



Resources

Stocks Down Under

📖 *Practice, the master of all things.* 🗨️

- Gaius Julius Caesar Augustus (63 BCE – 14 CE), First Roman emperor

— STRANDLINE RESOURCES

One project can make all the difference

— KALIUM LAKES

Tranforming the desert into an oasis

— BLACK ROCK MINING

Joining the race for more graphite

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Stocks Down Under rating: ★★★★★

ASX: STA
Market cap: A\$ 246M

52-week range: A\$0.15 / A\$0.30
Share price: A\$ 0.225

Strandline Resources is a heavy mineral sands explorer and developer with multiple projects in Tanzania, but it's the flagship Coburn Mineral Sands Project in WA that is grabbing all of the attention right now. Having just made a decision to go ahead with production, Strandline is shaping up to become a leading supplier of heavy minerals like zircon and rutile, leveraging off continued demand for both commodities from China and around the world.

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Market cap: A\$ 210M

52-week range: A\$0.125 / A\$0.265
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The Perth-based Kalium Lakes is striving to become the first ASX-listed commercial producer of sulphate of potash (SOP) right here in Australia. Although it has competition from a few other WA potash producers, Kalium Lakes has first mover advantage, with its Beyondie Potash Project set to come online by September this year. As the company's journey shows, the existence of potash is more about the creation of a new Australian industry over the success of one company.

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Share price chart



Source: Tradingview

A quality ingredient

Strandline has somewhat gone under the radar in recent years, even though it has advanced Tanzania's first mineral sands mine with its Fungoni Project, located 25 km south of the port of Dar es Salaam. Although Fungoni is relatively small, with only a six-year mine life and production estimate of 303,300 tonnes, it is just one of many prospects the company is seeking to develop along Tanzania's east coast. Two offtake agreements for zircon-monzonite and ilmenite throughout the life of mine will act as the precursor to development new mines at Tajiri, Tanga South and Bagamoyo as Strandline increases its tenement area.

Tanzania, however, is not where the action is right now for Strandline. In a move that is certain to bring the company more attention, Strandline is now fully funded to commence development at its Coburn Heavy Minerals Project right here in Australia. A successful bond issue of \$60m and a capital raising of \$122m at 20.5 cents per share will significantly aid the ramp-up of Coburn from now, with first production targeted for the second quarter of CY22. Coburn's Definitive Feasibility Study (DFS) highlighted an extremely valuable heavy mineral deposit located 240km north of Geraldton in WA, with a JORC ore reserve of 523 million tonnes at 1.11% total heavy minerals (THM). That DFS went out with an initial 22.5-year mine life, but there is a case to extend the project's life through further scoping work.

Shifting sands

The Final Investment Decision (FID) to incorporate an almost construction-ready Australian Tier-1 asset into its asset portfolio has made for a significant re-rate in Strandline's share price in March 2021, although those gains have since dissipated. Investors, however, should look again, in our view. Coburn is significantly de-risked as a result of the company's fast work signing five sales contracts covering nearly all of the project's THM streams, aside from ceramic grade premium zircon, which Strandline can hold back for short-term spot market prices.

Coburn's generous mineral make-up gives the project a major competitive edge over other WA mineral sands projects now that it has the capacity to globally supply around 5% of zircon and 10% of chloride ilmenite demand. Demand for zircon is expected to rise 2.5-3% year-on-year as existing supply decreases by 5% per annum, largely driven by urbanisation and rising living standards in emerging markets. Since the long-term outlook for industrial applications using zircon and rutile/ilmenite (common forms of titanium dioxide) are increasing, the addition of Coburn puts the company in prime position to benefit from rising prices, with zircon and rutile expected to reach US\$1,495 and US\$1,138 per tonne respectively by 2024.

With its inclusion, Coburn will add significant financial returns to Strandline's back pocket with the scoping mine extension case providing a pre-tax Net Present Value of A\$825m (at an 8% discount rate) and Internal Rate of Return of 37% and an EBITDA of A\$4.5bn over 37.5 years. Although it can stand on its own, the company's other Tanzanian projects at Fungoni and Tajiri shouldn't be discounted: while more limited in value now, zircon-rich Fungoni is considered a high-margin and low-cost starter with a smaller Life-of-Mine revenue of US\$184m. Both Fungoni and Tajiri's proximity to Tanzania's coastline (with routes out Dar es Salaam and Tanga) likely means that Tajiri in particular could be the next growth centre, because of 268 million tonnes resource and several untapped zones. Coburn is a standalone anomaly, but Tanzania is becoming a pipeline of mineral sands projects.

We can't leave it all for Iluka

As it will take A\$338m to develop Coburn, but Strandline is more than fully-funded: even before the bond issue and the capital raising, the project was underpinned by take-or-pay offtakes for 90% of the first five years of production. As if that wasn't enough, the Federal government's Northern Australian Infrastructure Facility (NAIF) has also agreed to lend an extra \$150m, virtually ensuring that Strandline can become a top minerals sands producer.

Given that there's very few mineral sands companies other than Iluka Resources to compete with, there is a chance here for Coburn to fill the gap in the market as more projects slowly come online and prices improve – and maybe even rival Iluka's largest zircon mine at Jacinth-Ambrosia in SA.

With first production targeted next year, Coburn has rapidly outdone even Strandline's former projections and with the current financial returns it may not be long until the company is a mineral sands developer in two jurisdictions. Four stars from us.

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First mover advantage

Beyondie, which is 160 km southeast of Newman in Western Australia's Pilbara region, is expected to produce 90,000 tonnes of SOP per year for a minimum term of thirty years. The project was expected to come into production in 2020, but Kalium Lake's position as a first mover came with some capital cost overruns, including design changes for storage and treatment as well as increased gas pipeline costs. Even with some necessary changes, the project is close to completion with first production expected in the third quarter of 2021. Beyondie has an operating cost of US\$200 per tonne AISC and a pre-tax 'Phase 1' NPV of A\$364m (8% discount rate) and pre-tax 'Phase 2' NPV of A\$603m.

Phase 1 in this case is the 90,000 tonnes per annum, but Phase 2 will see the expansion to 180,000 tonnes. With a mineral resource of 5.95 million tonnes at 17,490 mg/l SOP, the company sees significant growth potential during Phase 2 where extensions to the east of Beyondie could provide four times the lake surface area of Phase 1. And because Beyondie is a salt lake brine operation, the outlook to increase resources still comes at a lower cost through simply evaporating the brine and processing the leftover concentrate. Salt lakes with enough brine minerals are rare, contributing only 15-20% of global SOP supply.

The new Australian industry

Although potash has long been a vital product for Australian farmers who consume about 250,000 tonnes a year, it's only now that we're getting substantial domestic production going, with Kalium Lakes and four other SOP producers coming onto the scene. One other hopeful is Salt Lake Potash (ASX:SO4), which is hoping to potentially beat Kalium Lakes' production start by a few months if it can. If anything, the rapid evolution of WA's potash industry shows just how game governments are about perfecting SOP at home and Kalium Lakes doesn't come out as a special front-runner: most of the upcoming SOP producers have secured Northern Australia Infrastructure Facility (NAIF) funding, at a minimum, to make use of WA's vast salt lake resources and break that reliance on exports.

If Kalium Lakes does have an advantage, it's that it has already secured a 10-year offtake agreement with leading German fertiliser producer and distributor K+S for 100% of Phase 1 production. K+S already supplies SOP fertiliser to more than 60% of the Australian and New Zealand SOP markets, making a nice full circle as the company uses that time to market its product and improve its margins. The agreement also explains the company's haste to begin its salt harvesting right now in preparation for its feedstock and subsequent ramp-up.

In the longer term, past Phase 1, the strategy will revolve around making the highest-grade SOP product at prices the Australian agricultural sector can take advantage of. Australian farmers pay around \$1,050 a tonne (plus export costs) for premium SOP fertiliser and you get the feeling that both cost and quality will become much more important as Australia's climate changes. SOP's continuing demand revolves around the reduction in chloride and the increase in sulphur (a necessary ingredient in healthy soils). This is another reason players like Kalium Lakes are choosing the salt lake processing route.

Feed Australia and then the world

The company's view of the potash market is that the SOP market remains undersupplied, which is good news considering that it also believes it could eventually build up to 400,000 tonnes per annum if the potential at the 10 Mile and Sunshine Lakes are realised. It's difficult for Kalium Lakes not to get ahead of itself so close to production, but we can see why the company is hopeful: the global appetite for SOP now reaches 7 million tonnes a year and the K+S agreement is just the start of the move into many markets.

Beyondie is very much an Australian solution for the future of the agricultural industry and it only came about because its co-founder, and literal pilot, Brent Smoothy got the idea for the project's potash potential when he and the geologists he was chartering flew over it. While Kalium Lakes is set to become one of the country's first SOP producers, the strategy was to capture this market first. Four stars.



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Green light for POSCO

If you want to find a lot of graphite, Tanzania is a great place to start. Black Rock Mining found its company-maker roughly in the middle of the country, in the Morogoro Region, about 300 km southwest of the major port city of Dar es Salaam. Mahenge is only the fourth largest graphite resource in Tanzania, but that left Black Rock with a JORC-compliant mineral resource estimate of 212 million tonnes at 7.8% total graphite content (TGC) and ore reserves of 70 million tonnes at 8.5% TGC. The project's natural graphite product mix will enable Black Rock to make its entry into both EV/battery markets and traditional graphite markets for a start-up offtake entry of about 85,000 tonnes for the first year (Phase 1). The Mahenge Definitive Feasibility Study, updated in 2019, envisions an eventual output of 350,000 tonnes per annum with a mine life of 26 years.

The biggest gain for Black Rock this year, and the reason the share price has stayed buoyant, is its strategic partnership with the South Korean steel giant POSCO. Following Tanzania's green light, POSCO will make a US\$7.5m equity investment as both agree to develop the project and establish a premium graphite supply chain. The partnership means that the company has a jump on pre-construction activities. Throw in an improved regulatory environment now that Tanzania's issues with Barrick are ancient history as well as better pricing for battery minerals than last year and Black Rock is well placed with Mahenge.

Cutting it fine

We're not surprised that POSCO wants to invest given Mahenge's financial outlook, which includes a Net Present Value of US\$1.16bn (A\$1.65bn) at a 10% discount rate and an Internal Rate of Return of 44.8%. POSCO has plans to build up a secondary battery materials supply chain and for that it needs the kind of graphite concentrate suitable for anode pre-cursor material in lithium-ion batteries. Although Mahenge's mineral make-up lends itself to the high-margin, large graphite flake market (with large or 'jumbo' flakes often used in steelmaking), the project has enough small flake (or fine) graphite to support POSCO's commercial specifications.

POSCO is already investigating the possibility of large-scale production of Spherical Purified Graphite (SPG) after previous successful testing and that possibility will require a fair share of Black Rock's estimated production. SPG is a bonus for both companies as it is high-purity (>99.95%) and higher in value than basic concentrate. To give an idea of how valuable that is, China (as the major exporter of SPG) has been taking in around US\$3,000 per tonne for the product.

While POSCO has a route to secure more battery minerals from mines in Africa and Australia to reduce its dependence on China, the development of graphite projects, like Mahenge, Lindi Jumbo (Walkabout Resources) and Bunyu (Volt Resources) in Tanzania, means that both Chinese and non-Chinese battery makers will likely climb over each other to get a piece of the supply, especially as the market continues to be constrained by a lack of new graphite mines. Lithium-ion batteries have ten times the amount of graphite to lithium, meaning that the demand from EVs and other electrified transport options will continue to impact supply as the price of battery packs goes down. That tipping point is expected as soon as 2022, indicating that Black Rock and its compatriot small caps could be reaping the rewards of higher flake prices as the cost of EVs comes down.

Tipping point

Now that the POSCO deal has been cleared by Australia's Foreign Investment Review Board (FIRB) and Tanzania's Fair Competition Commission (FCC), Black Rock will continue to flesh out the offtake agreement number between 20,000-40,000 tonnes p.a. for the life of the project. The company will use the agreed funds for project development, including front end engineering work for the final design and another pilot scale test. The Tanzanian government's updated export regulations for natural graphite continue to show a tightening of government control (such as royalties as a condition of export), but those regulations also pave the way for stable, long-term growth.

In October 2020 Black Rock raised A\$2m at 4.9 cents a share, and the POSCO investment was completed in early June. Those two raisings, however, won't pay for a mine, so the next hurdle is project financing package. With a portfolio of offtake partners and a DFS that others would be jealous of, we don't think it will take long for everything to be settled before construction commences later in CY2021. As the fourth largest graphite project in the country, Mahenge represents the kind of large graphite orebody that Tanzania and the wider EV/battery chain is going to need for the long-term. As for Black Rock, the hard work has almost paid off. Four stars.

Pitt Street Research Pty Ltd

95 Pitt Street, Sydney, NSW 2000, Australia

Pitt Street Research Pty Ltd is founded on more than 40 years of combined experience researching companies in a range of different sectors.

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