

## ASX Release

# North East Victorian Gold

16 July 2019

## Introduction

Further to Dart Mining's Tenement Status Update (ASX 8 July 2019), we have articulated in this release a brief description of each of the historic goldfields under Dart Mining's control.

Nine goldfields are now held within Dart Mining's tenement footprint (Figure 1). Each contains multiple historic mines and prospects.

There has recently been a revival in interest in Victorian gold from both local and international parties, mainly focussed further west in the gold mining regions of Bendigo, Ballarat, Stawell, and Fosterville. Dart Mining, however, believes the potential of the north-east Victorian region is also substantial.

North-east Victoria has a rich history of gold mining and production from the early 1850s through to around 1910.

Alluvial gold mining, including industrial scale dredging, on the north-east Victoria river systems accounted for a significant portion of the region's production in early times. Hardrock mining was focussed on high-grade narrow quartz reef mineralisation.

North-east Victoria is distinguished from other parts of the state by some of its different mineralisation styles. In particular, the potential for large tonnage disseminated gold mineralisation was first identified in the Buckland goldfield by Dart Mining's founding geologists approximately 15 years ago. The north-east Victoria region has a skilled workforce, well developed infrastructure with power, water and roads, and local community support for economic development activities. Contemporary practices in exploration and processing mean that gold production in north-east Victoria can be achieved at comparable recovery rates and costs, with other gold producing areas in Victoria.

Dart Mining re-activated intensive exploration of its gold properties 12 months ago and expanded its property portfolio in anticipation of a supportive A\$ gold price. The current gold price of approximately A\$2000 provides a compelling rationale for the focus on gold exploration.



ASX Code: DTM

### Key Prospects / Commodities:

#### GOLDFIELDS

Buckland  
Rushworth  
Sandy Creek  
Granite Flat  
Dart  
Mt Elmo  
Saltpetre  
Zulu  
Upper Indi

#### LITHIUM / TIN / TANTALUM

Empress – Li-Sn-Ta  
Eskdale / Mitta – Li-Sn-Ta

#### PORPHYRY GOLD / COPPER / MOLYBDENUM

Empress – Au-Cu  
Stacey's – Au-Cu  
Copper Quarry – Cu +/- Au  
Gentle Annie – Cu  
Morgan Porphyry – Mo-Ag-Au  
Unicorn Porphyry – Mo-Cu-Ag

### Investment Data:

Shares on issue: 1,011,376,136

Unlisted Options: 25,000,000

### Substantial Shareholders:

Top 20 Holdings: 55.24 %

### Board & Management:

Managing Director: James Chirside  
Non-Executive Director: Dr Denis Clarke  
Non-Executive Director: Luke Robinson  
Company Secretary: Julie Edwards

### Dart Mining NL

ACN 119 904 880

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## Dart Mining's Historic Goldfields

### **Buckland Goldfield (EL006861)**

Alluvial gold was first discovered in the Buckland Valley in the winter of 1853 with the first panning of the wash dirt showing up to an ounce of gold per dish. The richness of the Buckland River and its upper reaches soon attracted a rush with 6000 miners descending on the field by January of 1854. The rich alluvial gold was mined from the river and higher terraces along some 30 km of the valley, initially by panning, sluicing and then by hydraulic sluicing. By 1890 large floating bucket dredge operations were introduced into the valley and recovered gold from previously worked ground into the early 1900s. Alluvial gold is still being panned from the river by weekend prospectors. Alluvial gold mining dominated production from the Buckland Valley, with a poorly recorded hardrock gold production noted from a limited number of larger mines and a large number of small prospects. Hardrock mining was established by 1858 with the mines typically showing high grades of free gold hosted by narrow quartz veins within the host sediments. Hardrock mining declined in the Buckland Valley just prior to the turn of the century with only a few small mines persisting through to the 1930s

Dart Mining was the first to recognize disseminated sulphide-related gold mineralisation within regional shear systems of the Buckland goldfield, and this highly prospective style of mineralisation remains the prime target of Dart Mining's on-going exploration. The records of hardrock mining are incomplete, but suggest such mining was of a limited nature and clearly disproportionate to the substantial alluvial gold production. This fact first attracted Dart Mining's founding geologists to the field and focused research and exploration around finding a large disseminated gold source. Dart Mining's drilling at the Fairleys prospect subsequently confirmed the presence of disseminated gold, and similar mineralisation was identified at the Centennial, Great White Star and Kaufmanns prospects. On-going exploration using regional soil geochemistry has now identified multiple significant arsenic soil anomalies open over five kilometres in strike with associated gold anomalism. This growing understanding of the regional geology and mineralisation potential prompted an application to cover the growing mineralisation footprint of the Buckland goldfield. EL006861, and Application EL007008 immediately to the west, together cover over 750km<sup>2</sup> of prospective ground (Figure 1).

### **Rushworth (EL006016, EL006694 and EL007007)**

The Rushworth goldfield, which is located in Central Victoria, operated between 1853 and 1891 with a brief revival in the 1950s at the Phoenix workings. There are two main lines of historic workings within the field aligned near east-west parallel with the local folded sediments and major lines of faulting. The goldfield is known for very high-grade quartz reefs that have only been worked to relatively shallow levels when compared to other Central Victorian fields. Dart Mining recently reported (ASX release 5 April 2019) its acquisition of the Rushworth exploration license EL006016 over the central portion of the Rushworth field. The licence has now been transferred to Dart Mining with 100% beneficial interest. This granted license and two recent applications, EL006694 and EL007007, cover the full extent of the historic goldfield (Figure 1). Dart Mining has developed a geological model for exploration that recognizes the significant potential presented by stacked north dipping thrust faults that cross cut folded sediments, generating zones of gold mineralisation where they pass discordantly through the opposing limb of the fold. This mineralisation style has been interpreted from detailed mapping and a new interpretation based on past drilling at the historic Phoenix Reef (EL006016 – Figure 1). Here, large areas of outcropping and shallow

mineralisation form a clear target. Dart Mining considers this exploration model to be robust and worthy of continued application across the rest of the goldfield.

### **Sandy Creek (EL006300)**

The Sandy Creek goldfield (Figure 1), which is made up of some 83 recorded reef workings, covers an area 26km long and 5km wide. It hosts gold and minor tin mineralisation. Alluvial gold was first discovered in 1854 along Sandy Creek with approximately 5km of the creek mined for both tin and gold with up to 300 miners working claims. A short-lived period of historic tin mining and exploration along pegmatite bodies of the Dorchap Dyke Swarm extended from Glen Wills in the south to Sandy Creek in the north. Hardrock gold mineralisation was identified and became the focus of historic development within the Sandy Creek area. The field is noted for exceptionally high gold grades within quartz veins and associated felsic dykes hosted by sediments of the Omeo Metamorphic Zone and the Lockhart Granite.

Dart Mining has carried out prospect mapping and sampling of some of the mines within the field with encouraging assay results indicating the potential for gold mineralisation associated with alteration of the Silurian Lockhart Granite and extending up into the roof pendant sediments above the granite.

### **Granite Flat (EL006277)**

The Granite Flat goldfield was developed in 1858 with alluvial mining along Snowy Creek, above its junction with the Mitta Mitta River. By 1886 the Mammoth Hydraulic Sluicing Company constructed a timber flume to bring water from the Snowy Creek to alluvial workings at Granite Flat. Work ended about 1914. The likely hardrock source of the alluvial gold is a small group of mines in the area hosted by the Upper Devonian Banimboola Quartz Diorite. Four main lines of lode have been mined within an area 3.5km long by 2km wide. Gold mineralisation occurs as quartz - sulphide lodes within faulted zones of the host quartz diorite. Past exploration and drilling outlined large gold and copper soil anomalies directly over and extending outside areas of historic workings. Production from the field is recorded between 1876 and 1934 with modern exploration by past explorers showing significant drill intersections of both gold and copper below soil anomalies and historic workings. Dart Mining remains focused on both the lode gold and the larger potential of the Banimboola Quartz Diorite to host porphyry related copper-gold mineralisation (Figure 1).

### **Dart Goldfield (EL006865)**

The Dart goldfield extends over a width of 3km and a length of 12 km. 5km of the goldfield lies within application areas of EL006865 – Dart and MIN006619 – Mountain View – Figure 1. Only a small portion of this distance has received detailed exploration. The field occurs within the fault bounded Glendart syncline, comprised mainly of black shale of the Wabisco lithological unit. Production from the field spans the time period between 1881 and 1915 with limited further work carried out in the 1930s. The Dart goldfield is another example of a field with predominantly high gold grades and low tonnage historic production. The lodes contain up to 20 – 50% sulphide with variable proportions of free gold and refractory gold.

Dart Mining has carried out resource drilling at the Mountain View prospect with a mining license application (MIN006619) submitted for approval. The application area covers a 3km section of the productive Mountain View line of lode including the historic Mountain View, South Golden Bell and New Discovery prospects and a number of new geochemical soil anomalies identified by Dart Mining. Silica-sulphide style lode mineralisation is dominant throughout the goldfield with drilling at the Mountain View

lode outlining mineralisation over true widths up to 6m and up to 150m in strike. This lode shows very high gold grade from a shoot within the lode structure. This style of mineralisation remains the focus for further development within the Dart goldfield.

### **Mt Elmo (EL5315)**

The Mt Elmo goldfield (Figure 1) is some 10.5km long and 3km wide with 15 recorded historic workings. Production is recorded from very high-grade quartz reefs with low tonnage. The mineralisation is hosted by sediments of the Omeo Metamorphic belt. The field is very poorly recorded with very little known of the early workings and production.

### **Saltpetre (EL006865)**

The Saltpetre goldfield (Figure 1) occurs within a fault bounded section of the Wabisco Shales, the same host rocks as occur along the Dart and Zulu goldfields, dominated by black shales. Contemporary historical reports state that the lodes can be traced for many hundreds of metres along a line some 1.6 km in length. The mines listed from north to south consist of the Mountaineer, Lady Loch, Treasure and Lone Hand. Other historic leases extend further south to the Day Dawn mine with limited production. No modern evaluation has occurred within the Saltpetre goldfield since the camp was abandoned in the early 1930s.

### **Zulu Creek (EL006865)**

The Zulu Creek goldfield (Figure 1) also occurs within a fault bounded slice of the Wabisco shale and operated between 1879 and the early 1900s. Twenty-three reef workings are recorded over an area 4km long and 2km wide. Early alluvial work is very poorly recorded. The auriferous quartz reefs contain high grade shoots along strike with significant sulphide content. At depth, the fresh ore proved problematic to treat with historic accounts of various recovery methods being employed to improve gold recovery. The successful use of cyanide to treat the ores was recorded late in the history of the field.

### **Upper Indi (EL006865)**

The Upper Indi goldfield (Figure 1) covers alluvial mining along the Buckwong and Dinner creek systems. Buckwong Creek shows historic alluvial workings with no recorded primary source for the gold mineralisation found. Dinner Creek was worked for its entire course and the headwaters of the steep-sided Buckwong Creek were also washed during the early 1860s. Research into the historic records of mining along Buckwong Creek has revealed consistent reports of the discovery of gold within solid granite in the wash adjacent to an outcropping granite body. The granite is described as being in the headwaters of the creek. The location of the granite wash is thought to correlate with the Buckwong Magnetic Anomaly which may represent an I-Type granite body cut by the Buckwong Creek. The alluvial mining history and these reports reinforce the highly prospective nature of the goldfield. Dart Mining currently plans a comprehensive exploration program to assess the potential of the Upper Indi goldfield.

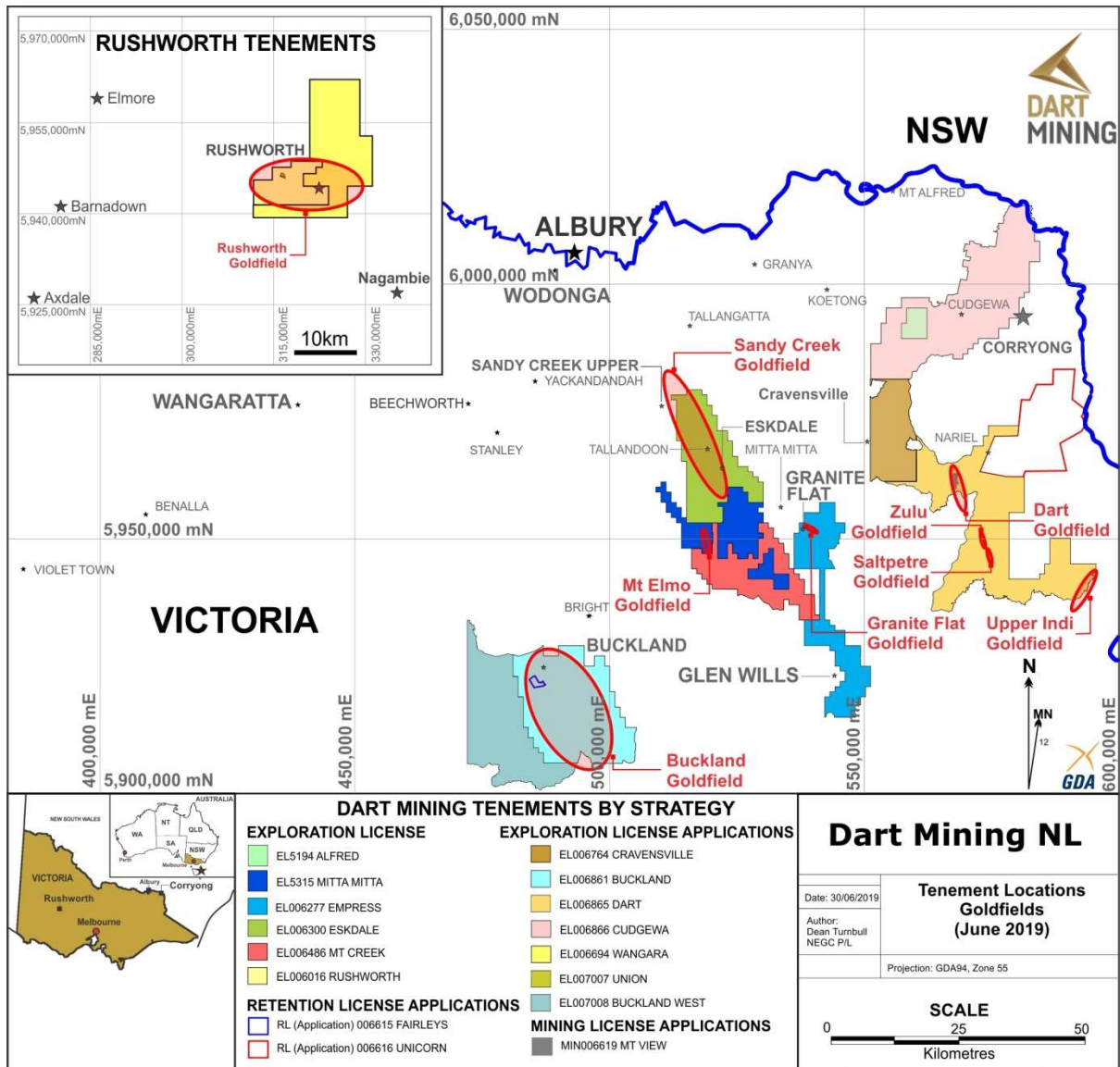


Figure 1. Goldfields by Tenement, June 2019.