

QUARTERLY REVIEW TO 31 MARCH 2022

27 April 2022

KEY FEATURES

- Zircon/Rutile/Synthetic Rutile (Z/R/SR) production of 180kt, up 44% on Q1 2021
 - Zircon production of 76kt, up 9%, with higher zircon production from Cataby
 - Rutile production of 49kt, up 37%, with higher production from Sierra Rutile
 - Synthetic rutile production of 54kt, up 186%, with SR2 continuing to operate at full capacity
- Strong Z/R/SR sales of 189kt, in line with Q4 2021, in what is typically a seasonally slower first quarter
 - Zircon sales of 84kt, with all of Iluka's Q2 2022 sales fully contracted
 - Rutile sales of 59kt and synthetic rutile sales of 47kt, with Iluka's high grade feedstocks fully committed for H1 2022
- Zircon sand prices increased US\$100/t, effective 1 April 2022
- Spot prices for rutile and synthetic rutile are both at ten year highs
- Rare earths (Eneabba development)
 - Phase 1 – complete
 - Phase 2 – site works continuing, on track for completion in Q2 2022. Phase 2 concentrate to serve as initial feed source for Phase 3
 - Phase 3 – final investment decision taken following completion of feasibility study and agreement of risk sharing arrangement with the Australian Government; first production from refinery expected in 2025

PHYSICAL AND FINANCIAL SUMMARY	Q1 21	Q4 21	Q1 22	Q1 22 vs Q4 21	Q1 22 vs Q1 21
				%	%
PRODUCTION kt					
Zircon	70.1	93.6	76.3	(18.5)	8.8
Rutile ¹	36.2	65.1	49.4	(24.1)	36.5
Synthetic Rutile	19.0	60.0	54.3	(9.5)	185.8
Z/R/SR Production	125.3	218.7	180.0	(17.7)	43.7
Ilmenite	75.3	163.3	118.3	(27.6)	57.1
Monazite concentrate	16.2	19.3	-	(100.0)	(100.0)
SALES kt					
Zircon	86.5	88.8	83.7	(5.7)	(3.2)
Rutile ¹	53.5	65.3	58.6	(10.3)	9.5
Synthetic Rutile	75.5	38.2	46.5	21.7	(38.4)
Z/R/SR sales	215.5	192.3	188.8	(1.8)	(12.4)
Ilmenite	49.5	28.7	46.9	63.4	(5.3)
Monazite concentrate	10.5	31.2	-	(100.0)	(100.0)
REVENUE A\$ million					
Z/R/SR revenue	320.1	330.1	383.6	16.2	19.8
Ilmenite and other revenue	24.4	28.2	30.4	7.8	24.6
Mineral Sands Revenue	344.5	358.3	414.0	15.5	20.2
Average AUD:USD cents	77.3	72.9	72.4	(0.6)	(6.3)

¹ 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%.

Australian Operations

Australian operations performed in line with expectations.

Jacinth-Ambrosia in South Australia produced 71 thousand tonnes of heavy mineral concentrate (HMC), up 11% compared to Q4 2021. Higher production was due to the mining of higher grade ore and higher treatment volumes. Jacinth-Ambrosia continues to operate at full production settings, with mining to continue at the Jacinth North deposit before moving to Ambrosia in August 2022.

Cataby in Western Australia produced 117 thousand tonnes of HMC, in line with the mine plan.

The Narngulu mineral separation plant in Western Australia produced 76 thousand tonnes of zircon, reflecting lower zircon assemblage within the HMC processed.

Synthetic Rutile Kiln 2 in Western Australia continued to operate at full capacity, producing 54 thousand tonnes of synthetic rutile.

Sierra Leone Operations

Mining at Sierra Rutile produced 98 thousand tonnes of HMC, up 14% on Q4 2021.

Sierra Rutile produced 35 thousand tonnes of rutile, with higher recovery rates maintained throughout the quarter.

Sierra Rutile continues to demonstrate improved mining and processing performance.

Previously announced amendments to Sierra Rutile's fiscal regime are likely to extend the life of existing operations at the Area 1 deposits, where mining continues. An update to the Area 1 operational plan is expected in Q2 2022.

On 13 April 2022, Iluka announced its intention to demerge Sierra Rutile, subject to shareholder and other approvals.²

If the demerger proceeds, Sierra Rutile will be established as an ASX listed, West African focused mineral sands company. It will have the primary objective of maximising value from Sierra Rutile's remaining deposits at Area 1 and developing the globally significant Sembahun project (see page 5).

MINERAL SANDS PRODUCTION	Q1 21		Q4 21		Q1 22 vs Q4 21	
	kt	kt	kt	%	%	
ZIRCON³						
Jacinth-Ambrosia / Mid west WA	70.1	62.7	64.3	2.6	(8.3)	
Cataby/South west WA	-	26.8	12.0	(55.2)	n/a	
Sierra Leone	-	4.1	-	(100.0)	n/a	
Total Zircon	70.1	93.6	76.3	(18.5)	8.8	
RUTILE						
Jacinth-Ambrosia / Mid west WA	10.4	5.0	6.4	28.0	(38.5)	
Cataby/South west WA	-	22.8	7.6	(66.7)	n/a	
Sierra Leone	25.8	37.3	35.4	(5.1)	37.2	
Total Rutile	36.2	65.1	49.4	(24.1)	36.5	
Synthetic Rutile (WA)	19.0	60.0	54.3	(9.5)	185.8	
TOTAL Z/R/SR	125.3	218.7	180.0	(17.7)	43.7	
ILMENITE						
Jacinth-Ambrosia / Mid west WA	38.1	27.8	39.1	40.6	2.6	
Cataby/South west WA	26.7	119.5	64.3	(46.2)	140.8	
Sierra Leone	10.5	16.0	14.9	(6.9)	41.9	
Total Ilmenite	75.3	163.3	118.3	(27.6)	57.1	
MONAZITE						
Jacinth Ambrosia / Mid west WA	16.2	19.3	-	(100.0)	(100.0)	

² For further information, refer Iluka ASX release 'Intention to demerge Sierra Rutile', 13 April 2022.

³ Iluka's zircon production figures include volumes of zircon attributable to external processing arrangements.

Despite uncertainties created by the conflict in Ukraine and China's response to outbreaks of COVID, demand for Iluka's suite of products remains very strong.

Zircon

Iluka continued to experience strong demand for its zircon products, with sales of 84 thousand tonnes, including 27 thousand tonnes of zircon-in-concentrate.

China's production of tiles increased after the Chinese New Year despite raw material and energy inflationary pressures. Towards the end of the quarter, supply chain disruptions resulting from recent COVID outbreaks began to impact industrial productivity.

In Europe, elevated gas prices have forced some smaller tile and frit makers to reduce production. Larger companies with the ability to pass cost increases through to customers have maintained production levels.

In what are smaller markets, Iluka's customers in India reported production was maintained at approximately 80% of capacity despite higher raw material prices, with some producers benefitting from lower fixed gas prices. In North America, demand for zircon from the foundry and fused zirconia sectors continues to be strong.

Iluka has increased the price of zircon sand by US\$100 per tonne, effective from 1 April 2022. The company's Q2 2022 zircon sales are fully contracted, reflecting tight supply despite a number of challenges facing the market.

Titanium Dioxide Feedstocks

Pigment demand was robust in Q1 2022 as pigment inventories remain below seasonal norms. Pigment pricing increased in Q1 2022, with pigment producers focused on maintaining margins in the face of rising input costs including energy, process chemicals, feedstocks and logistics.

The war in Ukraine has caused disruptions throughout the titanium feedstock and titanium finished goods supply chains, with bulk exports of ilmenite for pigment manufacture and rutile used in welding consumables significantly impacted. Ukrainian producers in aggregate comprise the largest source of rutile to the global welding market. The production and export of titanium metal has also been impacted. A continuation of disruption to mining and processing of titanium feedstock and finished goods will further constrain supply into what is already a tight market.

Sales for the quarter of 105 thousand tonnes (rutile and synthetic rutile) were constrained by production. Demand for synthetic rutile is very strong with Iluka's feedstock production fully committed for H1 2022. Iluka is encouraged by the interest from both existing and new customers to secure offtake from the SR1 kiln restart.

Spot prices for rutile and synthetic rutile are both at ten year highs.

Updates on selected projects for the March quarter are detailed below.



Eneabba, Western Australia

On 3 April 2022, Iluka announced its final investment decision for Eneabba Phase 3, a fully integrated refinery for the production of separated rare earth oxides at Eneabba, Western Australia.⁴

This decision was taken following the agreement of a risk sharing arrangement with the Australian Government, including a \$1.25 billion non-recourse loan under the \$2 billion Critical Minerals Facility administered by Export Finance Australia.

Eneabba Phase 3 has been designed to be a multi-generational asset for the downstream processing of Australia's rare earth resources. The refinery will be fed initially by Iluka's unique Eneabba rare earths stockpile, which has an indicative life of nine years.

In addition to the Eneabba stockpile, Phase 3 has been designed specifically with the capability to process a broad range of rare earth feedstocks. Potential future sources of feedstock include Iluka's Wimmera (see below) and other deposits; and a range of third parties.

Phase 3 will produce the high value rare earth oxides neodymium, praseodymium, dysprosium and terbium. These are critical inputs across a range of industries and technologies including electric vehicles, sustainable energy, advanced electronics, medical and defence applications. The refinery will have a total rare earth oxide capacity of 17.5 thousand tonnes per annum.⁴ Construction is scheduled to commence in H2 2022, with first production in 2025.

Iluka's risk sharing arrangement with the Australian Government reflects the company's unique stockpile contribution; Phase 3's strong alignment with the Commonwealth's Critical Minerals Strategy; and significance as Australia's first fully integrated rare earths refinery.



Balranald, New South Wales

Balranald is a rutile-rich deposit in the northern Murray Basin, New South Wales. Owing to its relative depth, Iluka is assessing the potential to develop the deposit via a novel, internally developed, underground mining technology. The definitive feasibility study for Balranald, approved in August 2021 and scheduled for completion in Q4 2022, continues to track in accordance with the study execution plan. Iluka remains encouraged by progress across the various work packages.



Wimmera, Victoria

The Wimmera project involves the mining and beneficiation of a fine grained heavy mineral sands ore body in the Victorian Murray Basin for the potential long term supply of zircon and rare earths. One characteristic shared by the fine grained mineral sands deposits located in Western Victoria (those held by Iluka and other project proponents) is higher levels of impurities in their zircon. Absent a processing solution to remove these impurities, the zircon is ineligible for sale into the ceramics market. Study work for Wimmera is focussed on validating Iluka's zircon processing solution and on progressing baseline environmental studies. Testing results on the processing solution continue to be pleasing. Equipment to pilot this solution on a larger scale was commissioned in Q4 2021. Purified zircon has been recovered, with favourable ceramic properties. Test work to determine the ideal process conditions and scale up design criteria, which will ultimately inform economic feasibility, is underway and will continue through 2022, with the aim of completing the PFS in late 2022. The rare earth bearing minerals within the Wimmera deposits are very similar to Iluka's Eneabba stockpile, though with more xenotime (which contains higher levels of dysprosium and terbium), and are a potential future source of feedstock for the Eneabba Phase 3 refinery.



Synthetic Rutile Kiln 1 Restart, Western Australia

SR1 is located at Capel, Western Australia, on the same site as SR2. SR1 was placed on care and maintenance in 2009. The restart of SR1 represents a low capital expenditure, low risk opportunity to produce an additional 110ktpa of synthetic rutile, in light of industry supply constraints. Iluka announced the execution of SR1's restart in August 2021. Site refurbishment activities are proceeding in line with the schedule. Start-up remains on track for Q4 2022.

⁴ For further information refer Iluka ASX release 'Eneabba Rare Earths Refinery – Final Investment Decision', 3 April 2022.



Sembahun, Sierra Leone

The Sembahun group of deposits is situated 20 to 30 kilometres north-west of the existing Sierra Rutile operations. Sembahun is one of the largest and highest quality known rutile deposits in the world. The pre-feasibility study for Sembahun is progressing and due for completion by mid 2022.

Iluka has announced its intention to demerge Sierra Rutile, subject to shareholder and other approvals.

If the demerger proceeds, Sierra Rutile will be established as an ASX listed, West African focused mineral sands company. It will have the primary objective of maximising value from Sierra Rutile's remaining deposits at Area 1 and developing the globally significant Sembahun project.

For more detail on projects please refer to Iluka's website iluka.com/operations-resource-development/resource-development

EXPLORATION

Expenditure on exploration and evaluation in Q1 2022 was \$2.2 million compared with \$2.4 million in Q1 2021.

Drilling activities completed within Australia focussed on ore definition at Cataby and resource evaluation work for the Atacama, Wimmera and Balranald projects. A total of 6,093m of air core drilling was completed during the quarter.

Target identification work, field trips, drilling and evaluation of assay results continued within Australia and the United States in line with Iluka's exploration strategy, with activities focused on identifying both mineral sands and rare earths exploration targets. A number of field reconnaissance trips have been completed. Progression of these targets are dependent upon evaluation of assay results, which are expected in late Q2 2022.

In the US, drill testing is planned to commence late in H1 2022 on new targets identified on the eastern seaboard. Results from drill testing completed in Q4 2021 in central USA were received during the quarter, follow up drilling is expected to be completed in H2 2022.

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

Physical Data 3 Months to 31 March 2022	Jacinth- Ambrosia / Mid west	Cataby / South west	Australia Total	Sierra Leone	Group Total
Mining					
Overburden Moved kbcm	955	3,332	4,287	425	4,712
Ore Mined kt	2,532	2,283	4,815	2,793	7,608
Ore Fed/Treated kt	2,443	2,342	4,785	2,721	7,506
Ore Treated Grade HM %	3.3%	5.5%	4.4%	3.2%	3.9%
VHM Treated Grade %	3.0%	4.7%	3.9%	2.6%	3.4%
Concentrating					
HMC Produced kt	70.9	117.2	188.1	97.5	285.6
VHM Produced kt	63.4	104.2	167.6	67.3	234.9
VHM in HMC Assemblage %	89.4%	88.9%	89.1%	69.0%	82.2%
Zircon	42.7%	12.3%	23.8%	4.2%	17.1%
Rutile	8.8%	6.7%	7.5%	45.0%	20.3%
Ilmenite	37.8%	69.9%	57.8%	19.8%	44.8%
HMC Processed kt	119.0	103.8	222.7	88.1	310.8
Finished Product⁵ kt					
Zircon	64.3	12.0	76.3	-	76.3
Rutile	6.4	7.6	14.0	35.4	49.4
Ilmenite (saleable/upgradeable)	39.1	64.3	103.4	14.9	118.3
Synthetic Rutile kt	-	54.3	54.3	-	54.3
Monazite concentrate kt	-	-	-	-	-

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 and Sierra Leone.

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, or the Sierra Leone 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.

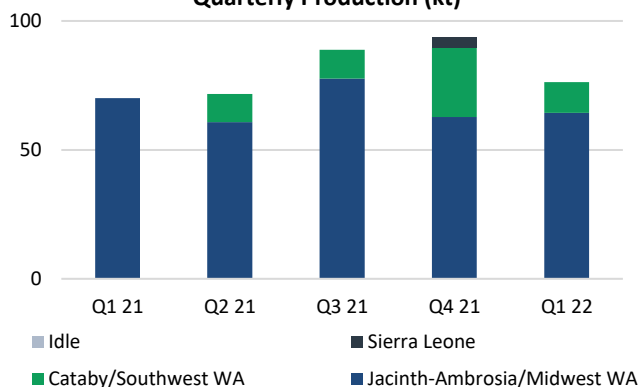
⁵ Finished product includes material from heavy mineral concentrate (HMC) initially processed in prior periods.



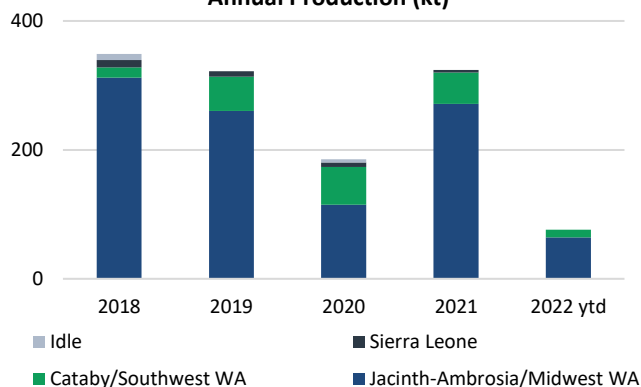
APPENDIX 2 – PRODUCTION SUMMARIES

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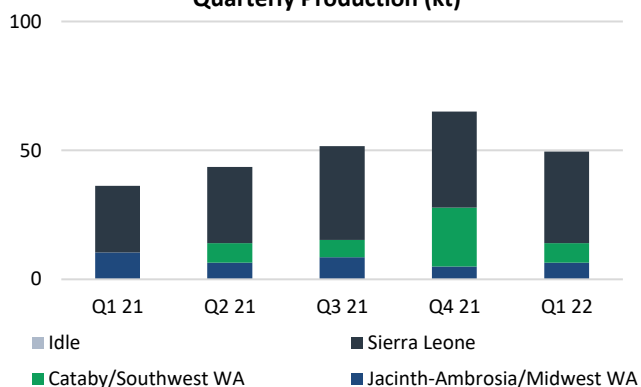
**Zircon
Quarterly Production (kt)**



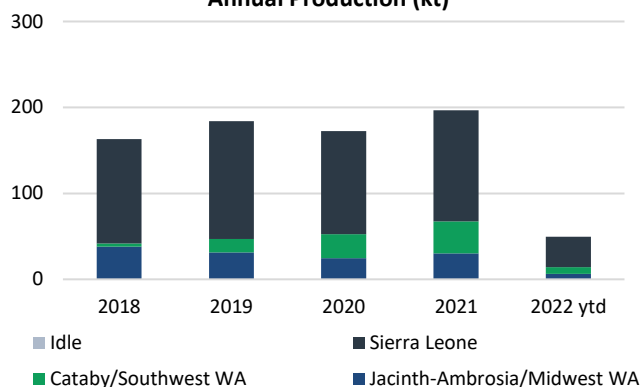
**Zircon
Annual Production (kt)**



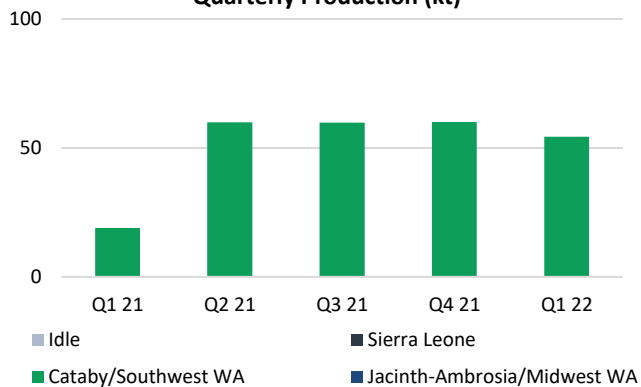
**Rutile
Quarterly Production (kt)**



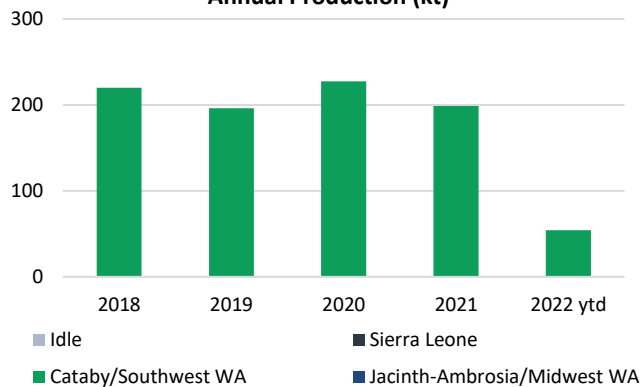
**Rutile
Annual Production (kt)**



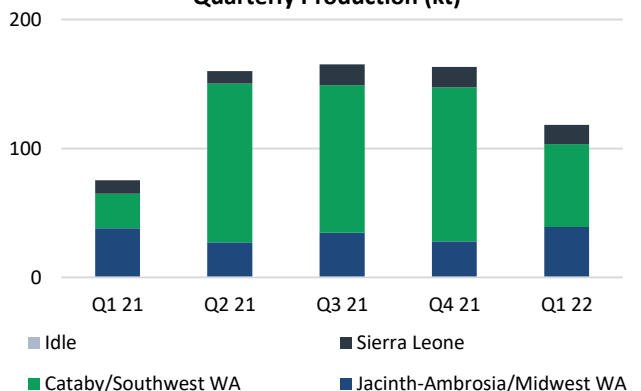
**Synthetic Rutile
Quarterly Production (kt)**



**Synthetic Rutile
Annual Production (kt)**



**Ilmenite
Quarterly Production (kt)**



**Ilmenite
Annual Production (kt)**

