



**WIM RESOURCE**  
Think Ahead, Move Ahead



## AVONBANK PROJECT INFORMATION SHEET



## MAIN STAGES OF PROJECT

The project will involve mining the Avonbank mineral sands ore body over a period of thirty years, primarily for zircon, rare earth and titanium-rich mineral concentrate.

The Avonbank mining operation will:

- ◆ be a 24-hour, 365 days per year operation;
- ◆ be an open cut mining operation, with progressive backfilling and rehabilitation of mined areas;
- ◆ employ industry standard mining equipment and methods; and
- ◆ use conventional heavy earth moving methods and equipment to mine the ore body.

A 'moving hole' mining method will be employed, aimed at enabling rapid site rehabilitation and minimising the disruption to productive agricultural land use. This method involves the direct return of tailings and overburden into the mined cell as the mining front advances.

The progressive 'moving pit' mine design comprises an array of ore mining cells, which will be approximately 24–30m deep. Surface soils will be stockpiled adjacent to the active mining cell, for final rehabilitation.



## ABOUT WIM RESOURCE PTY LTD

### Our Vision

WIM Resource Pty Ltd (WIM) is a privately owned Australian heavy mineral sands (HMS) resource development company, with one of the largest portfolios of HMS projects in the world. WIM's vision is to become a long-term producer of zircon, titanium and rare earth minerals that are critical to everyday living.

### Our Team

WIM's corporate and technical team have a proven tracked record of mine development, having been involved in the development of several Australian HMS mines over the past decade, including more recently Murray Zircon's Mindarie HMS Mine, South Australia, and Image Resource's current Boonerannering HMS Mine in Western Australia.

### Flagship Avonbank Project

The Avonbank project is located 15km north of the City of Horsham. WIM anticipates mining the mineral sands ore body over a period of thirty years. It will supply mainly zircon and titanium-rich mineral concentrate to offshore markets.

Subject to approvals and finance WIM plans to commence construction within the next three years. WIM has invested heavily in the test pit, pilot plant, and on going environmental and community studies as the project moves towards the construction stage.

The project is currently at a Bankable Feasibility Study (BFS) and Environmental Effects Statement (EES) stage and WIM expects to complete this process by the end of 2021.

### Significant Economic Contribution to Regional Victoria

Avonbank will be a significant and intergenerational opportunity for the economy of the Wimmera Southern Mallee (WSM) and the State of Victoria:

- ◆ with approximately 600 full-time equivalent (FTE) jobs every year over thirty years
- ◆ over \$3.5 billion in Gross State Product (GSP) for the WSM

For Victoria, there will be:

- ◆ 1,000 FTE jobs every year, for over thirty years
- ◆ over \$5.7 billion in GSP

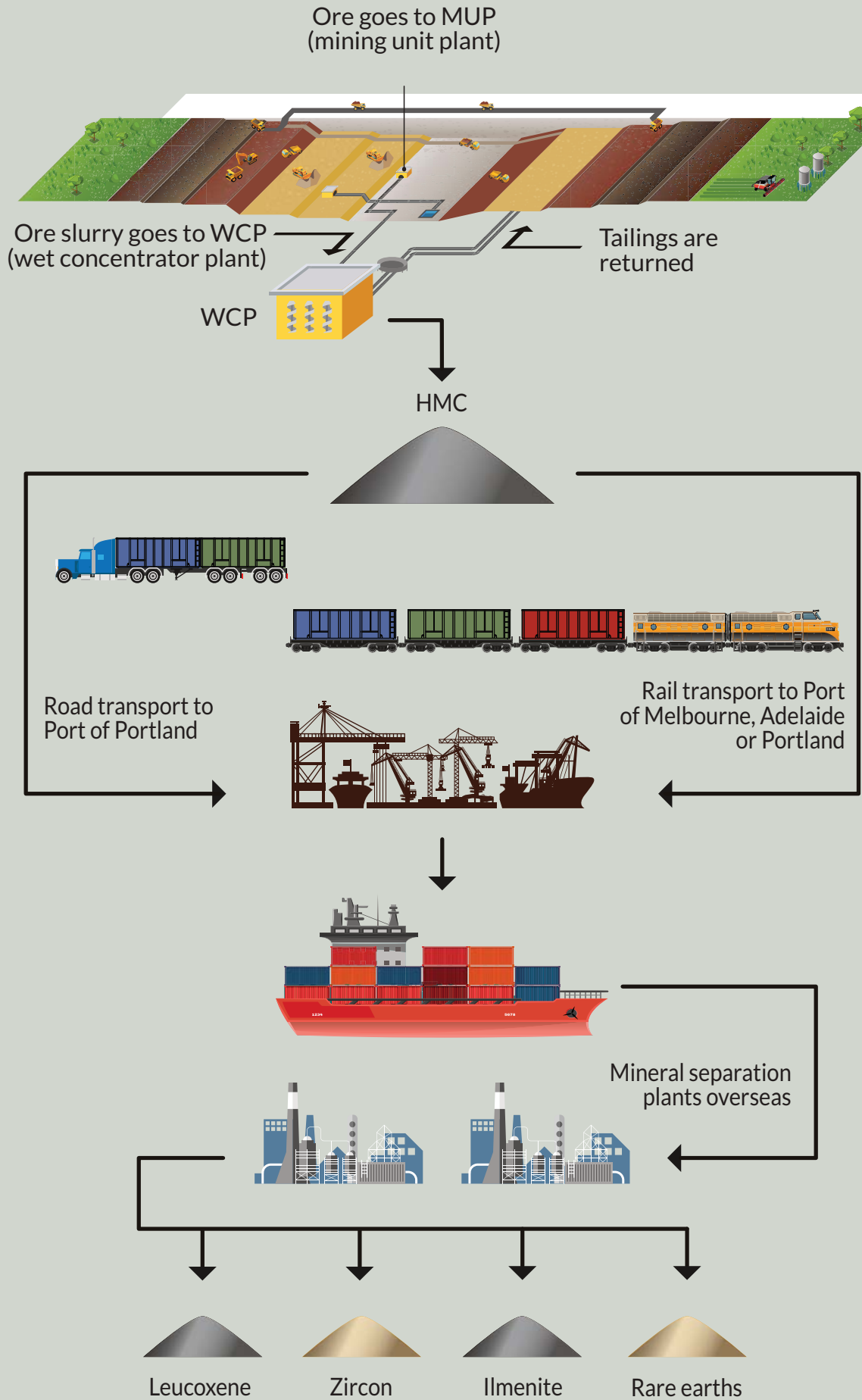
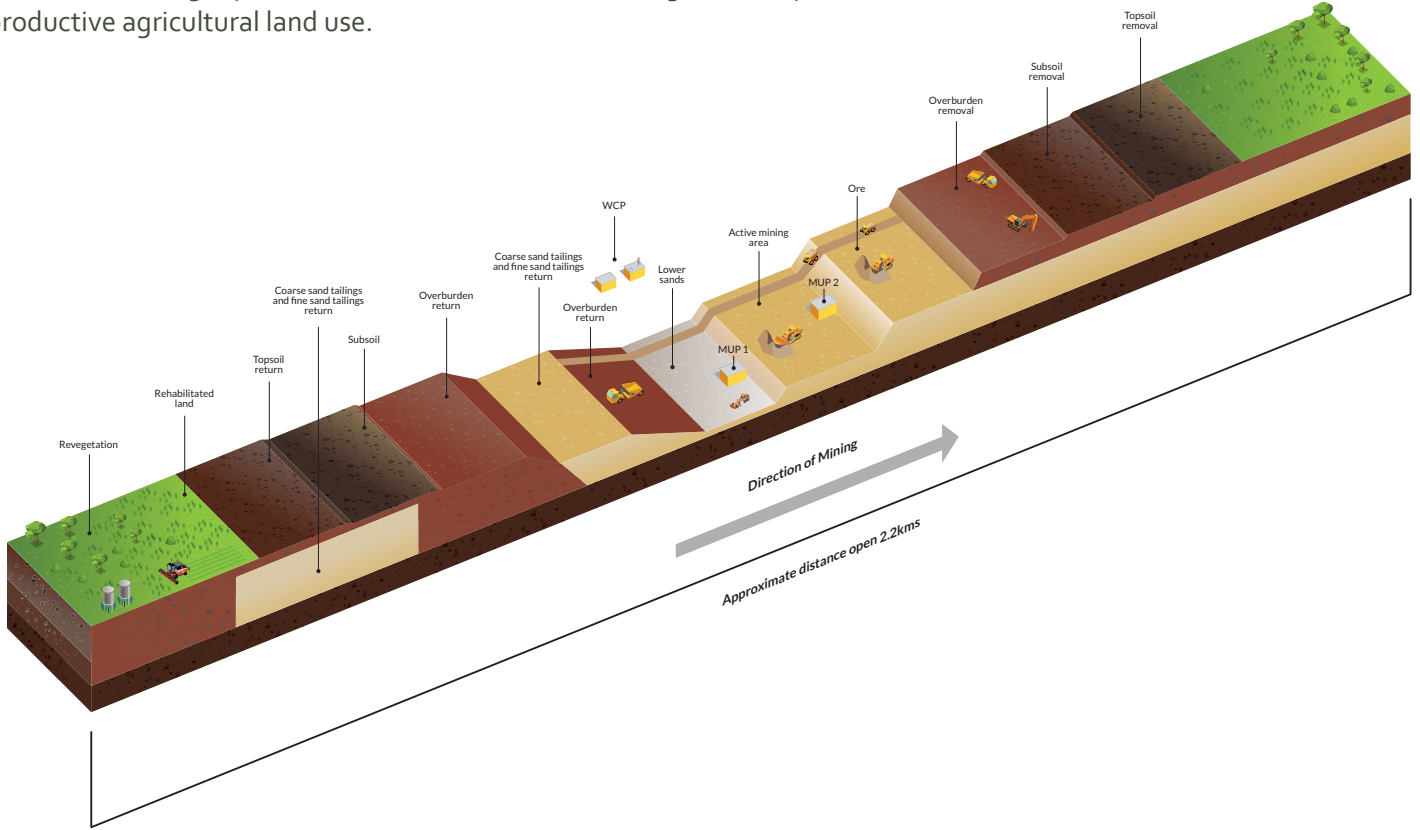


Figure 1: Avonbank Project – General Overview of the Main Stages

## MINING METHOD & REHABILITATION

WIM will use conventional heavy earth moving methods and equipment to mine the ore body. A 'moving hole' mining method will be employed, aimed at enabling rapid site rehabilitation and minimising the disruption to productive agricultural land use.



### AVONBANK TEST PIT

From April 2019, over a two-month period, WIM extracted an approximate 11,000 tonne parcel of 'reserve ore' as a part of its Definitive Feasibility Study (DFS).

Detailed geological pit logging was undertaken, with studies of grade and mineralogy reconciliation. The large bulk sample of ore was processed through an on-site pilot scale demonstration wet concentrator plant (WCP).

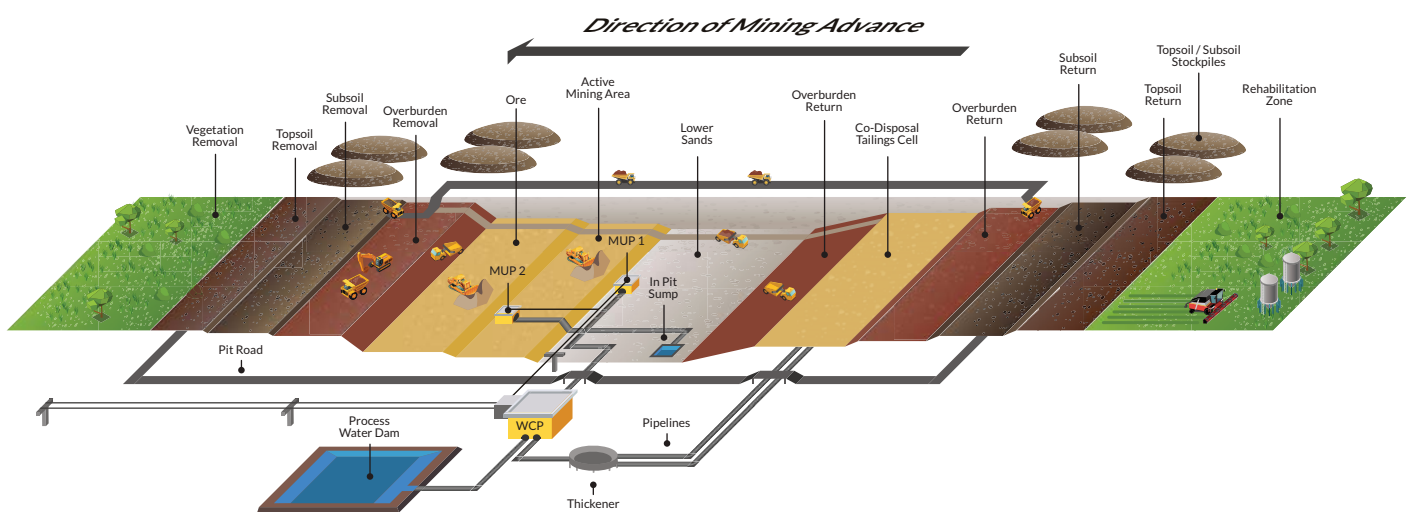
The test pit trials confirmed:

- ◆ Avonbank ore body characteristics confirmed;
- ◆ the high grade, high zircon and shallow ore body is well understood; and
- ◆ the geotechnical trials were successful.

## ORE PROCESSING & TRANSPORT

The mined ore will be fed into a scrubber and trommel in the pit and mixed with water to form a slurry. The resulting slurry will be pumped to a Wet Concentrator Plant (WCP) located within the Wimmera Intermodal Freight Terminal (WIFT) Precinct. At the WCP target minerals are separated from fine and coarse sand by a simple wet gravity circuit.

WIM proposes to transport the mineral concentrate produced at the WCP directly to the port of Portland via truck, or via rail to the ports of Adelaide, Portland or Melbourne.

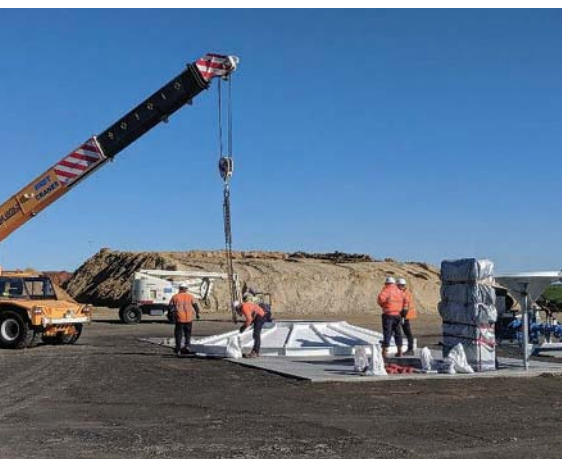


## AVONBANK PILOT PLANT

WIM partnered with world-leading mineral sands processing specialists, Mineral Technologies, to design and construct the pilot WCP. Following a safe construction and commissioning in September 2019, the plant processed a total of 11,000 tonnes of ore and produced 800 tonnes of HMC.

The pilot plant is now completed, and the test pit was monitored for several months before rehabilitation. A crop was seeded around the test pit site by a local landholder, and it is expected that the pit and plant area will be fully rehabilitated and returned to crop by mid-2021.





## JOBS AT AVONBANK

WIM will be a significant employer during the construction and operational stages of the Avonbank Project.

WIM is now accepting expressions of interest for the construction and operational stages of Avonbank, whether from service providers or individuals.

By registering your details with WIM, you can keep up to date with our progress and be logged into our data base.

## AVONBANK PROJECT ECONOMIC IMPACTS

### Economic Impacts on the State of Victoria

During Avonbank’s operational life, the mine will directly employ an estimated 232 workers every year. The total employment impact illustrated in the table below includes direct and indirect employment effects.

Indirect effects include increased demand for intermediate inputs into production sourced from within Victoria, and the additional consumption expenditure occurring in the State due to the increased employment.

The resulting total employment effect is estimated at 967 FTE jobs every year the mine is operational. That is, every direct job at Avonbank mine, the State’s economy is benefited by more than three additional FTE jobs.

### Employment Impacts on the Wimmera Southern Mallee

The total employment effect of the Avonbank Project includes direct and indirect effects such as increased demand for intermediate inputs into production sourced from various industries across the Wimmera Southern Mallee region, and the additional consumption expenditure that is likely to occur within the region due to the increased employment.

The total employment effect is estimated at 588 FTE jobs. This level of employment is supported while the mine is operational. That is, every direct job at the Avonbank mine, the region’s supports an additional 1.5 FTE jobs.

## SUMMARY OF AVONBANK PROJECT TOTAL ECONOMIC IMPACTS OVER PROJECT PHASE PERIODS

Project Phase	Planning & Design	Site Establishment & Construction	Operations & Rehabilitation	Mine Decommission, Rehabilitation & Closure
<b>Years Per Phase</b>	<b>3</b>	<b>1</b>	<b>30</b>	<b>6</b>
<b>VICTORIA</b>				
Gross State Product (\$m)	22.3	185.6	5,772.1	252.8
Gross Revenue (\$m)	51.0	479.1	15,384.7	606.5
Employment (annual FTE jobs)	44	996	967	585
Government Revenue (\$m)	1.1	9.0	303.7	2.4
<b>WIMMERA SOUTHERN MALLEE</b>				
Gross Regional Product (\$m)	6.5	93.0	3,500.7	135.9
Gross Revenue (\$m)	15.9	239.8	10,048.8	331.3
Employment (annual FTE jobs)	14	494	588	308
<b>HORSHAM RURAL CITY</b>				
Gross Regional Product (\$m)	7.3	76.3	3,711.9	159.6
Gross Revenue (\$m)	17.5	179.5	10,215.9	379.1
Employment (annual FTE jobs)	15	390	656	365

## ENVIRONMENT EFFECTS STATEMENT

WIM is completing an Environment Effects Statement (EES) that will enable an assessment of the positive and negative environmental, social, and economic impacts of the proposed Avonbank Project.

The EES requires WIM to address several issues including:

- ◆ Flora and Fauna
- ◆ Groundwater
- ◆ Surface Water
- ◆ Air Quality
- ◆ Radiation
- ◆ Traffic
- ◆ Social
- ◆ Economic
- ◆ Visual impacts
- ◆ Noise impacts

Summary leaflets of the Avonbank EES will be progressively be made available on our website as the studies progress in 2021, and WIM expects that the final EES document will be on exhibition in late 2021 for public review.

## Avonbank Project EES Process





## CONTACT

WIM RESOURCE PTY LTD  
Suite 2004, Level 20  
201 Elizabeth Street  
Sydney NSW 2000

T: (02) 9264 1990  
[www.wimresource.com.au](http://www.wimresource.com.au)

HORSHAM OFFICE  
62 Darlot Street  
Horsham Vic 3400

Free call 1800 959 298

MICHAEL WINTERNITZ  
Projects Director  
[mwinternitz@wimresource.com.au](mailto:mwinternitz@wimresource.com.au)

MICHAEL DAVIES  
Community and Land Liaison Officer  
[mdavies@wimresource.com.au](mailto:mdavies@wimresource.com.au)

DR JOHNEYEATES  
Approvals and Environmental Manager  
[jyeates@wimresource.com.au](mailto:jyeates@wimresource.com.au)