ASX ANNOUNCEMENT

Coburn Mineral Sands Project - Project Update

14 June 2018



Strandline starts Definitive Feasibility Study on Coburn mineral sands project in WA

Drilling underway to produce bulk samples for potential customers as part of negotiations to secure offtake agreements

HIGHLIGHTS

- Strandline has commenced a full Definitive Feasibility Study (DFS) on its zircon-rich Coburn mineral sands project in Western Australia
- The DFS forms part of the Company's strategy to further optimise the project while also positioning Coburn for a development decision as soon as practical
- Drilling at Coburn is now underway to generate bulk samples which will be used in offtake negotiations and refinement of process design parameters
- The Coburn project has key project approvals already in place, including mining and environmental licenses, and is well positioned to capitalise on the growing strength of the mineral sands market
- Coburn has a large JORC Resource of 979Mt at 1.26% HM and Ore Reserve of 308Mt at 1.2% HM, a projected +19 year mine life and high value product suite of zircon and high titanium minerals

Strandline Resources Limited (ASX:STA) (**Strandline** or the **Company**) is pleased to announce that it has commenced a revised Definitive Feasibility Study on its 100%-owned Coburn mineral sands project in WA.

The DFS will redefine the technical and commercial aspects of the project. This is necessary to support the Company's Final Investment Decision (**FID**).

The Company initiated the DFS after receiving positive results from its internal project reviews and market engagement activities, which were undertaken in response to the significant upturn in the mineral sands market and improving industry dynamics.

An emerging structural supply gap in the mineral sands sector means that new capital projects are required to meet forecast demand. Coburn's high-quality zircon and titanium product suite, long-life reserves and in-place approvals status mean the project is well positioned for commercialisation.

To ensure the DFS progresses as rapidly as possible, Strandline has started an air core drilling campaign at Coburn to produce bulk samples which can be used in negotiations with potential customers and investors. The representative samples will also be used to confirm process optimisation parameters and test modern processing technology which is expected to improve plant performance and product saleability.

Offtake negotiations and project tendering activities are well underway and the DFS will generate updated capitaloperating costs and an enhanced execution plan for the project.

As part of the DFS, the Company recently appointed AECOM Australia Pty Limited (**AECOM**), which is an experienced engineering and environmental consultancy with extensive knowledge of the project, to assist with important stakeholder engagement and updating site permits in readiness for construction.



Strandline has also engaged Qube Bulk Pty Limited (**Qube**), Western Australia's premier bulk and port logistics provider, to complete a mine-to-ship logistics study for bulk mineral sands exports aimed at defining an improved logistics solution for the project.

Further, the Company is engaging with experienced industry contractors, vendors and suppliers to update other key project inputs such as mining, process infrastructure, village and power (supply and generation) solutions.

The project is located 250km north of the major minerals port of Geraldton on Western Australia's central coast and has key project approvals already in place, including mining and environmental approvals and native title heritage agreements.

Strandline Managing Director Luke Graham said the current favourable market dynamics and technological advancements in processing equipment provide significant opportunities for the Company to increase the financial returns from Coburn.

"The strengthening demand for Coburn's high-quality mineral sands products, particularly zircon and hightitanium minerals, and the strong inherent project fundamentals make us very confident about its outlook," Mr Graham said.

"The Company is moving quickly to lock-in key implementation partners over the coming year, including product offtake, major execution contracts and funding providers.

"Coburn is a major, long-life asset located in the low-risk mineral sands mining jurisdiction of Western Australia. It complements our emerging mineral sands project portfolio in Tanzania and based on the long-term market forecast, would generate strong financial returns for shareholders."

Strandline's project portfolio contains varying production profiles, offering near-term cashflow potential across multiple jurisdictions and a globally significant JORC resource base with significant exploration upside.

In brief Strandline's projects include:

- Coburn Project, in Western Australia: previous definitive feasibility showing strong project fundamentals, permits in place, large ore reserves, +19 year mine life, highly marketable products and projecting plus A\$300 million pre-tax NPV₈;
- Fungoni Project, in central Tanzania: DFS recently completed showing compelling financial returns (LOM EBITDA of US\$98 million), product offtakes secured, low cost start-up, environmental approval in place and ~12 month programme to production (refer ASX Announcement 06 October 2017);
- Tanga South (Tajiri) Project, in northern Tanzania: scoping study underway and mineral resource building continuing, hosting large JORC Indicated Mineral Resources totalling 147Mt @ 3.1% at the Tanga South Tajiri tenement, and providing multi-decade production potential (refer ASX Announcement 16 February 2018);
- **Bagamoyo Project**, in central Tanzania: strong early-stage drilling results highlight growing potential with widespread heavy mineral sand enrichment over soil anomalies, with multiple holes showing higher grade HM at depth (refer ASX Announcement 12 March 2018); and
- Strandline's 100%-owned Southern Tanzania tenements (in joint venture with Rio Tinto): greenfield exploration is underway with Rio Tinto sole funding activities, new mineral sands intersections discovered at Sudi project near Mtwara port; Southern tenements offer immense exploration upside (refer ASX Announcement 14 March 2018).

Summary of the Coburn Mineral Sands Project

Coburn is a strategically important part of Strandline's pipeline of mineral sands projects and is defined by a large deposit with a global JORC 2004 Resource of 979Mt @ 1.26% HM and a proved and probable Ore Reserve estimate of 308Mt @ 1.2% HM (refer to Annexure 1). The Project has a high value heavy mineral assemblage composition of 23% zircon, 48% ilmenite, 7% rutile and 5% leucoxene.

The project has been subject to advanced engineering work over the past years with a number of definitive feasibility studies having been completed (approximately A\$30 million has been invested on the project to date).



A recent internal review of the previous Coburn definitive-level study produced in 2013 and the subsequent Cost Review Update (**Review**) undertaken in 2015 has confirmed the findings of the Review with an indicated minimum target net present value (**NPV**₈) for the Project of A\$306 million, with significant upside potential identified. Coburn's internal pre-tax rate of return (**IRR**) is forecast to be 26% and will generate A\$2.9 billion of sales revenue over a projected 19-year life, mining at a rate of 23.4Mtpa¹.



Figure 1 Coburn estimated production metrics per product type - Cost Review Update 2015

Coburn is one of a very few large-scale zircon-rich mineral sands projects world-wide at this advanced level of development readiness. The salient points of Coburn are as follows:

- Low risk mining jurisdiction of Western Australia and close to the dominant mineral sands market of Asia;
- Large scale project delivering strong economics, with +19 year mine life at 23.4Mtpa mining rate;
- High quality product suite covering zircon (66% ZrO₂), chloride ilmenite (62% TiO₂) and HiTi90 (90% TiO₂);
- Project approvals in place (environmental, native title, heritage & mining) and essentially, development-ready;
- Access to existing infrastructure (roads, port and gas pipeline) and established professional services industry;
- Extremely low strip ratio and slimes content simple and efficient mining and tails handling;
- Conventional dry mining, mineral extraction and rehabilitation methodologies;
- Attractive revenue to operating cash cost ratio (RC ratio) with opportunity to improve through implementing value improvement initiatives during the DFS; and
- Coburn will generate a host of key socio-economic benefits including capital inflows to regional Australia, significant job creation, indigenous engagement, training and job diversity, as well as community partnership programmes

Mining is based on a contractor using the dozer trap technique for ore and bulldozer only for overburden. Overburden is pushed aside by bulldozers equipped with carry blades. Bulldozers are used to push the ore downwards into a dozer trap (Dozer Mining Unit – DMU), where it would be mixed with water and pumped as a slurry into the wet concentrator plant (WCP). Overburden is then pushed back into the void created by the removal of the ore. Tailings from the WCP would then be pumped back into the pit, covering the previously mined overburden.

Annual Ore Production	23.4Mtpa
Strip Ratio (tonnes of waste per tonne of ore)	0.5 to 1
Slimes	2.7%
Oversize	3.3%
Mine Life	19 years
Method	Open pit, backfill with waste and tailings

Table 1 Key Mining Details

¹ Refer to the ASX Announcement dated 09 February 2015 for full details of the material assumptions underpinning the production target and financial results for the Coburn Project. The Company confirms that all the material assumptions underpinning the production target and financial results continue to apply and have not materially changed.



Processing uses conventional gravity, magnetic and electrostatic separation technologies. Ore is pumped as a wet slurry from the dozer mining trap on the pit floor to the WCP located at the edge of the open pit. The WCP is moved along the ore body at approximately one to three-year intervals as mining proceeds. The WCP recovers the heavy minerals by using wet spiral separation and reflux classifier units. Tailings are then pumped as a slurry back into the mine void, where they are dewatered so that the water can be reused in the mining and mineral concentration process. Concentrate from the WCP is to be trucked to the Mineral Separation Plant (MSP) which is located next to the power station.

The MSP uses a conventional flowsheet to separate ilmenite, zircon and rutile into final saleable products with magnetic and electrostatic equipment. The final products from the MSP are to be trucked to a storage shed to be built adjacent to the Geraldton port, where they will be exported to overseas markets. Product offtake negotiations are underway with a range of reputable counterparties.

Table 2 Heavy Mineral Production	
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Product	Key Specification	Average Annual Production (Tonnes)	Life-of-Mine Production (Million Tonnes)
Zircon	66% ZrO ₂	49,500	0.94
Ilmenite	62% TiO ₂	109,000	2.07
HiTi 90	90% TiO ₂	23,500	0.45
Total		182,000	3.46

Infrastructure

Coburn is located approximately 45km west of the North West Coastal Highway, linking the port of Geraldton some 250km to the south with coastal towns in the Gascoyne, Pilbara and Kimberley regions. A 42.5km access road into the mine site is required.

Power for the mine will be supplied from a dedicated gas-fired power station located close to key infrastructure. Water supply for the mine will come from artesian aquifers directly below the mine. Potable water will be produced from a site based reverse osmosis plant.

An accommodation village will be purpose-built near to the processing plant. Permanent offices will be established at the MSP and relocatable offices at the WCP.

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Figure 2 Coburn project location map, 250km north of Geraldton port



About Strandline Resources

Strandline Resources Limited (**ASX: STA**) is an emerging heavy mineral sands (**HMS**) developer with a growing portfolio of 100%-owned development assets located in Western Australia and within the world's major zircon and titanium producing corridor in South East Africa. Strandline's strategy is to develop and operate quality, high margin, expandable mining assets with market differentiation and global relevance.

Strandline's project portfolio comprises development optionality, geographic diversity and scalability. This includes two zircon-rich, 'development ready' projects, the Fungoni Project in Tanzania and the large Coburn Project in Western Australia, as well as a series of titanium dominated exploration targets spread along 350km of highly prospective Tanzanian coastline, including the advanced Tanga South Project and highly prospective Bagamoyo and Sudi projects.

The Company's focus is to continue its aggressive exploration and development strategy and execute its multitiered and staged growth strategy to maximise shareholder value.



Figure 3 Strandline's 100%-owned assets in the two largest HMS producing jurisdictions, Africa and Australia

Reserves and Resources

The information in this ASX announcement relating to estimates of Ore Reserves and Mineral Resources has been extracted from the ASX announcement dated 7 January 2010. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Ore Reserves and Mineral Resource estimates, that all material assumptions and technical parameters underpinning the estimates in the market announcement continues to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Forward Looking Statements

This report contains certain forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Strandline. These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement reflect the views of Strandline only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, Strandline does not undertake any obligation to update or revise any information or any of the forward looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward looking statements is based.



Annexure 1 – Coburn Resource and Reserve JORC Tables

Coburn has a JORC 2004 proven and probable Ore Reserve estimate of 308Mt @ 1.2% HM². A summary of the Ore Reserve estimate is provided in Table 3 below:

		ORE RESERV	ES SUMMAR	Y FOR COBURI	N ZIRCON P	ROJECT		
Summary of Ore Reserves ⁽¹⁾				HM assemblage ⁽²⁾				
Deposit	Reserve Category	Tonnage	Contained HM	HM Grade	Zircon	Ilmenite	Rutile	Leucoxene
		(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)
Amy Pit A	Proven	53	0.7	1.3	24	46	5	6
Amy Pits B-E	Probable	255	3.1	1.2	23	48	7	4
	Total ⁽³⁾	308	3.8	1.2	23	48	7	5
(1) Cut-off grad	e applied is 0.8%	НМ	<u>.</u>			-		-
(2) Mineral asse	emblage is report	ed as a percent	age of total HN	1 content. Slime	s average 2.7	% of the ore ar	nd oversize 3	.3%.
(3) Appropriate	rounding applied	1						

 Table 3 Coburn Project Ore Reserve Estimate (January 2010)

The Ore Reserve estimated is based upon a JORC 2004 Mineral Resource estimate of 979Mt @ 1.26% HM³. A summary of the Mineral Resource estimate is provided in Table 4 below:

 Table 4 Coburn Project Mineral Resource Estimate (January 2010)

MINERAL RESOURCE SUMMARY FOR COBURN ZIRCON PROJECT ⁽¹⁾						
Deposit	Mineral Resource Category	Tonnage ⁽²⁾	Contained HM	HM Grade		
		(Mt)	(Mt)	(%)		
Amy South	Measured	119	1.5	1.3		
Amy Central	Indicated	599	7.2	1.2		
Amy North	Inferred	261	3.6	1.4		
	Total ⁽³⁾	979	12.3	1.26		
(1) Cut-off grade appli	ed is 0.8% HM					
(2) Inclusive of Ore Res	serves					
(3) Appropriate round	ing applied					

The Coburn Mineral Resources contain 10.2 million tonnes of contained heavy mineral, which includes 2.8 million tonnes of zircon, 6.0 million tonnes of ilmenite and 1.4 million tonnes of HiTi minerals (rutile and leucoxene).



Figure 4 Coburn Project – Image of Amy Pit Ore Reserves A-E

² Refer to the ASX announcement dated 07 January 2010 for full details of the Ore Reserves estimate. This Ore Reserve estimate has not been updated to the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.
³Refer to the ASX announcement dated 07 January 2010 for full details of the Mineral Resource estimate. This Mineral Resource estimate has not been updated to the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.