

**QUARTERLY REVIEW TO 30 JUNE 2024**

**23 July 2024**

**KEY FEATURES**

- Zircon/rutile/synthetic rutile (Z/R/SR) production in Q2 2024 was 142kt
  - zircon sand production was 47kt
  - 15kt of zircon-in-concentrate (ZIC), with production recognised upon sale
  - 58kt of synthetic rutile, with SR2 running for the full quarter and SR1 remaining offline, as planned
- Z/R/SR sales of 137kt in Q2 2024
  - 59kt of zircon sand (premium and standard grade) sales, exceeding Q1 2024 as guided.
  - 49kt of synthetic rutile sales. Synthetic rutile sales are second half weighted and ~200ktpa are under take-or-pay contracts to 2026

The Q2 weighted average zircon sand price was US\$1,907/t, up 2% from Q1, in line with guidance

Q2 SR price achieved was US\$1,194/t

As guided, unit cash costs of production have increased to \$1,405/t. These costs reflect a lower production base, with the pause in production of SR1, while continuing to build work in progress material

- heavy mineral concentrate inventory increased by 186kt in H1 2024, predominantly from the Cataby operation, which is the primary feed source for the synthetic rutile kilns

Selected H1 2024 financials are provided on page 2

PHYSICAL AND FINANCIAL SUMMARY	Q2 23	Q1 24	Q2 24	H1 23	H1 24	H1 24 vs H1 23
<b>PRODUCTION</b>						<b>%</b>
<b>kt</b>						
Zircon sand	70.1	24.2	46.5	129.4	70.7	(45.4)
ZIC <sup>1</sup>	37.2	13.0	14.6	37.2	27.6	(25.8)
Rutile <sup>2</sup>	22.8	12.2	23.4	30.7	35.6	16.0
Synthetic rutile	86.6	37.2	57.6	170.2	94.7	(44.4)
<b>Z/R/SR production</b>	<b>216.7</b>	<b>86.6</b>	<b>142.1</b>	<b>367.5</b>	<b>228.6</b>	<b>(37.8)</b>
Ilmenite	150.0	69.0	121.9	302.3	190.9	(36.9)
<b>SALES</b>						
<b>kt</b>						
Zircon sand	54.5	48.3	59.3	96.6	107.7	11.5
ZIC <sup>1</sup>	37.7	10.9	14.3	37.7	25.2	(33.2)
Rutile	15.2	9.2	14.4	26.8	23.6	(11.9)
Synthetic rutile	69.0	37.3	48.5	117.0	85.8	(26.7)
<b>Z/R/SR sales</b>	<b>176.4</b>	<b>105.7</b>	<b>136.5</b>	<b>278.1</b>	<b>242.3</b>	<b>(12.9)</b>
Ilmenite	40.2	35.1	36.0	82.1	71.1	(13.4)
<b>REVENUE &amp; CASH COSTS</b>						
<b>\$ million</b>						
Z/R/SR revenue	424	247	314	662	560	(15.4)
Ilmenite and other revenue	32	21	24	51	46	(8.9)
<b>Mineral sands revenue</b>	<b>456</b>	<b>268</b>	<b>338</b>	<b>712</b>	<b>606</b>	<b>(14.9)</b>
Production cash costs of Z/R/SR				306	321	4.9
By-product costs				7	9	26.7
<b>Total cash cost of production</b>				<b>313</b>	<b>330</b>	<b>5.4</b>
<b>\$ per tonne</b>						
Unit cash production costs Z/R/SR produced				<b>833</b>	<b>1,405</b>	<b>68.7</b>
Unit cost of goods sold Z/R/SR sold				<b>1,062</b>	<b>1,214</b>	<b>14.3</b>
Unit revenue Z/R/SR sold	2,403	2,334	2,297	2,380	2,312	(2.8)
AUD:USD cents	67	66	66	67	66	(1.8)

<sup>1</sup> Production of ZIC is recognised on sale. ZIC sales include small amounts of lower grade zircon products processed by third parties.

<sup>2</sup> Rutile sales and production volumes include the lower value titanium dioxide product, HYTI, that typically has a titanium dioxide content of 70-90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%.

## PRODUCTION COMMENTARY

The Jacinth-Ambrosia mine in South Australia produced 80kt of heavy mineral concentrate (HMC), up from 64kt in Q1 2024, because of higher-grade ore being processed during the quarter, which was in line with the planned mining sequence. Lower ore volumes treated in comparison to Q1 was a result of lower runtime due to a planned maintenance outage.

In Western Australia, the Cataby mine produced 177kt of HMC, up from 152kt in the previous quarter, due to the treatment of higher-grade ore in line with the planned mining sequence. Ore treated volumes were 19% lower than Q1 due to the commissioning of the second new mining unit and associated ramp up period.

The Narngulu mineral separation plant processed both Jacinth-Ambrosia and Cataby material in the quarter, producing a total of 61kt of zircon (including ZIC) and 23kt of rutile.

The SR2 kiln operated at full capacity, producing 58kt of synthetic rutile. Synthetic rutile produced from SR2 services the ~200ktpa of long term contracts Iluka has in place.

Work in progress (HMC) inventory increased by 186kt in the first half, including 160kt of ilmenite-bearing concentrate from Cataby. This stock underpins the capability to restart the SR1 kiln (currently offline) when required.

ILUKA MINERAL SANDS PRODUCTION	Q2 23	Q1 24	Q2 24	H1 23	H1 24	H1 24 vs H1 23
	kt	kt	kt	kt	kt	%
<b>ZIRCON SAND</b>						
Jacinth-Ambrosia / Mid west WA	48.2	20.6	22.1	107.5	42.7	(60.3)
Cataby/South west WA	21.9	3.6	24.4	21.9	28.0	27.9
<b>Total zircon</b>	<b>70.1</b>	<b>24.2</b>	<b>46.5</b>	<b>129.4</b>	<b>70.7</b>	<b>(45.4)</b>
<b>ZIC<sup>3</sup></b>						
Jacinth-Ambrosia / Mid west WA	31.9	6.9	14.3	32.0	21.2	(33.8)
Cataby/South west WA	5.3	6.1	0.3	5.2	6.4	23.1
<b>Total ZIC</b>	<b>37.2</b>	<b>13.0</b>	<b>14.6</b>	<b>37.2</b>	<b>27.6</b>	<b>(25.8)</b>
<b>RUTILE</b>						
Jacinth-Ambrosia / Mid west WA	5.6	4.7	2.6	13.5	7.3	(45.9)
Cataby/South west WA	17.2	7.5	20.8	17.2	28.3	64.5
<b>Total rutile</b>	<b>22.8</b>	<b>12.2</b>	<b>23.4</b>	<b>30.7</b>	<b>35.6</b>	<b>16.0</b>
Synthetic rutile (WA)	<b>86.6</b>	<b>37.2</b>	<b>57.6</b>	<b>170.2</b>	<b>94.7</b>	<b>(44.4)</b>
<b>TOTAL Z/R/SR</b>	<b>216.7</b>	<b>86.6</b>	<b>142.1</b>	<b>367.5</b>	<b>228.6</b>	<b>(37.8)</b>
<b>ILMENITE</b>						
Jacinth-Ambrosia / Mid west WA	20.5	12.2	11.1	54.9	23.3	(57.6)
Cataby/South west WA	129.5	56.8	110.8	247.4	167.6	(32.3)
<b>Total ilmenite</b>	<b>150.0</b>	<b>69.0</b>	<b>121.9</b>	<b>302.3</b>	<b>190.9</b>	<b>(36.9)</b>

## H1 2024 SELECTED FINANCIALS<sup>4</sup>

- H1 2024 capital expenditure was \$173 million
  - \$124 million capital expenditure for mineral sands includes execute spending on Balranald
  - \$49 million spending on Eneabba rare earths refinery. Discussions with the Australian Government on funding arrangements are ongoing
- Dividends received from Deterra Royalties were \$16 million
- As at 30 June 2024, net cash for the group was \$154 million

	MINERAL SANDS <sup>5</sup>		RARE EARTHS	
	H1 2023	H1 2024	H1 2023	H1 2024
<b>\$ million</b>				
Operating cash flow	228	189	n/a	n/a
Capital expenditure	55	124	53	49
Free cash flow	(15)	(14)	(53)	(49)
	<i>At 31 Dec 2023</i>	<i>At 30 Jun 2024</i>	<i>At 31 Dec 2023</i>	<i>At 30 Jun 2024</i>
Net cash (debt)	308	281	(83)	(127)

<sup>3</sup> Includes zircon attributable to external processing arrangements.

<sup>4</sup> Financials are preliminary and are subject to finalisation prior to Iluka's Half Year Results.

<sup>5</sup> Excludes Deterra.

### Zircon

Zircon sand sales in Q2 2024 were 59kt, up 23% from the relatively strong first quarter. Total zircon sales were 74kt, including 14kt of zircon-in-concentrate (ZIC).

The Chinese ceramics sector is still underperforming due to the subdued real estate market. In May, the Chinese Government announced US\$41 billion to fund loans for state-owned companies to start buying excess property for conversion to subsidised housing for low and middle income earners. While Iluka's customers regard this as a positive development, it will likely take some time for the policy to have a material impact on the ceramic industry. Iluka has taken deliberate steps to diversify the company's zircon sales base and this sector now accounts for less than 16% of the company's global zircon sand sales.

The fused zirconia market is stable, with a favourable level of demand for premium zircon sand. Foundries in China have started to recover momentum with new orders, and refractories remain stable. Zirconium chemicals and derivatives have experienced a modest increase in production, while exports for the sector remain at similar levels to 2023.

European zircon demand remains stable with tile manufacturers enjoying reduced energy prices and reduced competition from Southeast Asian and Turkish ceramic industries. US industrial activity is also stable, although some customers are expressing caution amid uncertainty over the future path of inflation and interest rates.

With the general election concluded, Indian customers expect the market to recover, with additional support from the government in the infrastructure and construction sectors. Indian tile companies have reported that orders from the US have halted after the announcement of the petition to impose an anti-dumping duty – they are now aggressively looking at other export markets.

Price competition is stronger for lower grade concentrate products than for high-quality separated zircon sand. The Q2 weighted average realised zircon sand price (premium and standard) was US\$1,907/t, up modestly from Q1.

Underlying demand in the second half is likely to vary by region and end-use, as customers remain alert to the evolving economic and political landscapes. Absent stimulus in key economies, Iluka expects the traditional seasonal weakness of Q4 to weigh on purchasing patterns in the second half. The company anticipates zircon prices to be broadly flat in Q3.

### Titanium Dioxide Feedstocks

Iluka's 49kt of synthetic rutile sales, including the ~10kt shipment that slipped from March to April, were in line with contractual agreements. Rutile sales volumes were 14kt (including HyTi).

Chinese exports of welding-grade rutile into a subdued market has put pressure on welding-grade rutile prices in Asia, though Iluka's sales volumes are not expected to be impacted. The Q2 rutile price was US\$1,690/t, reflecting mix and pricing outcomes.

Synthetic rutile prices averaged US\$1,194/t for the quarter, with the difference in price from Q1 mainly reflecting customer mix. Synthetic rutile sales volumes are second half weighted, with the contracted average sale price for H2 reduced by approximately US\$50/t compared to the weighted average H1 price of US\$1,232/t.

### Pigment Market Update

The titanium pigment industry accounts for ~90% of titanium feedstock demand. Demand for pigment remains above 2023 levels. After reporting improved seasonal demand in Q1, and with lead times for some pigment grades of 30-45 days, a number of producers pursued price increases.

Production issues at multiple facilities have created some uncertainty in North America and Europe.

- Chemours announced its Altamira plant (360ktpa capacity) was taken down for several weeks following a directive from the Mexican government due to the severe drought conditions in the region. The plant supplies over 50% of its production to Europe, with the other export markets Asia, and the US.
- INEOS' Ashtabula facility (~250ktpa capacity) was taken down for several weeks due to a fire at its recently acquired chlorine plant.
- Tronox's Stallingborough plant (~150ktpa capacity) was down for a number of weeks due to equipment issues.

There have also been a number of recent developments that have the potential to impact industry dynamics, with legacy, higher cost facilities closing and increased tariff protections evident.

Venator has permanently shut two sulphate pigment plants in Europe (Scarlino and Duisburg) due to high costs and poor financial performance, reducing titanium pigment capacity in the region by ~160ktpa. These shutdowns follow closure announcements from Kronos and Venator for the Leverkusen and Pori facilities respectively, which accounted for ~165ktpa of capacity. On 17 July, Kronos consolidated its ownership of the Louisiana Pigment Company (LPC) by acquiring the 50% previously held in a joint venture with Venator. LPC owns the Lake Charles chloride pigment plant, with capacity of 156ktpa.

Constrained production and industry consolidation has coincided with the European Commission's provisional ruling on anti-dumping duties, which was announced on 13 June. From this date, most Chinese titanium pigment imports into Europe will be charged a duty of 35-40%. This follows several months of investigations into claims of Chinese producers exporting low-priced pigment to Europe over several years, with annual volumes reaching ~300kt. Over time, the new duties have the potential to recalibrate buying in favour of European and North American products, helping to boost demand and pricing for these producers, which include Iluka's major customers. Some price increases have been announced in Europe for Q3.

## PROJECT UPDATES

Updates on selected projects for the quarter are detailed below.

### Execute



#### Eneabba, Western Australia

Iluka is building Australia's first fully integrated refinery for the production of separated rare earth oxides at Eneabba, Western Australia.<sup>6</sup>

This is taking place via a strategic partnership between Iluka and the Australian Government, including a \$1.25 billion non-recourse loan to Iluka under the Critical Minerals Facility administered by Export Finance Australia.

The focus in Q2 was the progression of major engineering packages, conclusion of camp accommodation works and preparation for commencing the next phase of site works.

The majority of long lead engineering packages have been awarded. Activity is progressing across all work packages at various stages of tendering, review and awarding. The upgrade of the water bore and pipework infrastructure is complete and detailed earthworks will start in August.

Capital guidance for the project is \$1.7-1.8 billion and discussions with government continue in relation to funding arrangements. A broader project update will be issued following the finalisation of funding arrangements.



#### Balranald, New South Wales

Balranald is a rutile-rich critical minerals development located in the Riverina district of south western New South Wales. Owing to its relative depth, Iluka is developing Balranald via a novel, internally developed, remotely operated underground mining technology.

A final investment decision was approved in February 2023.

Engineering is approaching completion and the majority of long lead equipment has been ordered. Construction of the site access road is expected to complete in Q3 and the construction camp is operational. Site earthworks have commenced at the wet concentrator location and future accommodation village. Off-site construction of the concentrator is ~50% complete and assembly of the mining rigs nearing completion in advance of off-site testing.

The project remains on track for commissioning in H2 2025.

<sup>6</sup> For further information refer Iluka ASX release, *Eneabba Rare Earths Refinery – Final Investment Decision*, 3 April 2022.

### Wimmera, Victoria



The Wimmera development involves the mining and beneficiation of a fine grained heavy mineral sands ore body in Western Victoria for the potential long term supply of rare earths and zircon.

A preliminary feasibility study (PFS) was completed in early 2023 and Iluka's Board approved \$30 million funding for a DFS in February 2023. This was accompanied by the declaration of an Ore Reserve for the WIM 100 deposit in respect of the rare earths (zircon revenue not yet accounted for in Wimmera's Ore Reserve.)

The field development programme that commenced in Q1 was completed in Q2. The programme included additional resource drilling, geotechnical test pits, cultural heritage test pits and further hydrogeological investigations.

Environmental approvals processes are progressing, alongside process engineering and mine design.

For more detail on these and other projects, refer to: [iluka.com/operations-resource-development/resource-development](https://iluka.com/operations-resource-development/resource-development)

## EXPLORATION

Expenditure on exploration and evaluation in Q2 2024 was \$3.4 million. Drilling completed during the quarter utilised a combination of air core and sonic techniques.

In Australia, 21,566 metres of drilling was completed, comprising resource evaluation activities in the Murray Basin, at Jacinth-Ambrosia and Cataby. Exploration drilling was also undertaken in south west New South Wales.

In the US, drilling activities continued in South Carolina, with focus on discovering high value heavy mineral mineralisation in ancient coastal marine settings. Land access progressed in advance of this and will continue into Q3.

Target generation work has continued in Australia and the US in line with Iluka's exploration strategy, with plans to further test specific targets. Iluka applied for new tenure over additional prospective regions in Australia. Exploration on these properties will commence subject to necessary approvals. The company continues to review rare earths exploration opportunities, including those presented by third parties.

This document was approved and authorised for release to the market by Iluka's Managing Director.

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## APPENDIX 1 – MINING AND PRODUCTION PHYSICAL DATA

Physicals Data 6 months to June 2024	Jacinth-Ambrosia / Mid west	Cataby / South west	Group Total
<b>Mining</b>			
Overburden Moved kbcm	2,311	8,328	10,639
Ore Mined kt	4,779	4,669	9,448
Ore Fed/Treated kt	4,779	4,715	9,494
Ore Treated Grade HM %	3.3%	7.8%	5.5%
VHM Treated Grade %	3.1%	6.6%	4.8%
<b>Concentrating</b>			
HMC Produced kt	145	366	510
VHM Produced kt	132	291	423
VHM in HMC Assemblage %	91.2%	79.5%	82.9%
Zircon	64.0%	9.9%	25.3%
Rutile	9.4%	5.7%	6.8%
Ilmenite	17.8%	63.9%	50.8%
HMC Processsed kt	118	206	324
<b>Finished Product<sup>7</sup> kt</b>			
Zircon	64	34	98
Rutile	7	28	36
Ilmenite (saleable/upgradeable)	23	168	191
Synthetic Rutile	-	95	95

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Physicals Data  
3 months to 30 June 2024

Jacinth-Ambrosia /  
Mid west

Cataby /  
South west

Group Total

**Mining**

Overburden Moved kbcm	1,151	3,586	4,737
Ore Mined kt	2,275	1,990	4,265
Ore Fed/Treated kt	2,275	2,112	4,387
Ore Treated Grade HM %	3.8%	9.4%	6.5%
VHM Treated Grade %	3.6%	7.8%	5.6%

**Concentrating**

HMC Produced kt	80	195	276
VHM Produced kt	73	154	227
VHM in HMC Assemblage %	91.0%	78.9%	82.5%
Zircon	67.5%	9.2%	26.2%
Rutile	9.0%	5.5%	6.6%
Ilmenite	14.5%	64.2%	49.7%

HMC Processed kt

67 150 217

**Finished Product<sup>8</sup> kt**

Zircon	36	25	61
Rutile	3	21	23
Ilmenite (saleable/upgradeable)	11	111	122
Synthetic Rutile	-	58	58

**Explanatory comments on terminology**

**Overburden moved** (bank cubic metres) refers to material moved to enable mining of an ore body.

**Ore mined** (thousands of tonnes) refers to material moved containing heavy mineral ore. For Cataby/ South West this refers to ore treated.

**Ore Fed/Treated (thousands of tonnes)** refers material processed through the mining units for Cataby/ South West.

**Ore Treated Grade HM %** refers to percentage of heavy mineral (HM).

**VHM Treated Grade %** refers to percentage of valuable heavy mineral (VHM) - titanium dioxide (rutile and ilmenite), and zircon found in a deposit.

**Concentrating** refers to the production of heavy mineral concentrate (HMC) through a wet concentrating process at the mine site, which is then transported for final processing into finished product at the company's Australian mineral processing plant.

**HMC produced** refers to HMC, which includes the valuable heavy mineral concentrate (zircon, rutile, ilmenite) as well as other non-valuable heavy minerals (gangue).

**VHM produced** refers to an estimate of valuable heavy mineral in heavy mineral concentrate expected to be processed.

**VHM produced and the VHM assemblage** - provided to enable an indication of the valuable heavy mineral component in HMC.

**HMC processed** provides an indication of material emanating from each mining operation to be processed.

**Finished product** is provided as an indication of the finished production (zircon, rutile, ilmenite) attributable to the VHM in HMC production streams from the various mining operations. Finished product levels are subject to recovery factors which can vary. The difference between the VHM produced and finished product reflects the recovery level by operation, as well as processing of finished material/concentrate in inventory. Ultimate finished product production (rutile, ilmenite, and zircon) is subject to recovery loss at the processing stage – this may be in the order of 10 per cent.

**Ilmenite** is produced for sale or as a feedstock for synthetic rutile production.

Typically, 1 tonne of upgradeable ilmenite will produce between 0.56 to 0.60 tonnes of SR. Iluka also purchases external ilmenite for its synthetic rutile production process.

<sup>8</sup> Finished product includes material from heavy mineral concentrate (HMC) initially processed in prior periods.

## APPENDIX 2 – WEIGHTED AVERAGE RECEIVED PRICES

The following table provides weighted average received prices for Iluka’s main products. Iluka’s Annual Report, available at [www.iluka.com](http://www.iluka.com) contains further historical mineral sands price information.

	FY 23	Q4 23	Q1 24	Q2 24	H1 24
<i>US\$/tonne FOB</i>					
Zircon premium and standard	2,066	2,045 <sup>1</sup>	1,873	1,907	1,892
Zircon (all products, including zircon in concentrate) <sup>2</sup>	1,849	1,658	1,753	1,801	1,780
Rutile (excluding HYTI) <sup>3,4</sup>	1,887	1,871	1,828	1,690	1,747
Synthetic rutile	1,258	1,241	1,282	1,194	1,232

Notes:

1. The weighted average realised price in Q4 2023 benefitted from a reversal of accruals of US\$120/t.
2. Zircon prices reflect the weighted average price for zircon premium, zircon standard and zircon-in-concentrate. The prices for each product vary considerably, as does the mix of such products sold period to period.
3. Rutile prices will vary quarter-on-quarter depending on the end market to which the product is supplied (e.g. pigment or welding). Post the demerger of Sierra Rutile Limited in H2 2022, rutile sales are a smaller contributor to Iluka’s revenue.
4. HYTI is a lower value titanium dioxide product that typically has a titanium dioxide content of 70 to 90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%.

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APPENDIX 3 – PRODUCTION SUMMARIES



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