

## Red Lake operation

Restoring Red Lake to a premier Canadian gold mine - a cornerstone asset for Evolution

[www.evolutionmining.com.au](http://www.evolutionmining.com.au)



<b>Location:</b>	Ontario, Canada, approximately 535km north-west of Thunder Bay
<b>Producing:</b>	Gold
<b>Management:</b>	Owner operator
<b>Site Management:</b>	Kirsty Liddicoat - General Manager
<b>Mine Site contact number:</b>	+1 807 735 2077
<b>Acquisition:</b>	Goldcorp assets 31 March 2020, Battle North Gold assets 19 May 2021

Located on the traditional lands of the Waubuskang and Lac Seul First Nations People.

- High-grade asset situated on one of North America's highest-grade gold camps with outstanding exploration potential
- Tier one mining jurisdiction
- Mineral Resources of 11.7Moz and Ore Reserves of 2.9Moz
- 18 year life of mine plan
- Strategic acquisition of Battle North Gold:
  - New 600ktpa mill facility expandable to 900ktpa with minimal capital
  - Land package of +280km<sup>2</sup>
- Transformation plan to produce an aspirational 350kozpa, accelerated by the operational synergies of the Battle North Gold acquisition
- Significant exploration upside – exploration expenditure of US\$50M over three years with a planned annual drilling rate of 100,000m
- Long term regional potential to grow the current resource base

### ➔ Key Facts

- 100% ownership
- FY23F:** 160,000oz +/-5%<sup>1</sup>
- FY23F AISC:** A\$1,880/oz +/-5%<sup>1</sup>
- TRIF:** 17.6<sup>2</sup> (12mma)
- Red Lake Mineral Resources:** 53.6Mt at 6.82g/t Au for 11.7Moz<sup>3</sup>
- Red Lake Ore Reserves:** 13.1Mt at 7.00g/t Au for 2.9Moz<sup>3</sup>
- Land package** 709km<sup>2</sup>
- Mine life:** 18 years – expected to materially extend
- Mining method:** underground
- Processing:** Campbell mill 800ktpa; Red Lake mill 300ktpa; Bateman mill 600ktpa (permitted to 450ktpa, working on expanding to 800ktpa but needs CAPEX and permitting)
- Residential:** >800 + local jobs

1. Production and cost guidance as at 27 June 2022. AISC is based on Gold price of A\$2,400/oz (royalties) and Copper price of A\$12,500/t (By-product credits)

2. TRIF: Total recordable injury frequency. The frequency of total recordable injuries per million hours worked. Results above are based on a 12 month moving average to June 2022

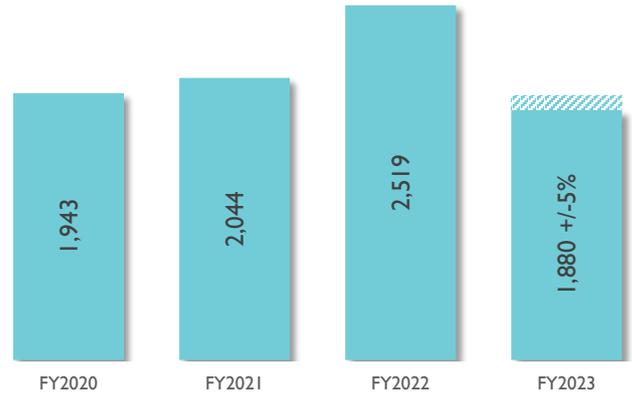
3. See ASX release 16 February 2022 "Annual Mineral Resources and Ore Reserves Statement".

# Snapshot

## Gold production (oz)



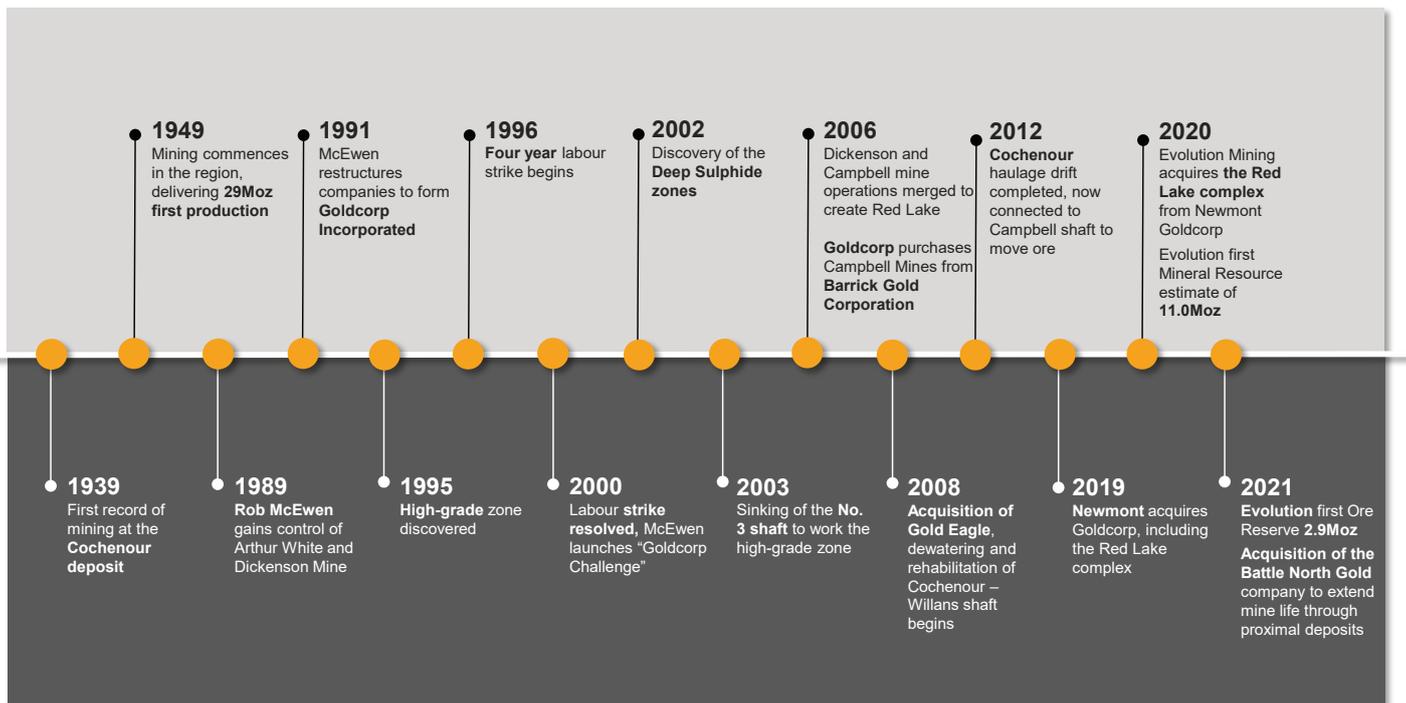
## AISC (A\$/oz)



\* denotes guidance for FY23

Historic performance data can be accessed at our [Interactive Analyst Centre™](#)

## History - Red Lake Evolution



### Mineral Resources (Dec 21)



### Ore Reserves (Dec 21)



1. See ASX release entitled "[Mineral Resources and Ore Reserves Statement](#)" released to ASX on 16 February 2022 and available to view at [www.evolutionmining.com.au](http://www.evolutionmining.com.au)

# Sustainability

Sustainability is a strategic pillar for Evolution and we have published nine Sustainability Principles that provide the foundation for how we approach and integrate Sustainability into everything we do. These principles align with the United Nations Sustainable Development Goals and support our drive for improvement as we mature in our sustainability journey. The work we do on sustainability reflects our values driven approach to creating measurable value for our stakeholders through safe, reliable, low-cost gold production in an environmentally and socially responsible way.

Our sustainability efforts and higher levels of transparency have been recognised, with Evolution maintaining a rating of 'AA' in the MSCI ESG Ratings assessment for resilience to long term environmental, social and governance (ESG) risks, and ranked among the top five industry leaders globally for 'Health and Safety' and 'Business Ethics and Fraud' (FY20). We have also been recognised as a member of the Dow Jones Sustainability Index (DJSI) Australia, ranking Evolution in the top performing Australian mining companies for corporate sustainability in their annual assessment and are signatories to the United national Global Compact (UNGC).

Our [Annual and Sustainability report](#) provided on our website describes our approach and performance in the areas of health and safety, environmental stewardship, helping our communities thrive, cultural heritage, innovation and the development of our people. Some of the highlights from Red Lake are provided below:

## Health and Safety

Integral to the sustainability of our business is the health, safety and wellbeing of our people. We have a strong health, safety and wellbeing culture with the ambition of being an injury free workplace. The Red Lake operation has made a significant step change in safety management, 60% increase in reporting and investigations to promote learning and improvement, with a focus on material and critical risk management, increased reporting, incident review and learning.

## Environment

We believe in striving beyond legislative compliance to achieve best practice and to build trust and meet the expectations of the communities in which we operate. We are focused on enhancing environmental stewardship in line with our Net Zero Commitment and Sustainability Principles through the implementation of our sustainability performance standards and life of mine environmental management plans across all of the operation.

Climate-related risks including water security and extreme weather and health events remain a focus for Red Lake. The operation has a positive water security position, with raw water supply assessed as low risk. Extreme weather and pandemic response plans are in place to manage events such as COVID-19 incidents and Forest Fires. Cyanide destruction systems have been adopted to reduce the concentration of cyanide discharge which is also supported by certification to the International Cyanide Management Code last updated in 2021. For further information please visit our website.

## Community

Securing the support of communities in which we operate is core to our operation. Our focus remains on building trusted partnerships with our First Nation Partners in protecting their cultural heritage and supporting the delivery of their goals and that of other Community Groups. Collaboration Agreements are in place with the Wabauskang and Lac Seul First Nation Partners.

We partner with with our communities to achieve meaningful outcomes and generate shared value. A local approach is critical to support local economic benefit by prioritising local procurement, creating local employment and facilitating local training opportunities.

Our strong support in the Red Lake community includes:

- Support for the Shared Spirits (partnership with the First Nations Partners)
  - Partnering with the Balmertown Fire Department including a donation of a Municipal Fire Truck in 2021 following the August 2020 forest fires that resulted in evacuation of the community for more than a week
  - Supporting a diverse workforce where all feel they belong including First Nation Peoples which make up 10% of the operation
  - Supporting a predominantly (70%+) local workforce and local procurement initiatives
  - Supporting Industry groups such as the Ontario Mining Association
  - Investing in Community projects supporting education, environment, diversity, health, arts, culture and recreation and COVID recovery
  - Operation of a recreational facility and sponsorships of youth and community programs
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# Mining

The Red Lake Operation operates three different historical underground mines (Red Lake, Campbell and Cochenour) and two processing facilities (Red Lake and Campbell Mills). The recently acquired Bateman Gold Project has added a fourth orebody and a third processing plant, resulting in a consolidated mining region with numerous opportunities to maximise production and margins. Data integration and re-modelling of the Bateman orebody is underway and will enable optimisation of the consolidated assets to deliver on our strategic vision for the region.

## Red Lake, Campbell and Cochenour

Ore is currently hoisted to surface through two production shafts - Cochenour and Campbell ore via the Reid Shaft and Red Lake via the #3 Shaft. The Campbell Young Dickenson (CYD) surface decline commenced in July 2021 and will provide access to the historic Upper Campbell resource - a key driver in the production ramp up over the coming years. Ventilation is a push-pull system consisting of 4 intake and 5 exhaust fans and 15 underground booster fans.

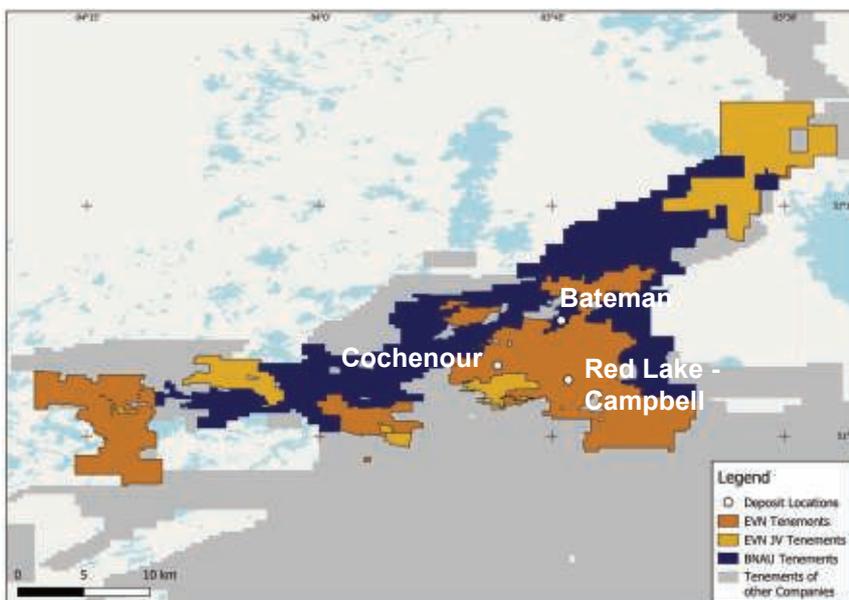
Mining dates back as far as 1939 at the Cochenour deposit, and the current Red Lake Gold Mines organisation dates to the 2006 acquisition of the Campbell mine by Goldcorp.

Mining is carried out with a company-owned fleet of mining equipment, supplemented by contractor production drills.

<b>Mining method/s:</b>	Sub-level open stoping, avoca and modified avoca stoping
<b>Access:</b>	Access to Cochenour, Balmer and Lower Campbell are via the Cochenour, #3 and Reid shafts. Upper Campbell and Bateman are to be accessed via declines driven from surface
<b>Ore mined:</b>	<b>FY22:</b> 841kt at 4.54g/t mined
<b>Ore milled:</b>	<b>FY22:</b> 847kt at 4.67g/t produced
<b>Mining contractor:</b>	A mix of owner-operator and contractor mining
<b>Jumbos:</b>	5 x Sandvik twin booms, 1 x Epiroc twin boom, 3 x Sandvik single booms
<b>Bolters:</b>	8 x Maclean SSB and 1 x Maclean 928
<b>Loaders:</b>	12 x Caterpillar R1300, 8 x R1600, 1 x R1700, 1 x Epiroc ST1030, 3 x Sandvik LH203, 1 x Toro 006D, 1 x EJC 61D, 1 x EJC 65D
<b>Trucks:</b>	6 x EJC 417, 5 x Caterpillar AD30
<b>Agitator:</b>	4 x Normet
<b>Spray unit:</b>	3 x Normet
<b>Charge car:</b>	4 x Normet, 1 x Minecat 100G

## Bateman Gold Project

The Bateman Gold Project is an underground development project acquired from Battle North Gold in May 2021. It consists of the high-grade F2 Gold Deposit, more than 14,000m of underground development including a commissioned shaft to approximately 730m below surface, a surface decline that connects to the underground workings, and surface infrastructure including a 650ktpa plant (permitted to 450ktpa), a tailings dam facility, electric power supply and substation, 200-person camp, earth-works and civil-works.



*Map of Red Lake district highlighting the tenements acquired through the Battle North transaction and the Bateman Project location*

# Geology

The Campbell-Red Lake-Cochénour and Bateman gold deposits are located within the Red Lake greenstone belt of the Superior Tectonic Province. This belt is host to one of Canada's largest and richest Archean gold deposits producing more than 26 million ounces of gold since the 1930s. The Red Lake Greenstone Belt is subdivided into several rock assemblages recording magmatic and sedimentary activities that occurred from 3.0 to 2.7 billion years ago. The tholeiitic and komatiitic metabasalts of the Balmer Assemblage are the oldest volcanic rocks in the belt and are host to the major gold deposits in the Red Lake district, including the Campbell-Red Lake-Cochénour and Bateman deposits.

Gold mineralisation is mainly associated with silicification and sulphide minerals that replace carbonate veins, breccias and wall rock selvages. The carbonate veins and breccias, which are composed of ankerite ± quartz, were formed before and/or in the early stage of penetrative ductile deformation, whereas silicification, sulphide replacement and gold mineralisation were coeval with deformation.

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## Processing

RLO encompasses three separate processing plants; the Campbell, Red Lake, and Bateman mill. All are designed to recover gold via varying extraction flowsheets.

The Campbell Mill uses conventional crushing and grinding followed by gravity concentration to recover free-milling gold. Refractory gold is recovered by flotation followed by pressure oxidation, neutralisation and CIL. Current capacity is 800ktpa and is planned to increase to 1.1Mtpa by 2023.

The Red Lake Mill was successfully commissioned in February 2021 (previously on care and maintenance) and has a current capacity of 300ktpa.

The new Bateman Mill (currently on care and maintenance) has a nameplate capacity of 600ktpa and is currently permitted to 450ktpa. It may be expanded to 900ktpa with minimal expenditure. Evolution is working on expanding to 800ktpa but needs CAPEX and permitting.

	Campbell	Red Lake	Bateman
<b>Annual average throughput rate</b>	0.62Mtpa	0.35Mtpa	0.45Mtpa
<b>Crushing</b>	Jaw crusher, cone crusher	Jaw crusher, cone crusher	N/A
<b>Grinding</b>	Rod mill, ball mill	Balal mill, vertimill	SAG mill, ball mill
<b>Gravity</b>	Knelson concentrators, gravity table	Knelson concentrators, gravity table	Knelson concentrators, gravity table
<b>Flotation</b>	4 x Outotec tank, rougher cells	Rougher, scavenger, cleaner trough cells	N/A
<b>Oxidation</b>	Autoclave pressure, oxidation on flotation concentrate	N/A	Pre-aeration
<b>Leaching</b>	Flotation tails leach, flotation concentrate, CIL	Cyanide leaching	Cyanide leaching
<b>Adsorption</b>	Flotation concentrate, CIL, CIP adsorption circuit	CIP	CIL

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# Process flowsheet - Red Lake, Campbell and Bateman Mills

