

MORNING COMMENT

PYX Resources

Continued progress for PYX and its zircon production in Indonesia

PYX has today published its interims for the period ending June 2023. PYX is a producer of high-grade zircon and is readying itself to export its stockpiled ilmenite and rutile (titanium oxide mineral sands), from its Mandiri operation in Indonesia. The numbers show increasing production and an ongoing improvement in underlying profits despite a slight reduction in the zircon price received. With increasing production (we expect 13kt zircon by the end of the year rising to 18kt next year before the expected addition of expansion from Mandiri and first production from Tisma); the addition of the sales of titanium oxide mineral sands (rutile and ilmenite); and the delivery of production into a robust mineral sands market; we expect PYX to consistently improve on its revenue and increasing amounts of underlying EBITDA (and cash) improvements. PYX remains debt free and is prudently looking to expand production organically and in stages. With increased production we anticipate PYX becoming a producer of global importance for zircon. We see fair value at 82p after taking a conservative view on the pace of forward developments.

Key production statistics for the half year are presented below in Table 1. Zircon production increased to 5.7kt (+33% on the same period last year) which helped stabilise sales revenue after realised prices fell to \$1,927/t from \$2,749/t and it also reduced cost of production \$/t as economies of scale came into play. EBITDA decreased to \$(9.8m) after non-regular costs and non-cash costs were included but underlying EBITDA increased slightly to \$131k. Cash levels were maintained at \$7.2m. The accounts show ongoing improvements as PYX expands its Mandiri operation.

Table 1: Key statistics HY 2023(ending June 2023)

	HY 2023	HY 2022	% change	FY 2022
Zircon produced (kt)	5.7	4.3	33%	9.1
Zircon sales (kt)	5.2	3.9	34%	9.5
Av price sold (\$/t)	1,927	2,749	(30%)	2,457
Sales revenue (\$m)	10.0	10.6	(6%)	22.7
Cash cost of production (\$m)	(8.9)	(7.3)	(22%)	(17.3)
Cash cost of production (\$/t)	1,568	1,880	(17%)	1,913
EBITDA (\$m)	(9.8)	(3.5)	(181%)	(9.3)
Underlying EBITDA (\$m)	0.1	0.1	46%	0.4
Net Loss After Tax (\$m)	(9.8)	(3.6)	(171%)	(9.4)
Net Cash (\$m)	7.2	7.2	0%	7.2

Source: WH Ireland research, PYX Resources

On a forward-looking basis PYX has now cemented its position as a consistent and growing producer of zircon. During the half, PYX has received both an export licence for its ilmenite/rutile mineral sands which were stockpiled and also has had its Tisma exploration and mining licence renewed.

WHI View: Today's news once again demonstrates the progress being made by PYX. Increased production is beginning to produce the expected economies of scale and insulate the company from volatility in the zircon price. We have reset our fair value taking into account today's numbers and see fair value at 82p/sh taking a conservative view on the pace of development and access to capital.

Year end December	2021A	2022A	2023E	2024E	2025E
Revenue (\$m)	12.4	22.7	25.0	48.1	100.7
EBITDA	(4.5)	(9.3)	(11.7)	15.3	54.4
PBT (\$m)	(4.5)	(9.5)	(12.7)	14.3	52.4
EPS (c)	(1.1)	(2.2)	(2.8)	3.2	10.0
P/E (x)	(16.6)	(8.2)	NM	7.3	2.3
EV/EBITDA	N/A	N/A	N/A	9.2	2.6
Net cash (\$m)	6.6	7.2	7.1	18.4	59.8
Net assets (\$m)	83.0	83.6	77.8	93.1	138.5

Source: WH Ireland research

WH Ireland Limited, 24 Martin Lane, London, EC4R 0DR, tel. 020 7220 1666

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CORPORATE

Share Price (last close) 23.5p

Ticker	PYX
Index	LSE
Sector	Mining
Market Cap	£120m

Marketing Communication

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Analyst

Paul Smith
+44 (0) 113 394 6609
paul.smith@whirelandcm.com

David Seers
+44 (0) 113 394 6610
david.seers@whirelandcm.com

Figure 1: Location of Mandiri and Tisma



Figure 2: Bags of PYX ilmenite for export sale



Source: WH Ireland Research, PYX Resources

Once again we reiterate the strong investment case we see for PYX

- **Strong, scalable production base.** PYX has a step-wise plan to take its zircon production to 50kt/yr within 5 years and then higher by staged expansions and the bringing in of a second producing site. There is also production expected from Tisma. PYX has access to large resources (263.5Mt of inferred resources (JORC) with a high assemblage value with the mineralogy mainly zircon – a high value component.
- **High grade:** There are few other high-grade zircon projects in the world.
- **Surface deposits:** Little or no stripping is required and the mineral sands are unconsolidated. Operating costs are low and will fall as production scales up.
- **Short time to production – fast track:** No long construction time – simple plant build, fed with material from the mineral resource quickly. Leaves no lasting trace.
- **Mineral assemblage sets PYX aside from its peers:** PYX's resource base sets it apart from its competitors. These are high-grade zircon deposits compared with their peers Premium zircon – with its low radioactivity (U+Th <500ppm), low alumina and high whiteness attracts a premium.
- **Absence of a zircon project pipeline a positive for PYX:** The current market value for PYX does not fully reflect the lack of global projects for zircon. With growing demand, an uncertain supply and a poor project pipeline, we expect a robust zircon price for several years to come. It is during these years that PYX will be established as a significant global zircon producer, in our view
- **Strong returns:** Our simple DCF model returns strong NPVs using a long-term zircon price less than today (we use \$2,000/t). Returns are driven by the grade (high) and capex/opex (low) against our conservative pricing as the mineral sands sector enters a boom. We risk the operations lightly as there is little operational risk with much of PYX derisked by ongoing operations with 0.6x NPV / PE included in our model for capital risk and for the uncertainty over the pace of development. We will look to reduce our risk rating as PYX achieves its milestones.

Table 2: Updated valuation table for PYX resources

Asset		\$m	£m*	Risk**	GBP/sh***
Mandiri / Tisma	NPV ₁₀	877.0	730.8	0.6x	97
PYX Resources	5x PE 2028E	582.0	485.0	0.6x	64
Arithmetic					81
Net cash	WHI Sept 2023e	7.2	6.0	1.0x	1
PYX Resources					82

Source: WH Ireland Research, PYX Resources

* GB:USD exchange rate 1.2:1. ** subjective risk. ***per share calculations based on 453m shares in issue

We have revised our fair value for PYX to 82p/share. We value PYX on a mixed basis using a simple average between NPV₁₀ and a peer multiple EV/EBITDA of 5x; which values PYX at a discount to the large producer (Iluka (ASX:ILU, N/R) with an EV/EBITDA of 9-10x, but at a premium to the lower insitu value, bulk producers of lower-value ilmenite (e.g Kenmare (LSE:KMR, N/R) with P/E's of ~3-4x. PYX has a simple business model to produce premium zircon (and minor rutile and ilmenite) at high margins.

Contacts

Research

John Cummins		020 7220 1755	john.cummins@whirelandcm.com
Matthew Davis		0113 394 6620	matthew.davis@whirelandcm.com
Brendan Long	Oil & Gas	020 7220 1694	brendan.long@whirelandcm.com
Paul Smith	Mining	0113 394 6609	paul.smith@whirelandcm.com
David Seers	Mining	0113 394 6610	david.seers@whirelandcm.com
Nick Spoliar		020 7220 1761	nick.spoliar@whirelandcm.com
Emma Ulker	Healthcare	020 7398 1141	emma.ulker@whirelandcm.com
Charlie Cullen		020 7220 1678	charlie.cullen@whirelandcm.com
Bilal Ibrahim		020 7398 1132	bilal.ibrahimi@whirelandcm.com

Sales & Trading

Harry Ansell		020 7220 1670	harry.ansell@whirelandcm.com
Dan Bristowe		020 7220 1648	daniel.bristowe@whirelandcm.com
Melvyn Brown		020 7220 1688	melvyn.brown@whirelandcm.com
Stephen Frohlich		020 7220 0492	stephen.frohlich@whirelandcm.com
Beverley Gibbons		020 7220 0479	beverley.gibbons@whirelandcm.com

Corporate Broking & Investor Relations

Fraser Marshall		020 7220 0484	fraser.marshall@whirelandplc.com
George Krokos		020 7398 1106	george.krokos@whirelandcm.com
Rachel Hayes		020 7220 1764	rachel.hayes@whirelandcm.com
Tara Browne		020 7398 1198	tara.browne@whirelandcm.com
Laetitia Bradamante		020 7398 1136	laetitia.bradamante@whirelandcm.com

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Outperform	0	0.0	0	0.0
Market Perform	0	0.0	0	0.0
Underperform	0	0.0	0	0.0
Sell	0	0.0	0	0.0
Total	66	100.0	66	100.0

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Company Name	Table of interest number	12-month recommendation history	Date
PYX Resources (PYX)	1,2,3,4,5	Corporate	05.04.22

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