STOCKS DOWN UNDER

30 DECEMBER 2021

Resources Stocks Down Under

“If you don’t produce, you won’t thrive — no matter how skilled or talented you are.”

- Cal Newport (b. 1982), Author of Deep Work

SHEFFIELD RESOURCES
Follow the trend

TORO ENERGY
Moving with the times

PILOT ENERGY
Why sell to Triangle?

SHEFFIELD RESOURCES

Follow the trend

Stocks Down Under rating: ★★★★

ASX: SFX
Market cap: A$127M

52-week range: A$0.28 / A$0.51
Share price: A$0.37

Perth-based Sheffield Resources is a mineral sands explorer with an expanding portfolio of projects, led by its flagship Thunderbird Project in Western Australia. After a few years and a few bankable feasibility studies, Sheffield is now executing a more simplified strategy at Thunderbird to generate revenue from ilmenite and zircon concentrate production.

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TORO ENERGY

Moving with the times

Stocks Down Under rating: ★★★★

ASX: TOE
Market cap: A$81.8M

52-week range: A$0.012 / A$0.058
Share price: A$0.021

Junior uranium explorer, and hopeful producer, Toro Energy is reaping the benefits of uranium's eventful turn on the commodity wheel of fortune (albeit from far away). But despite the company not yet producing, the work at the Wiluna Uranium Project in Western Australia is still exciting as it will not only be the first functioning uranium mine in that state, but will likely operate at significantly lower costs than previously expected. And that's not all, the Wiluna project has now been combined with new nickel-sulphide discoveries and high-grade gold results – a good three-in-one for a small company.

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Share price: A$0.052

The energy world is changing. It's no secret that renewable resources are going to be the long-term play in the energy game, yet oil and gas prices have been rising for the short term. So, what to play here? Luckily for you, Pilot Energy popped up on our radar at Stocks Down Under and has a foot in both doors. Coming off a trading halt and an $8m capital raise, this oil and gas explorer, the biggest net acreage holder in the Perth Basin, has announced an aggressive expansion into the renewable energy space, where it is commencing feasibility studies. How high can this Pilot fly?

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Share price chart

Source: Tradingview

Thunderbirds are a go

All but one of Sheffield's projects can be found in Western Australia. The company's flagship project is called Thunderbird, located on the Dampier Peninsula midway between Broome and Derby. Sheffield owns 50% of the Thunderbird Project and is targeting early 2022 for a Final Investment Decision (FID). It's easy to see why this project is the company's flagship as its current mineral resource stands at 3.2bn tonnes at 6% HM (heavy mineral sands), including a higher-grade component of 1.1m tonnes at 12.2% HM with very high in-situ zircon (0.93%) and ilmenite (3.3%) grades. As the word 'billion' will have suggested, Thunderbird is potentially a long-life asset with earlier feasibility studies estimating a 42-year mine life.

Advancing with a new strategy

It's a good thing Thunderbird is so large – the market for zircon runs deep (demand is approximately 800,000 tonnes per annum), Chinese imports of zircon have doubled and Iluka's (ASX: ILU | see 18 September 2020 report) Jacinth-Ambrosia mine is nearing the end of its life – just in time for zircon prices to rally past US$1,600 a tonne in July 2021. Despite a brief respite in zircon demand in the early stages of the pandemic, demand has far surpassed supply in late 2021.

Ilmenite is in the same boat as zircon due to its use in pigment and titanium metal production. With very few mineral sands projects coming online, ilmenite reached US$340 per tonne in June, the highest benchmark price recorded since 2014. And according to Sheffield's Executive Chairman, Bruce Griffin, that price is more like US$400 in China.

Those high grades at Thunderbird present Sheffield with a few options in the first Phase to produce zircon concentrate and low-temperature roast (LTR) ilmenite or ilmenite concentrate, but the company is still ironing out its capital as well as mining and engineering design options for both streams. Both of Sheffield's previous Bankable Feasibility Studies (BFS), from 2017 and 2019, floated the prospect of producing ilmenite concentrate or LTR ilmenite with the installation of a full zircon Mineral Separation Plant (MSP) for zircon products. The company is now has a much lower capital-intense process with a more simplified flowsheet, with more value from LTR, a basic ilmenite circuit and no zircon MSP. A new DFS will finalise the cost of this strategy, but there's always the option to expand to an MSP in Phase 2 (Year five), increasing production by 40%.

That's the brief

Although Thunderbird Phase 2 is five years away, the project is supported by a large resource base to support long-term growth. The Night Train deposit alone (20 km east of Thunderbird) provides an inferred mineral resource of 130m tonnes at 3.3 HM and the Dampier Project has 12 zones of untapped mineralisation over a 120 km long strike. With $5.8m in cash at the end of September and after it was announced that Sheffield had sold the Eneabba Project for $24m (expected to close early 2022, the company is well funded until the NAIF finishes its assessment.

As of 19 November 2021, the NAIF completed its strategic assessment of Thunderbird and is currently engaged in due diligence, while zircon offtake agreements have now been secured from three parties, representing 170,000 tonnes per annum for five years. NAIF is the Australian government's Northern Australia Infrastructure Facility, so approval for NAIF to invest would almost definitely mean Thunderbird is a go.

As Thunderbird represents one of the world's largest zircon and ilmenite reserves, the third BFS and engineering activities are underway in conjunction with trial mining at the project's upper ore layer, which will be used for the plant design. With a favourable outlook for sulphate ilmenite and zircon, Sheffield has expectations for production by 2024. With the market's supply deficit welcoming of this new mine, we rate the stock four stars.

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Source: Tradingview

MUGA - Make Uranium Great Again

Toro's centrepiece of uranium is represented by the Wiluna Uranium Project, 30 km south of the town of Wiluna in Western Australia's northern goldfields. As another project with an important nickel and gold mining history, dating back to the 19th century, Wiluna has additional upside for gold and base metals in conjunction with numerous uranium deposits at Centipede, Millipede, Lake Maitland and Lake Way. With a current resource of 79m tonnes at 482 parts per million (ppm) for 84m pounds of uranium over six deposits (and four other deposits not yet incorporated), there is substantial uranium to support a long-life project – and some value-adding by-products to boot.

Elsewhere, exploration drilling continues at Toro's Dusty Nickel and Yandal Gold and Base Metal Projects, both located in the highly prospective Yandal Greenstone Belt. In March, the company began its first diamond drilling campaign at Dusty to test two new discovery areas – the Dusty Target area in the north and the Yandal One Target area in the south – for extensions to the massive nickel sulphides intersected to date. And, believe us, there's been some good assays here, including some revealing 3.91% Ni at 4.5 metres and hand-held spot analysis by a portable X-Ray Fluorescence indicating local nickel concentrations between 2.6% and 5.4%.

Two commodities for the price of one

With environmental approvals from the state and federal governments already received, Wiluna is a step closer to becoming Western Australia's first uranium mine, but Wiluna's geology appears to offer a lot more than uranium. A Scoping Study initiated in April at the Lake Maitland uranium deposit – which accounts for 42% of Wiluna's total uranium concentrate – showed the greatest potential for a standalone mine, with a significant portion of vanadium (26%) as a by-product. Given the high uranium price needed for an economically viable operation, a re-optimised look at Lake Maitland's pit design could provide a path to vanadium pentoxide production through uranium leaching at a lower cost. The process improvements from high-density leaching and filtration would also mean a reduction in tailings and no need for evaporation ponds. If a bigger, more prominent economic benefit can be found, it could also have lasting changes for the entire Wiluna Project.

Pleasingly for Toro, its May undertaking of a $15m share placement (at $0.023 per share) has provided enough cash to continue its studies at Wiluna and further nickel and gold testing at Dusty and Yandal. The Dusty nickel discovery is arguably one of the first massive nickel-sulphide discoveries in the Yandal Greenstone belt, but when you see the word 'Yandal' next to 'Greenstone' you just know you've got a potential polymetallic opportunity. Despite the presence of so many gold mines in the belt, much of the area covered by Toro's holdings remains untested because of prior uranium holdings.

So far, ten target areas have been identified throughout the project, meaning that planning is underway for a lot of follow-up drilling after all results from geochemical sampling are received. Additionally, Yandal's gold potential is compelling, with first results from the Golden Ways target yielding results like 10.9 g/t Au from 28 metres.

Follow that energy

As Toro prepares to tweak its engineering design at Wiluna, the long-term expectations from the project still look pretty persuasive: production from the Lake Maitland, Lake Way, Centipede and Millipede deposits represents a 16-year LOM for an annual 2 million pounds uranium at an operating cost of US$3.1 per pound, at a construction cost of A$315m. Understandably, the renewed investor focus on uranium following the recent price spike has provided proof of concept for Toro's early backers. As of 30 September 2021, Toro had $5.6m in cash, after using $1.5m in exploration, evaluation and investments in the quarter. So, while the company will not likely need to raise capital before the end of FY22, it is certainly coming.

Right now, Toro is in the middle of its 2,600-metre diamond drill and mud-rotary campaign at Dusty Nickel designed to penetrate that komatiite-ultramafic rock that lies above the main discovery. At the same time, Toro is considering its next steps at Golden Ways in the next stage at Yandal. Four stars from us.

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Source: Tradingview

Historically, the Perth Basin has been an onshore oil and gas sanctuary with plenty of petroleum industry infrastructure, including two major gas pipelines and trucking facilities to an oil refinery 30 km south of Perth. The Parmelia Gas Pipeline also lies within the basin, providing ready access to the market and allows for the exploitation of small discoveries. Pilot Energy has been a player here since 2016 when it got hold of WA-481-P, a 17,745 sq km, shallow water offshore extension of the North Perth Basin. Now, the offshore hasn't nearly been as exploited as the onshore, with 52 wells from various companies drilling offshore, compared to 309 wells drilled onshore. This all seems very typical for a junior explorer, so why did it sell off 78.75% of their interest in WA-481-P to Triangle Energy (ASX: TEG)?

The next Cliff to Head for

Three-quarters of both the onshore and offshore wells in the Perth Basin have been drilled in the northern part, which places WA-481-P smack bang in the middle of some significant historical finds. It covers Dongara's offshore, where the largest onshore hydrocarbon field in the basin was discovered, finding 14.3 Gm3 (508 billion cubic feet) of original in-place gas and 16.6 GL (104 MMbbL) of original in-place oil. WA-481-P also borders the Cliff Head discovery, which is currently pumping 800-900 barrels of oil per day (bopd) gross, sending the crude oil to BP's Kwinana refinery south of Perth. The Cliff Head Oil project was owned by – you guessed it – Triangle Energy.

The Cliff Head discovery has given us a bunch of readily accessible data about the geology of the basin. The Cliff Head produces from Permian sandstones from the Dongara Formation and Irwin River coal measures, sealed by the Triassic Kockatea Shale. Dongara Structural plays account for 49% of the whole basin's oil reserves (25 MMbo), with Irwin River plays making up 41% at 21 MMbo.

There's oil (maybe) in that tilted fault block

Permian sandstone is what companies like Pilot and Triangle should be looking for, as its high porosity and permeability (29% and 7,000 millidarcy aka mD) allows for an easier and more efficient extraction process. The petroleum extraction is then made through trapping plays. Both the Dongara and Irwin plays exploit the tilted fault blocks from the lower to mid-Permian Rift phase and faulted anticlines from the Lower Cretaceous wrenching.

If you are now a little lost, tilted fault blocks can be easily visualised using dominoes. Imagine you have four dominoes lined up face to face, right next to each other. Now imagine you push one over and a camera took a picture a few milliseconds after. The now diagonal dominoes are still in face-to-face contact with each other, but if you draw a rhombus around all four corners, slightly more area would be covered, at the expense of various air pockets filling in the gaps. In the case of Cliff Head, these dominoes represent the tilting of fault blocks. The empty spaces create gaps to be filled with luscious reservoirs of oil and along with anticlines (rocks contoured into arch-like folds that trap buoyant hydrocarbons) they create 'traps', sealed by cap rock (hard rocks) from the Kockatea Shale.

Preparing for take-off

If the geology is this promising, why did Pilot sell? One word: renewables. The pilots of this aircraft are steering it to become a larger company in the renewable energy space. But these particular pilots are astute and recognise the significance of Cliff Head.

The deal they struck with Triangle merged the Cliff Head operation into WA-481-P, meaning Pilot now has a stake in the only producing offshore field in the North Perth Basin, allowing management to focus on their renewable options. And like we discovered above, Cliff Head is prime land, still producing well above Triangle's forecasted rates.

There is one risk that we believe is caused the recent pullback in the share price. On 29 November 2021, Pilot Energy announced that Cliff Head's storage and offtake agreement would not be renewed after it expires on 22 April 2022. If the company can't secure an alternative offtake agreement, this is a rather large risk. But as this is affecting everybody in the region, we believe the risk of not finding an alternative is rather slim.

Well played Pilot

With fewer oil and gas responsibilities and ownership of Cliff Head, Pilot Energy has the freedom and security to diversify into the renewable space. With an $8m capital raising done, the company is putting most of that capital towards feasibility studies, focused on solar, wind and blue hydrogen. The plan seems like management is making the most of Pilot Energy's acreage. With $4.2m net cash used in operating and investing activities in FY21 (ending 30 September 2021), after the capital raising, the company still has plenty of cash left in the bank ($5.5m). So, we don't expect any further dilution anytime soon.

Pilot Energy is hoping for most of its wind turbines to be placed offshore within A-481-P, a joint venture with Triangle. Offshore wind farms usually generate more energy due to faster and more constant winds, meaning the joint venture can leverage its onshore land to maintain the Cliff Head Pipeline, create blue hydrogen, supported by CO_2 injection into the Cliff Head Oil Field and onshore solar facilities.

All in all, we're on the edge of our seats waiting for the results of these feasibility studies. The pilots of this aircraft have impressed us so far with their ability to strategically leverage their positions and assets, and there's no doubt that renewables are a safe long-term play. Four stars.

Pitt Street Research Pty Ltd

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Pitt Street Research Pty Ltd provides issuer-sponsored research for Small & Mid Cap companies and is founded on more than 40 years of combined experience researching companies in a range of different sectors.

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