ILUKA RESOURCES LIMITED (ASX:ILU)

AUSTRALIAN SECURITIES EXCHANGE NOTICE



QUARTERLY REVIEW TO 30 JUNE 2022

20 July 2022

KEY FEATURES

- Zircon/Rutile/Synthetic Rutile (Z/R/SR) production of 189kt, up 5% from Q1 2022
 - zircon production of 80kt, up 5%
 - rutile production of 48kt, down 2%
 - synthetic rutile production of 60kt, up 11%
- H1 2022 Z/R/SR sales of 421kt exceeded production and further reduced Z/R/SR inventory holding levels by 53kt, resulting in minimal finished goods inventory levels at 30 June 2022
- Weighted average zircon price achieved in Q2 2022 for premium and standard sand was US\$1,910 per tonne, up 25% from H2 2021
- H1 rutile price up 17% to US\$1,506 per tonne
- Weighted average prices for zircon sand increased by approximately US\$140 per tonne, effective 1 July, and all of Iluka's Q3 2022 zircon sales are fully contracted
- Only minimal spot volumes of high grade feedstocks available in H2 2022, with pricing expected to increase
- Rare earths (Eneabba development)
 - EPCM contract awarded to Fluor
- Cash production costs are trending ahead of guidance, impacted predominantly by higher fuel, consumable and labour costs
 - Full year guidance on cash costs of production for the group is expected to increase by \$55 million from \$660 million, with ~65% of the increase attributable to higher fuel costs
 - This cost guidance includes a full year of costs for Sierra Rutile
- Net cash at 30 June was \$600 million, reflecting free cash flow of \$349 million and capital expenditure of \$71 million
 - Iluka will contribute US\$45 million to a rehabilitation trust for Sierra Rutile as part of the proposed demerger

PHYSICAL AND	Q2 21	Q1 22	Q2 22	H1 21	H1 22	H1 22 vs
FINANCIAL SUMMARY	Q=	Q1	Q			H1 21
						0/
PRODUCTION						%
kt						
Zircon	71.8	76.3	80.4	141.9	156.7	10.4
Rutile ¹	43.6	49.4	48.3	79.9	97.7	22.3
Synthetic Rutile	59.9	54.3	60.1	78.9	114.4	45.0
Z/R/SR Production	175.3	180.0	188.8	300.7	368.8	22.6
Ilmenite	160.0	118.3	170.7	235.3	289.0	22.8
Monazite concentrate	10.0	-	-	26.2	-	n/a
SALES kt						
Zircon	90.8	83.7	106.8	177.2	190.5	7.5
Rutile ¹	35.6	58.6	36.6	89.0	95.2	7.0
Synthetic Rutile	115.9	46.5	89.2	191.4	135.7	(29.1)
Z/R/SR sales	242.3	188.8	232.6	457.6	421.4	(7.9)
Ilmenite	80.9	46.9	90.6	130.4	137.5	5.4
Monazite concentrate	10.2	-	-	20.7	-	n/a
REVENUE & CASH \$ million	COSTS					
Z/R/SR revenue	359.9	383.6	491.5	680.0	875.1	28.7
Ilmenite and other revenue	31.2	30.4	49.4	55.6	79.8	43.5
Mineral Sands Revenue	391.1	414.0	540.9	735.6	954.9	29.8
Production cash costs of Z/R/SR				242.2	344.1	42.1
Ilmenite concentrate & by product costs				11.4	7.9	(30.7)
Total cash costs of production				253.6	352.0	38.8
\$ per tonne						
Unit cash						
production costs Z/R/SR produced				805	933	15.8
Unit cost of goods sold				915	995	8.8
Z/R/SR sold				313	333	0.0
Revenue Z/R/SR sold	1,485	2,032	2,113	1,486	2,077	39.7
,,						
AUD:USD cents	77.0	72.4	71.5	77.2	72.0	(6.7)

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

Mining at Jacinth-Ambrosia in South Australia, produced 66 thousand tonnes of heavy mineral concentrate (HMC), down from 71 thousand tonnes in Q1. Lower HMC production was the result of lower ore treatment volumes and ore grade. Mining at Jacinth-Ambrosia continues to operate at full production settings, with mining to continue at the Jacinth North deposit before moving to the Ambrosia deposit in September 2022.

In Western Australia, the Cataby operation produced 124 thousand tonnes of HMC, up from 117 thousand tonnes in the previous quarter. Higher HMC production was a result of higher ore grade and recovery.

The Narngulu mineral separation plant (MSP) processed both Cataby and Jacinth-Ambrosia HMC, producing 76 thousand tonnes of zircon, in line with the previous quarter; and 10 thousand tonnes of rutile.

Production of synthetic rutile from SR2 at Capel was 60 thousand tonnes, up from 54 thousand tonnes in the previous quarter, with SR2 running at full capacity.

Sierra Leone Operations

HMC production was 77 thousand tonnes, compared to Q1 production of 98 thousand tonnes. Lower HMC production was due to 18 days downtime associated with the relocation of two scrubbers and two mining units.

Rutile production of 39 thousand tonnes was up 9% compared to Q1 due to higher rutile assemblage within the HMC treated and higher recovery.

On 20 June, Iluka released the Demerger Booklet for the company's previously announced proposal to demerge Sierra Rutile. If approved, the demerger will result in Sierra Rutile becoming an independent ASX listed company. The Extraordinary General Meeting will be held on 22 July 2022.

Delayed capital expenditure in Q2 contributed to Sierra Rutile having net cash at 30 June of US\$58 million and free cash flow for the half year of US\$33 million. As disclosed in the Demerger Booklet, Sierra Rutile will settle an intercompany payable to Iluka of approximately US\$16 million prior to the demerger, reducing available cash by this amount.

Additionally, Iluka will contribute US\$45 million cash to a rehabilitation trust for Sierra Rutile as part of the proposed demerger.

MINERAL SANDS PRODUCTION	Q2 21	Q1 22	Q2 22	H1 21	H1 22	H1 22 vs H1 21
ZIRCON ²	kt	kt	kt	kt	kt	%
Jacinth-Ambrosia/ Mid west WA	60.9	64.3	66.6	131.0	131.0	-
Cataby/South west WA	10.9	12.0	9.8	10.9	21.7	99.1
Sierra Leone Total Zircon	71.8	76.3	4.0 80.4	141.9	4.0 156.7	n/a 10.4
RUTILE			_			
Jacinth-Ambrosia/ Mid west WA	6.4	6.4	4.6	16.8	10.9	(35.1)
Cataby/South west WA	7.6	7.6	5.1	7.6	12.7	67.1
Sierra Leone Total Rutile	29.6 43.6	35.4 49.4	38.6 48.3	55.5 79.9	74.1 97.7	33.5 22.3
rotur nathe	43.0	43.4	40.3	73.3	37.7	
Synthetic Rutile (WA)	59.9	54.3	60.1	78.9	114.4	45.0
TOTAL Z/R/SR	175.3	180.0	188.8	300.7	368.8	22.6
ILMENITE						
Jacinth-Ambrosia/ Mid west WA	27.1	39.1	36.2	65.2	75.3	15.5
Cataby/South west WA	123.2	64.3	119.4	149.9	183.7	22.5
Sierra Leone Total Ilmenite	9.7 160.0	14.9	15.1 170.7	20.2	30.0	48.5
rotal limenite	160.0	118.3	170.7	235.3	289.0	22.8
MONAZITE						
Jacinth Ambrosia/ Mid west WA	10.0	-	-	26.2	-	n/a

SRL SUMMARY	H1 21	H1 22	H1 22 vs	
SKL SUIVIIVIAKT	HI 21	HT 22	H1 21	
REVENUE & CASH COSTS				
US\$ million			%	
Revenue	68.5	119.6	74.6	
Production cash costs of Z/R/SR	64.2	77.0	19.9	
Total cash costs	74.2	80.7	8.8	
US\$ per tonne				
Unit cash production costs Z/R/SR produced	1,156	985	(14.8)	
Unit cost of goods sold Z/R/SR sold	1,362	1,067	(21.7)	

² Iluka's zircon production figures include volumes of zircon attributable to external processing arrangements.

Although a challenging and uncertain macro environment, demand for Iluka's suite of products remains very strong and global supply very tight.

Zircon

Demand for zircon remained strong in H1 2022 with sales of 191 thousand tonnes, including zircon in concentrate (ZIC).

Chinese tile production was impacted by COVID-19 restrictions. A number of tile producers are cautious about working with real estate developers, impacting demand for ceramics. The Chinese Government is responding by implementing measures to stimulate the property sector. Refractory producers have secured H2 orders; and demand for foundry continues to be strong. Despite several headwinds, the supply of premium zircon in China continues to be tight.

Tile production in Europe remained strong despite rising energy, transportation and raw material costs. In Spain, frits and glaze producers ran their operations at full capacity during the quarter. Demand for abrasives and refractories is robust, with a backlog of orders until the end of 2022.

In Brazil and Mexico, demand for zircon from the ceramics industry continues to be strong, while in the US, demand for foundry and fused zirconia remains high.

The weighted average prices for zircon sand increased by approximately US\$140 per tonne, effective 1 July, and all of Iluka's Q3 2022 zircon sales are fully contracted.

Titanium Dioxide Feedstocks

Demand for titanium dioxide feedstocks remained strong in H1 2022 with sales of 231 thousand tonnes.

North American demand remains strong, with continued supply chain constraints on paints, coatings and plastics, due to a strong backlog in construction and remodelling projects.

Pigment inventories remain below seasonal norms with extended lead times and sporadic unplanned maintenance outages impacting supply. The war in Ukraine continues to restrict supply of ilmenite and rutile, increasing demand for feedstocks from Western producers such as Iluka.

There is continued interest from multiple customers seeking access to the minimal spot volumes available beyond committed tonnages in the second half. Pricing in H2 2022 is expected to increase.

Interest in synthetic rutile remains very high for the upcoming restart of the SR1 kiln.

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



Eneabba Rare Earth Refinery, 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.³

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.

On 22 June Iluka announced it had awarded Fluor Australia the contract to provide Engineering, Procurement and Construction Management (EPCM) services to the project. Key Iluka personnel are now embedded in the Fluor team and Front End Engineering Design (FEED) is progressing.

Tendering for ground preparation (a precursor to commencement of site civil works) and construction of the new camp is underway.

Execution of Phase 2 (the production of a 90% monazite concentrate and a zircon-ilmenite concentrate) has progressed through mineral commissioning, with first production of on-specification monazite concentrate, at design recoveries, achieved in June.



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. Balranald's Definitive Feasibility Study (DFS) funding was approved by Iluka's Board in August 2021. The DFS continues to advance, with engineering and estimating materially complete. A final investment decision is planned for Q4 2022, subject to satisfactory study outcomes and Iluka Board approval.



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 is now focussed on defining the engineering parameters for process design criteria. Equipment vendor enquiries and waste management studies are underway. Equipment to pilot this solution on a larger scale was commissioned in Q4 2021, with additional equipment ordered to improve the accuracy of operating and design parameters. Test work to determine the ideal process conditions and scale up design criteria, which will ultimately inform economic feasibility, 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 Rare Earth 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 continue to advance in line with the execution plan and start-up remains on track for Q4 2022. The company has received significant interest from both existing and new customers regarding offtake of synthetic rutile from SR1.

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



Sembehun, Sierra Leone

The Sembehun group of deposits are situated approximately 30 kilometres north-west of the existing Sierra Rutile operations. Sembehun is one of the largest and highest quality known rutile deposits in the world. In June Iluka released the demerger booklet for the proposed demerger of Sierra Rutile, which sets out key information from the PFS for Sembehun. The PFS was completed by Hatch, with a recommendation that a DFS be commenced by Q3 2022. The DFS is expected to take approximately 12 months to complete.

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 Q2 2022 was \$2.4 million compared with \$2.1 million in Q2 2021. H1 2022 expenditure was \$4.6 million compared to \$4.5 million in H1 2021.

Drilling activities completed within Australia focussed on Resource definition at Cataby and Resource evaluation work at Atacama and Wimmera. A total of 25,925m of air core drilling was completed during the quarter.

In Australia, near mine and greenfield exploration target testing is expected to commence in Q3 2022 following new tenement grants. In the US, drill testing of greenfield targets is scheduled to commence in Q3 2022.

Target generation has continued within Australia and the United States in line with Iluka's exploration strategy, focused on identifying both mineral sands and rare earths exploration targets.

OTHER UPDATES

2022 Half Year Results

Iluka is scheduled to release its 2022 half year results on 24 August 2022.

A teleconference will be hosted on the day. Dial in details will be released closer to the date.

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 6 months to June 22	Jacinth- Ambrosia/ Mid west	Cataby/ South west	Australia Total	Sierra Leone	Group Total
Mining					
Overburden Moved kbcm	1,901	5,336	7,237	860	8,097
Ore Mined kt	4,936	4,530	9,466	5,191	14,657
Ore Fed/Treated kt	4,840	4,659	9,499	4,947	14,446
Ore Treated Grade HM %	3.2%	5.6%	4.4%	3.1%	4.0%
VHM Treated Grade %	2.9%	4.8%	3.9%	2.6%	3.4%
Concentrating					
HMC Produced kt	136.5	247.6	384.1	175.0	559.1
VHM Produced kt	123.0	211.8	334.8	122.9	457.7
VHM in HMC Assemblage %	90.1%	85.6%	87.2%	70.2%	81.9%
Zircon	45.4%	11.0%	23.2%	4.2%	17.3%
Rutile	8.7%	6.2%	7.1%	45.4%	19.1%
Ilmenite	35.9%	68.4%	56.8%	20.6%	45.5%
HMC Processed kt	235.1	224.3	459.4	177.8	637.2
Finished Product ⁴ kt					
Zircon	131.0	21.7	152.7	4.0	156.7
Rutile	10.9	12.7	23.6	74.1	97.7
Ilmenite (saleable/upgradeable)	75.3	183.7	259.0	30.0	289.0
Synthetic Rutile kt	-	114.4	114.4	-	114.4
Monazite concentrate kt	-	-	-	-	-

 $^{^4}$ Finished product includes material from heavy mineral concentrate (HMC) initially processed in prior periods.

Physical Data 3 months to June 22	Jacinth- Ambrosia/ Mid west	Cataby/ South west	Australia Total	Sierra Leone	Group Total
Mining					
Mining Overburden Moved kbcm	046	3.005	2.054	425	2 200
	946	2,005	2,951	435	3,386
Ore Mined kt	2,405	2,247	4,652	2,398	7,050
Ore Fed/Treated kt	2,397	2,317	4,714	2,226	6,940
Ore Treated Grade HM %	3.1%	5.8%	4.4%	3.1%	4.0%
VHM Treated Grade %	2.8%	4.9%	3.9%	2.6%	3.5%
Concentrating					
HMC Produced kt	65.6	130.4	196.0	77.4	273.4
VHM Produced kt	59.6	107.7	167.2	55.6	222.8
VHM in HMC Assemblage %	90.8%	82.6%	85.3%	71.8%	81.5%
Zircon	48.4%	9.8%	22.7%	4.2%	17.5%
Rutile	8.6%	5.7%	6.7%	46.0%	17.8%
Ilmenite	33.8%	67.0%	55.9%	21.6%	46.2%
HMC Processed kt	116.1	120.6	236.7	89.7	326.4
Finished Product ⁵ kt					
Zircon	66.6	9.8	76.4	4.0	80.4
Rutile	4.6	5.1	9.7	38.6	48.3
Ilmenite (saleable/upgradeable)	36.2	119.4	155.6	15.1	170.7
Synthetic Rutile kt	-	60.1	60.1	-	60.1
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 (thousand of tonnes) refers to material processed through 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.

 $\textbf{HMC processed} \ provides \ an \ indication \ of \ material \ emanating \ from \ each \ mining \ operation \ to \ be \ processed.$

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 – 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 contains further historical mineral sands price information.

	H1 21	H2 21	FY 21	Q1 22	Q2 22	H1 22
US\$/tonne FOB						
Zircon Premium and Standard	1,321	1,531	1,414	1,788	1,910	1,855
Zircon (all products, including zircon in concentrate) ¹	1,254	1,406	1,330	1,685	1,813	1,757
Rutile (excluding HYTI) ^{2,3}	1,224	1,291	1,264	1,520	1,483	1,506
Synthetic rutile			Refer Not	e 4		

Notes:

- 1. 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. In the first half of 2022 the split of zircon sand and concentrate by zircon sand-equivalent was approximately: 66%:34% (2021 full year: 76%:24%).
- 2. Excluded from rutile sales prices is a lower value titanium dioxide product, HYTI, 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%.
- 3. Q1 22 rutile price contains a pricing adjustment relating to H2 21. Under the contract pricing mechanism, the actual price for the half is finalised in the following quarter. The contract with this mechanism has since been concluded.
- 4. Illuka's synthetic rutile sales are underpinned by commercial offtake arrangements. The terms of these arrangements, including the pricing arrangements are commercial in confidence and as such not disclosed by Illuka. Synthetic rutile, due to its lower titanium dioxide content than rutile, is priced lower than natural rutile.

APPENDIX 3 – PRODUCTION SUMMARIES







