### **Operating mines**

Victoria has five operating gold and antimony mines. Gold production has almost quadrupled since 2014-15. (Source: Earth Resources Requiation)



3.2 moz
Gold production in Victoria
in 2018-19 to 2022-23.
Earth Resources Regulation

2333 t

Around \$200 billion of gold is till underground Victoria.

Geological Survey Victoria



2144 t

Antimony production in Victoria in 2022-23.
Earth Resources Regulation

### Projects pipeline A snapshot

Victoria has a number of advanced projects in copper, zinc, gold and mineral sands/REE which could double the number of mines and jobs in the state if technical, financial and robust permitting processes are met.







#### Mineral sands



Project	Company	LGA	Commodity	Construct. jobs	Operating jobs
Donald	Astron Corporation	Yarriambiack	Mineral sands/REE	120	150
Fingerboards	Gippsland Critical Minerals	East Gippsland	Mineral sands/REE	200	200
Goschen	VHM	Gannawarra	Mineral sands/REE	250	400
Avonbank	WIM Resource	Horsham	Mineral sands	200	232
Stavely	Stavely Minerals	Ararat	Copper, gold	-	200

Sources for advanced projects table; astronlimited.com.au/projects-operations/DONALD-MINERAL-SANDS.aspx; www.fingerboardsproject.com.au/about-the-project; stavely.com.au/stavely-project; vhmltd.com.au/project/project-overview/; wimresource.com.au/irm/content/avonbank.aspx?RID=312



>2000

New mine construction and ongoing jobs in Victoria.

MCA calculation

\$2 billion

Capital investment in multiple projects at varying stages of approval and development.

MCA calculation



DIVISION



There's more to
Victorian
Mining

Ph. (03) 8614 1851 Email. info.vic@minerals.org.au Website. minerals.org.au/victoria January 2024



# The minerals industry is a big part of Victoria's past and critical to its future

As global demand for minerals increases, Victoria has the opportunity to produce more of the minerals and metals essential for the transition to low carbon economies, such as lithium, copper, mineral sands and rare earth elements (REE).

From the Wimmera to central Victoria, Ballarat to East Gippsland, the state has a number of potential new projects in mineral sands, copper and zinc, as well as exploration projects in gold, base metals, REE and lithium.

Developing Victoria's mineral sands and REE deposits will embed Victoria into renewable energy supply chains. These minerals are used in solar panels, wind turbines and batteries, as well as in technologies such as smart phones.

Turning Victoria's minerals endowment into new investment and jobs will create more opportunities in regional areas. New mines also bring new mining services. Victoria's history in mining and manufacturing makes it a natural hub for the mining equipment, technology and services (METS) sector, and Melbourne already hosts the headquarters of a number of major

Australian and international mining houses.

Victoria's minerals industry strives to operate in a safe, respectful and responsible manner. We are committed to protecting Indigenous heritage and conserving the environment, and are proud of the social and economic benefits delivered to the communities in which we operate and the broader region.

James Sorahan
Executive Director

MCA Victoria

### FAST FACTS

### \$1 billion

#### **ECONOMIC BENEFIT**

Total economic contribution to the Victorian economy in 2020-21.

MCA Economic Contribution Survey

# \$151.9 m WAGES & SALARIES

Total wages and salaries paid to Victoria's minerals industry workers in 2020-21.

## **>1700**

#### **LOCAL BUSINESSES**

Supported by \$310 million in industry purchases of goods and services.

MCA Economic Contribution Survey

### \$201.1m

#### **EXPLORATION**

Exploration expenditure in 2022 – a 663 per cent increase since 2016.

Australian Bureau of Statistics

## \$510.1m

#### **DIRECT SPENDING**

Direct mining industry spending to the Victorian economy in 2020-21. MCA Economic Contribution Survey

**58**%

#### MINING SPEND

More than half of Victorian mining expenditure stays in Victoria.

MCA Economic Contribution Survey



**DID YOU KNOW?** 

Victoria hosts two of the world's highest grade

of Australia's largest

only antimony mine.

gold mines including one

gold mines, and Australia's

### **Operating mines in Victoria**

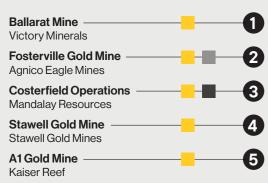
**Prospective zones** 

Copper (Stavely Arc)

Mineral sands and REE

Tin-Tungsten

### **Operating mines**



#### **Future projects**



Gold



13

**8** 

(6)

4 Stawell

10 Ararat

Horsham ■

#### **Fosterville Gold Mine** Agnico Eagle

Rairnsdale

■ Sale

Commodity	Gold
Jobs	860

Fosterville is a high-grade underground gold mine located 20km from Bendigo. It was Australia's third biggest gold mine by ounces produced in 2021

#### **Stawell Gold Mine**

Stawell Gold Mines

Commodity	Gold
Jobs	243

Stawell Gold Mines has operated since 1981. It hosts the Stawell Underground Physics Laboratory which is set to be the epicentre of dark matter research in Australia.

#### **Costerfield Operations**

Mandalay Resources

Commodity	Gold, Antimony	
Jobs	230	

Costerfield is located 10 km northeast of Heathcote. It was in the top 10 highest grade gold mines in the world in 2021 and is Australia's only antimony mine.

#### **Ballarat Mine**

Victory Minerals

Commodity	Gold
Jobs	210

Ballarat Gold Mine is an under ground mine operating at depth beneath the regional city of Ballarat. Ballarat is the closest gold mine to Melbourne.

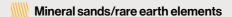
#### A1 Gold Mine

Kaiser Reef

Commodity	Gold
Jobs	79

The A1 Gold Mine located 23 km from Jamieson has been running since 1861. It has produced a total 620,000 oz of gold at an historic grade of 25 g/t.

Victoria has globally significant resources of mineral sands and rare earths essential for modern technologies





## Victoria's minerals are essential to modern life and emerging technologies

12

■ Melbourne

■ Shepparton

### **Antimony**

Commodities

Antimony is used as a flame retardant in protective clothing, as well as a fining agent in the glass of solar panels. Mandalay's Costerfield operation produces around 5 per cent of annual world antimony production.

#### Common uses ~~~~~~



Flame retardant Solar panels **Batteries** 

#### Copper/lead/zinc

Cu+Pb+Zn+Au+Ag Volcanogenic Massive Sulphide (VMS) deposits are found in eastern and western Victoria, plus Cu+Au magmatichydrothermal deposits are associated with intrusions in Western Victoria.

Antimony

#### Common uses ~~~~~

Silver



Electronics Energy network Public transport Grid batteries

#### Gold

Copper

A world-renowned gold province, central Victoria has produced more than 80 million ounces of gold. Gold is also found in volcanichosted massive sulphide deposits, intrusionrelated gold, and alluvial gold deposits.

Mineral sands/REE

#### Common uses ~~~~~~



Smart phones Hi-tech health Investment Aerospace

**Mineral sands** 

Ceramics Paint pigment Aerospace



Common uses

Tin/tungsten

Tin and tungsten deposits are found in

Victoria in lode deposits in late-stage

magmatic bodies such as greisens and

pegmatites in the northeast of the state

around the Koetong - Mitta Mitta area.

Touchscreens Microwave ovens Magnets

#### Lithium

Lithium is found in eastern Victoria. It is associated with granites and pegmatites that contain the mineral spodumene, a key mineral required in the supply chain for electric vehicle batteries.

#### Common uses



Electric cars Smart phones Laptops **Pacemakers** 







# Magnets

Mineral sands deposits occur in the Murray

and Gippsland Basins and typically comprise

zircon, rutile, leucoxene, ilmenite, monazite and

xenotime. Monazite and xenotime contain rare

earth elements required by next gen magnets. Common uses ~~~~~~