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STRANDLINE
resources limited

Outstanding improvements in process recoveries from Coburn DFS

Bulk testwork results confirm Coburn can produce both high-value heavy mineral sands concentrate and final products, opening the door to a wide range of offtake and funding options

HIGHLIGHTS

- **Metallurgical test results highlight the strong outlook for the Coburn mineral sands project in Western Australia**
- **The tests, undertaken as part of the Coburn Definitive Feasibility Study (DFS), show conventional processing capable of producing high-quality products**
- **Excellent pit-to-product recovery rates of valuable zircon and titanium minerals achieved within both concentrate and final product streams**
- **DFS design to reveal development optionality with ability to market a high-value Heavy Mineral Concentrate (HMC) product or refining further to final products**
- **Engagement with global consumers confirms high demand for Coburn's products in both concentrate or final product form, providing a wide range of offtake and investment options**
- **The results pave the way for completion of an updated JORC-compliant Ore Reserve and DFS; both are set for release this month**

Strandline Resources (ASX: STA) is pleased to announce outstanding metallurgical test results which could have a significant beneficial impact on the economics and funding of its Coburn mineral sands project in WA's Mid West.

The tests have established that Coburn can deliver high-quality mineral sands products using conventional processing technology, with excellent recoveries.

Representative bulk samples taken from across the Coburn orebody were tested at TZMI's Allied Mineral Laboratories with mineral analysis performed at ALS and CSIRO laboratories. The testwork utilised full scale or scalable equipment. Engineering trade-off studies were performed to optimise the processing route, product marketability and minimise project development risk.

Recoveries across all key products have improved upon previous testwork and are expected, through the DFS, to result in an increase in saleable product tonnes produced from the project.

Engagement with leading mineral sands consumers has progressed during the testwork program to assist in confirming the saleability of the products. It is evident that Coburn's zircon-titanium products are in high market demand in both concentrate and final product form.

Coburn's DFS design will contemplate two strong development options in terms of product to be produced and sold to the market. This includes producing a high-grade +95% heavy mineral concentrate (HMC) product (which can be sold to the downstream global processing market) or building additional processing infrastructure to separate the valuable zircon and titanium minerals into final product form.

The final development option will be confirmed through offtake and investor discussions currently underway.

Strandline Managing Director Luke Graham said the results were pivotal to Coburn's funding prospects and economics.

"The testwork has confirmed outstanding improvements in product recoveries, high-quality zircon and titanium products and a robust process design.

"The ability to produce saleable products in both concentrate and final product form opens the door to a wide range of offtake and investment options for Coburn.

"Concentrate production requires less capital expenditure and delivers a product which is in increasing demand among leading mineral sands processors and customers.

"The Coburn project is set to be a world-scale, long life operation located in the Tier-One mining jurisdiction of WA, with proximity to existing key infrastructure.

"These results will be incorporated into the DFS currently being concluded by GR Engineering Services and a range of other specialist consultants," Mr Graham said.

SUMMARY OF RESULTS

Process Flowsheet

High quality final products have been achieved from the DFS through the process flowsheet metallurgical testwork program. The bulk testwork utilised modern, full scale or scalable beneficiation and mineral separation equipment. A total of 23.4t of bulk sample was collected across the Coburn ore body to be representative of the expected Ore Reserve grade of 1.1% to 1.2% THM.

The testwork confirmed a process circuit capable of producing a high-grade saleable 95% Heavy Mineral Concentrate (HMC) product from the Wet Concentrator Plant (WCP), and final products through further processing by the Mineral Separation Plant (MSP).

The final product scenario defines a high-value product suite comprising a premium zircon product (66% ZrO_2), zircon concentrate product (28% ZrO_2), HiTi90 product (which combines the rutile and leucoxene minerals to produce a 90% TiO_2 blend) and chloride-grade ilmenite product (62% TiO_2).

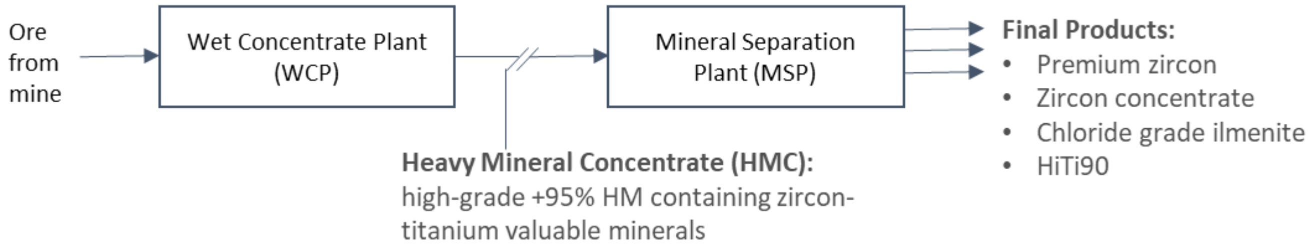

Figure 1 Block diagram of Coburn Process Units and Product Optionality

The WCP design utilises multiple stages of high-capacity gravity separation and classification to produce HMC as shown in Figure 2 below. A key feature was the uplift in separation efficiency using modern technology (resulting in improved WCP recoveries compared to previous testwork).

The MSP testwork aimed to simplify the previous feasibility study design and enhance product recovery, quality or marketability. The test program utilised the HMC produced from the WCP bulk run and processed it through modern full scale and pilot scale magnetic, electrostatic and screening equipment.

A key feature of the new MSP design is the first stage separation of conductor minerals (TiO2) from the non-conductor minerals (zircon). The introduction of a zircon concentrate stream (as a co-product to the premium zircon) contributes to the significant increase in overall zircon recovery at the MSP.

Also, the ability to produce a chloride grade ilmenite and HiTi90 product aligns favourably with the current and projected titanium feedstock market demand.

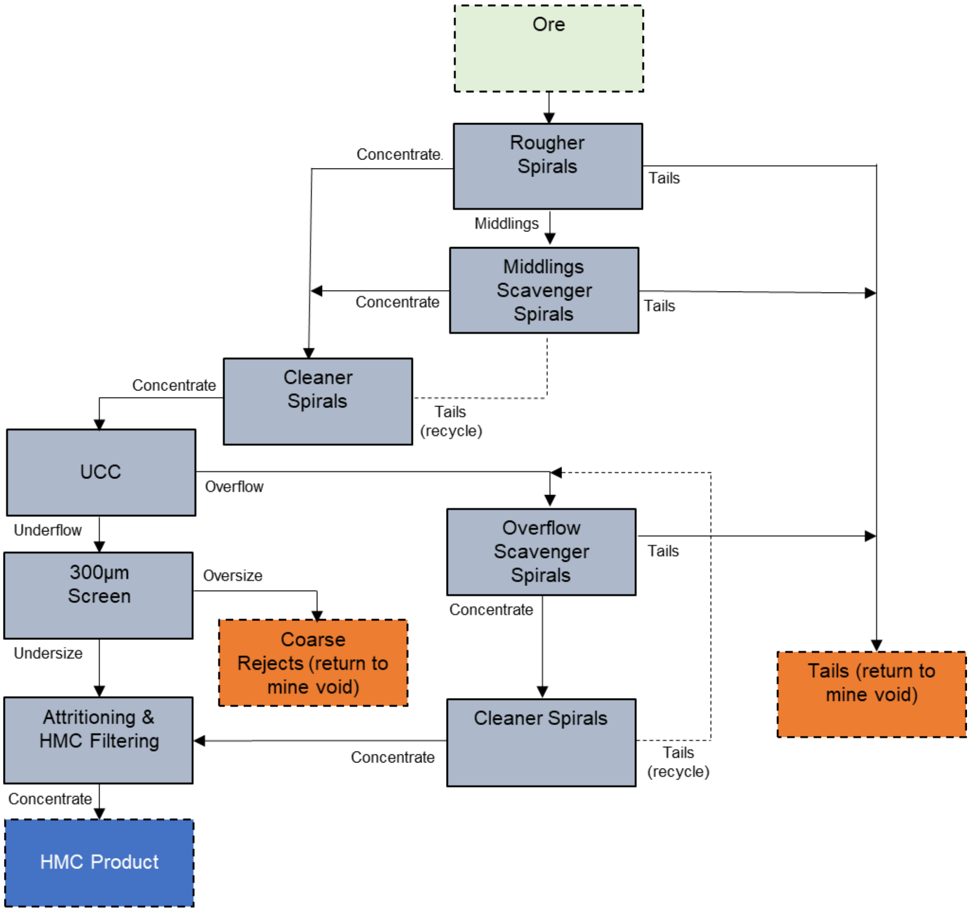

Figure 2 WCP Process Flowsheet Diagram

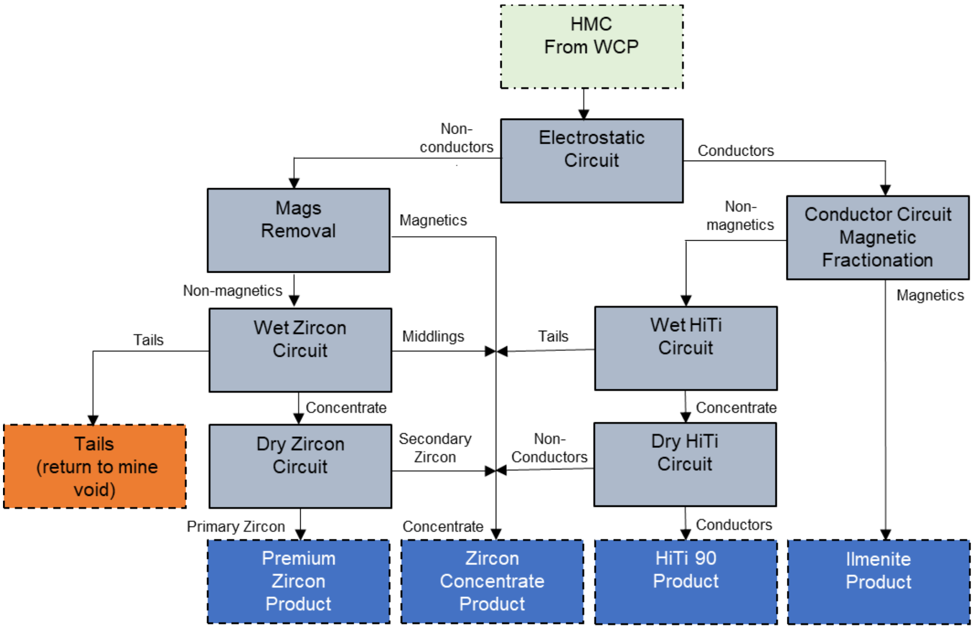

Figure 3 MSP Process Unit Block Diagram

Recoveries

Multiple process configurations using modern equipment were tested in order to determine the optimum plant design and maximise recovery of valuable minerals. The DFS circuit selected delivers a material improvement in recoveries across all products for both the Wet Plant Concentrator (WCP) and the Mineral Separation Plant (MSP).

These results will be directly applied in determining the updated Ore Reserve and financial model analysis as part of the upcoming DFS.

Table 1 Product Recoveries based on DFS Testwork

Product	WCP Recovery (%)		MSP Recovery (%) [3]		MSP Yield to saleable products (%)
	Previous Test Program [2]	2018/19 Test Program	Previous Test Program [2]	2018/19 Test Program	2018/19 Test Program
Ilmenite	81	**86.8**	81	**95.4**	**103.9** [5]
HiTi90[1]	84	**87.7**	69	**70.9**	**77.0** [5]
Zircon	94	**98.2**	73	**98.7** [4]	**98.8**

Notes:

[1] HiTi product contains rutile and leucoxene mineral species.

[2] Previous Test Program: results from representative testwork program Allied Mineral Laboratories report February 2010 titled "Testwork and flowsheet development (in consultation with Sedgman Pty Ltd and Titanatek Pty Ltd)"

[3] MSP Recoveries are for actual mineral species.

[4] MSP zircon recovery comprises 54.8% into premium zircon and a further 43.9% into zircon concentrate as contained zircon.

[5] Actual yields into saleable products are higher due to contributions from other minerals. For example, ilmenite product contains a contribution from leucoxene that was not recovered into HiTi90 product.

Product Specification and Marketability

Discussions with leading global mineral sands consumers progressed during the DFS testwork program to assist in confirming the saleability of the products and offtake interest. It is evident that Coburn's zircon-titanium products are in strong demand in both HMC and final product form.

Key features of the final products produced from the Coburn DFS testwork include:

Ilmenite:

- High 62% TiO_2 content attractive for direct chloride pigment application or upgrading via Synthetic Rutile (SR) or slag routes into high grade chloride route pigment feedstock;
- Low U + Th (nominally 140 ppm);
- Minor elements of Cr_2O_3, CaO, MgO and MnO relatively low or in line with competing products;
- Relatively coarse grain size in comparison with many competing products (with D50 148µm).

HiTi90:

- High 90% TiO_2 content attractive for direct chloride pigment application or blending up of lower grade feedstocks for similar applications. Competes strongly with lower grade Leucoxene 88%;
- Suitable for Titanium sponge production;
- Low U + Th (nominally 110 ppm);
- Relatively coarse grain size in comparison with many competing products (with D50 121µm).

Premium Zircon:

- High grade premium ZrO2 + HfO2 of 65.8%;
- Low U + Th (nominally 340 ppm);
- Suitable for ceramics, foundry and chemical application;
- Relatively coarse grain size in comparison with many competing products (with D50 125µm).

Zircon Concentrate:

- Contained zircon suitable for blending with other ceramics grade zircon or as a stand-alone product for chemical and foundry applications;
- Zircon contained within the concentrate has relatively low U + Th (~400ppm), which may provide blending flexibility for the downstream purchaser to blend with other products that contain less favourable characteristics.

The analysis of the saleable products produced from the MSP testwork are presented in Table 2 below.

Table 2 Coburn Project Final Product Specification

Analyses	Units	Ilmenite	HiTi	Primary Zircon	Zircon Concentrate
TiO_2	%	62.3	90.1	0.17	10.8
Fe_2O_3 (XRF)	%	29.4	1.5	0.14	4.4
Al_2O_3	%	1.41	0.93	0.41	20.2
SiO_2	%	3.4	2.7	32.8	33.7
Cr_2O_3	%	0.14	0.2	0.0	0.05
$ZrO_2 + HfO_2$	%	0.12	2.4	65.8	27.9
CaO	%	0.1	0.1	0.0	0.09
MgO	%	0.2	0.0	0.0	0.67
MnO	%	0.8	0.0	0.0	0.07
CeO_2	%	0.0	0.0	0.0	0.16
Th	ppm	130	56	117	390
U	ppm	14	50	220	151
D50	(µm)	148	121	125	NA

Coburn is Well Placed to capitalise on the Growing Mineral Sands Market

The global heavy mineral sands market is a mature industry and product demand is leveraged heavily to urbanisation and global growth (global GDP and consumer spending). Mineral sands products have an extensive array of applications and many products are used in everyday life, including ceramics, paint, technology, chemicals, refractories, and the construction industry.

With market demand increasing and supply decreasing (influenced by closure of some existing mines and an overall decline in grades and maturing ore bodies), new capital projects are required to satisfy market demand. Figure 4 shows the forecast underlying demand for zircon increasing year-on-year and existing production decreasing at an average of 5% per annum, resulting in a potential large structural supply deficit.

Coburn is extremely advanced in the project development cycle with key project approvals already in place (including mining and environmental approvals, native title and heritage agreements) and is well placed to capitalise on this favourable emerging market dynamic.

The zircon and chloride ilmenite quantities expected to be produced from the Coburn project are significant in world standards, representing approximately 5% and 10% of the global market respectively.

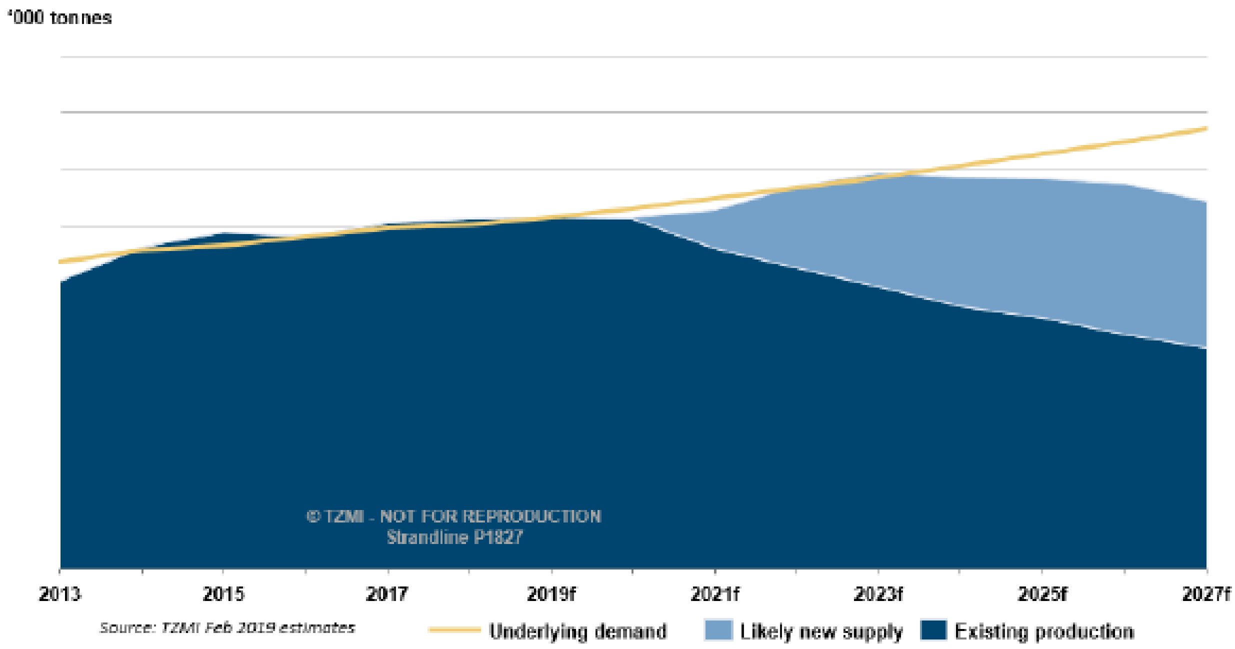

Figure 4 TZ Minerals International[1]. February-2019 - Global Zircon Supply/Demand Balance to 2027

Key Next Steps towards Project Development

These strong testwork results pave the way for completion of an optimised mine design and JORC-2012 compliant Ore Reserve Statement and DFS; which are set for release this month.

Furthermore, these results build on Strandline's previous announcement (14 November 2018) relating to a significant increase in Coburn's JORC-2012 Mineral Resource to 1.6Bt at 1.2% total heavy mineral (THM) and show Coburn is trending to be a world class development asset.

Evaluation of product offtake, funding and strategic partnering options are progressing in parallel with detailed project execution planning and readiness activities.

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[1] TZ Minerals International (TZMI) is a global, independent consulting and publishing company which specialises in technical, strategic and commercial analyses of the opaque mineral, chemical and metal sectors including data, analysis and information across the mineral sands industries.

ABOUT STRANDLINE

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 Bagamoyo Project.

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

MINERAL SANDS COMPETENT PERSON'S STATEMENTS

The information in this report that relates to Exploration Results and Metallurgical Testwork Results is based on, and fairly represents, information and supporting documentation prepared by Mr Brendan Cummins, Chief Geologist and employee of Strandline. Mr Cummins is a member of the Australian Institute of Geoscientists and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cummins consents to the inclusion in this release of the matters based on the information in the form and context in which they appear. Mr Cummins is a shareholder of Strandline Resources.

The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Greg Jones, (Consultant to Strandline and Geological Services Manager for IHC Robbins) and Mr Brendan Cummins (Chief Geologist and employee of Strandline). Mr Jones is a member of the Australian Institute of Mining and Metallurgy and Mr Cummins is a member of the Australian Institute of Geoscientists and both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Cummins is the Competent Person for the provision of the drill database, and completed the site inspection. Mr Jones is the Competent Person for the data integration and resource estimation. Mr Jones and Mr Cummins consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

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.

Appendix 1

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The majority of the drilling at Coburn was was completed 2003 and 2007 with minor programs in 2011 and 2018 • Aircore drilling was used to obtain samples at 1.0m intervals between 2003 and 2005 with 2m intervals used in 2005. • Between 2003 and 2007 sample material was collected by a cyclone and passed through a rotary splitter that consisted of a rotating, inclined plate set directly below the cyclone discharge. The rotation speed was approximately 60rpm. The plates were set to discharge between 1 and 2kg from a 1m interval leaving 6 to 8kg of bulk bagged reject that was stacked near the collar. • A similar method was used in 2011 • In 2018 the sample was taken from the cyclone and split until a 1kg sample remained. • A sample of sand was scooped from the sample bag for visual THM% estimation and logging. Prior to 2003 only samples with an estimated 0.5% THM were submitted for analysis. The samples lower than 0.5% THM were not assayed • After 2003 all samples drilled were submitted for analysis • A sample ledger was kept at the drill rig for recording sample intervals and water resistant sample books were used with pre-printed sequential sample numbers assigned top each unique sample. • At all times significant effort was made to ensure sample representivity of the mineralization using Industry standard drilling and sample techniques for mineral sands
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Aircore drilling with inner tubes for sample return was used • Aircore is considered a standard industry technique for HMS mineralization. Aircore drilling is a form of reverse circulation drilling where the sample is collected at the face and returned inside the inner tube • From 2003 onwards a Wallis Drilling Pty Ltd Mantis rig was used for the AC drilling • Aircore drill rods used were 3m long • 82mm drill bits were used • A small drill program was completed by Strike Drilling using a T450 mounted on a Mercedes Benz 6x6 Actross truck. The

Criteria	JORC Code explanation	Commentary
		purpose of the drill program was to primarily gather a 30 t metallurgical sample but 6 AC holes were also twinned against the older AC drilling completed by Wallis for comparative purposes. The strike drill rods were 6m long with a diameter of 89mm. • All drill holes were vertical
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• From 2003 to 2011 drill sample recovery was estimated during the logging and provided as a percentage estimate • The recovery estimation method was subjective but no issues were identified in subsequent analysis of the other quality assurances tests of the data sets such as field and laboratory duplicates and a large number of twin drill holes. • Recoveries in the shallow (<6m) depth was enhanced with the injection of some water to help keep the sand bound and enable it to be blown up the inner tube. • At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes • The twin-tube aircore drilling technique is known to provide high quality samples from the face of the drill hole • The cyclone was struck with a rubber mallet during the drilling phase to keep the inside of it free of clay and silt
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• The 1m aircore samples were each qualitatively logged onto paper field sheets prior to digital entry into Microsoft Excel spreadsheet and then importation into Datashed for validation • The aircore samples were logged for lithology, colour, grainsize, hardness, cementing, wetness and estimated sample recovery. The THM, Slimes and oversize were also visually estimated. Degree of rounding and sorting y relevant comments • Every drill hole was logged in full • Logging is undertaken with reference to a Drilling Guideline with codes prescribed and guidance on description to ensure consistent and systematic data collection
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ*	• The 1m drill sample collected at the source was split using a rotary splitter from the cyclone. This was around 10 to 20% of the sand drilled yielding a sample between 1 and 2kg • Prior to 2003 the samples were split in the field to between 60 and 100g using a small laboratory riffle splitter but this method was discarded in later years • Post 2003 as a check for field bias field duplicates of the rotary split samples were completed at a frequency of 1 per 100 primary samples with the results showing

Criteria	JORC Code explanation	Commentary
	material collected, including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	no significant bias from the HM and Oversize but some a small bias in in the slimes but the error was considered not material with no impact on data quality • Almost all of the samples were predominantly dry and comprised sand, silty sand, sandy silt and this sample preparation method is considered appropriate • The sample sizes were deemed suitable to reliably capture THM, slime, and oversize characteristics, based on industry experience of the geologists involved and consultation with laboratory staff
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The wet panning at the drill site provides an estimate of the THM% which is sufficient for the purpose of determining approximate concentrations of THM in the first instance 2003: • There was limited QC work during the pre 2003 drill programs that were seen as mostly reconnaissance style programs • A small amount of field duplicates were analysed and no significant biases in slimes or THM observed but the data set was deemed as too small to be conclusive • Primary (Dunelabs) Vs Secondary Laboratory (Iluka) field checks were also completed but the number of samples were deemed to be too small to be statistically meaningful • As a further test over 100 samples originally assayed at Dunelabs were submitted to Western Geolabs (WGL that showed a good correlation of THM between the laboratories but a small bias with WGL results showing higher slimes values (13% relative difference) which was attributed to more vigorous desliming used by WGL Post 2003 • More systematic quality controls were adopted post 2003 involving field duplicates, check assaying between WGL and Dunelabs and another independent laboratory Cable Sands Limited (CSL) • In summary the Duplicates collected at a rate of 1/100 by riffling the total rotary splitter reject and these were submitted in the same batch as the primary sample • No significant bias was detected in the HM results from the duplicates with the mean relative difference being only 1% confirming the field duplicates were free from bias. The overall precision was reasonable averaging +/- 13% at the 90% confidence limits • The slimes and oversize results showed a small bias. The mean relative differences were low with the slimes content being low

Criteria	JORC Code explanation	Commentary
		to begin with the overall magnitude of the bias would have little to no impact. Both the slimes and oversize both had poor precision which is largely consistent with observations from other similar datasets and was accepted • In summary Check assays were collected in the field at a rate of 1/50 by bagging the reject half from the final riffling step and were submitted to CSL for analysis and compared to the results from Dunelabs and WGL from the post 2003 to 2007 programs. • The HM checks compared well to both primary laboratories with a mean relative difference of 1% and the HM assay is regarded as being accurate. It was noted in later years of 2005 and 2007 the WGL assay did not show any bias but slightly inferior precision • The slimes and oversize results showed a large bias with significant variation for both slimes and oversize between the labs. The differences were attributed to methods used to scrub the slime with WGL typically reporting higher slimes due to more rigorous desliming methods. The mean relative differences were high with WGL most likely generating too much slime. However with the overall low content of slimes and oversize relative to the sand in absolute terms the differences were considered minor • the slimes content being low to begin with the overall magnitude of the bias would have little to no impact. Both the slimes and oversize both had poor precision which is largely consistent with observations from other similar datasets and was accepted • Overall there was nothing identified to indicate a significant risk to the accuracy and precision of the data used in the resource estimate Summary Analysis Method • The individual aircore samples (1 to 2kg) were assayed predominately by Western Geolabs and Dunelabs when WGL was at capacity. Both Laboratories were based in Perth, Western Australia and they are both considered primary laboratories. • The aircore samples were first screened for removal and determination of Slimes (-45µm) and Oversize (710µm), then the sample was analysed for total heavy mineral (-1mm to +45µm) content by heavy liquid separation • WGL used TBE as the heavy liquid medium – with density range between 2.92 and 2.96 g/ml • Dunelabs used bromoform on the pre 2003

Criteria	JORC Code explanation	Commentary
		holes but swapped to TBE as the heavy liquid medium – with density range between 2.92 and 2.96 g/ml • Check laboratory CSL used LST as the heavy liquid medium – with density range between 2.85 and 2.87 g/ml • This is an industry standard technique for the analysis of HM, slimes and oversize
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data was originally verified in the geological team between 2003 to 2011. In 2008 with the significant resource estimation completed by well-regarded independent industry specialist Deidrick Speijers an extensive review of the data was completed – no issues were identified • 6 Twin holes across the Amy South resources were drilled in 2018 as part of the metallurgical program. The overall results showed a positive correlation to the older drill data. As expected on a paired basis the HM results do not correlate strongly but overall the mean of the results support the HM grade • The field and laboratory data were updated into spreadsheet and some initial checks completed. The spreadsheets were uploaded into a Datashed database were automatic validation enabled the data to be imported. • The 2008 database was considered of high integrity with no material errors or omissions identified by Speijers • All recent drilling from 2011 and 2018 have been incorporated into the drill database established by IHC-Robbins for the 2018 MRE update • No adjustments are made to the primary assay data
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Down hole surveys for shallow vertical aircore holes are not required • 98% of the drill collars have ben surveyed using a DGPS. • The DGPS has an accuracy of +/- 10mm • The original survey work used AMG co-ordinates (AGD84) zone 50S. These have been converted to GDA94 datum • A local grid was established by deducting 7,000,000 from the northings and 200,000 from the eastings • In 2008 Speijers re-worked all of the previous topographic information using accurately surveyed drill collars for control. The resultant digital terrain model was then used to estimate drill collar elevation adjustments for un-surveyed or inaccurately surveyed collars. • In 2018 IHC Robbins incorporated a number of models and generated a new DTM with significantly more detail and

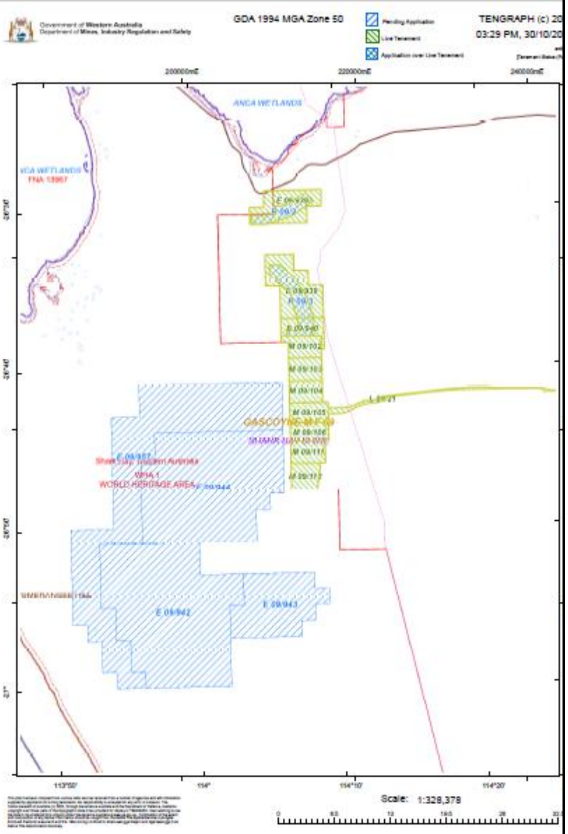
Criteria	JORC Code explanation	Commentary
		accuracy then previously generated. • The DTM is considered of high quality and accurate and can be used for MRE and mine planning. • The accuracy of the locations and topographic control is appropriate for this stage of mineral resource development
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Exploration results are not being reported • Various grid line spacing have been used to drill the Amy South and North resource areas. The drill lines range from 125, 250 m 500 and 1000m apart across the resource areas. • Drilling along the lines range from 50 to 100 to 200m • The deposit is considered a large bulk tonnage style of HM mineralization with reasonable to good geological continuity that provides a high degree of confidence in the geological models and grade continuity within the holes • Closer spaced drilling (125m and 50m spaced holes) provide a high degree of confidence in geological models and grade continuity between the holes and have been generally been classified as Measured. 1000 x 200m spaced drill holes have a lower degree of confidence in the geological models and grade continuity and resources estimated from these wide spaced holes have been classified as Inferred. • Each aircore drill sample is a single 1m or 2m sample of sand intersected down the hole • No compositing has been applied to models for values of THM, slime and oversize • Compositing of samples was been undertaken on HM concentrates for mineral assemblage determination.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The aircore drilling was oriented perpendicular to the strike of mineralization defined by reconnaissance data interpretation and also alignment of the sand dunes • The northerly strike of the Amy South mineralized zones are sub-parallel and are known to be relatively well controlled by the density of drilling • Amy North strikes to the ENE and the drill lines were established in a north south orientation • Drill holes were vertical and the nature of the mineralisation is relatively horizontal • The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralization without any bias

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• There is no documentation regarding the sample security and chain of custody of the samples drilled at Coburn then transported and analysed in Perth. • The drilling and sampling was completed over several years and there is no evidence from the field checks and data verification that the samples have been subjected to tampering over such a period.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• External data reviews have been undertaken in 2004, 2008 and 2018 prior to resource estimations

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The exploration work was completed on tenements that are 100% owned by Strandline in Australia • The drill samples have been taken from mostly granted mining license (M09/102, 103, 104, 105, 106, 111 & 112) and granted exploration licenses (E09/939 & 940). More recently two retention licenses were also applied for that are yet to be granted (R09/02 & 03) • The licenses are of varying age and are in good standing with compliance in technical and environmental reporting and payments of rents and rates. License details • Native Title agreements have been signed with the Nanda and Malgana claimant groups • The western boundary of the licenses is bound by the Shark Bay World Heritage Park where no development is permitted • On the 22nd May 2006 under Ministerial Statement 723 approval for the project was granted subject to the implementation of a number of Management Plans. • The mineral resources are located on pastoral lease stations of Coburn that is owned 100% by Strandline Resources and Hamelin Station that is owned by Bush Heritage Australia.

Criteria	JORC Code explanation	Commentary
		
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been limited historic exploration work completed over the project area with the majority of the work and drilling completed by Strandline Resources (formerly Gunson Resources). In 1999 Stuart Petroleum completed the first reconnaissance drilling and was then acquired by Gunson as part of the IPO. • The exploration history is dominated by campaign drilling with the initial reconnaissance drilling in 1999 followed up by more drilling in 2002, 2003, 2004, 2005, 2006, 2007, 2011 and 2018. The majority of the drilling was completed in the early years • Resources estimations were completed in 2004 and 2008 under JORC 2004. • A scoping study was completed in completed in 2000 and a Pre-Feasibility study in 2002 that was advanced to a Bankable Feasibility study in 2003 that was concluded and release to the market in 2004. • An updated BFS was released in 2008 and optimized in 2010 and refreshed in 2015.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Amy Zone body of mineralisation consists of an accumulation of mainly aeolian sands deposited over a Cretaceous basement of clays, clayey sands and limestone. In the southern part of the Amy Zone, the basement units are often capped by a silcrete layer, which

Criteria	JORC Code explanation	Commentary
		is thought to represent a palaeo weathering surface or duricrust. Three phases of sand dune formation have been identified. The earliest phase occurred as a sheet like deposit over the basement and may have been associated with marine sedimentation from a transgression to the west. Within the southern end of the Amy Zone there is evidence of a buried palaeosurface marked by elevated slimes levels, which is interpreted as the top of a second phase of dunal deposition formed over the sheet dunes. The palaeosurface is best developed between 7,038,500 m N and 7,042,000 m N and has been completely eroded north of section 7,043,500 m N. Within this second phase dune system there is a prominent north-north east striking ridge, which is occasionally reflected in the sheet dunes and has been built upon by subsequent deposits. The third dune phase continues this ridge to the north where it has eroded the second phase dunes. However the ridge bifurcates south of 7,041,000 m N into a south westerly trending fore dune built over the ridge of the second phase dunes and a south easterly trending back dune. The surface of the third phase of dune formation consists of hummocky parabolic dunes. The relationship of these episodes of deposition and their HM grade distribution are shown in cross-section on Mineralisation is associated with all of the dune formations, the lower dunes containing higher grade sheet like concentrations that are moderately continuous between sections and strike north-north-easterly. Above these, the second dune formation is more sporadically mineralised and generally lower grade and may merge with the third dune mineralisation. The third dune contains a continuous body of mineralisation associated with the back slope of the ridge in the north and migrating to its fore slope in the south. Where the dune bifurcates, it spreads across the entire section and is better developed in the front slope, although still present on the back slope. Sporadic pockets of mineralisation are also associated with the parabolic dunes of this formation, but these are less well defined due to their limited areal extents. The typical stratigraphy intersected in drilling consists of an upper layer of red brown sands between 1 and 6 m thick, passing downward into orange and then yellow sands, with the occasional zone of white, well sorted, possibly marine sands lying on top of a basement silcrete layer. The base of the red brown sands is often defined by a discontinuous calcrete horizon, which varies from 1 to 6 m thick and varies from gravelly nodules formed within the red brown sands through to solid layers.

Criteria	JORC Code explanation	Commentary
		Evidence from drill cores and the test pit shows that the calcrete is formed in situ, cementing the red sand and is likely to be the result of redox conditions associated with variations in ground water levels
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• The drill hole data for this Mineral Resources Estimate comprises 4,204 holes for 109,404m of drilling and is too large to report in full. • The data has been verified and by two Independent Consulting firms prior to significant resource updates in 2008 and 2018 and has been found to be reliable and suitable for this Mineral Resource Estimate.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration results are being reported. • The Mineral Resource estimation has been reported at a 0.8% lower cutoff grade and no upper cuts have been applied.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The nature of the mineralisation is broadly horizontal, thus vertical aircore holes are thought to represent close to true thicknesses of the mineralisation. • No exploration results are being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Figures and plans are displayed in the main text of the Release.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and*	• No exploration results are being reported as part of this Mineral Resource estimation

Criteria	JORC Code explanation	Commentary
	high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	update.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The subject of this ASX release revolves around a bulk sample of 30t was taken by drilling multiple AC holes at approximately 30 sites across locations within the previously defined 2010 Reserves • The AC drilling was undertaken in July 2018. • A total of 23.4t from the 30t was used for the metallurgical testwork. • The sample was tested at TZMI's Allied Mineral Laboratories with mineral analysis performed at ALS and CSIRO laboratories. The testwork utilised full scale or scalable equipment. Engineering trade-off studies were performed to optimise the processing route, product marketability and minimise project development risk. Further details are provided in the body of this release.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• In the short term no additional exploration work is planned at this stage for Coburn. • Once the DFS is finalized then it is likely more exploration work will be carried out to better define areas of Inferred Mineral Resource.