



## ECR Minerals. Initiation Note

### BUY

#### Stock Data

Share Price:	GBX 2.57
Market Cap:	GBP 22.54 MM
Shares in Issue:	894.6 MM
Fully Diluted Equity:	1,027 MM

#### Company Profile

Sector:	Mining
Exchange:	AIM
Ticker:	ECR

#### Activities

ECR Minerals is a gold focused exploration and development company with three projects in Central Victoria, Australia. The company has a strategic objective to deliver the next multi-million-ounce gold resource in Australia.

#### Performance Data



Source: <https://www.londonstockexchange.com/stock/ECR/ecr-minerals-plc/company-page?lang=en>

#### Directors

Weili (David) Tang – Non-Executive Chairman  
 Craig Brown – Chief Executive Officer  
 Adam Jones – Non-Executive Director

#### Research Analyst

Dr Ryan D. Long  
 Mining & Metals Research Corporation

The Second Victorian Gold Rush has seen the numbers of listed junior exploration companies focusing on the Victorian Goldfields increase dramatically in recent years.

ECR Minerals (ECR.L) has a significant sized ground-holding in the Central Victoria area (Australia). Its three key projects are the Bailieston, Creswick and Tambo gold projects.

At the Bailieston Gold Project, ECR has generated multiple targets within multiple prospects and has completed initial drilling in several of these prospects.

At the HR3 Prospect, drilling has intersected visible gold mineralisation and assay results are pending. While at the Cherry Tree Prospect, sampling has identified anomalies related to an anticline dome, and drilling is due to test these anomalies shortly.

Previous drilling at the Blue Moon Prospect identified significant intercepts of gold mineralisation. Drilling at the Black Cat Prospect defined high-grade gold mineralisation in multiple reefs with additional supergene potential at depth.

At the Creswick Gold Project, ECR completed drilling on a 300m-long section of the 2,750m long Dimocks Main Shale unit within EL6184. This drilling confirmed the presence of nuggetty gold mineralisation and associated alteration that is characteristic of the Victorian Goldfields.

ECR has completed the planning of its follow-up drill programme for the Creswick project and drill sites have been approved by the relevant government authorities. ECR is also continuing discussions in respect of potential corporate transactions including potential joint venture arrangements at the Creswick Project.

We initiate coverage of ECR with a BUY rating and price target of 4.7p/share, with an upside of 11.7p.

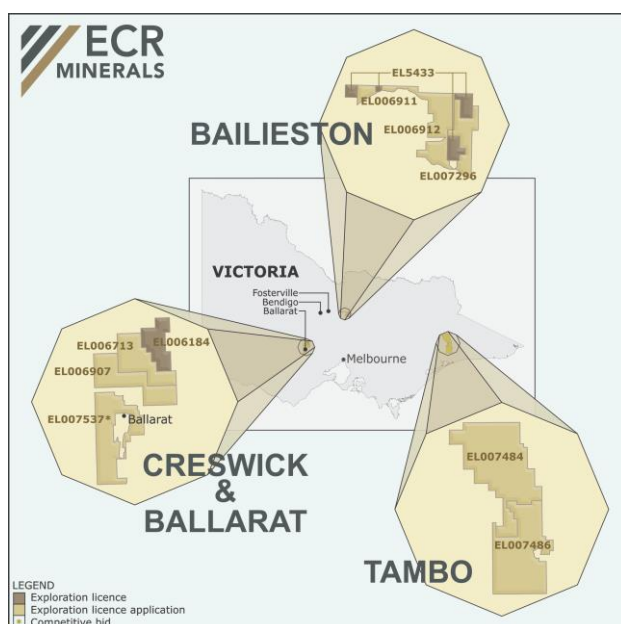
## Summary

The discovery of alluvial gold mineralisation at Ballarat in 1851 sparked Victoria's famous gold rush, with historians estimating that around 6,000 miners arrived each week transforming the town from a sheep station to a town of over 40,000 people in one year. Between 1852 and 1853, Ballarat was considered the world's richest alluvial goldfield during its peak.

Recently, there has been huge interest in gold exploration in the Victorian Goldfields following discovery of the Eagle Zone at Kirkland Lake Gold's (KL.TSX), 2.1moz (21.8g/t Au) Fosterville Gold Mine in 2015. There are now over eighteen listed junior exploration companies focused on gold exploration in the Victorian Goldfields attracting significant interest from investors on the ASX, TSX-V, SGX and AIM. All this activity within the area has led to the creation of the term, the Second Victorian Gold Rush.

ECR Minerals is one of these explorers, with a sizable ground holding in Central Victoria, Australia, where there have been significant levels of historic gold mining. The Company has three projects, Bailieston, Creswick-Ballarad and Tambo (Figure 1), which cover a combined area of 1,143km<sup>2</sup>. The company is targeting the discovery of the next multi-million-ounce gold resources in Australia.

Figure 1: Location of ECR's Projects



Source: [https://www.ecrminerals.com/images/2021/Location\\_map-1.jpg](https://www.ecrminerals.com/images/2021/Location_map-1.jpg)

Its exploration activities in Victoria led by Dr Rodney Boucher, who has extensive geological experience in the state, including many years of involvement with Perseverance Corporation, the original developers of the highly successful Fosterville Gold Mine. Dr Boucher has a PhD in Geology, is a Member and RPGeo of the Australian Institute of Geoscientists and is a Member of the Australasian Institute of Mining and Metallurgy.

In order to keep operational costs down and to be able to implement its extensive drill programmes without delays caused by contractors, ECR purchased its own new Cortech CSD1300G diamond drilling rig, late last year, with spares and all downhole equipment, capable of drilling as deep as 1,300 metres.

## Valuation

We have valued ECR’s Victorian Goldfield Portfolio using a peer group multiple. We examined the market value per km<sup>2</sup> for seventeen listed junior gold focused exploration companies working in the Victorian Goldfield, listed on the ASX, TSX-V and AIM.

These companies have a range of market values per km<sup>2</sup> of £2,276 to £91,804, with an average of £36,929. ECR currently trades on a market value per km<sup>2</sup> of just £19,717. Applying the peer group average to ECR’s licence holding of 1,143km<sup>2</sup>, gives us our valuation of ECR, £42.2m or 4.7p/share. Applying the upper end of the range would give ECR a valuation of £104.9m or 11.7p/share, which could be considered an upside valuation. While applying the lower end of the range would give ECR a valuation of £2.6m or 0.3p/share, which could be considered a downside valuation should the company fail to make a significant discovery.

## Capital Structure

ECR Minerals has 894.6m shares in issue and a large free float 93%, with no institutional shareholders on the register. The Directors hold 0.66% of the company (Figure 2)

Figure 2: ECR Minerals share register

Holder	Holding
Hargreaves Lansdown (Nominees) Limited <15942>	12.54
Barclays Direct Investing Nominees Limited <Client1>	8.53
Hargreaves Lansdown (Nominees) Limited <Hlnom>	7.47
Hargreaves Lansdown (Nominees) Limited <Vra>	7.26
Interactive Investor Services Nominees Limited <Smktisas>	6.89
The Bank Of New York (Nominees) Limited <672938>	6.77
Interactive Investor Services Nominees Limited <Smktnoms>	5.64
HSDL Nominees Limited	5.4
HSDL Nominees Limited <Maxi>	3.92
Lawshare Nominees Limited <Sipp>	3.91
JIM Nominees Limited <Jarvis>	3.56
HSBC Client Holdings Nominee (Uk) Limited <731504>	3.51
Directors	
Craig Brown	0.5
David Tang	0.16
Shares not in public hands	6.98

Source: <https://www.ecrminerals.com/investors-media/shareholdings>

## Share price history

In the past 12-months ECR’s shares have performed very strongly up 213%, with a striking up-trend taking the shares from a price of 0.82p per share to their current level of 2.57p per share (Figure 3). Renewed interest in the mining sector combined with a rising gold price and exciting exploration results has led to a sizable uptick in the company’s volumes.

Figure 3: ECR Mineral’s share price and trade volumes



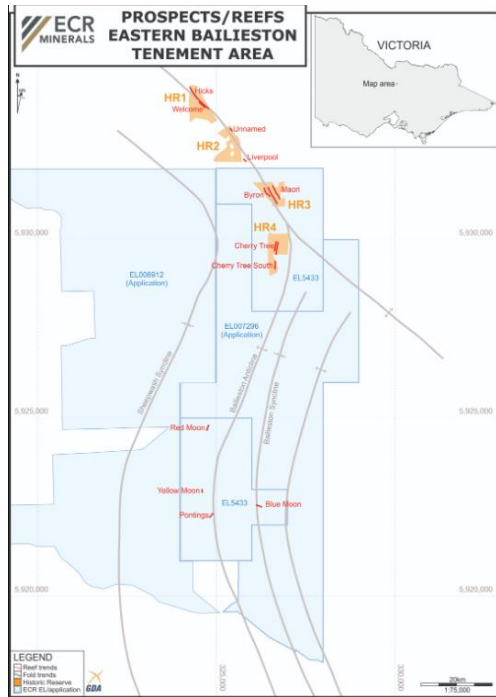
Source: <https://www.londonstockexchange.com/stock/ECR/ecr-minerals-plc/company-page?lang=en>

# Bailieston Gold Project

## Introduction

The Bailieston Gold Project is located around 150km north of Melbourne, within the Lachlan Fold Belt. The project is comprised of one tenement, EL5433 and three tenement applications, EL6911, EL6912 and EL7296, covering a combined area of 110.2km<sup>2</sup> (Figure 4).

Figure 4: The Bailieston Gold Project



Source: <https://www.ecrminerals.com/images/2020/09/09/prospectsreefs-eastern-bailieston-tenement-area.jpg>

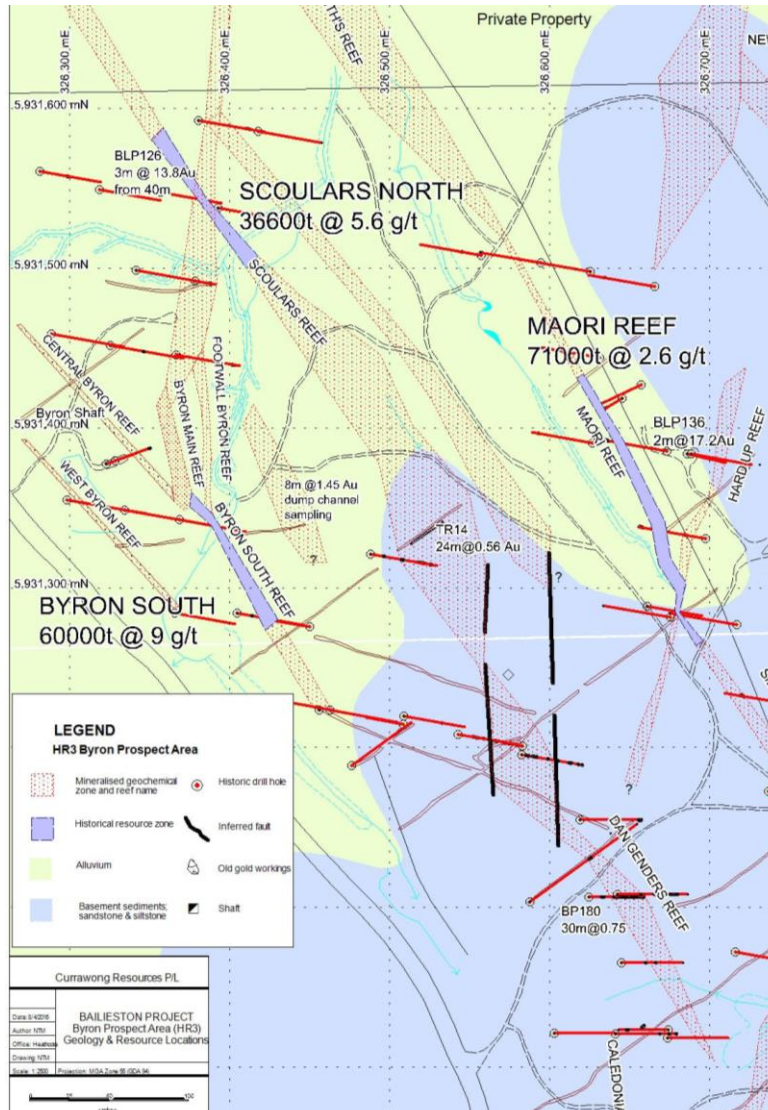
The westernmost part of the Bailieston tenement is approximately 30km east of Kirkland Lake Gold's 2.1moz (21.8g/t Au) Fosterville Gold Mine, and abuts to the north an exploration licence applied for by Newmont Exploration Pty Ltd.

The project contains the historic Byron Gold Mine, which produced 4,416oz of gold at a high-grade of 15.5g/t Au, from an underground mine.

## HR3 Prospect

ECR is currently drilling the HR3 Prospect (Figure 5), below the historic workings of the Byron Mine. The first and second holes are designed to target the Byron Main Reef with subsequent holes designed to test the Maori, Dan Genders, Scoulers and Hard-Up Reefs.

Figure 5: The HR3 Prospect

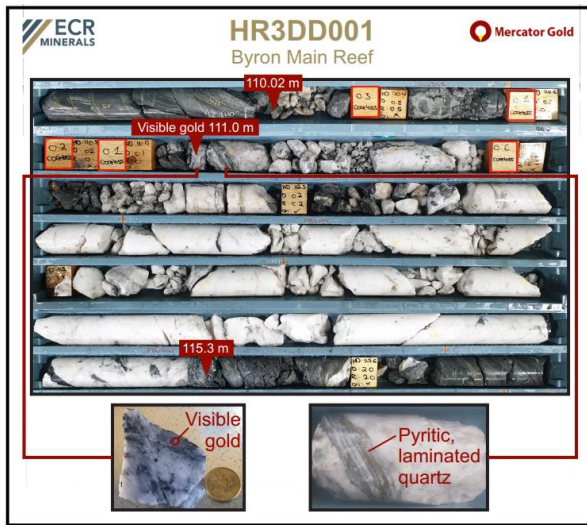


Source: <https://mercatorgold.com.au/wp-content/uploads/2020/09/byron-02.jpg>

This programme is focused on verifying the historic data regarding the orientation of the reefs and proving a framework of the geological structures hosting the reefs, which will be used to attempt to target coalescing reef intersections.

ECR has already completed a number of holes to date and full assay results are pending, but based on a visual inspection of the core, a 5.3m wide section of the Byron Main Reef was intersected at a depth of 110m with visible gold present (Figure 6). A second hole targeting Byron Main Reef currently underway.

Figure 6: Drill Core from the HR3 Target with Viable Gold Mineralisation



Source: [https://www.ecrminerals.com/images/2021/BH3DD001\\_Byron\\_Main\\_Reef.pdf](https://www.ecrminerals.com/images/2021/BH3DD001_Byron_Main_Reef.pdf)

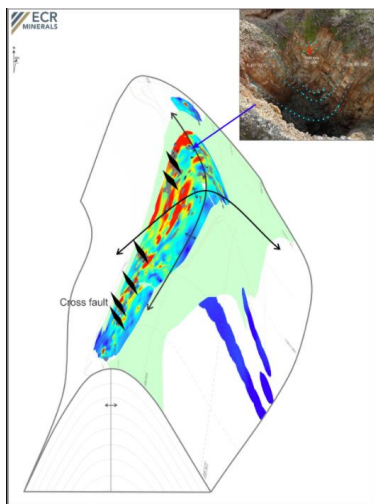
Following the completion of the programme at the HR3 Prospect, the drill rig will move to the Cherry Tree Prospect, or for further drilling at the Blue Moon Prospect, both of which are also located within the Bailieston Project.

### The Cherry Tree Prospect

The Cherry Tree Prospect contains 30 large and numerous small shafts, sunk by the historic miners, that lie on the westerly limb of a north-south orientated anticlinal dome (Figure 7). The main area containing workings at the Cherry Tree Prospect is surrounded by alluvial cover and there is believed to be the potential for shallow extensions under this cover.

A portable XRF survey, completed late last year, defined numerous zones of anomalism, which were dominantly located close to the historic workings. This anomalism increases towards the top of the dome and towards the northwest section of the dome (Figure 6). The increasing anomalism towards the northwest is lost under cover indicating there may be some potential for gold mineralisation at shallow depths.

Figure 7: Anticlinal Dome and Associated Anomalies at the Cherry Tree Prospect

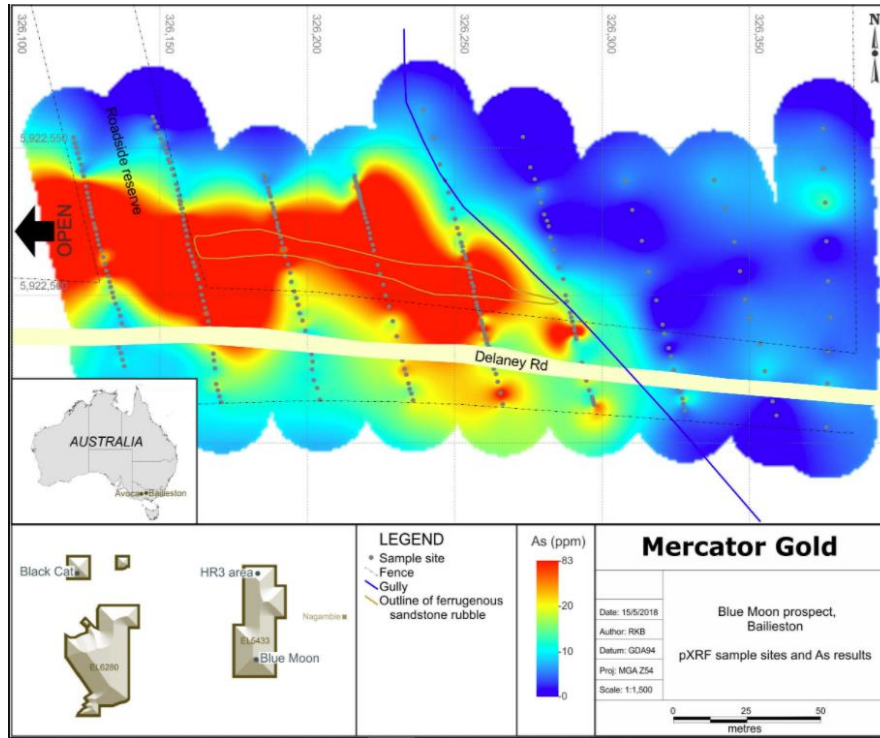


Source: [https://mercatorgold.com.au/images/2020/Cherry\\_Tree\\_model.jpg](https://mercatorgold.com.au/images/2020/Cherry_Tree_model.jpg)

## The Blue Moon Prospect

The Blue Moon Prospect contains a small historic six-metre-deep pit and two shallow shafts. Portable XRF sampling completed by ECR in 2018 defined an anomalous arsenic zone over an area of 40m by 200m (Figure 8) and previous work demonstrating additional anomalism over a further 150m to the west.

Figure 8: Arsenic Anomaly at the Blue Moon Prospect



Source: <https://1937463571.rsc.cdn77.org/images/2019/03/14/bluemoon-01.jpg>

ECR completed drilling at the Prospect in 2018 and 2019, making a new gold discovery within the Ballieston Project area. To date the company has drilled 1,718 metres (9 holes) of reverse circulation drilling and 236.1m (3 holes) of diamond drilling. Significant intersections included:

- 15 metres (m) at a grade of 3.81 grammes per tonne (g/t) gold (Au) from 51m, including 2m at a grade of 17.8g/t Au (BBM007)
- 11m at a grade of 2.42g/t Au from 169m, including 3m at a grade of 3.88g/t Au (BBM006)
- 16m at a grade of 0.28g/t Au from 85m, including 1m at a grade of 2.15g/t Au (BBM004)
- 14m at a grade of 0.54g/t Au from 132m, including 2m at a grade of 1.40g/t Au (BBM005)
- 5m at a grade of 0.46g/t Au from 152m, including 1m at a grade of 1.94g/t Au (BBM010)
- 5m at a grade of 1.09g/t Au from 97m (BBM013).

The drill results completed to date appear to indicate that the host sandstone is thicker, and the gold grades significantly higher, on the westerly section of the prospect. ECR plans to test whether the gold mineralisation continues to improve towards the west.

The next phase of exploration would initially comprise surface geochemical sampling, potentially followed by drill testing in the western area. There is also potential to carry out further drilling within the zones already tested, to establish an initial JORC-2012 Compliant Mineral Resource Estimate.

## The Black Cat Prospect

The Black Cat Prospect is located immediately south of ground applied for by Newmont Mining. The main Black Cat Reef is a series of en-echelon quartz lenses within a shear zone, similar to other reefs within the Redcastle Goldfield. Historically, three 350m long quartz reefs were mined at the prospect.

In 2019, ECR completed a 485m (18 holes) reconnaissance rotary air blast (RAB) drill programme that targeted the quartz reefs near the historic workings at Black Cat. Significant intersections from the drilling include:

- 7m at a grade of 1.76g/t Au from 35m (BCD11)
- 3m at a grade of 4.26g/t Au from 16m (BCD18)
- 1m at a grade of 6.3g/t Au from 18m (BCD03)

Each of these intersections comes from a different reef and each of these reefs requires deeper drilling. The drilling completed to date appears to indicate that at the Black Cat Prospect there is typically a supergene enriched zone near surface, which reaches a vertical depth of around 10m.

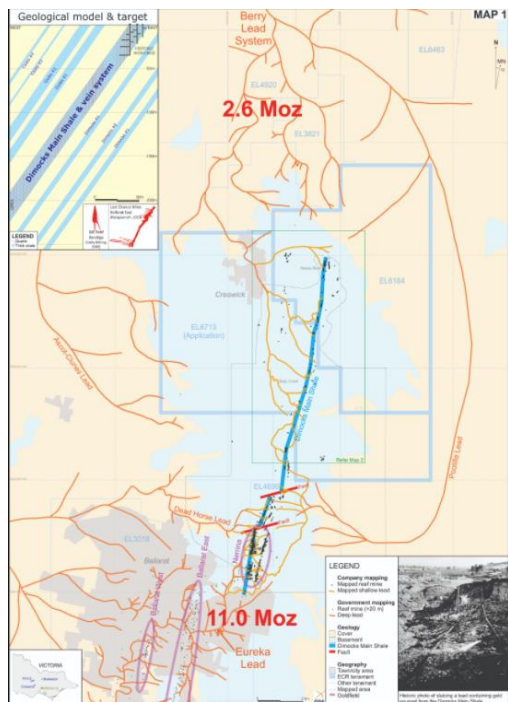
ECR believes that with drilling deeper there is the potential that an additional supergene enrichment, near the water table (c. 50m) could be encountered. There is also the potential for higher-grades in deeper primary sulphide mineralisation. Further exploration could also focus on targeting the larger structures that could be the source of the gold mineralisation, such as the Moormbool and Black Cat Faults.



## Creswick Gold Project

The 100%-owned Creswick Gold Project is located less than 5km northeast of Ballarat, the Central Highlands of Victoria, Australia (Figure 9). The project is comprised of one granted exploration licence (EL6184) and two exploration licence applications (EL6713 & EL6907) and covers an area of 305km<sup>2</sup>.

Figure 9: The Creswick Gold Project



Source: [https://1937463571.rsc.cdn77.org/images/2019/05/16/creswick\\_map1.jpg](https://1937463571.rsc.cdn77.org/images/2019/05/16/creswick_map1.jpg)

ECR is targeting the prospective Dimocks Main Shale, which extends over a 15km long trend from the mining centre of Ballarat to the south. Over 1,500 shallow workings have been mapped in the belt that extends from North Ballarat to Creswick. Of this 15km trend, 7km is covered by ECR's licences. Within the project area the Dimock Main Shale has a width of around 25m.

The Dimocks Main Shale is believed to be the source of the large volumes of alluvial gold within the area, with historical alluvial gold production in the Creswick-Berry area estimated to be 2.5moz Au and up to 11moz Au estimated for the Ballarat area as a whole. Primary gold mineralisation with the shale is contained in cleavage-parallel quartz veins, that represent a bulk mining style target.

Historically, prior to ECR's drilling, only two drill holes have ever been completed in EL6184, both in the 1990's, and the best intercept from this drilling was:

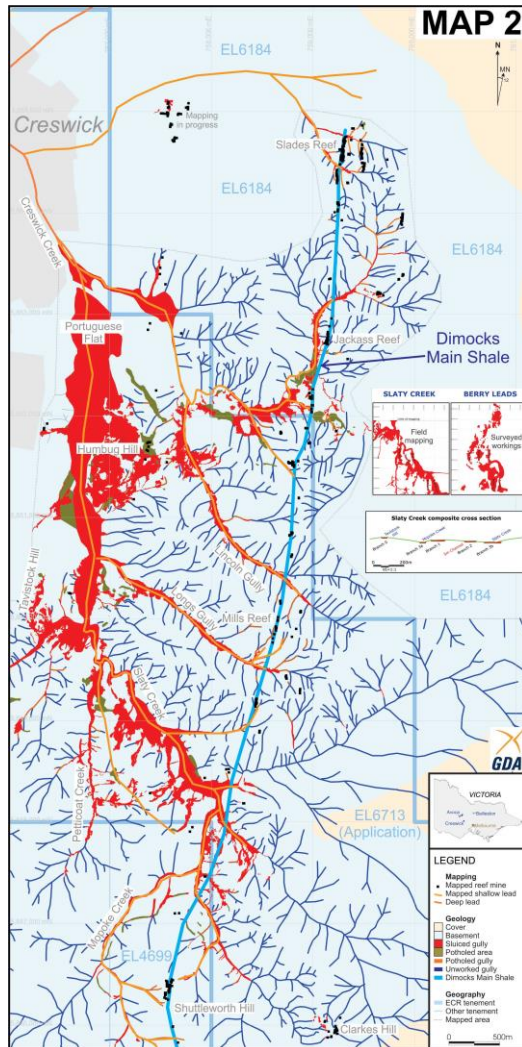
- 2m at a grade of 12.28g/t Au

EL6184 contains two main target areas (Figure 10):

- Slades Reef Prospect: a 300m long zone of historic workings
- Jackass Reef Prospect: an area with 500m and a 400m long zones of historic workings

Between these targets there is around 1,600m of unworked Dimocks Main Shale, giving the total prospective area within EL6184, a strike length of 2,750m. ECR commenced its maiden 1,687m (17 holes) of reverse circulation drill programme at the Slades Reef Prospect in Q119, testing 300m of this 2,750m long section of Dimocks Main Shale.

Figure 10: Targets at the Creswick Gold Project



Source: [https://1937463571.rsc.cdn77.org/images/2019/05/16/creswick\\_map2.jpg](https://1937463571.rsc.cdn77.org/images/2019/05/16/creswick_map2.jpg)

The gold mineralisation discovered in the drilling was nuggety, which was believed by ECR to result in understated or overstated assay results. To ensure the accuracy of its findings the company completed whole-of-bag gravity concentration tests on the drill samples. Assay results from this programme included:

- 1m at a grade of 80.97g/t Au from 15m (CSR006)
- 1m at a grade of 2.35g/t Au from 52m (CSR012)
- 1m at a grade of 2.97g/t Au from 16m (CSR001)

Following this drilling programme, ECR commissioned a study to test for the presence of ferroan carbonates, which is characteristic of alteration around central Victorian gold deposits and indicative of gold-related hydrothermal fluid flow.

The study demonstrated strong development of ferroan dolomite within the Dimocks Main Shale but also identified ferroan dolomite and quartz-carbonate veining in the deeper sandstone units, indicating that gold mineralisation may not be restricted to the Dimocks Main Shale as the Company initially believed.

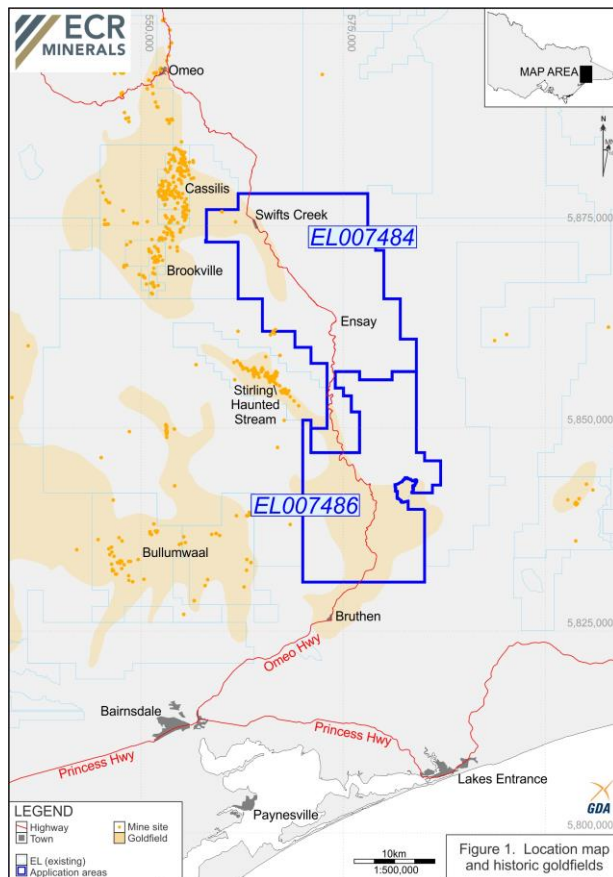
This maiden drill programme at Slades Reef encountered complex structures; with faulted and parasitic folded Dimocks Main Shale on an overall west-dipping limb. Diamond drilling can be utilised to test this structural hypothesis and test the gold-bearing structures identified at Slades Reef where key faults intersect the anticline.

In Q420, ECR completed a soil geochemistry survey of the Jackass Reef Prospect the results of which will be used to define drill targets at this untested prospect.

## Tambo Gold Project

The Tambo Gold Project, is ECR's latest expansion in the Victorian Goldfields in ground considered by the Company to be prospective for orogenic reef gold intrusion-related gold and base metal systems. ECR, applied for two exploration licences, EL7484 and EL7486, both located in eastern Victoria (Figure 11).

Figure11: The Tambo Gold Project



Source: [https://www.ecrminerals.com/images/2020/09/21/tambo\\_ela\\_f1\\_location\\_goldfields.jpg](https://www.ecrminerals.com/images/2020/09/21/tambo_ela_f1_location_goldfields.jpg)

The licence applications cover an area of 728km<sup>2</sup> and include portions of the historic Swifts Creek/Omeo and Haunted Stream Goldfields that have recorded historical gold production of 205,000oz and 25,000oz, respectively. Previous exploration of these areas was dominantly completed by smaller companies and individuals, and modern exploration techniques have not been applied.

ECR is expected to benefit from a large airborne gravity survey, which the Victorian State Government commenced in late 2020. The data from this survey, when published, could generate new insights into the geology of the Tambo Project.

### EL7484

The EL7484 application area contains part of the historic Swifts Creek/Omeo goldfield which produced a total of 205,000oz, approximately half of which was primary gold.

Primary mineralisation in this area is orogenic reef gold, which will be the focus of ECR's exploration along the Ensay and Cassilis Shear Zones that cross the application area.

## EL007486

The historic Haunted Stream Goldfield, which has produced 25,000oz gold, covers much of this application. The majority of production comes from remnant patches of gold-bearing alluvial terraces, some of which have continued to be mined in recent decades.

ECR believes that the source of the alluvial gold may be from the Stirling area, although there is potential for reef sources either at surface or at shallow depths within the tenement area. The region is also prospective for mineralisation associated with the ring faults of the Mount Elizabeth Caldera and other deposit types above the deeper intrusion. ECR believes the high-variability in both the timing and chemistry of the granites in the area makes the area very prospective.

## Management Information

### **Weili (David) Tang - Non-Executive Chairman**

David Tang was previously the President of China Nonferrous Metals Int'l Mining Co., Ltd. (CNMIM) and the Managing Director of China Nonferrous Gold Ltd. Mr Tang has previously served as a Director to several companies involved in mining or exploration in Africa, Southeast Asia and Australia.

### **Craig Brown - Director and Chief Executive Officer**

Craig Brown has worked for 24 years in the mining industry and held positions with Gulf International Minerals Ltd and Nelson Gold Ltd, both of which successfully put gold mines into production during his tenure. He was also Managing Director of Kryso Resources plc, now known as China Nonferrous Gold Ltd, completing a bankable feasibility study and delineating a 5moz Au JORC Mineral Resource at the Pakrut Gold Project, located in Tajikistan.

### **Adam Jones - Non-Executive Director**

Adam Jones has over 10 years of experience as a professional geologist in Australia, including significant experience of gold exploration and production. He is a member of the Australian Institute of Geoscientists (AIG) and has worked as an independent consulting geologist since 2015.

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