## ASX ANNOUNCEMENT

Coburn Mineral Sands Project - Project Update

28 June 2018



# Strandline appoint leading industry specialists to advance the DFS for Coburn mineral sands project

### Drilling completed to generate bulk samples for optimisation and offtakes HIGHLIGHTS

- Definitive Feasibility Study on the Coburn mineral sands project in WA is being ramped up with the appointment of GR Engineering Services, TZMI's Allied Mineral Laboratories and mining specialist AMC Consultants to advance key technical aspects of the project
- The appointments are aimed at positioning Coburn for a timely development decision
- Coburn already has key approvals in place, including mining and environmental licences, and is ideally-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 engaged leading specialist consultants and contractors to undertake key technical work as part of the Definitive Feasibility Study (**DFS**) on its Coburn mineral sands project in WA.

The appointments reflect Strandline's strategy to advance the DFS to enable Coburn to capitalise on the strong recovery in the mineral sands market and forecasted emerging supply gap.

The DFS will redefine the technical and commercial aspects of the project in preparation for a Final Investment Decision (**FID**) to develop the project.

As part of this preparation, Strandline has generated a representative bulk sample from Coburn's Ore Reserve area. This material will be used to confirm process optimisation parameters and support offtake and investment negotiations.

The specialists engaged by Strandline are independent and highly reputable firms with experience in mineral sands and West Australian project development. They include:

- GR Engineering Services (**GRES**) Process and non-process infrastructure design, DFS compilation, and development of overall definitive-level capital and operating cost estimates
- AMC Consultants (AMC) Mine study and pit optimisation development
- IHC Robbins (IHC) Geology and Mineral Resource review
- TZMI's Allied Mineral Laboratories (AML) Bulk metallurgical test work and marketing analysis
- AECOM Australia (AECOM) environmental monitoring, project permitting and stakeholder engagement
- Qube Bulk (Qube) mine-to-ship logistics study for bulk mineral sands exports



The DFS will leverage off the significant work done to date on the project while focusing on a multitude of value improvement initiatives and execution readiness activities. The DFS will generate updated capital and operating costs and an enhanced execution plan for the project.

Coburn 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 appointments reflected the Company's strategy to expedite development planning for Coburn.

"These specialist firms will help ensure we have the best available information and knowledge on which to base a development decision, and that we have it as soon as practical so that we can maximise our ability to capitalise on the market opportunity," Mr Graham said.

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% ZrO<sub>2</sub>), chloride ilmenite (62% TiO<sub>2</sub>) and HiTi90 (90% TiO<sub>2</sub>);
- 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.

For further enquiries, please contact: **Luke Graham** CEO and Managing Director Strandline Resources Limited T: +61 8 9226 3130 E: enquiries@strandline.com.au



Figure 1 Coburn project location map, 250km north of Geraldton port

For media and broker enquiries: **Paul Armstrong and Nicholas Read** Read Corporate T: +61 8 9388 1474 E : nicholas@readcorporate.com.au



#### **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 1 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% HM<sup>1</sup>. A summary of the Ore Reserve estimate is provided in Table 3 below:

Table 3 Coburr	n Project	Ore Reserve	Estimate	(January	y 2010)
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ORE RESERVES SUMMARY FOR COBURN ZIRCON PROJECT								
Summary of Ore Reserves <sup>(1)</sup>				HM assemblage <sup>(2)</sup>				
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 <sup>(3)</sup>	308	3.8	1.2	23	48	7	5
(1) Cut-off grade applied is 0.8% HM								
(2) Mineral assemblage is reported as a percentage of total HM content. Slimes average 2.7% of the ore and oversize 3.3%.								
(3) Appropriate rounding applied								

The Ore Reserve estimated is based upon a JORC 2004 Mineral Resource estimate of 979Mt @ 1.26% HM<sup>2</sup>. 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 <sup>(1)</sup>						
Deposit	Mineral Resource Category	Tonnage <sup>(2)</sup>	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 <sup>(3)</sup>	979	12.3	1.26		
(1) Cut-off grade applie	ed is 0.8% HM					
(2) Inclusive of Ore Res	serves					
(3) Appropriate roundi	ng 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

<sup>&</sup>lt;sup>1</sup> 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.
<sup>2</sup>Refer 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.