

MORNING COMMENT

CORPORATE

Share Price (last close) 15p

Ticker	PYX
Index	LSE
Sector	Mining
Market Cap	£69m

PYX Resources

Full Year Results for the year ending 31 December 2023

PYX is a producer of premium-quality zircon (ZrSiO₄) from mineral sands in Indonesia. Today PYX provides its results for the year ending 31 December 2023. As previously announced (RNS 29.01.2024) production and sales metrics were all improved: Production of the principal revenue generating high-grade zircon was up 31% to 11.8kt (FY 2022 9.1kt), only slightly lower than our forecast of 13kt, with sales volume up 24% yoy to 11.4kt (9.1kt) which offset the 19% decline in the zircon sales price to \$1,988/t. Financially, PYX has maintained its profitability with a positive EBITDA at an underlying level (underlying EBITDA of \$0.7m vs a \$0.4m in 2022). Going forward, PYX has been awarded a two-year licence to produce and export up to 24kt of zircon, 20kt of rutile and 50kt of ilmenite per year and importantly has been granted the export licence to export its titanium sands (rutile and ilmenite) for the first time, subject to acceptable grades; this is currently being amended to include the port at Jakarta. PYX has a stockpile of ~10kt of titanium mineral sands which will provide additional revenue (~\$4m WHIe) in 2024 when the stockpile is exported as well as ongoing revenues. PYX currently only produces from its Mandiri mine but has now obtained a 10-year renewal of a mining and exploration licence for its Tisma project. Once PYX moves into producing from two sites it will naturally reduce risk as well as providing a boost to production. Our underlying model shows first production from Tisma in 2025, with continued, incremental expansions at both, to reach production of >100kt/yr zircon by the end of the decade. These expansions should make PYX a global leader in the production of zircon. We see fair value for PYX at 84p/sh based on a simple average between a combined NPV₁₀ for Tisma and Mandiri and 4x EBITDA for 2028e based on peer analysis.

Stressing the operational performance of PYX. Underlying EBITDA to nearly \$1m, which we expect to grow in 2024; no debt with gross cash of \$7.8m at end December 2023; production and sales up; export licences to enable the revenue recognition of the co-product ilmenite and rutile sands produced alongside the zircon; and, a renewal of a mining licence for a second operational site at Tisma.

Table 1: Key statistics FY 2023 (ending December 2023)

	FY 2023	FY 2022	FY 2021
Zircon produced	11.8	9.1kt	7.2kt
Titanium dioxide minerals produced	2.9	7.5kt	-
Yearly average price zircon (USD/t)	1,988	2,457	1,811
Total produced	11.8	16.6kt	7.2kt
Total sold	11.4	9.5kt	6.9kt
Sales revenue (\$m)	22.7	22.7	12.4
Cash cost of production (\$m)	(19.6)	(17.3)	(10.4)
EBITDA (\$m)	(10.0)	(9.3)	(4.3)
Underlying EBITDA (\$m)	0.7	0.4	(0.8)
EBIT (\$m)	(10.4)	(9.5)	(4.5)
Net loss before tax (\$m)	0.7	(9.5)	(4.5)
Net loss after tax (NLAT) (\$m)	(10.5)	(9.4)	(4.3)
Cash (\$m)	7.8	7.2	6.6

Source: WH Ireland Research, PYX Resources

Year end December	2021A	2022A	2023A	2024E	2025E
Revenue (\$m)	12.4	22.7	22.7	37.5	60.9
EBITDA	(4.3)	(9.3)	(10.0)	3.6	5.1
PBT (\$m)	(4.5)	(9.3)	(10.1)	2.6	4.1
EPS (c)	(1.1)	(2.2)	(2.3)	0.3	0.7
P/E (x)	nm	nm	nm	42.9	21.3
EV/EBITDA	nm	nm	31.6	21.9	2.6
Gross cash (\$m)	6.6	7.2	7.8	8.9	4.0
Net assets (\$m)	83.0	83.6	84.1	88.1	91.2

Source: Company accounts, WH Ireland estimates

Marketing Communication

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With production expansions expected at Mandiri and with a new production centre at Tisma expected to be in production in 2025 (WHle) we see PYX increasing production and revenues and lowering its costs to achieve increasing profit margins and more cash – which we expect to be recycled into the business and pay organically for its own plant expansions.

Corporately, PYX has set up a distribution warehouse at Port Klang in Malaysia to make exports quicker and cheaper for its expanding customer base.

We reiterate the strong investment case for PYX

- **Strong, scalable production base.** PYX has a plan to take its zircon production to 48kt/yr within 3 years and then to 100kt by the end of the decade. There is also production expected from Tisma (WHle from CY 2025). PYX has access to large resources (263.5Mt of inferred resources (JORC) with a high average assemblage value due to the high levels of high-value minerals in the sands.
- **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.
- **Use of zircon growing:** The use of zircon is growing and new-industry applications are being found for which zircon is proving necessary in the carbon transition. For example, zircon alloys are used in many sectors (nuclear reactors and the automotive industry). Zircon is also used in hydrogen cells and in ceramic roof tiles to cool buildings.
- **Strong returns:** Our simple DCF model returns strong NPVs using a long-term zircon price at current levels long-term (we use \$2,000/t). Returns are driven by the grade (high) and capex/opex (low) against our conservative pricing. We risk the operations lightly as there is little operational risk with much of PYX derisked by ongoing operations with 0.8x NPV included in our model for capital risk.

Table 2: Updated valuation table for PYX resources

Asset		\$m	£m*	Risk**	GBP/sh***
Mandiri / Tisma	NPV ₁₀	649.0	540.8	0.8x	96
PYX Resources	4x PE 2028E	470.2	391.8	0.8x	69
Arithmetic					82
Net cash	WHI end 2022	7.8	6.5	1.0x	1
PYX Resources					84

Source: WH Ireland Research, PYX Resources

* GB:USD exchange rate 1.2:1. ** subjective risk. ***per share calculations based on 447m shares in issue

We have revised our fair value for PYX to 84p/share (from 82p/share in our research note 17.11.2023). We value PYX on a mixed basis using a simple average between NPV₁₀ and a peer multiple EV/EBITDA of 4x; which values PYX at a small discount to the large producer (Iluka (ASX:ILU, N/R) with an EV/EBITDA of 4-5x, but at a premium to the lower insitu value, bulk producers of ilmenite (e.g Kenmare (LSE:KMR, N/R) and Base Resources (AIM:BSE, N/R) with P/E's of ~2-3x. PYX has a simple business model to produce premium zircon (and minor rutile and ilmenite) at high margins. We view it as relatively low risk, with the biggest risk at this early stage of evolution as access to capital as it has clearly demonstrated the ability to operate in Indonesia (expand production and to gain new mining licences and export licences).

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Speculative Buy	0	0.0	0	0.0
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	68	100.0	68	100.0

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

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