

ASX ANNOUNCEMENT

Coburn Mineral Sands Project, WA



14 November 2018

STRANDLINE
resources limited

Coburn Mineral Resource Estimate increases significantly to 19.6Mt of contained HM

Updated Mineral Resource, which has been upgraded to JORC-2012 status, reaffirms Coburn's high value zircon-titanium assemblage and world-scale inventory; DFS on track for March quarter, 2019

HIGHLIGHTS

- **Coburn Mineral Resource Estimate increases by 64% to 1.6Bt at 1.2% Total Heavy Minerals (THM), up from 979Mt at 1.3% THM**
- **Contained Heavy Mineral (HM) content rises to 19.6Mt from 12.3Mt, comprising a high-value zircon-titanium dominated mineral assemblage:**
 - In-situ zircon (4.3Mt), rutile (1.4Mt), leucoxene (1.0Mt) and ilmenite (9.4Mt).
- **Coburn Mineral Resource Estimate now compliant to JORC-2012 (previously JORC-2004), further enhancing the project's geological robustness and scale**
- **High degree of confidence in the Resources with ~45% (or 726Mt) in Measured or Indicated categories and suitable for mine planning and Ore Reserves as part of the current DFS work**
- **"Coburn is undeniably a world-scale mineral sands resource and adding an extra 7Mt of in-situ heavy mineral has the potential to significantly increase mine life (above the previous 19 years) and enhance financial returns to shareholders." – Strandline MD Luke Graham**

Strandline Resources (ASX: STA) is pleased to announce a 64 per cent increase in the Mineral Resource Estimate at its 100 per cent-owned Coburn Mineral Sands project in WA.

The new Resource stands at 1.6 billion tonnes at 1.2% Total Heavy Minerals (THM), containing 19.6Mt of Heavy Mineral. This is up from 979Mt at 1.3% THM containing 12.3Mt of Heavy Mineral. The revised Resource is JORC 2012-compliant whereas the previous estimate was JORC 2004-compliant.

The Resource Estimate was completed, as part of the current Definitive Feasibility Study (DFS), by experienced independent mineral sand consultants IHC Robbins.

The Coburn deposit is defined by a large zircon-titanium enriched dunal system, with a strike length of approximately 35km, a width up to 3km and a maximum thickness of approximately 50 metres.

The mineralisation is homogeneous, has a high-value mineral assemblage (dominated by valuable zircon and TiO₂ minerals), and a very low slime content (3%), with mineralisation outcropping at surface in places. The upgraded Resource confirms the integrity of the geological model along and across strike, which bodes well for mine plan optimisation which is currently underway as part of the update of the DFS. Importantly the additional 627Mt of mineral resources (mostly Inferred category) extends the main Amy South deposit north along strike.

The upgraded Coburn MRE now enables the Company to finalise the remaining DFS activities including mine optimisation and financial analysis for the project. The Company aims to improve the economic metrics and de-risk the commercialisation of Coburn, ready for a development decision early next year.



Coburn Mineral Sands Project – Increase in Resource Estimate

Strandline Managing Director, Luke Graham, said Coburn is undeniably a world-scale mineral sands resource.

“Adding an extra 7Mt of in-situ heavy mineral (now totalling 20Mt) highlights the potential to further extend mine life, which already stands at 19 years, and enhance financial returns to shareholders.

“With key project approvals already in place, Strandline is well positioned to commercialise two major projects over the next few years: Coburn in WA and Fungoni in Tanzania, with combined production estimated at ~5% of global annual zircon and ~13% of global annual chloride grade ilmenite” Mr Graham said.

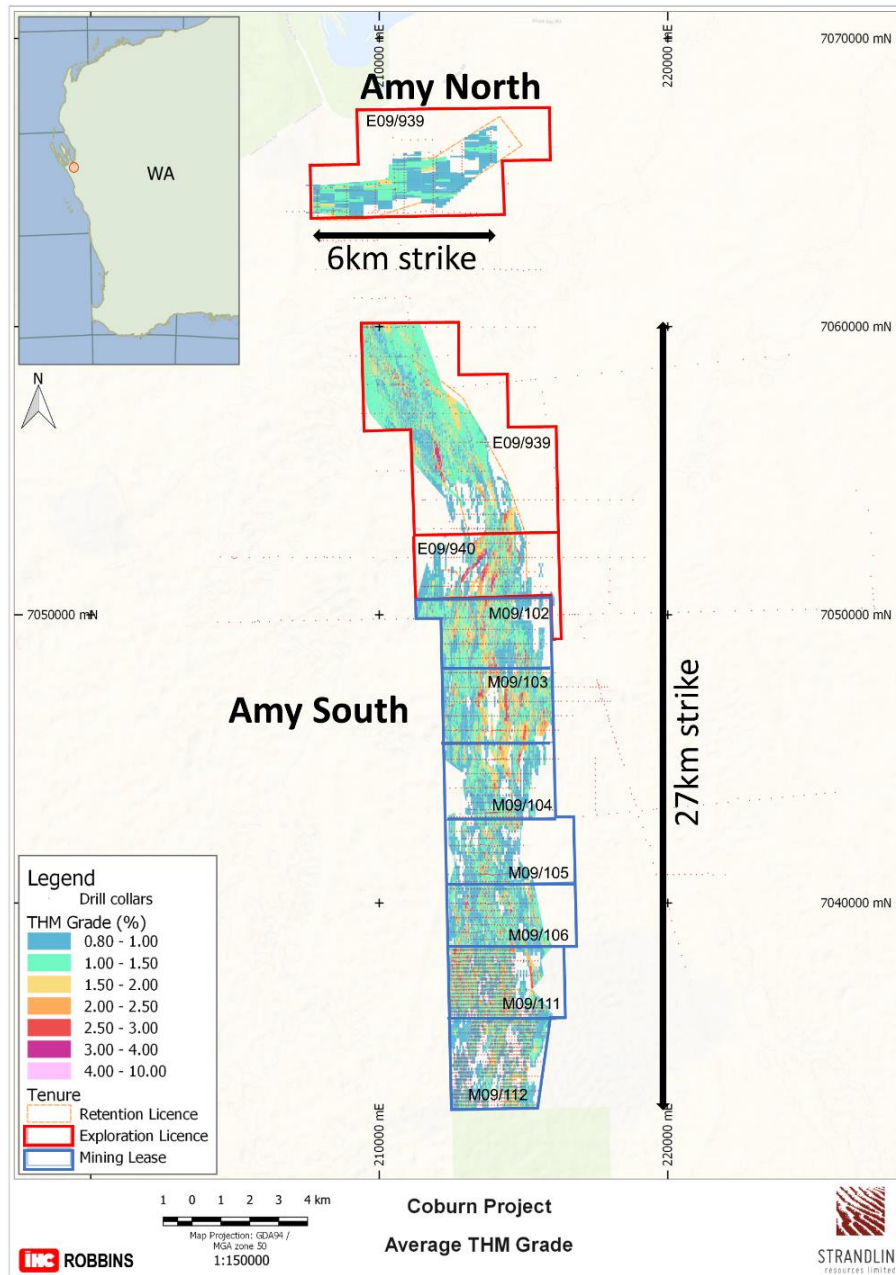


Figure 1 Coburn Mineral Resources –with Amy South and Amy North mineralisation

INTRODUCTION

Strandline has a globally significant portfolio of exploration and development-ready mineral sands assets in the two largest producing regions of the world - Australia and South-East Africa. The Company is undertaking a DFS on the large-scale Coburn project in Western Australia, which is on track for completion early next year. As part of the DFS, the Company has upgraded Coburn’s JORC Mineral Resource Estimate to JORC-2012 (from JORC-2004), which will add to the overall robustness of the DFS outcome

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 strong upturn in the mineral sands market.

The DFS is leveraging 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.

The previous definitive-level study was produced in 2013 and a subsequent Cost Review Update (Review) undertaken in 2015 indicated a net present value (NPV₈) for the Project of A\$306 million, with potential significant upside leveraged to improving market conditions. The 2015 Review showed Coburn’s internal pre-tax rate of return (IRR) is forecast to be 26%, generating A\$2.9 billion of sales revenue over a projected 19-year life, with mining rate of 23.4Mtpa¹. The average product pricing assumptions used in the 2015 Review were zircon US\$1327/t, ilmenite US\$250/t and HiTi US\$927/t, based on free-on-board (FOB).

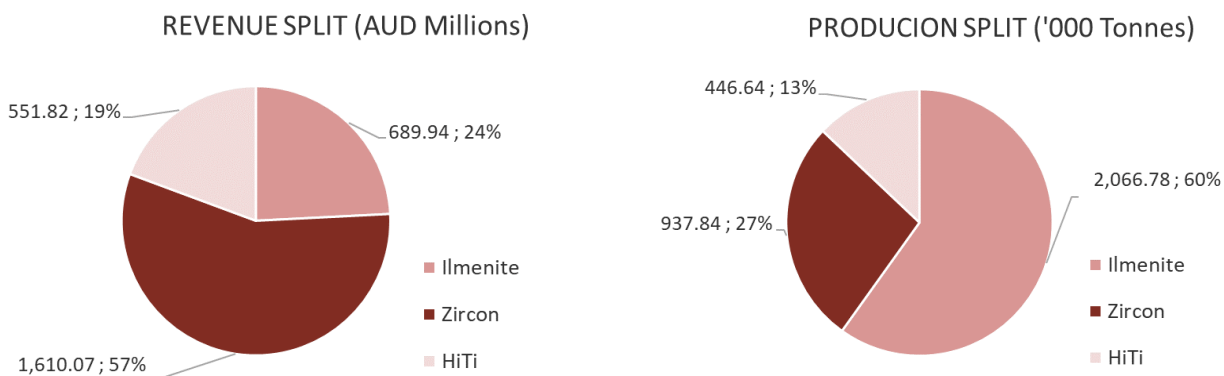


Figure 2 Coburn estimated production metrics per product type - Cost Review Update 2015

Coburn is one of a very few large-scale zircon-dominated mineral sands projects world-wide at this advanced level of development readiness. The salient points from the 2015 Coburn study are as follows:

- Tier-1 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, construction-ready pending finalisation of the DFS and project financing;
- Access to existing infrastructure (roads and port) and established professional services industry;
- Low strip ratio and slimes content – simple and efficient mining and tails handling;
- Conventional dry mining, processing and rehabilitation methods which reduces implementation risk;

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.

Coburn Mineral Sands Project – Increase in Resource Estimate

- 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

JORC 2012 – COBURN MINERAL RESOURCE

Mineralisation at the 100%-owned Coburn Project consists of an accumulation of mainly aeolian sands deposited over a Cretaceous basement of clays, clayey sands and limestone. A total of 3 dune sequences are recognised across the project area. The mineralisation has a strike length of approximately 35 km, a width up to 3 km and a maximum thickness of approximately 50 metres. Heavy mineral sand is associated with all 3 dune formations with the lower dunes containing higher grades.

The Mineral Resource Estimate was conducted by and under supervision of IHC Robbins' Greg Jones, a specialist consultant in mineral sands resources and metallurgy (refer to Competent Person statement).

Table 1 below displays the Mineral Resource estimated for the Coburn tenement. The Mineral Resources are classified as Measured, Indicated and Inferred.

Table 1 JORC 2012 Global Mineral Resource Estimate for the Coburn Project, at November 2018

MINERAL RESOURCE SUMMARY FOR THE COBURN PROJECT										
Summary of Mineral Resources ⁽¹⁾					VHM assemblage ⁽²⁾					
Deposit	Mineral Resource Category	Tonnage	In situ THM	THM	Ilmenite	Rutile	Zircon	Leucoxene	Slimes	Oversize
		(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	Measured	119	1.5	1.3	45	5	24	6	3	6
	Indicated	607	7.7	1.3	48	7	22	5	3	3
	Inferred	880	10.4	1.2	49	7	21	4	3	1
	Total	1606	19.6	1.2	48	7	22	5	3	2
(1) Mineral Resources reported at a cut-off grade of 0.8% THM										
(2) Valuable Mineral assemblage is reported as a percentage of in situ THM content										
(3) Appropriate rounding applied										



Coburn Mineral Sands Project – Increase in Resource Estimate

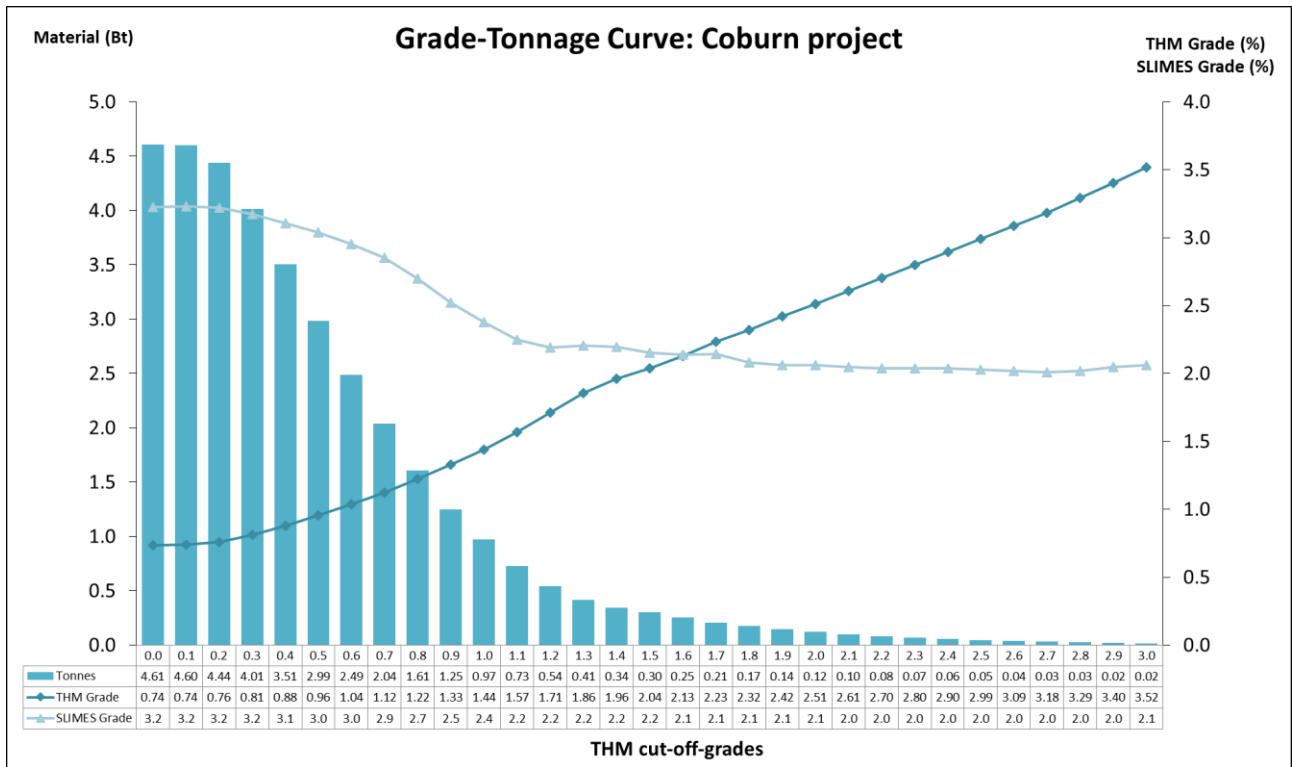


Figure 4 Coburn Global Mineral Resources Grade-Tonnage Curve

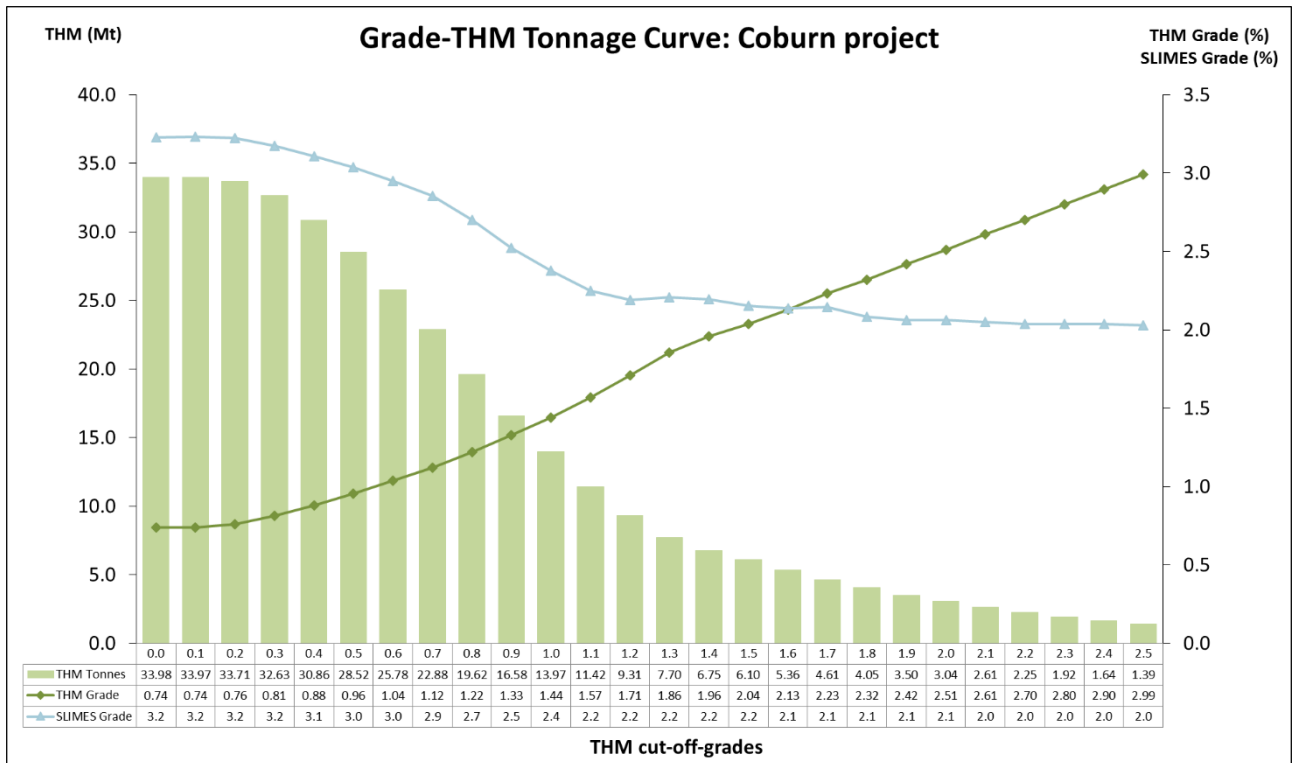


Figure 5 Coburn Global Mineral Resources Grade-THM Curve

The Measured and Indicated Resources categories remain effectively unchanged from the 2008 mineral resource estimate released by the Company. Using the same 0.8% THM cut-off there has been a significant increase in the Inferred category from 261Mt @ 1.4% THM in 2008 to 880Mt @ 1.2% THM in this latest resource update.

Coburn Mineral Sands Project – Increase in Resource Estimate

There has also been a 64% increase in the contained Total Heavy Mineral (THM) to 19.6 Mt from the previously reported 12.3Mt comprising a high-value titanium and zircon dominated mineral assemblage.

This includes in-situ valuable minerals of zircon (4.3Mt), rutile (1.4Mt), leucoxene (1.0Mt) and ilmenite (9.4Mt)

The MRE comprises two distinct deposits Amy South and Amy North. The Amy South deposit accounts for over 90% of the resource inventory, and the additional Inferred resource tonnage is associated with this deposit.

The following sections provide the grade-tonnage data and resource tables for each deposit separately.

Coburn Mineral Resource – Amy South

Table 2 JORC 2012 Mineral Resource Estimate for the Amy South - Coburn Project, at November 2018

MINERAL RESOURCE SUMMARY FOR THE AMY SOUTH COBURN PROJECT										
Summary of Mineral Resources ⁽¹⁾					VHM assemblage ⁽²⁾					
Deposit	Mineral Resource Category	Tonnage	In situ THM	THM	Ilmenite	Rutile	Zircon	Leucoxene	Slimes	Oversize
		(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	Measured	119	1.5	1.3	45	5	24	6	3	6
	Indicated	607	7.7	1.3	48	7	22	5	3	3
	Inferred	728	808	1.2	49	7	21	4	3	1
	Total	1454	18.0	1.2	48	7	22	5	3	2
(1) Mineral Resources reported at a cut-off grade of 0.8% THM										
(2) Valuable Mineral assemblage is reported as a percentage of in situ THM content										
(3) Appropriate rounding applied										

The Amy South Resource has a total Mineral Resource of 1454 million tonnes @ 1.2% Total Heavy Minerals (THM) with a valuable mineral assemblage comprising 48% ilmenite, 7% rutile, 5% leucoxene and 22% zircon at a cut-off grade of 0.8% THM. Slime (defined as silt <45µm) content at this cut-off is 3%.

A 30 tonne composite sample from the mineral zones across the Amy South deposit was gathered in July 2018 and has been subjected to a comprehensive phase of LOM confirmatory design and variability studies performed by TZMI's Allied Mineral Laboratories in Perth.

The mineralised zone for the resource remains open to the east, showing the potential for further resource expansion. In the northern half of the deposit there is scope to improve the confidence of mineralisation from Inferred to Indicated with further infill drilling which in turn may lead to additional delineation of elevated dunal grades.



Coburn Mineral Sands Project – Increase in Resource Estimate

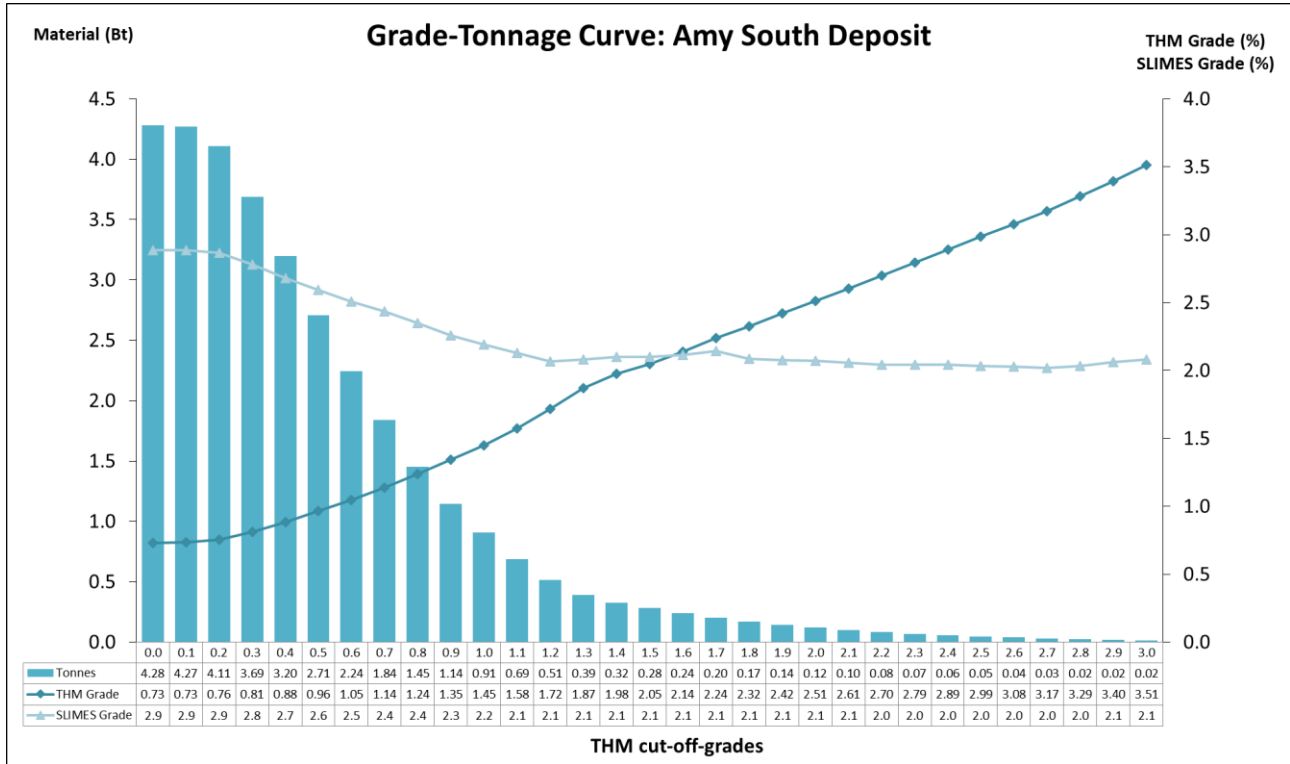


Figure 6 Amy South Resource Grade-Tonnage Curve

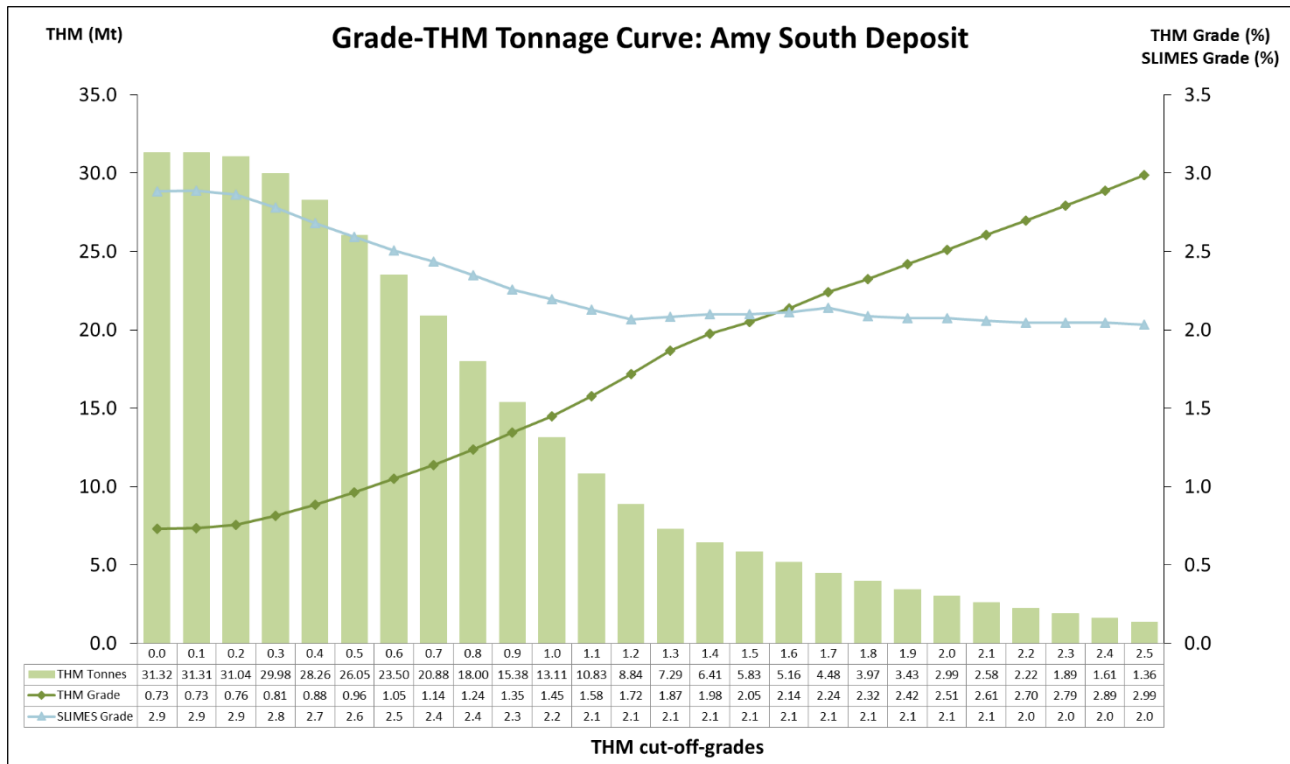


Figure 7 Amy South Resource Grade-THM Curve



Coburn Mineral Sands Project – Increase in Resource Estimate

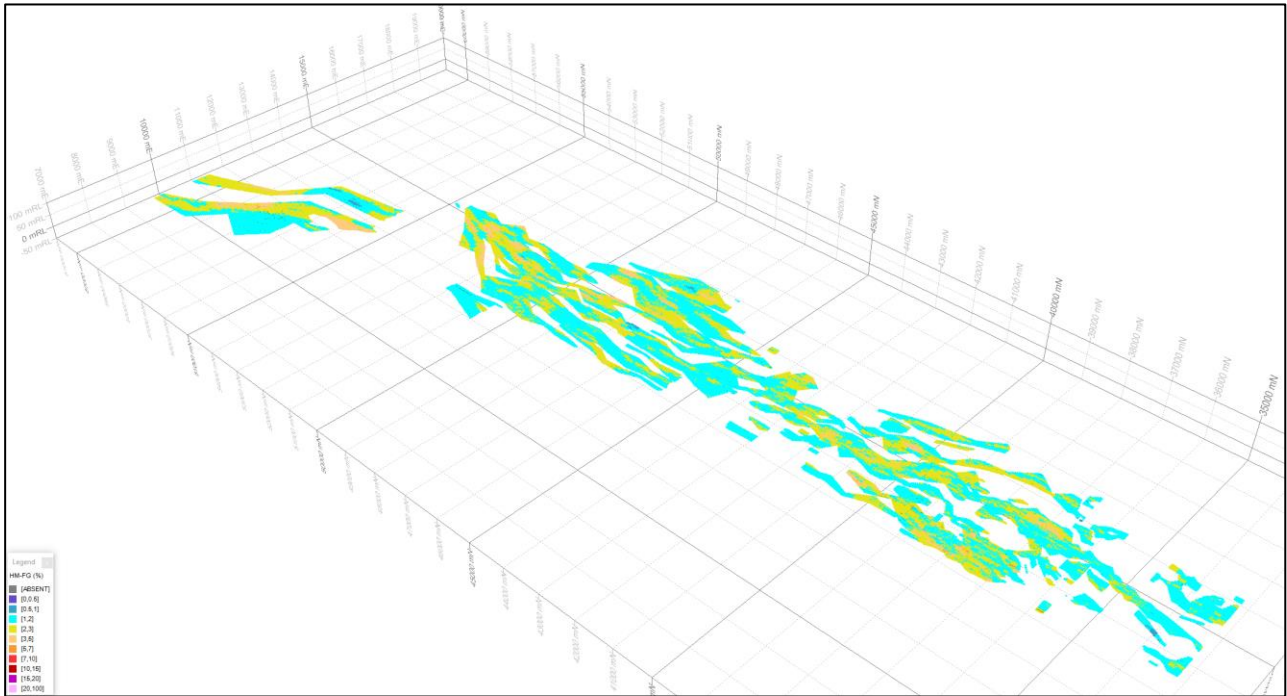


Figure 8 Amy South Resource lower zone THM grade (looking northwest x7 vertical exaggeration). The mineralisation is currently 27km long

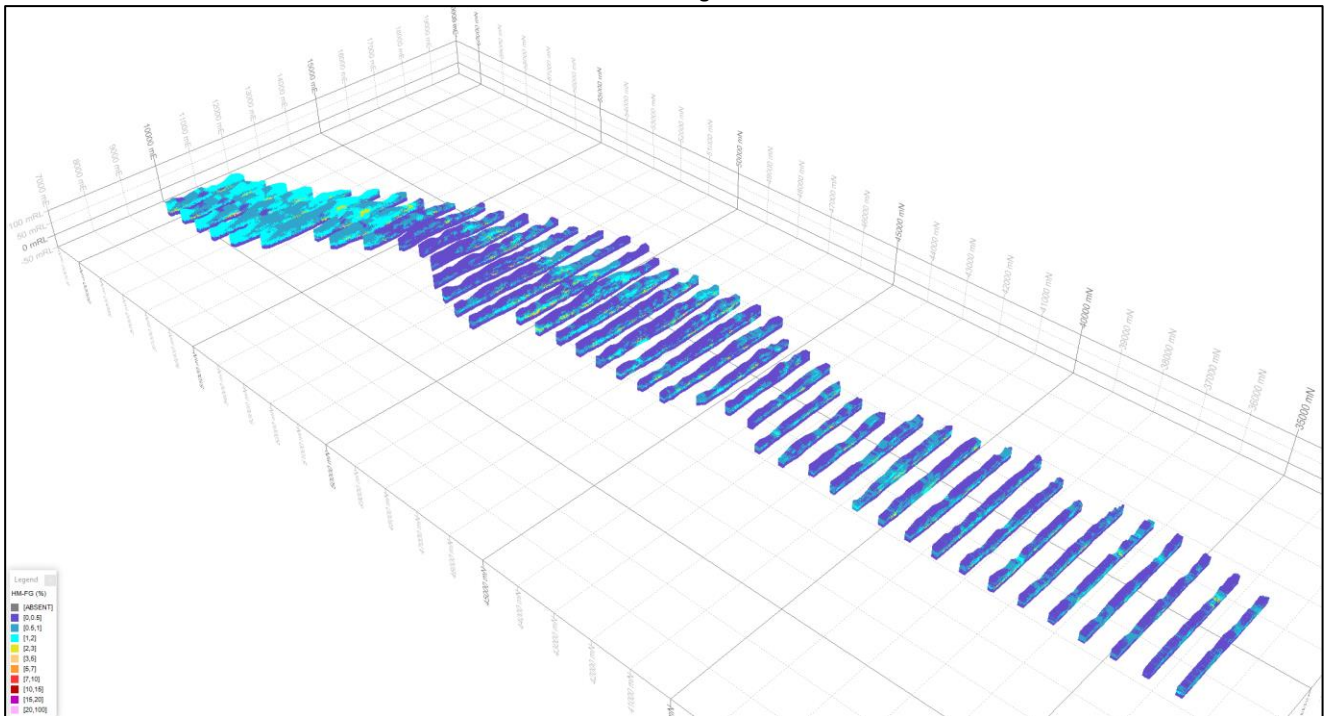


Figure 9 Amy South Resource Block Model (THM) (looking northwest x7 vertical exaggeration)

Coburn Mineral Sands Project – Increase in Resource Estimate

Coburn Mineral Resource – Amy North

Table 3 JORC 2012 Mineral Resource Estimate for the Amy North - Coburn Project, at November 2018

MINERAL RESOURCE SUMMARY FOR THE AMY NORTH COBURN PROJECT										
Summary of Mineral Resources ⁽¹⁾					VHM assemblage ⁽²⁾					
Deposit	Mineral Resource Category	Tonnage	In situ THM	THM	Ilmenite	Rutile	Zircon	Leucoxene	Slimes	Oversize
		(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	Inferred	151	1.6	1.1	52	5	16	5	6	2
	Total	151	1.6	1.1	52	5	16	5	6	2
(1) Mineral Resources reported at a cut-off grade of 0.8% THM										
(2) Valuable Mineral assemblage is reported as a percentage of in situ THM content										
(3) Appropriate rounding applied										

The Amy North Resource has a total Mineral Resource of 151 million tonnes @ 1.1% Total Heavy Minerals (THM) with a valuable mineral assemblage comprising 52% ilmenite, 5% rutile, 5% leucoxene and 16% zircon at a cut-off grade of 0.8% THM. Slime (defined as silt <45µm) content at this cut-off is 6%. This total Mineral Resource classified as Inferred and has a mineralogy of 52% ilmenite, 5% rutile, 5% leucoxene and 16% zircon.

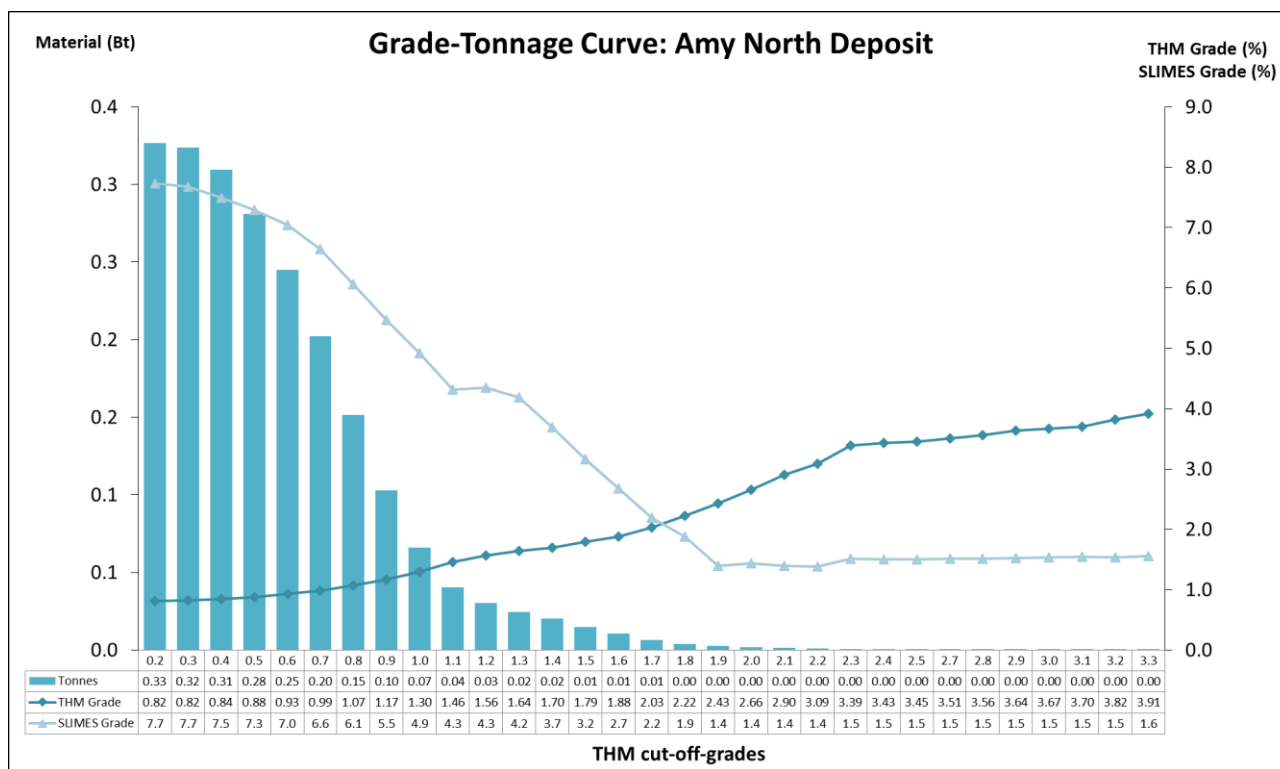


Figure 10 Amy North Grade-Tonnage Curve



Coburn Mineral Sands Project – Increase in Resource Estimate

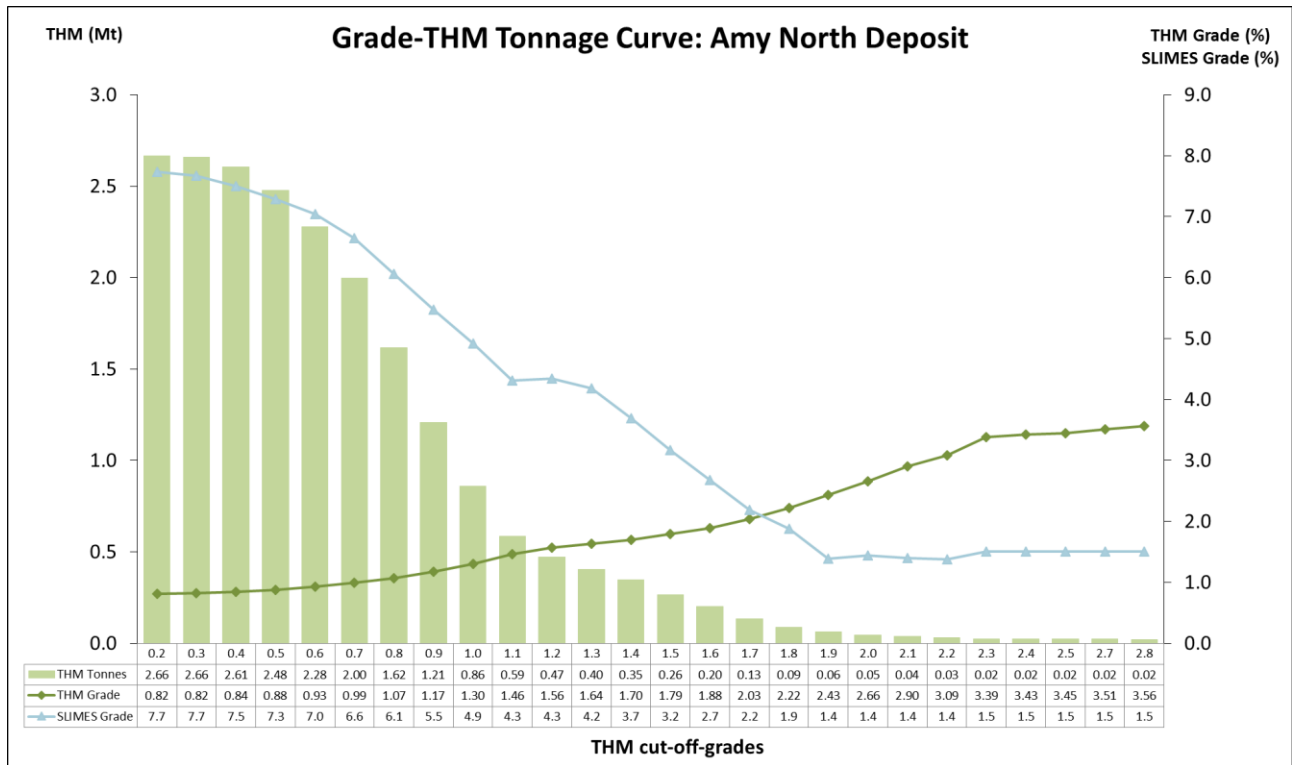


Figure 11 Amy North Grade-Tonnage Curve

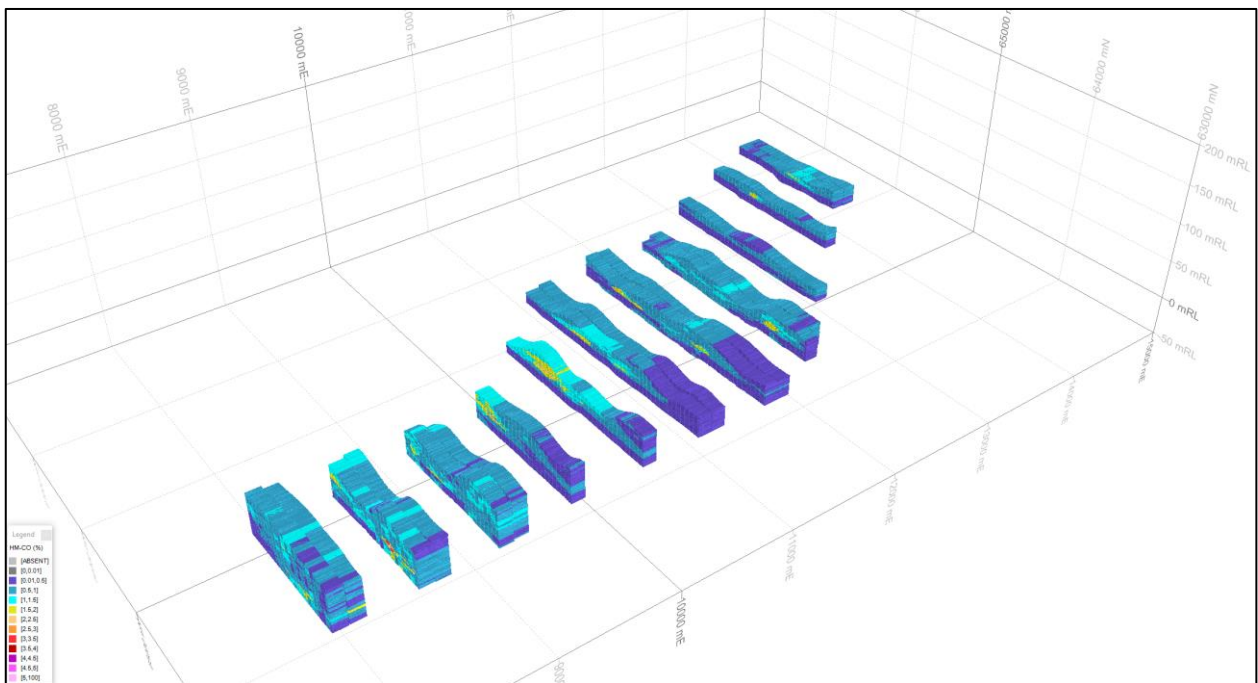


Figure 12 Amy North Resource Block Model (THM) (looking northnorth west x10 vertical exaggeration). The mineralisation is 6km long.

SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to Table 1, Sections 1 to 3 included below in Appendix 1). Appendix 2 provides a series of plans of the key criteria of the Mineral Resource Estimate.

Geology and geological interpretation

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 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 Figure 13.

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. Evidence from drill cores and the test pit shows that the calcrete is formed insitu, cementing the red sand and is likely to be the result of redox conditions associated with variations in ground water levels

Coburn Mineral Sands Project – Increase in Resource Estimate

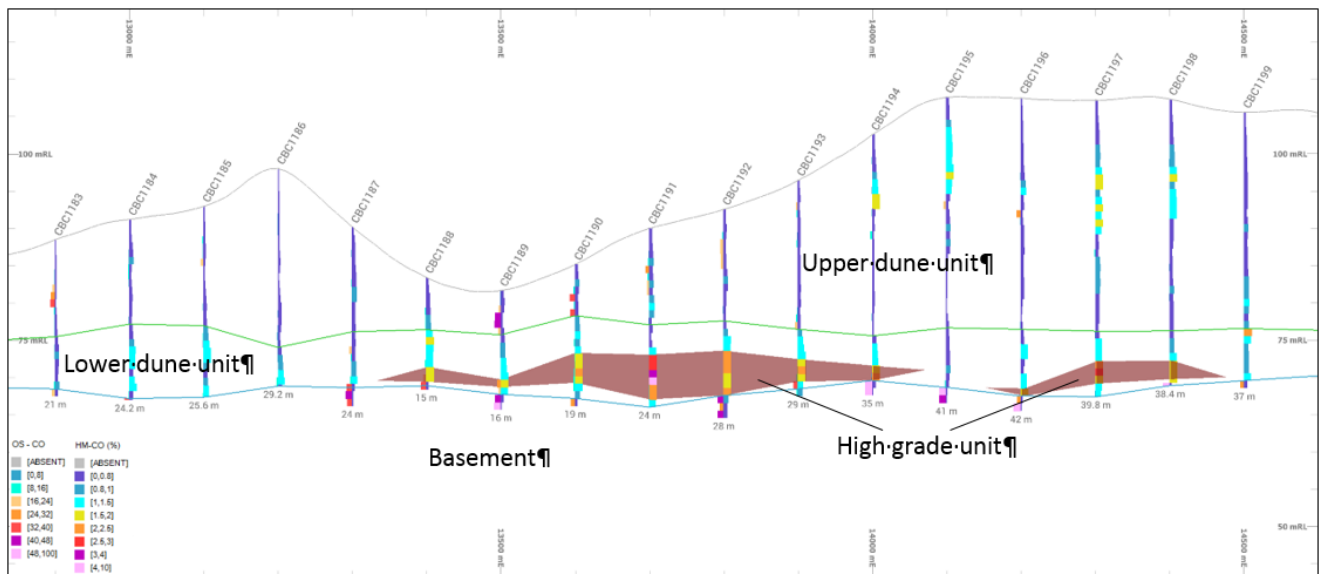


Figure 13 Amy South deposit showing OS [LHS] and THM [RHS] and key geological units (looking north x10 VE) - 7040750 mN.

Drilling techniques and hole spacing

The following drill spacing (XYZ) was used across the Amy South resource area:

1. Predominantly 50 x 125 x 1 m in the southern area between 212,700 and 215,600 mE and 7,033,100 and 7,038,650 mN
2. Predominantly 100 x 250 x 1 m in the central area between 212,600 and 216,600 mE and 7,038,650 and 7,044,700 mN
3. Predominantly 100 x 500 x 1 m in the central northern area between 212,300 and 216,500 mE and 7,044,700 and 7,054,150 mN
4. Predominantly 200 x 1000 x 1 m in the northern area between 209,600 and 214,400 mE and 7,054,150 and 7,060,250 mN.

The following drill spacing (XYZ) was used in the Amy North area:

1. Predominantly 1000 x 100 x 1 m

Appropriate levels of confidence have been established in the geological models and grade continuity between drill holes has been established for the resources areas that supports the mineral resource classification. To simplify the co-ordinate system during geological interpretation and resource modelling a local grid was set up which involves truncating the northing and eastings by 7,000,138.4 m and 200,126.8 m respectively.

Drilling has been carried out on the Coburn project since 1999 with periods of concentrated drilling activity throughout the 2000's, including 2003-2007 where the greatest focus was on infill drilling. Subsequent drilling was undertaken in 2011 and then again recently in 2018 for check drilling and collection of bulk sample material for preliminary metallurgical testwork.

A total of 4204 holes have been drilled over the Coburn project for 109,404 m. The resource estimation utilised a total of 3634 holes for 78,259 m.

Sampling and sub-sampling techniques

Drill holes were sampled predominantly over 1 m intervals using rotary splitters mounted on the drill rigs below the sample cyclone. Splitting comprised around 10-20% of the total sample although in the 2005 infill programme the sample interval was increased to 2 m requiring a change in the configuration of the rotary splitter to produce a final sample of equivalent size to earlier programmes. Subsequent to 2005, all sampling has been at 1 m lengths.

Coburn Mineral Sands Project – Increase in Resource Estimate

Prior to 2003 only samples visually estimated to contain about 0.5% HM or more were retained, and overall only about 20% of potential samples were assayed. This was rectified in subsequent drilling programmes where all samples were assayed.

Prior to 2003, samples selected for assaying were riffle split in the field to about 60 to 100 grams using a small laboratory-style riffle with a slot width of about 6.5mm. This step differed from common industry practice and had the potential to lose coarse oversize in cemented zones. In 2003, samples were split to about 1 to 2 kg using a riffle with a 22 mm slot width, adequate to handle samples containing indurated material where lumps up to about 10 to 25 mm in diameter could be present in significant proportions.

Sample analysis method - THM

During the various phases of drilling two primary laboratories were used; Western Geochem Laboratories Pty Ltd (WGL) and Dunelabs Pty Ltd (Dunelabs), both located in Perth. Over 90% of the samples assayed for the Amy South project were carried out by WGL.

The assay methodology has remained relatively consistent over time with variations due to the sampling (or not) of coarse oversize (OS) (>3.3 mm generally).

The general method is to take the sample as received from the dispatch process, validate samples against a supplied sample inventory and dry samples for a minimum of 2 hours at 105 degrees C or until dried. The sample was then screened for coarse OS at 3.3 mm and the undersize split to approximately 100 g for wet screening.

SLIMES grades were determined via wet screening with 45 µm used as the bottom screen size. OS was screened at 650 or 710 µm (predominantly 710 µm) either wet or occasionally dry.

THM was determined by heavy media separation of the sand fraction (+45 µm and -650/-710 µm) in funnels predominantly using tetrabromoethane (TBE) which has a density range of 2.90 - 2.95 g/ml.

Sample analysis method - mineral assemblage

Between 2003-2008, a total of 126 composites were generated from stored drill hole samples and have mineral assemblage results. Composites typically represented between 15 and 188 m of sampling from between 2 and 19 holes. In most cases the composites honoured the interpreted boundaries of the Upper and Lower dunal domains. 19 additional composites and 3 duplicate composites were prepared in 2008 and have also been incorporated in the dataset used in the current resource modelling.

HM concentrates were extracted by heavy media separation with TBE. 126 composites from the Amy South model area were submitted to Cable Sands Limited (CSL) for magnetic separation and XRF analysis of the fractions to determine total assemblages.

The procedure used by CSL is one that has been extensively tested by operating mines and processing plants within the mineral sands sector. It mimics production streams that are assigned dominant mineralogical names, rather than making pure mineralogical distinctions - such as by optical mineralogy methods.

The calculation of proportions of contained mineral species from XRF analytical results relies on some assumptions about the average composition of the minerals. The key assumptions involved were:

- 61% TiO₂ in primary ilmenite
- 68% TiO₂ in secondary ilmenite
- 92% TiO₂ in leucoxene
- 95.5% TiO₂ in rutile
- 67.2% ZrO₂ in zircon.

These assumptions will be linked to the ultimate processing flowsheet and would need to be calibrated against metallurgical testwork, however we are satisfied that the procedure was satisfactory and that the compositional assumptions were reasonable.

Coburn Mineral Sands Project – Increase in Resource Estimate

Mineral assemblage results showed only limited variations between different geological units and different parts of the Amy South area. The greatest variation was between Amy South and North where the zircon grade in Amy South was higher and the overall ilmenite grade was lower.

Results from the 2008 mineral assemblage work indicate the presence of a selection bias towards higher composite grades compared to the earlier work. This affects the portion of the resource model north of 7,047,000 mN and has resulted in slightly elevated zircon and a lower trash mineral content.

Estimation Methodology

Geological interpretation, wireframing, 3D block modelling and grade interpolation was carried out using Datamine Studio RM software. Construction of the geological grade model was based on a combination of coding model cells and drill holes below open wireframe surfaces, including topography and basement and inside closed wireframes defined by mineralised domains. Most modelling convention has the largest parent cell size possible used which is generally based on half the distance between holes of the dominant drill hole spacing in the X and Y dimensions. Cell dimensions are generally used so as to avoid overly small cells that imply a level of refinement in the model that is not justified by the drill hole spacing. With the varied drill spacing across the Coburn project, there was a requirement to have a 'best fit' parent cell size.

Based on this, the parent cell size selected to best fit the drill hole data was 50 x 125 x 1 m in the XYZ directions which covers about 40% of the Amy South modelled area.

The model cell size for Amy North was selected as 500 x 50 x 1 m in the XYZ directions and was based on the dominant drill spacing.

A model was generated for each deposit and interpolated using inverse distance weighting (with a power of 3) and the preliminary estimates were compared with drill hole grades. It was found that this cell size and parameters chosen were resulting in an acceptable interpolation process.

The search ellipse used for the grade interpolation was guided by the dynamic ellipsoid routine employed by Datamine. This allows for variations in mineralisation strike, dip and plunge to be accounted for during the grade interpolation.

The mineral assemblage composite identifiers were interpolated into the block model utilising a nearest neighbour method with the mineralogy results joined in to the model following the primary grade validation.

Variography was carried out prior to interpolation as part of developing search ellipse directions and sizes. Resulting variograms were used to test the drill spacing (and continuity of THM grade) and these supported the final selected JORC Mineral Resource category.

The previous resource estimate carried out by McDonald-Speijers used a fixed value bulk density of 1.65 gcm⁻³. Based on our experience this was deemed to be appropriate for the material type in question (low THM and SLIMES grades).

Cut-off grades

A cut-off-grade of 0.8% THM was used to report Mineral Resource tonnes and grade from within the granted tenure. No other cutting or assumptions on minimum thickness were made when reporting the Mineral Resource estimate.

Classification criteria

The Amy South deposit has been assigned a JORC classification of Measured, Indicated and Inferred Mineral Resource which is supported by the following criteria:

- drill hole spacing (based on variography);
- continuity of geology, THM mineralisation and mineralogical identification; and
- distribution and weighting of mineral assemblage composites.



Coburn Mineral Sands Project – Increase in Resource Estimate

The density/number of samples and distribution of mineral assemblage composites is to an adequate level of density for the various JORC Classification.

Mining and metallurgical methods and parameters

Overburden removal will predominantly consist of large capacity bulldozers pushing overburden into a previously mined out void. With the relatively low overburden to ore strip ratios, the majority of overburden will be pushed with a negative gradient, having a positive effect on bulldozer productivity.

Ore mining consists of large capacity bulldozers pushing into the feeder system of the Dozer Mining Unit, where it is then transferred into a feed box to form a slurry and passed over a screening deck. Underflow from the screen is pumped through to the Wet Concentrator Plant, leaving the oversize to be discharged onto the ground via an oversize chute.

The Heavy Mineral contained in the ore is separated in the Wet Concentrator Plant utilising wet gravity separation to form a heavy mineral concentrate (HMC). The HMC is then fed to the Mineral Separation Plant where the constituent minerals, Ilmenite, Zircon, Rutile and Leucoxene are produced utilising electrostatic and magnetic separators.

The parameters for an updated Feasibility document for the Coburn Project are currently being finalized.



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.

TANZANIA MINERAL SANDS COMPETENT PERSON'S STATEMENTS

The information in this report that relates to Exploration 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.

For further enquiries, please contact:

Luke Graham

CEO and Managing Director
Strandline Resources Limited

T: +61 8 9226 3130

E: enquiries@strandline.com.au

For media and broker enquiries:

Paul Armstrong and Nicholas Read

Read Corporate

T: +61 8 9388 1474

E: paul@readcorporate.com.au

Appendix 1 – JORC Code, 2012 Edition – Table 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The majority of the drilling at Coburn 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	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> 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



Coburn Mineral Sands Project – Increase in Resource Estimate

Criteria	JORC Code explanation	Commentary
		<p>Mercedes Benz 6x6 Actross truck. The 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.</p> <ul style="list-style-type: none"> All drill holes were vertical
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Measures taken to ensure that the sampling is representative of the in situ 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. 	<p>completed at a frequency of 1 per 100 primary samples with the results showing 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</p> <ul style="list-style-type: none"> 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
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 riffing 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

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • The slimes and oversize results showed a small bias. The mean relative differences were low with 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 • In summary Check assays were collected in the field at a rate of 1/50 by bagging the reject half from the final riffing 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 <p>Summary Analysis Method</p> <ul style="list-style-type: none"> • 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

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • 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 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
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • 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
<p>Location of data points</p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • 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

Criteria	JORC Code explanation	Commentary
		<p>adjustments for un-surveyed or inaccurately surveyed collars.</p> <ul style="list-style-type: none"> In 2018 IHC Robbins incorporated a number of models and generated a new DTM with significantly more detail and accuracy than 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
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> 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.
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<ul style="list-style-type: none"> 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

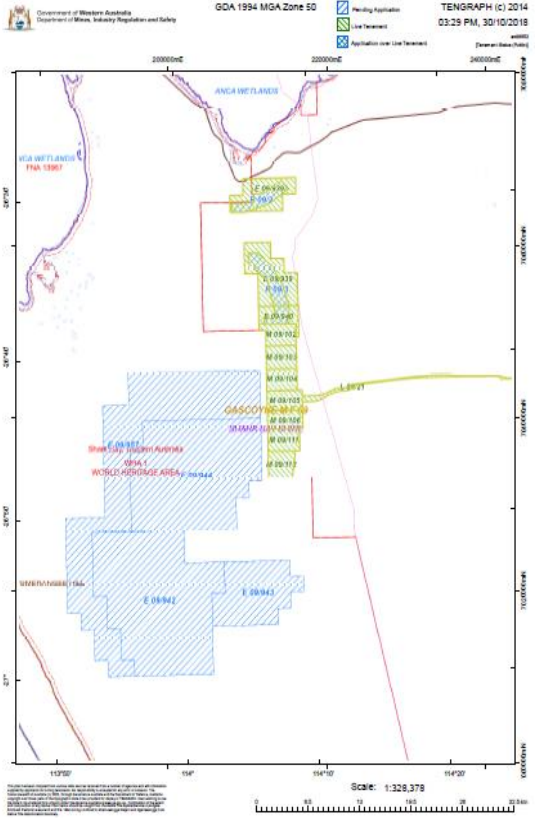
Coburn Mineral Sands Project – Increase in Resource Estimate

Criteria	JORC Code explanation	Commentary
		<p>the mineralisation is relatively horizontal</p> <ul style="list-style-type: none"> The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralization without any bias
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> 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.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> 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
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> 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 Malagana 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
		
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • 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 • Resources estimations were completed in 2004 and 2008 under JORC 2004. • A scoping study was 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.
<p><i>Geology</i></p>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>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</p>

Criteria	JORC Code explanation	Commentary
		<p>is thought to represent a palaeo weathering surface or duricrust.</p> <p>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</p> <p>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.</p> <p>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</p>

Coburn Mineral Sands Project – Increase in Resource Estimate

Criteria	JORC Code explanation	Commentary
		<p>horizon, which varies from 1 to 6 m thick and varies from gravelly nodules formed within the red brown sands through to solid layers. 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</p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • 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.
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • 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.
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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').</i> 	<ul style="list-style-type: none"> • 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.
<p><i>Diagrams</i></p>	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should</i> 	<ul style="list-style-type: none"> • Figures and plans are displayed in the main text of the Release.

Criteria	JORC Code explanation	Commentary
	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> No exploration results are being reported as part of this Mineral Resource estimation update.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A bulk sample of 30 tonnes was taken by drilling multiple AC holes at approximately 30 sites across locations within the previously defined 2010 Reserves in July 2018. This sample has been submitted to AML for additional metallurgical testwork for LOM confirmatory design and variability studies. The results will be included in the updated feasibility study due for release in 2019.
<i>Further work</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No additional exploration work is planned at this stage for Coburn.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Original laboratory files used to populate exploration database assay tables via an automatic software assay importer where available. Checks of data by visually inspecting on screen (to identify translation of samples), duplicate and twin drilling was visually examined to check the reproducibility of assays. Database assay values have been subjected to random reconciliation with laboratory certified value is to ensure agreement. Visual and statistical comparison was undertaken to check the validity of results.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> A site trip was undertaken by John McDonald of McDonald-Speijers in May 2003 to observe general drilling operations and sample procedures. No other site visits by staff from McDonald-Speijers are reported leading up the last MRE in 2008. Brendan Cummins has made repeated site trips to Coburn in 2016 – 2018 but none whilst drilling activities were taking place.

Criteria	JORC Code explanation	Commentary
		<p>The AC drill program in July 2018 were supervised by staff geologist from Strandline Resources. The 6 twin holes were completed under Strandlines supervision as was the sample splitting and sample dispatch to Western Geolabs facility in Perth.</p> <ul style="list-style-type: none"> IHC Robbins has not undertaken a site visit but this would be recommended if Resource drilling activities re-commenced.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The geological interpretation for Amy North was undertaken by IHC Robbins in collaboration with the company's Exploration Manager and then validated using all logging and sampling data and observations. Current data spacing and quality is sufficient to indicate grade continuity. Interpretation of modelling domains was restricted to the main mineralised envelopes utilising THM sinks, oversize material, slimes, and geology logging. A further interpretation of an upper THM domain (Zone 3) was added to the Amy South deposit to constrain high grade influence during the interpolation process, primarily in the inferred area where drill spacing is greater. The Mineral Resource estimate was controlled to an extent by the geological envelope and basement surfaces.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The Mineral Resource for Amy South is approximately 27 km long in a N-S direction and 3.5 km wide on average. The deposit ranges in thickness from approximately 2 to 60 m due to the undulating dunal morphology of the area. The Mineral Resource for Amy North is approximately 6.5km long in a E-W direction and 1.5 km wide with thickness ranging from 2.5 to 40m.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other 	<ul style="list-style-type: none"> The mineral resource estimate was conducted using CAE mining software (also known as Datamine Studio). Inverse distance weighting techniques were used to interpolate assay grades from drill hole samples into the block model and nearest neighbour techniques were used to interpolate index values and non-numeric sample identification into the block model. The mostly regular dimensions of the drill grid and the anisotropy of the drilling and sampling grid allowed for the use of inverse distance methodologies as no de-clustering of samples was required. Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of

Criteria	JORC Code explanation	Commentary
	<p><i>non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <ul style="list-style-type: none"> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<p>samples and the impact of those samples was maintained. An inverse distance weighting of three was used so as not to over smooth the grade interpolations. Hard domain boundaries were used and these were defined by the geological wireframes that were interpreted.</p> <ul style="list-style-type: none"> This is the maiden Mineral Resource estimate for the Amy North deposit. The Amy South deposit was previously reported by McDonald-Speijers for the 2008 Mineral Resource estimate. No assumptions were made during the resource estimation as to the recovery of byproducts. Slimes and oversize contents are estimated at the same time as estimating the THM grade. Further detailed geochemistry is required to ascertain deleterious elements that may affect the marketability of the heavy mineral products. The average parent cell size used for the interpolation was approximately half the standard drill hole width and a half the standard drill hole section line spacing. Given that the average drill hole spacing for Amy South was 100 m east-west and 250 m north south and with 1 m samples the parent cell size was 50 x 125 x 1 m (where the Z or vertical direction of the cell was nominated as the same distance as the sample length). The average drill hole spacing for Amy North was 1000 m east-west and 100 m north south and with 1 m samples and so the parent cell size was 500 x 50 x 1 m (where the Z or vertical direction of the cell was nominated as the same distance as the sample length). No assumptions were made regarding the modelling of selective mining units however it is assumed that a form of dry mining will be undertaken and the cell size and the sub cell splitting will allow for an appropriate dry mining preliminary reserve to be prepared. Any other mining methodology will be more than adequately catered for with the parent cell size that was selected for the modelling exercise. No assumptions were made about correlation between variables. The Mineral Resource estimates were controlled to an extent by the geological / mineralisation and basement surfaces. Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing. Samples there are widely spaced for the

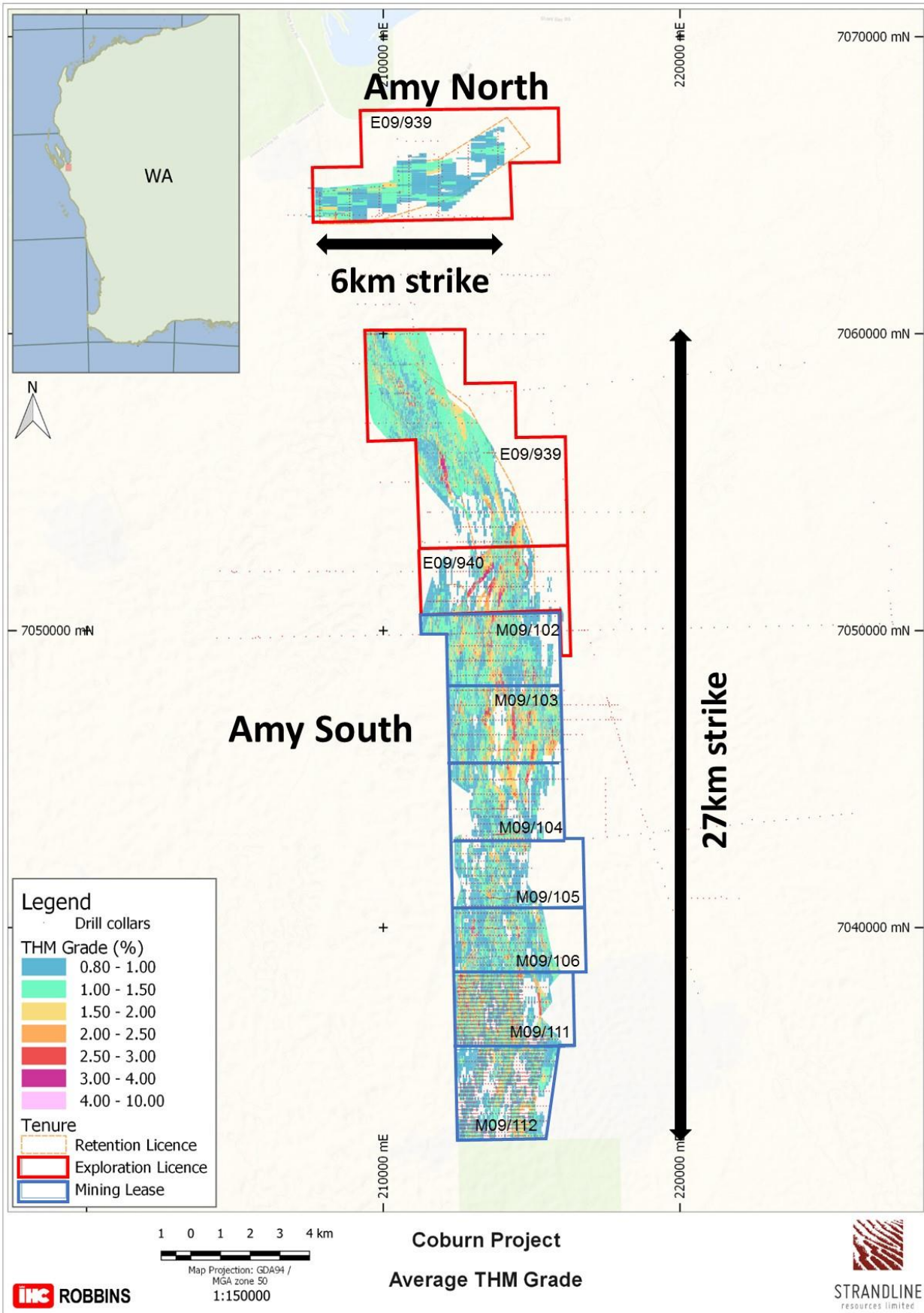


Criteria	JORC Code explanation	Commentary
		<p>inferred northern area of the Amy South deposit where elevated samples could have an impact on the resource estimation were constrained using enclosed wireframes to minimize their influence during grade interpolation. In particular Zone 3.</p> <ul style="list-style-type: none"> • Sample distributions were reviewed and no extreme outliers were identified either high or low that necessitated any grade cutting or capping. • The sample length of 1 m does result in a degree of grade smoothing also negating the requirement for grade cutting or capping. • Validation of grade interpolations were done visually In CAE Studio (Datamine) software by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. • Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolation. Along strike distributions of section line averages (swath plots) for drill holes and models were also prepared for comparison purposes
Moisture	<ul style="list-style-type: none"> • <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> • Tonnages were estimated an assumed dry basis. A bulk density algorithm was selected that is the same as previously used for reporting (a fixed bulk density of 1.65 gcm⁻³). Based on the experience of the Competent Person it is believed that the bulk density conversion factor is appropriate and fit for purpose for this style of dunal style mineralisation.
Cut-off parameters	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • Cut-off grades for HM were used to prepare the reported resource estimates. These cut-off grades were defined by IHC Robbins as being based on experience, the percentage of VHM and the grade tonnage curves taken in consideration with the grade distribution along the length of the deposits. • Previous reporting of Mineral Resource estimates has been undertaken at a 0.7% THM cut-off grade.
Mining factors or assumptions	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be</i> 	<ul style="list-style-type: none"> • No specific mining method is assumed other than potentially the use of dry mining scrapers and excavators into trucks. No minimum thickness was assumed for the reporting of the mineral resource and it is most likely that any mining method will not allow for selectivity of specific units, but rather a broad scale approach to maximise economy of scale.

Criteria	JORC Code explanation	Commentary
	<p><i>rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> Metallurgical assumptions were used based on mineral assemblage composites which at this stage only allow for preliminary commentary with no detailed chemistry or sizing of mineral species.
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> No assumptions have been made regarding possible waste and process residue however disposal of byproducts such as SLIMES, sand and oversize are normally part of capture and disposal back into the mining void for eventual rehabilitation. This also applies to mineral products recovered and waste products recovered from metallurgical processing of heavy mineral.
<p>Bulk density</p>	<ul style="list-style-type: none"> <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> Tonnages were estimated an assumed dry basis. A bulk density algorithm was selected that is the same as previously used for reporting (a fixed bulk density of 1.65 gcm⁻³). Based on the experience of the Competent Person it is believed that the bulk density conversion factor is appropriate and fit for purpose for this style of dunal style mineralisation. The bulk density is calculated as an in situ dry bulk density and once material has been dug up invariably this bulk density cannot be used. The bulk density is however used on wet poured HMC (heavy mineral concentrate) from mining and concentrating and is successful at estimating density and therefore tonnages for stockpiles.
<p>Classification</p>	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in</i> 	<ul style="list-style-type: none"> The resource classification for the Amy South and Amy North deposits was based on the following criteria: drill hole spacing and the distribution of bulk samples. The classification of the Measured, Indicated, and Inferred Resources was supported by all of the criteria as noted

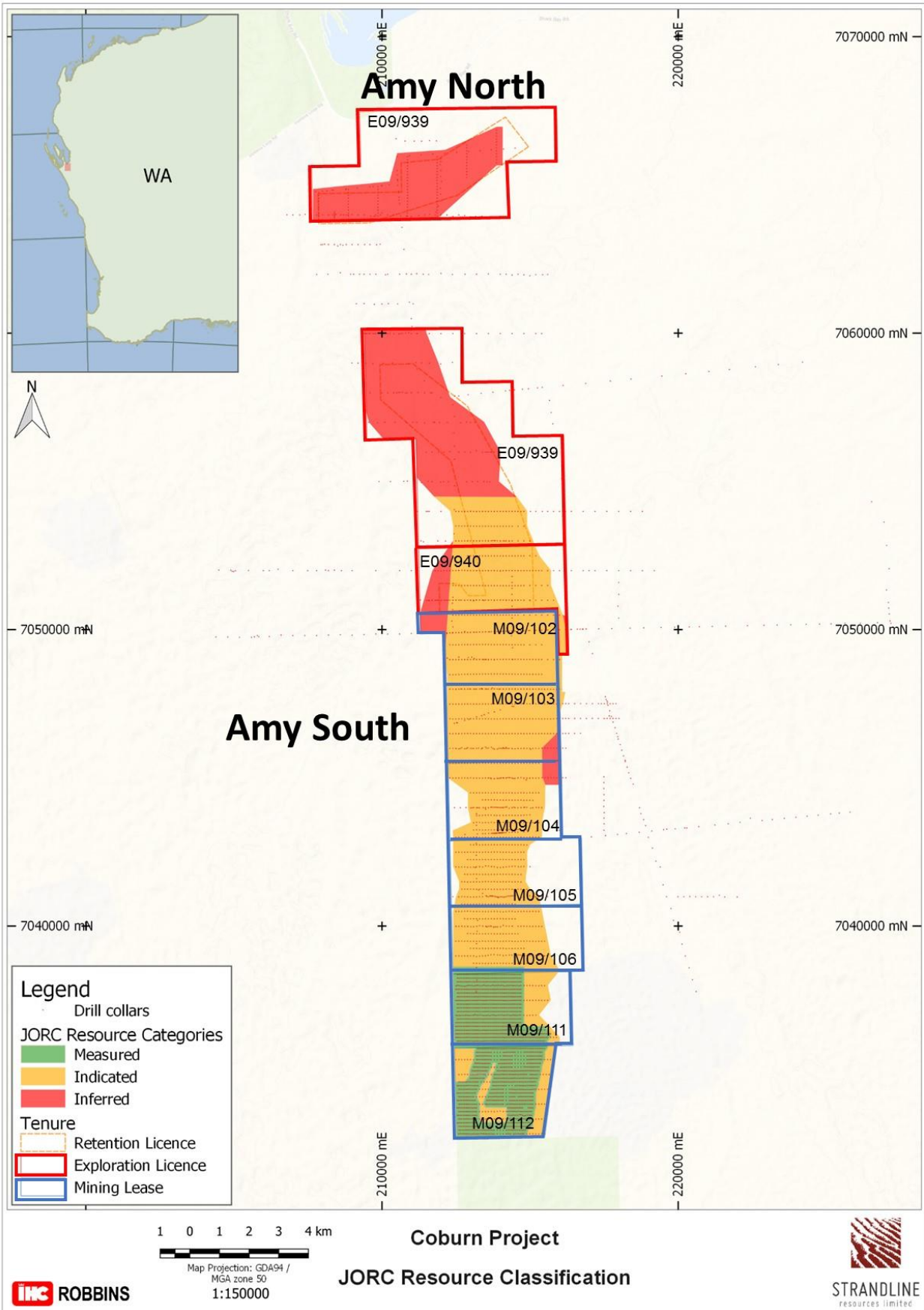
Criteria	JORC Code explanation	Commentary
	<p><i>continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <ul style="list-style-type: none"> <i>Whether the result appropriately reflects the Competent Person’s view of the deposit.</i> 	<p>above.</p> <ul style="list-style-type: none"> As a Competent Person, IHC Robbins Geological Services Manager Greg Jones considers that the result appropriately reflects a reasonable view of the deposit categorisation.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> No audits or reviews of the mineral resource estimate has been undertaken at this point in time.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> There was no geostatistical process undertaken (such as kriging or conditional simulation) during the resource estimation of the Amy South and Amy North deposits. However variography was undertaken on the THM to determine optimal drill hole and sample spacing to assist in the JORC classification process. Qualitative assessment of the mineral resource estimate along with comparison with previous resource estimates (within a tolerance of +/- 5 per cent) points to the robustness of this particular resource estimation exercise. Validation of the model vs drill hole grades by observation, swathe plot and population distribution analysis was favourable. The statement refers to global estimates for the entire known extent of the Amy South and Amy North deposits. No production data is available for comparison with the Amy South and Amy North deposits.

Appendix 2 – Coburn MRE plans



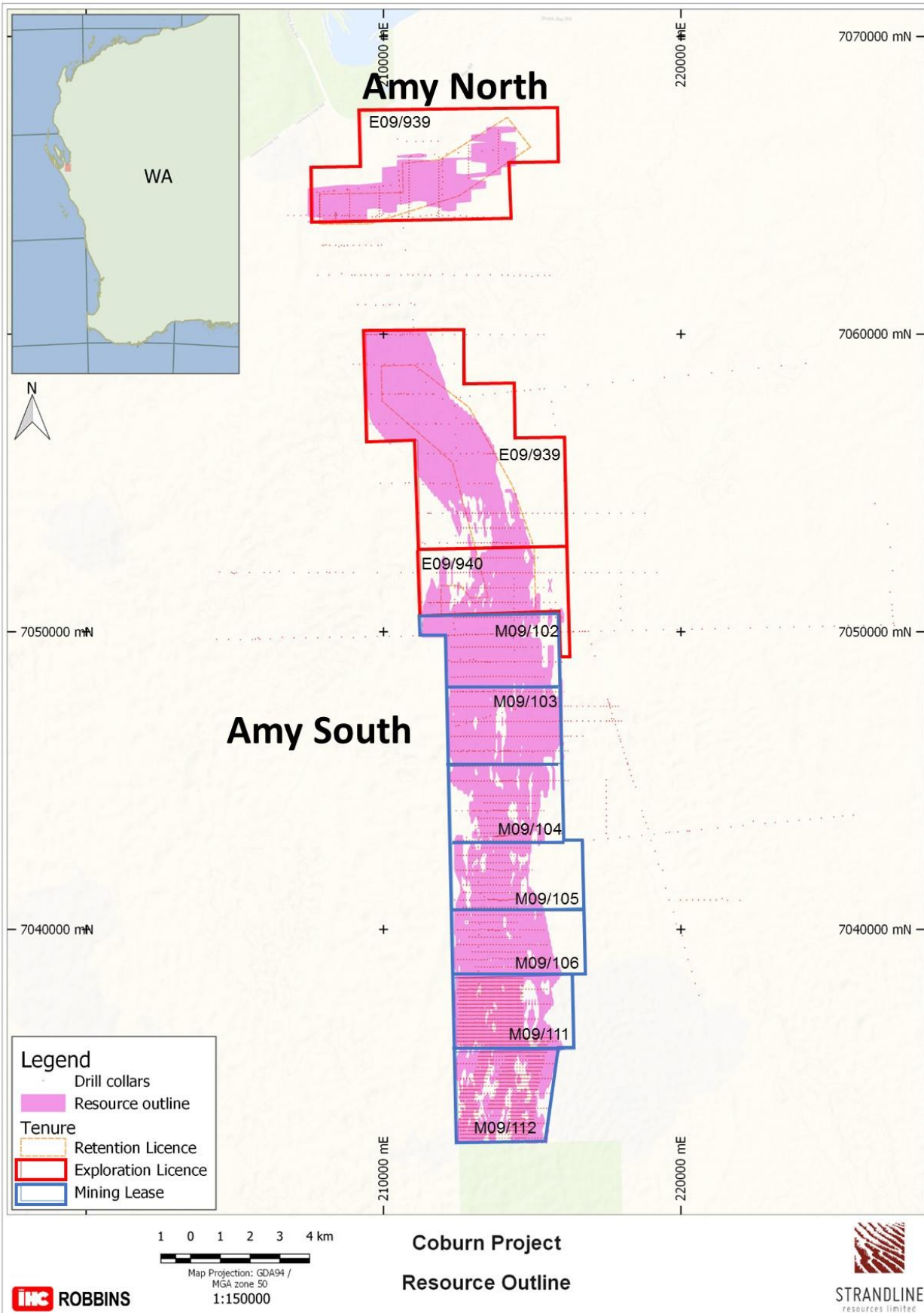


Coburn Mineral Sands Project – Increase in Resource Estimate





Coburn Mineral Sands Project – Increase in Resource Estimate





Coburn Mineral Sands Project – Increase in Resource Estimate

