

#### Stock Data

Share Price:	3.35p
Market Cap.:	£56.50m
Shares in issue:	1,686.50m
52 week high/low:	7.49p/3.30p

#### Company Profile

Sector:	Oil & Gas
Ticker:	ZPHR
Exchange:	AIM

#### Activities

Zephyr Energy plc ('Zephyr', 'the Group') is an independent oil and gas E&P Group with a strategic focus on carbon-neutral hydrocarbon development projects in the Rocky Mountain region of the US.

[www.zephyrplc.com](http://www.zephyrplc.com)

#### 5-year share price performance



Source: [LSE](https://www.lse.com)

Past performance is not an indication of future performance.

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## Zephyr Energy plc

Zephyr has released an update covering various operations at its flagship Paradox Project in the Paradox Basin, Utah (the 'Paradox project'). Significantly, this confirms satisfactory progress continues to be made with respect to the State 36-2 LNW-CC well, with continuing expectation that it will deliver a production test in the near-term. The Board also notes that payment of initial invoices submitted to the Group's insurer with respect to last April's well control incident, amounting to c.US\$0.8m have been received, with additional claims now being submitted on a regular basis. A further positive is that Zephyr's recent application for a portion of the additional leased acreage it acquired on 25 August 2022 to be included within a larger Expansion/Contraction amendment of the White Sands Unit (the 'WSU') has now been granted, resulting in an amended federal unit with an upgraded and manageable land position. Finally, it also states that assessment is now underway on the Group's recently acquired Greentown wells, as part of which its operations team recently recommenced production from the Federal 28-11 well in order to understand its potential contribution to overall field production when ongoing infrastructure work has been completed. Taken all together, today's news further reinforces confidence that Zephyr's management can secure the full potential of the Paradox project for shareholders. While it is true that the State 36-2's workover has been a little slower than initially expected, the goal remains for both it and the State 16-2 LN-CC well to be brought into full production before the year end. In the meantime, the 36-2's pressures and hydrocarbon potential remain substantial. Given the Group's commitment to continue accelerating the Paradox development and the large potential scale of the project, various alternatives, including partnership, joint-venture ('JV') and farm-in structures, will be explored in the coming months.

### State 36-2 LNW-CC - Preparing for Production Test

Following the significant well control incident announced on 11 April 2023, in which a substantial natural fracture network was encountered, Zephyr's Board remains confident that it will be able to deliver a production test in the near-term. Such start-up issues of course are not considered particularly unusual when emerging plays break new ground. With an eye on safety and working conditions for the on-site team, however, timing of the well test will be dictated by operational conditions to ensure well control is maintained.

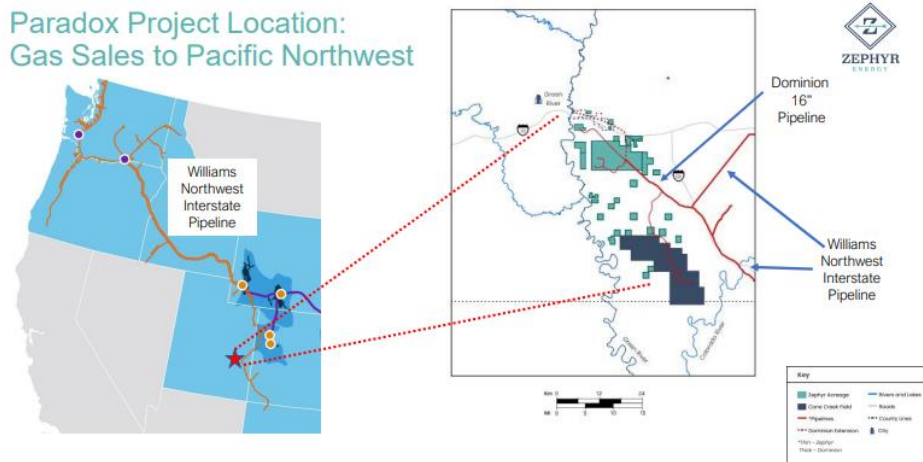
Given evidence of substantial pressures and hydrocarbons, Zephyr is now in the process of pulling 2-7/8" production tubing out of the hole, recognising that some joints were compressed/compromised/stuck due to the high pressures of the well control incident. So far, approximately 7,000 feet of 8,900 feet of tubing has been pulled and inspected with circa 15 per cent of the pulled joints requiring replacement. Management is moving methodically to remove and inspect the remaining joints while keeping the wellbore static and under control. Once complete, a final cement squeeze will be performed and then the casing will be perforated across the Cane Creek reservoir interval prior to well testing.

Although it is unclear at this time as to the total volume of gas and condensate

released during the blowout, a confirmatory environmental survey found surface impacts were limited to an area immediately around the pad. Given the significant pressure events witnessed, however, management is reviewing each and every aspect of the production facilities, the well itself and operational procedure to help ensure a successful production test.

Despite all this, management do not foresee the delay as being material to the long run opportunity presented. Indeed, although challenging from a safety and environmental standpoint, the event provided a boost to the Group's confidence that State 36-2 (100% WI) is a significant and potentially highly profitable well. Being an uncontrolled event, there was of course no facility to measure the flow of gas and condensate over the three days, although it left a clear impression of being large with capability of producing exceptional volumes of both natural gas and high-API gas condensate (that typically trades on a price/bbl slightly above WTI). The fluid mix itself is likely to be similar to that seen during State 16-2 well's own production test although, being somewhat further south, it may possibly produce a slightly higher proportion of gas condensate. Once underway, production testing is expected to take less than four weeks to complete. The outcome will undoubtedly be eagerly awaited.

Production test results from the State 36-2 well, along with those from the State 16-2 well, will be integrated into Zephyr's overall reservoir model and will help define the next steps for the Paradox project development, including the sizing of related gas infrastructure and associated capital expenditure. Targeting first commercial gas sales during Q4 2023, the Group needs to complete the recommissioning of its recently acquired Powerline Road gas processing plant (with handling capacity yet to be determined). At the same time, Dominion Energy has made significant progress in regard to the refurbishment and extension of their 16-inch infrastructure, with all permits acquired and substantial pipe now in the ground. The pipeline is expected to be operational during Q4 2023.



Source: Zephyr, Investor Presentation, May 2023

## Well Control Insurance expected to cover most of the costs related to the 36-2 blowout

As a risk mitigation protocol, Zephyr's operations were covered by comprehensive Well Control Insurance. Given that the policies compensate on a reimbursement basis, payments to service providers do impact corporate working capital levels as reimbursement times (from the insurer to Zephyr) have potential to vary - hence the need to secure additional near-term capital to ensure Paradox development remains on schedule. Initial invoices submitted to the insurer have now been approved and funds totalling c.US\$800,000, have been received, with additional invoices now being submitted on a regular basis that are expected to be services within 30 days of receipt.

Policies held are expected to cover the bulk of all well work, equipment and damage costs, as well as any expenses related to site remediation (a sum in total estimated by TPI to be in the range of US\$3m to US\$5m). Zephyr may have duty to pay some relatively minor excess charges, while also incurring additional costs related to possible modification of facilities required to cope with the excess pressure, any additional work that may be needed to the well itself, plus fees related to retaining the rig crew for a longer than expected period.

## Portion of recently acquired acreage now granted as part of larger amendment of WSU

Zephyr's targeted acquisition of 1,920 leased acres as announced on 25 August 2022, was deemed to have immediate development potential, and indeed the original well plan for the State 36-2 well included a lateral to be drilled across that acreage (which is no longer necessary given the well's successful intersection of a large natural fracture network in the Cane Creek reservoir, but which may be utilised at some point in the future). Additional contiguous acreage was acquired as reported on 14 September 2022 (collectively, the 'acquired acreage'). Largely covered by Zephyr's existing 3D seismic, and directly bordering the lease on which the State 36-2 is located, it has access to the pre-existing surface infrastructure the Group subsequently acquired.

Following application to the US Bureau of Land Management (the 'BLM') earlier this year as part of Zephyr's active and ongoing portfolio management of its Paradox Basin position, approval for a portion of the acquired acreage has been granted within a larger Expansion/Contraction amendment of the White Sands Unit. The overall approval comprises 5,000 high-graded acres with near-term development potential being added to the WSU, with roughly 5,395 acres deemed by the Group to be less suitable for future development being relinquished. The outcome has been to deliver an amended federal unit with an upgraded and manageable acreage position, a position that is now considered to be increasingly difficult to replicate in today's regulatory and political environment.

## Recommended production from the Greentown Federal 28-11 well to understand its potential

Zephyr has begun an assessment covering five existing wellbores (located in the WSU) that were acquired as part of a larger acquisition of infrastructure assets announced on 14 September 2022. As noted at the time, several of the existing wells were former producers of hydrocarbons, but had subsequently been shut-in due to lack of operating infrastructure; others were deemed to have potential future use as salt water disposal wells or as producers of salt water brine for potential extraction of lithium resources.

As part of this, the Group's operations team recently recommenced production from the Greentown Federal 28-11 well in order to understand its potential contribution to overall field production when ongoing field infrastructure work has been completed. Hydrocarbons are currently flowing from the well, with condensate volumes collected for sale and natural gas volumes being flared. Once flow stabilises, Zephyr will assess its future potential for the short and longer term when gas export is available.

## Paradox project expected to shortly enter an inflection point

The Paradox project will shortly enter a pivotal moment in its development. Two wells have been drilled by Zephyr to date, both identifying hydrocarbons and appearing capable of commercial production. Although the project still remains relatively early in its 'learning curve', its offering of two forms of development (natural fractures and hydraulically stimulated resource play) along with 8 overlying reservoirs, suggests significant potential upside.

With all key pieces, including acreage and infrastructure, for wider development having been assembled, it seems 2H 2023 will become an inflection point for Paradox as it moves from appraisal into development with both State 36-2 and 16-2 coming online with flush production. Upcoming news flow during this period could possibly include the following:

- State 36-2 well production test results;
- Updated CAPEX and drilling plans (dependent on State 36-2 well production test results);
- Continued progress on the Dominion Energy 16-inch pipeline, which is permitted, currently under construction and expected to be available to accept gas volumes in Q4 2023;
- Updated Competent Persons Report (post State 36-2 well production test); and
- Initial production volumes from the non-operated Slawson wells.

Around the same time as Zephyr publishes initial production volumes from the Slawson acquisition, the Group is expected to release updated FY 2023 production guidance for its non-operated assets. Starting 1 April 2023, Zephyr had hedged 164,000 barrels of oil over the following 12 months at a weighted-average price of US\$84.34 per barrel and will continue to evaluate its commodity price risk management strategy on a regular basis. Significantly, the Group is already achieving carbon net zero through an offsetting programme using Verified Emissions Reduction credits.

While last month's £3.15m (gross) fund-raising perhaps served to highlight the current sensitivity of Zephyr's balance sheet to any surprise additional costings and/or delays in anticipated receipts, it also underlined management's determination to avoid continuing slippage in the Paradox project's development schedule without compromising safety issues. Despite the fact that the 2023 net average production guidance of 1,550 to 1,750 boepd provided by Zephyr back in December 2022 for its aggregate Williston Basin interests will need to be trimmed back somewhat as a result of slippage in Slawson's initial production, the inclusion of a year-end Paradox Basin run rate of c.3,300 boepd (dependent upon a successful 36-2 production test and completion of all required infrastructure), produces a combined year end exit rate of c.4,800 boepd, representing a c.200% increase on the level being achieved one year previously.

Recognising the pressures and hydrocarbon volumes witnessed during the four day well control incident, Zephyr's Board has also gone on to note that a larger gas processing facility than initially envisaged may be required. The ultimate sizing of any processing facility will be determined post completion of the State 36-2 well test.

On this basis Zephyr's operations could start throwing off quite significant cash early in 2024. Recognising the Group has identified c.150 additional locations across 9 reservoir targets to date, there clearly remains significant scope and scale to be unlocked over the coming years upon delineation and exploration success. Understanding that the Group is committed to accelerating the Paradox project drilling programme in the optimal way possible and that it is now also exploring partnerships, joint-ventures and farm-in alternatives to support development of what could become the US's next prolific onshore oil & gas play, suggests its shares have now become significantly oversold.

### **Potential Contingent & Prospective Resources worth well in excess of US\$1 billion**

Zephyr's active land management strategy appears to be delivering a defensible and growing portfolio of development opportunities, something which is increasingly difficult to replicate in today's regulatory and political environment. Following recent events, management's immediate focus is on restarting State 36-2 LN-CC's production testing, followed by safely completing the well and the recommissioning of a recently acquired processing plant before being tied-in to gas infrastructure. It remains on schedule to be generating first revenues before the end of 2023.

Publication of the Group's Competent Person's Report ('CPR') 2022 on 26 April 2022, highlighted Zephyr's substantial remaining potential in the Paradox Basin. While the range of values illustrated in Sproule's report presently remain very wide, recognising also that there are still significant underlying technical/operational risks to be surmounted, Zephyr's management and exploration team have demonstrated a high level of intuition along with the capacity to meet and optimise such challenges through carefully calculated process. The drilling programme now underway will enable further delineation and increase overall understanding of the Paradox asset base. Management continues to assess potential upside and will shortly determine additional steps with a view to delivering increases in all reserve and resource classes during 2023.

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