south and east of EL007301 with little focus on the area covered by the tenement, with the exception being Metex Resources that explored the area during the 1990's. The shortage of exploration is due to a lack of outcrop and absence of substantial mining activity.

4.1 Metex Resources, 1995

Summarised from McMickan, 1995.

A soil sampling program was undertaken to assist in the positioning of auriferous quartz reefs that were mined historically and to identify previously undiscovered reefs.

The sampling program was conducted along strike of the Linton Reef, with a line to the east to cover areas of historical mining.

442 samples weighing between 3-4 kg were taken from the B/C soil horizon on lines 200 m apart at 20 m centres on a local grid.

A >30 ppb Au anomaly was identified over a strike length of 1200 m with widths of up to 120 m, in four parallel zones. All historical gold diggings fall within this anomalous zone. An excellent correlation between gold and arsenic is observed, with higher arsenic values recorded closer to the intrusive granite to the south (McMickan, 1995).

An RC drill program was conducted within the >60 ppb Au contour identified from the soil geochemistry program (Figure 1). 14 holes for a total of 636 m were drilled with the average vertical depth being 35 m. The holes were drilled at -60° at 25 m spacing along the grid at 200 m line spacing.

Samples were taken as a 3-4 kg 4 m composites from metre drill intervals and were analysed for gold and arsenic.

Low grade values were intersected, although 10 out of the 14 holes drilled intersected slightly anomalous gold mineralisation over somewhat broad significant downhole widths, with the highest result being 13m @ 0.88 ppm. The scans of the geological logs of this drilling available in the public domain are at a resolution that prevents identification of the lithology and other data, therefore a review of the geology and mineralisation was unable to be completed. A copy of the original logs would need to be acquired to complete this work. A summary of the intersections greater than 0.5 ppm is shown in Table 2.

Table 2. Intersections > 0.5 ppm RC drilling EL007301

Hole No	Interval (m)	Intercept (ppm Au)
MBC05	5-18	13 m @ 0.88
		Inc 1 m @ 4.55
	19-26	7 m @ 0.57
MBC06	6-8	2 m @ 0.5
	22-26	4 m @ 0.68
MBC07	29-32	3 m @ 0.52
	41-43	2 m @ 0.81
MBC08	36-37	1 m @ 2.34
MBC11	12-18	6 m @ 0.58
MBC12	35-37	2 m @ 0.49

	41-45	4 m @ 0.5
MBC14	19-20	1 m @ 0.92
	32-34	2 m @ 0.81

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4.2 Leviathan, 2003

10/1/03 – 31/12/03

Focus was on areas outside of EL007301 although exploration techniques were used that could be applied to the tenement area, particularly in interpreting structures beneath the basalt.

The VIMP data sets were reprocessed and interpreted to enable accurate positioning of the Avoca Fault, estimating the position and limit of the Cambrian metabasalts and mapping structures (Figure 1) that may control mesothermal gold mineralisation under the Newer Volcanics. The interpretation allowed more accurate mapping of the Avoca Fault and Cambrian metabasalts, but the gravity response of the Pitfield Volcanics indicated that a detailed gravity survey would be better for mapping geological features under cover and to define targets (Bartlett, 2003).

5 Exploration Strategy

The recommended exploration strategy for this tenement is to advance on previously completed work by completing the following:

- Review the significance of low-grade anomalies in RC drilling from the Mt Bute prospect, including a thorough review of the mineralisation style of the mines along the Linton fault.
- Review magnetic data (VIMP) to interpret geological features beneath the basalt.
- Conduct a geochemical sampling program based on the interpretation of series of plunging folds with similarities to Ballarat on the eastern portion of the tenement (Figure 1). 200 samples - \$50,000.

6 References

BARTLETT, J. 2003. Reliance Minerals Ltd. EL 4696, Ballarat West (Pitfield Plains) Project. Annual report for the period ending 31 December 2003.

HUGHES, M.J. 2001. Allegiance Mining NL. EL4454. Pitfield Plains Project. Final Report, 23 January 2001.



OreTeck
Mining Solutions

OreTeck Mining Solutions
ABN: 84 625 670 948
Level 3, 257 Collins Street
Melbourne, VIC, 3000
Tel: +61 (03) 8375 9662
inquiries@oreteck.com
www.oreteck.com

McMICKAN P.J. 1995. Metex Resources NL. EL3400. Snake Valley Project. Annual Report for the period ending 1 June 1995.