

## Mineral Resource Increase for Kwale South Dune

### HIGHLIGHTS

- First extensional drilling programme has now been incorporated into an updated Mineral Resource, expanding the footprint of the Kwale South Dune deposit to 6.5 kilometres long and up to 1 kilometre wide.
- A 29% increase in Mineral Resource tonnes for the Kwale South Dune deposit to 114.1Mt.
- A 13% increase in contained in situ heavy mineral to 3.47Mt.
- Additional Mineral Resources are characterised by a high-value mineral assemblage, consistent with the previously reported Kwale South Dune deposit.
- An infill drilling programme has resulted in a significant increase in confidence with 76% of the heavy mineral tonnes within the Kwale South Dune deposit Mineral Resources now in the Measured category.

Base Resources Limited (ASX & AIM: BSE) (“**Base Resources**” or the “**Company**”) is pleased to announce an update to the Kwale South Dune Deposit Mineral Resource at its 100% owned and operated Kwale Operation (the “**2017 Kwale South Dune Mineral Resource**”).

The Kwale Operation has two deposits, referred to as the Central Dune and the South Dune. Mining operations are currently conducted on the Central Dune deposit, with a transition to the South Dune deposit scheduled for the second half of 2019.

The 2017 Kwale South Dune Mineral Resource estimate incorporates the results of an extensional and infill drill programme completed earlier this year (refer to the announcements on 2<sup>nd</sup> March 2017<sup>1</sup> and 10<sup>th</sup> May 2017<sup>2</sup>) and represents an overall increase of 29% for total material tonnes and 13% for contained heavy mineral (“**HM**”) tonnes to the Kwale South Dune deposit.

In addition, there has been a significant increase in the confidence of the 2017 Kwale South Dune Mineral Resource estimate with 71% of material tonnes and 76% of HM tonnes now in the JORC Measured category.

**Table 1: 2017 Kwale South Dune Mineral Resource estimate at a 1% HM cut-off compared with the previously reported 2016 Mineral Resource estimate.**

Category	2017									2016								
	Material (Mt)	In Situ HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			Material (Mt)	In Situ HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage				
						ILM (%)	RUT (%)	ZIR (%)						ILM (%)	RUT (%)	ZIR (%)		
<b>South Dune</b>																		
Measured	81.2	2.63	3.2	25	1	58	13	6	42.9	1.66	3.9	27	2	59	14	6		
Indicated	32.7	0.84	2.6	26	7	52	12	6	40.8	1.25	3.1	26	5	52	13	6		
Inferred	0.2	0.003	1.3	27	7	53	15	7	4.8	0.16	3.2	23	2	57	14	6		
<b>Total</b>	<b>114.1</b>	<b>3.47</b>	<b>3.0</b>	<b>25</b>	<b>3</b>	<b>57</b>	<b>13</b>	<b>6</b>	<b>88.5</b>	<b>3.07</b>	<b>3.5</b>	<b>26</b>	<b>3</b>	<b>56</b>	<b>13</b>	<b>6</b>		

Table subject to rounding errors, resources estimated at a 1% HM cut-off grade.

<sup>1</sup> Refer to ASX announcement “Preliminary Exploration Results” released on 2 March 2017, which is available at <http://www.baseresources.com.au/investor-centre/asx-releases/>.

<sup>2</sup> Refer to ASX announcement “Exploration Update” released on 10 May 2017, which is available at <http://www.baseresources.com.au/investor-centre/asx-releases/>.



Mineral Resources are reported in accordance with the JORC Code (2012 edition). Accordingly, the information in these sections should be read in conjunction with the respective explanatory Mineral Resources information included in Appendix 1.

The 2017 Kwale South Dune Mineral Resource is estimated to be 114.1 million tonnes (“Mt”) at an average HM grade of 3% and 25% slimes (“SL”) and contains 3.47Mt HM, based on a 1% HM cut-off grade.

The 29% increase in Kwale South Dune deposit Mineral Resource is primarily attributed to the discovery of additional, contiguous resource extension to the south of the deposit.

New drilling, assay and mineralogical data conform to the geological interpretation applied to the Kwale South Dune Resource estimate completed in 2016.

The deposit comprises a moderate-HM grade, silty sand (Ore Zone 1) with a high-value mineral assemblage that overlies a variably indurated, generally lower-value mineral assemblage, silty to clay-sand (Ore Zone 4). The average thickness of Ore Zone 1 and Ore Zone 4 is 11.3m and 2.7m, respectively. Pilot plant scale test work has shown the Ore Zone 1 material at the Kwale South Dune deposit is comparable to Ore Zone 1 material from the Central Dune Deposit currently being mined.

The 2017 Kwale South Dune Mineral Resource estimate shows a significant increase in Measured resource with conversion from the Inferred category, in particular, as well as the Indicated category resources with this elevation in classification coming exclusively from Ore Zone 1. This was achieved by infill drilling of deposit extremities and detailed drilling and mineralogical definition of the resource discovery in the south. All Ore Zone 4 resource remains in the Indicated category due to the generally unpredictable location of induration and lower density of mineralogical information.

Work to determine an indicative economic pit shell for the updated 2017 Kwale South Dune Mineral Resource estimate will be undertaken in the coming months, which will then form the basis for the application to the Kenyan Ministry of Mines (“MoM”) for an extension of mining tenure. This tenure will, preferably, take the form of an extension to the existing Special Mining License 23 or, alternatively, could involve the granting of a new mining license. Which of these alternatives eventuates could be expected to have an impact on the fiscal parameters applying to the extensional resources and therefore the economic parameters applied for conversion to Ore Reserves. Consequently, completion of an updated Ore Reserve for the South Dune deposit will be subject to finalisation of mining tenure arrangements with the MoM.

## Competent Persons Statements

The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr. Richard Stockwell, who acts as Consultant Geologist for Base Resources. Mr. Stockwell is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. Stockwell consents to the inclusion in this report of the Mineral Resource estimates and supporting information in the form and context in which it appears.

## Forward Looking Statements

Information in this report should be read in conjunction with other announcements made by Base Resources to ASX. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information contained in this report (or any associated presentation, information or matters). To the maximum extent permitted by law, Base Resources and its related bodies corporate and affiliates, and their respective directors, officers, employees, agents and advisers, disclaim any liability (including, without limitation, any liability arising from fault, negligence or negligent misstatement) for any direct or indirect loss or damage arising from any use or reliance on this report or its contents, including any error or omission from, or otherwise in connection with, it.



Certain statements in or in connection with this report contain or comprise forward looking statements. By their nature, forward looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future and may be outside Base Resources' control. Accordingly, results could differ materially from those set out in the forward-looking statements.

Nothing in this report constitutes investment, legal or other advice. You must not act on the basis of any matter contained in this report, but must make your own independent investigation and assessment of Base Resources and obtain any professional advice you require before making any investment decision based on your investment objectives and financial circumstances. This document does not constitute an offer, invitation, solicitation, advice or recommendation with respect to the issue, purchase or sale of any security in any jurisdiction.

ENDS



## Supporting Information Required Under ASX Listing Rules, Chapter 5

The supporting information below is required, under Chapter 5 of the ASX Listing Rules, to be included in market announcements reporting estimates of Mineral Resources and Ore Reserves.

Section 1, Section 2 and Section 3 of JORC Table 1 can be found in Appendix 1.

### Requirements applicable to the Mineral Resources Estimate

A summary of the information used to prepare the 2017 Kwale South Dune Mineral Resource estimate as presented in this report is as follows.

The Kwale Operation is located on Special Mining Lease No. 23 (“**SML23**”) (lying within the Kwale exploration license SPL173 comprising an area of 177 km<sup>2</sup>) which is located approximately 50 kilometres south of Mombasa and approximately 10 kilometres inland from the Kenyan coast (Figure 1).

The Kwale Project comprises two areas, separated by the Mukurumudzi River, that contain economically viable concentrations of heavy minerals. These are the Central Dune and the South Dune deposits (Figure 2). A sub-economic third deposit, the Kwale North Dune deposit is not currently included in published resources.

The project was initially owned by Tiomin Resources Inc. (“**Tiomin**”) who conducted drilling in 1997 and then by Base Resources who purchased the project late in 2010 and commenced confirmatory drilling of the Central Dune and South Dune deposits within the Kwale exploration license SPL173.

Mineral Resources estimation work previously carried out on the Kwale deposits is as follows:

- 2006 by Tiomin;
- 2010 by Base Resources via a consulting company, Creative Mined Pty Ltd, and under the direction of the Competent Person, Scott Carruthers;
- 2014 by GNJ Consulting, and under the direction of the Competent Person, Greg Jones; and
- 2016 by Base Resources Competent Person, Scott Carruthers.

The rocks of the area are of sedimentary origin and range in age from Upper Carboniferous to Recent. Three divisions are recognised: the Cainozoic rocks, the Upper Mesozoic rocks (not exposed on the area) and the Duruma Sandstone Series giving rise to the dominant topographical feature of the area: the Shimba Hills. The Shimba grits and Mazeras sandstone are of Upper Triassic age and form the Upper Duruma Sandstone.

The Margarini sands form a belt of low hills running parallel to the coast. They rest with slight unconformity on the Shimba grits and Mazeras sandstone. This formation was deposited during Pliocene times and consists of unconsolidated fluvial sediments derived from the Duruma Sandstone Series.

The Kwale deposits are an aeolian subset of the Margarini sands and are generally poorly stratified and contain a fraction of silt of around 25 per cent. Heavy minerals, mainly Ilmenite, Rutile and Zircon, are locally concentrated and are abundant in some places, giving rise to deposits such as the Central Dune and South Dune.

The geological interpretations for each deposit considered the data in the drill logs, HM assay results, microscopic logging of HM sinks, detailed mineralogy, knowledge gained from mining the Central Dune deposit and the results of pilot plant-scale test work conducted on trial mining pits at the South Dune deposit. Four geological domains have been identified at the Central Dune deposit and two domains are present at the South Dune deposit. These were used and honoured during the geological modelling.

The right to mine the Kwale Central Dune and South Dune deposits was granted to the Kwale Operations previous owner by the Government of Kenya under SML23 on 6 July 2004. SML23 was assigned to Base Titanium Limited (a wholly owned



subsidiary of Base Resources) in July 2010, with consent from the Commissioner of Mines and Geology of the Government of Kenya.

SML23 has a term of 21 years from 6 July 2004, and provides the right to carry out mining operations for the production of Ilmenite, Rutile and Zircon and is renewable on materially the same terms.

The environment and land use in Kwale County is defined as humid and intensive subsistence agriculture/mixed farming/forestry. The approximate population for Kwale County is 500,000 persons.

Tiomin conducted drilling in 1997 at Kwale using an open-hole, rotary mud drilling technique. Subsequent resource drilling by Base Resources was completed using the reverse circulation, air core (“RCAC”) method. Aircore drilling has been conducted in three campaigns: October to November 2010, January to February 2013 and November 2016 – March 2017 (the “2016-17 Kwale drill programme”) (Figure 3).

Predominantly 3m sample intervals in previous RCAC drilling was replaced by sampling at 1.5m intervals from November 2016 to provide greater control on geological boundaries. Sample size averages close to 3kg at this sample interval when collecting 25% of the rotary splitter cycle. Samples are dried, weighed, and screened for material less than 45µm (slimes) and +1mm (oversize).

Approximately 100 grams of the screened sample is subjected to a HM float/sink technique using the heavy liquid, Lithium polytungstate (LST with an SG of 2.85gcm<sup>-3</sup>). The resulting HM concentrate is dried and weighed as are the other separated constituent size fractions (the minus 45µm material being calculated by difference).

Mineral assemblage analyses were conducted by Base Resources in order to characterise the mineralogical and chemical characteristics of specific mineral species and magnetic fractions. These mineral assemblage samples were subjected to magnetic separation using a Mineral Technologies, reading, vibrating, induced-roll magnetic separator, which captures magnetic (“mag”), middling (“mid”) and non-magnetic (“non-mag”) fractions. The mid and mag fractions are combined and, with the non-mag fraction, are subjected to XRF analysis using a Bruker, S8 Tiger XRF.

Data from the mag and non-mag XRF analyses are processed through the Minmod algorithm that runs approximately 100,000 iterations in assigning key chemical species to a calculated mineralogy determination.

Drill hole collar and geology data is captured by industry-specific, field logging software with on-board validation. Field and assay data are managed in an MS Access database and subsequently migrated to a more secure, SQL database. Population of the SQL database was completed in July 2017 and was the final stage of data validation for the 2017 Kwale South Dune Mineral Resource estimate.

Standard samples were generated and certified for use in the field and laboratory. Accuracy of HM and SL analysis was verified by standards and monitored using control charts. Standard error greater than three standard deviations from the mean prompted batch re-assay. A standard precision analysis was conducted on the key assay fields: HM, SL and Oversize (“OS”) for both laboratory and field duplicate samples. Normal scatter and QQ plots were prepared for HM, SL and OS for laboratory and field duplicates.

A twin drilling programme was introduced to quantify short-range variability in geological character and grade intersections. A water injection versus dry drilling assessment was included in the twin drilling analysis. Field and laboratory duplicate, standard and twin drilling analysis show adequate level of accuracy and precision to support resource classifications as stated.

A topographic DTM was prepared by Base Resources in Geovia (Surpac) software format which was based on a LIDAR survey. Construction of the geological grade model was based on coding model cells below open wireframe surfaces, comprising topography, geology (Ore Zones 1 & 4) and basement (Figure 4). Model cell dimensions of 50m x 50m x 1.5m in the XYZ orientations was applied to the 2017 Kwale South Dune Mineral Resource.



Interpolation was undertaken using various sized search ellipses to populate the model with primary grade fields (HM, SL, OS, and mineralogy), and index fields (hardness, Induration percent, Composite ID). Inverse distance weighting to a power of three was used for primary assay fields whilst nearest neighbour was used to interpolate index fields.

The bulk density applied to the Kwale South Dune model is a component-based algorithm, validated by Troxler density measurements taken in the active Kwale Central Dune mine. The character of the Kwale South Dune is sufficiently similar to that of the Kwale Central Dune to validate this approach.

The criteria used for classification was primarily the drill spacing and sample interval, with consideration also given to the continuity of mineral assemblage information and confidence in post-depositional modification of mineralisation (e.g. induration in Ore Zone 4). A reduced level of confidence was applied to the Ore Zone 4 material at Kwale South Dune due to the unpredictable ironstone induration and lower density of mineralogical information. The estimates presented herein used a 1% HM bottom cut to ensure potentially economic material is not excluded from the subsequent optimisation and to allow for comparison to the previous resource figure.

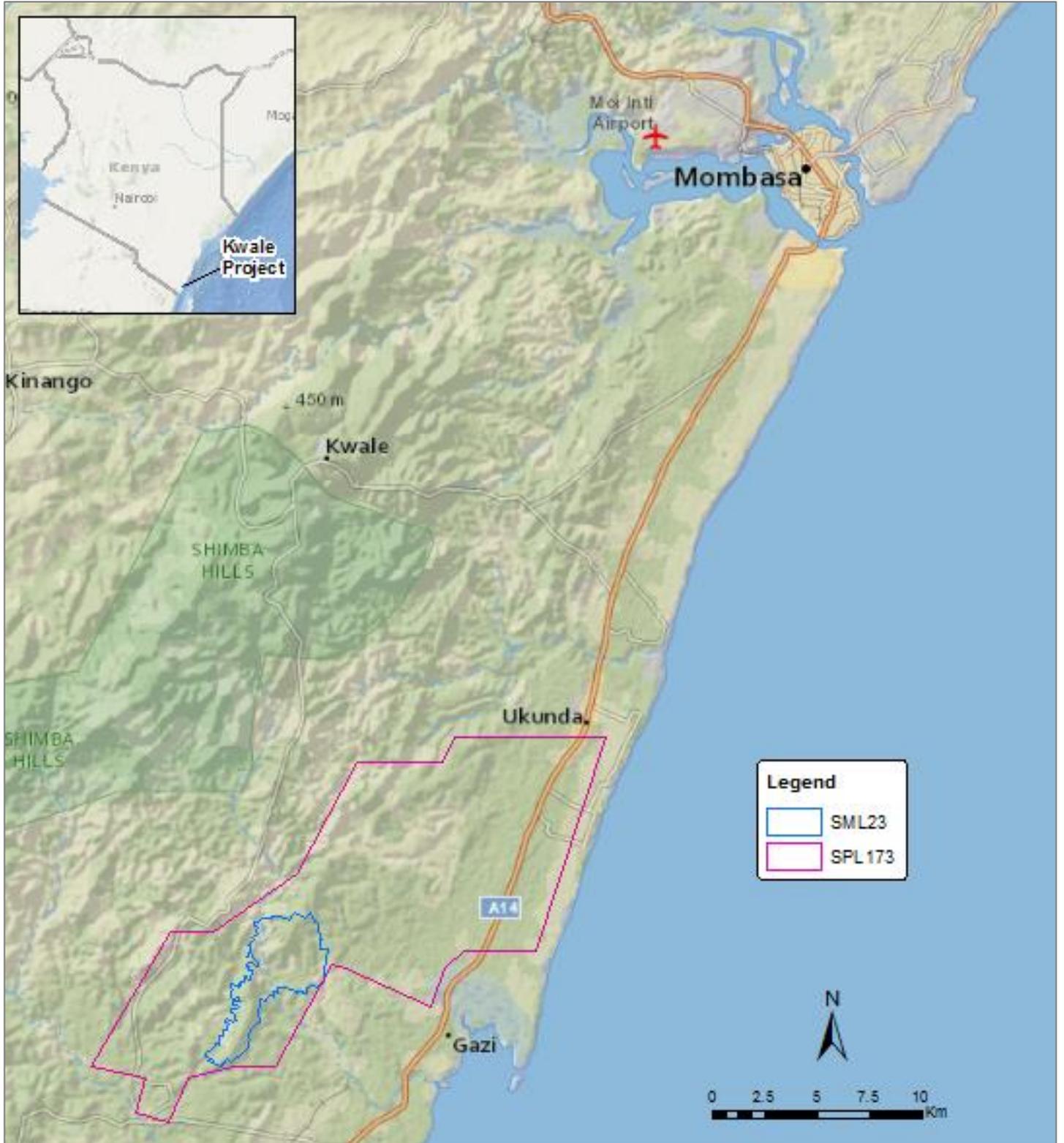


Figure 1: Plan showing location of Kwale Project tenure.

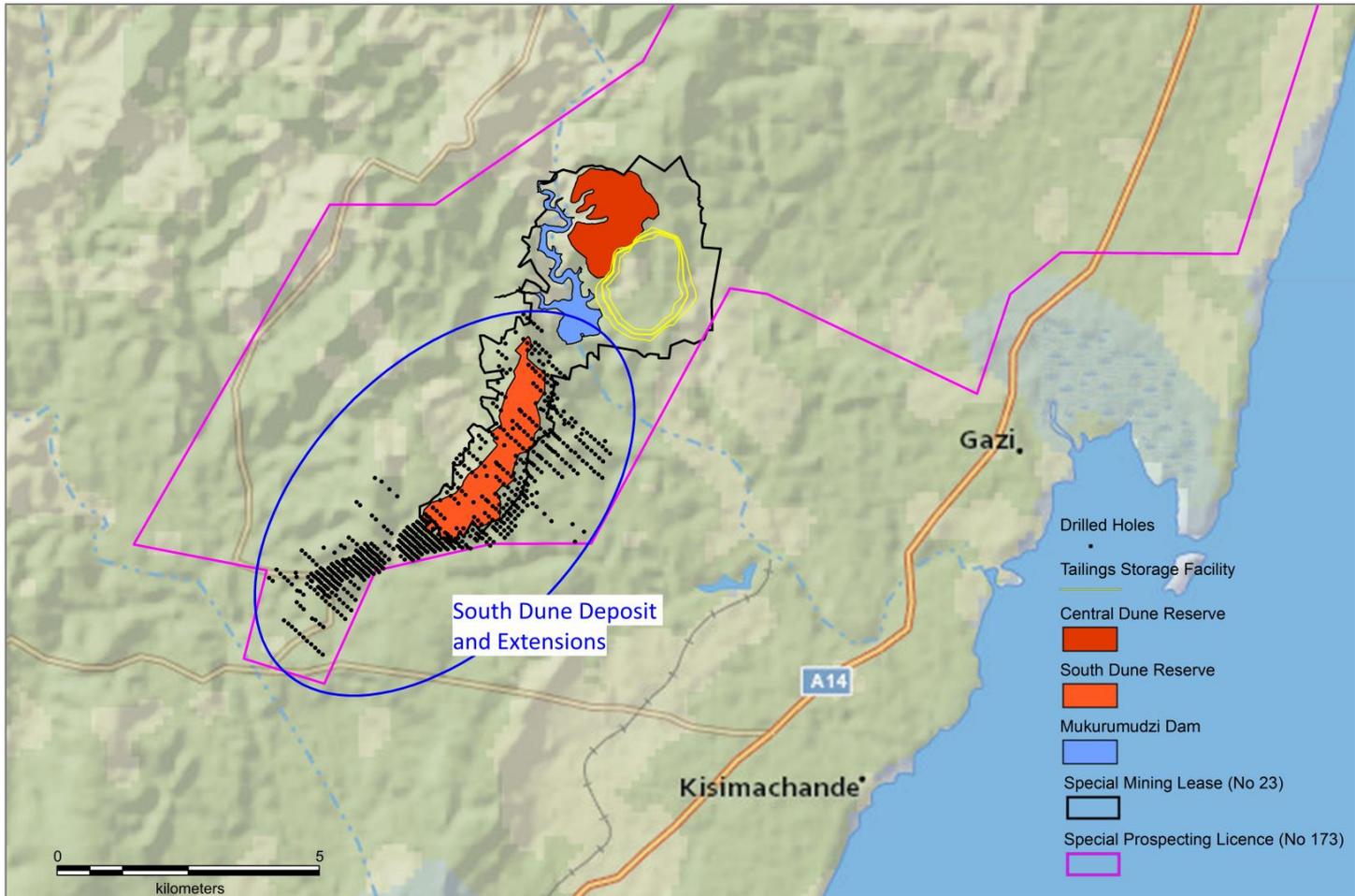
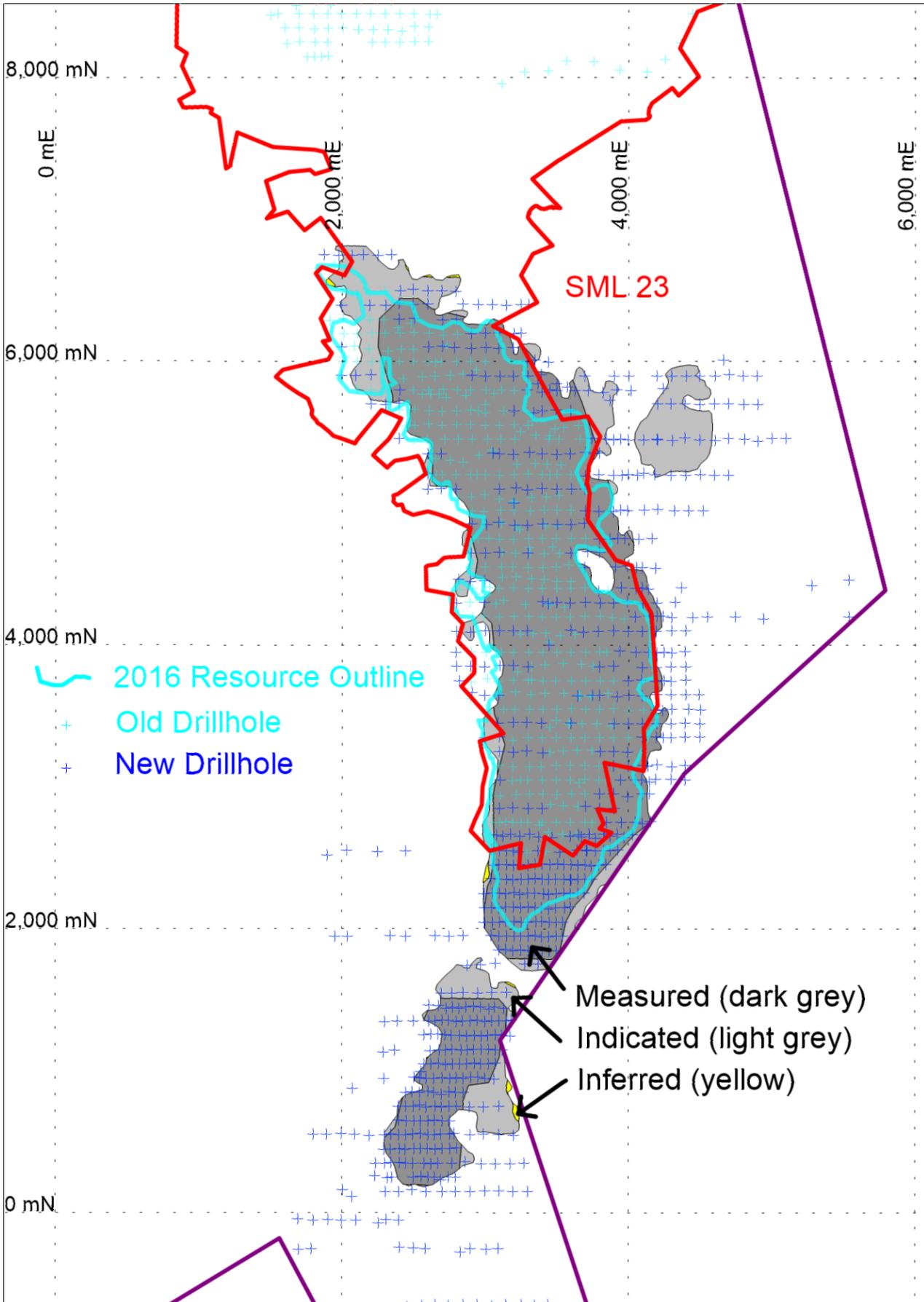
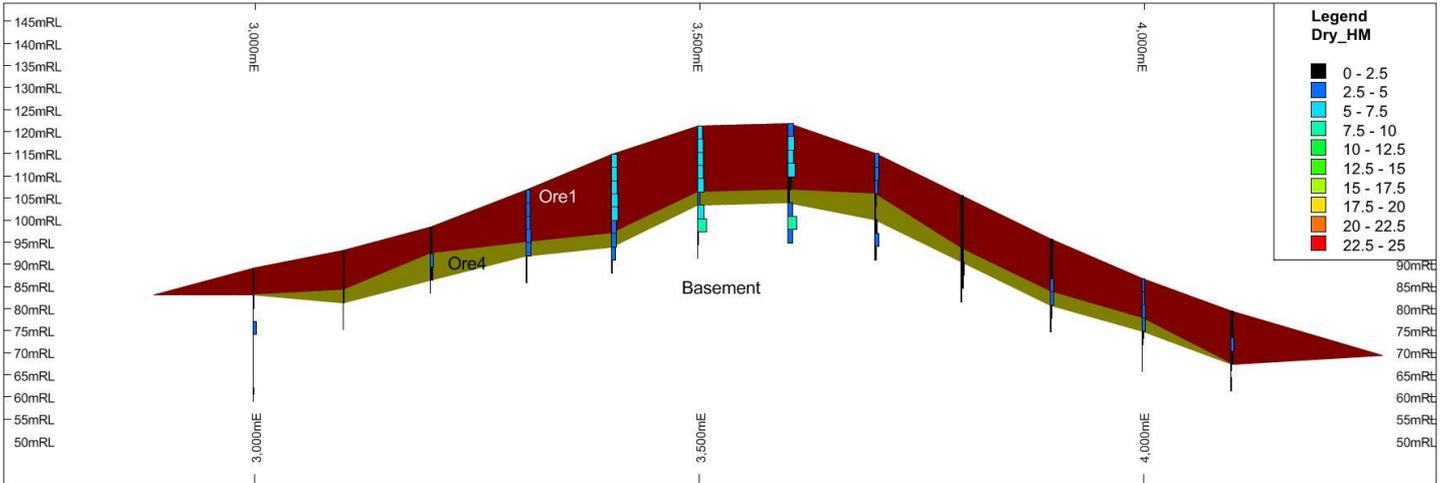


Figure 2. Kwale SML23, SPL713 and Kwale South Dune recent drill holes completed.



**Figure 3:** Plan showing Kwale South Dune deposit, location of drill holes used for resource estimation, tenure boundaries and the measured, indicated and inferred 1% HM cut-off resource outlines.



**Figure 4:** Schematic cross-section of the Kwale South Dune deposit showing geology and HM grade relationships between geological domains (1:5 vertical exaggeration).



## APPENDIX 1: Table 1, JORC Code 2012

## Section 1: Sampling Techniques and Data

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. 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.	The 2017 Kwale South Dune Mineral Resource drill data were collected using the Reverse Circulation Air-Core (RCAC) method.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Duplicate field and laboratory samples were taken at accepted industry standard ratios of approximately 1 in 20 to 1 in 40. Field and laboratory standard samples were inserted every 40 samples. Twin drilling analysis was completed during the 2016-17 Kwale drill programme at the South Dune, which included a wet v dry drilling analysis.
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	<p>RCAC drilling was used to obtain a 1 to 3 m samples from which approximately 1.2-2.5 kg was collected using a rotary splitter, mounted beneath a cyclone. Drilling completed in the 2016-17 Kwale drill programme was sampled at a 1.5m interval, which produced an average 3kg sample from a 25% split of the rotary splitter cycle.</p> <p>The sample is dried, de-slimed (material less than 45µm removed) and then oversize (material +1mm) is removed.</p> <p>Approximately 100g of the resultant sample was then subjected to a heavy mineral (HM) float/sink technique using tetra-bromo-ethane (TBE: SG=2.92-2.96 g/cm<sup>3</sup>). Assay of the 2016-17 Kwale drill programme samples was completed at Kwale site using lithium polytungstate (LST) with an SG of 2.85g/cm<sup>3</sup>.</p> <p>The resulting HM concentrate is then dried and weighed.</p>

Criteria	Explanation	Comment
<i>Drilling techniques</i>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	<p><i>RCAC drilling utilising 71 mm diameter air-core tooling accounts for all drill sample data applied to the 2017 Kwale South Dune Mineral Resource. All holes are drilled vertically with no downhole surveying to confirm hole direction.</i></p> <p><i>All Tiomin, open-hole drill data were excluded from the 2017 Kwale South Dune Mineral Resource estimate.</i></p>
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<p><i>Ground conditions vary and as such Base Resources log sample quality/condition at the rig as either good, moderate or poor, with ‘good’ meaning not contaminated and of an appropriate sample size (recovery), ‘moderate’ meaning not contaminated, but sample over or undersized, and ‘poor’ meaning contaminated or grossly over/undersized.</i></p> <p><i>For the 2016-17 Kwale drill programme, the use of water injection was also logged in the sample quality field for every sample interval (dry, moist, injected or wet). Minor sample loss was observed and the splitter rectified during the first week of drilling. No further sample loss has been recorded. The configuration of drilling and nature of sediments encountered results in negligible loss.</i></p>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<p><i>Drill penetration is halted at the end of each sample interval to allow time for the sample to return to surface and be collected. Drilling proceeds once sample delivery ceases.</i></p> <p><i>Sampling on the drill rig is observed to ensure that rotary splitter remains clean. Water flush and manual cleaning of the cyclone occurs at regular intervals to ensure contamination is minimised.</i></p>
	<i>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.</i>	<p><i>No relationship is believed to exist between grade and sample recovery. The high percentage of clay and low hydraulic inflow of groundwater results in a sample size that is well within the expected size range.</i></p> <p><i>Negligible fines losses were identified during twin drilling analysis of the 2016-17 Kwale drill programme.</i></p>

Criteria	Explanation	Comment
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resources estimation, mining studies and metallurgical studies.</i>	<i>Base Resources collects detailed qualitative logging of geological characteristics to allow a comprehensive geological interpretation to be carried out.  Logging of HM sinks with a microscope also is used to inform the geological interpretation.</i>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	<i>Logging of RCAC samples recorded sample condition, estimated slimes, washability, colour, lithology, dominant grainsize, coarsest grainsize, sorting, induration type, hardness, estimated rock and estimated HM.</i>
	<i>The total length and percentage of the relevant intersections logged.</i>	<i>All drill holes are logged in full and all samples with observed HM (and designated for assay) are assayed. All drill holes were logged in full and all samples were assayed and used in the resource estimation exercise.</i>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<i>All samples are unconsolidated and comprise sand, silt, clay and rock fragments.</i>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	<i>Base Resources rotary split the samples on the drill rig as they are delivered from drilling (wet, moist, injected or dry). Low groundwater pressure and rotary splitting delivers a representative sample for logging. The 25% split delivered approximately 3kg of sample for analysis during the 2016-17 Kwale drill programme.  Drill samples are dried then riffle split to produce a ~300g sample for de-sliming and oversize removal. The resultant sand fraction is then delivered to the laboratory for heavy liquid (LST) separation.</i>
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<i>Sample preparation is consistent with industry best practice. For the 2016-17 Kwale drill programme, a formal procedure and flow sheet was developed with detailed QA/QC protocols applied.</i>

Criteria	Explanation	Comment
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<p><i>QA/QC in the form of laboratory and rig duplicates were used to monitor laboratory performance. Laboratory and rig duplicates were submitted at the rate of approximately 1 in 20 each for a combined submission rate of one in 10.</i></p> <p><i>Two standard samples were created for the commencement of the 2016-17 Kwale drill programme. Bulk samples of Kwale Central Dune ore were mixed, rotary split and sent for certification analysis. Standards were inserted at a rate of 1 in 40 in the field and another prior to HM assay to test sample preparation and assay accuracy.</i></p> <p><i>Twin drilling analysis was introduced for the 2016-17 Kwale drill programme, which included water injected v dry drilling analysis.</i></p>
	<i>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.</i>	<i>Analysis of sample duplicates and twin drilling data were undertaken by standard geostatistical methodologies to test for bias and to ensure that sample splitting was representative.</i>
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<i>Given that the grain size of the material being sampled is sand and approximately 70 to 300 µm, an average sample size of 1.2 - 3 kg is more than adequate.</i>

Criteria	Explanation	Comment
<p><i>Quality of assay data and laboratory tests</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<p><i>The Base Resources laboratory flow sheet comprises a sample preparation stage (completed by Base personnel) and an HM assay stage completed by contracted laboratories. Assay was completed by Western Geolabs (Perth) for previous resource drilling using a TBE heavy liquid separation. The Kwale site lab, managed by SGS, was used for the 2016-17 Kwale drill programme samples. A LST heavy liquid separation medium is used by SGS.</i></p> <p><i>The sample analysis process produced the following assays:</i></p> <ul style="list-style-type: none"> <li><i>- heavy mineral ('HM') &gt; 45 µm, &lt; 1 mm, &gt; 2.85 SG</i></li> <li><i>- slime ('SL') &lt; 45 µm</i></li> <li><i>- oversize ('OS') &gt; 1 mm</i></li> </ul> <p><i>Sample preparation involves de-sliming the sample prior to oven drying to prevent clay minerals being baked onto the HM grains. A separate sample is split and dried to determine moisture content, which is then back calculated to correct the assayed grades.</i></p> <p><i>Quality control protocols include two duplicate assaying procedures. A duplicate sample is generated at the drill rig and another at the sample preparation stage. Both duplicates are included at a 1:20 ratio and are subjected to the remainder of the sample preparation and assay process.</i></p> <p><i>A field and a laboratory standard was introduced for the 2016-17 Kwale drill programme. One was inserted in the field and the other, prior to HM assay at a 1:40 ratio.</i></p> <p><i>Mineralogical analysis is performed by back-calculation of XRF results to an in-ground mineral assemblage, verified by quantitative analysis (SEM-EDX and QEMSCAN). Both individual sample interval XRF and composite sample XRF data are included in resource estimates.</i></p> <p><i>Assay technique and quality assurance protocols are considered industry best practice.</i></p>

Criteria	Explanation	Comment
	<i>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.</i>	<i>None used.</i>
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	<p><i>Field duplicates, sample preparation duplicates and laboratory replicates are submitted for precision and bias analysis. Excepting significant sample size bias as a result of poor splitter gate construction on the RCAC drill rig observed in recent drilling, assay results show acceptable correlation and no bias.</i></p> <p><i>Audit samples were sent to alternative laboratories (Diamantina and Independent Diamond Laboratories) to verify results from Western Geolabs for previous resource drill samples. No blanks or standards were submitted by Base Resources during this period. Results returned within acceptable limits.</i></p> <p><i>Standard samples were introduced for the 2016-17 Kwale drill programme. Standards were monitored by control charts and re-assay completed when results fell outside control chart limits (mean + 3SD). Re-assay was completed for standards failures and all data are now corrected.</i></p>
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<i>The deposit type and consistency of mineralization leaves little room for unexplained variance. Verification of intersections was limited to checking for variance between logged estimates of grade and the assayed grades. Where there was unexplained variance, samples were re-submitted for assay.</i>
	<i>The use of twinned holes.</i>	<p><i>Twinned holes were completed during the 2016-17 Kwale drill programme. These were used for statistical analysis of short-range geological and assay field variability for the resource estimation. Assay fields showed acceptable correlation and an absence of bias.</i></p> <p><i>A comparison of dry v water injection was included in the twin drilling analysis. Negligible Slimes losses were established by the practice of dry drilling for the 2016-17 Kwale drill programme.</i></p>

Criteria	Explanation	Comment
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<i>Data collected by Base Resources is entered digitally in the field and uploaded to Microsoft Access prior to being migrated to a more secure SQL database, hosted on the Kwale site server. The SQL database is subject to regular back-up and access is limited to the Exploration Superintendent and business applications administrator.</i>
	<i>Discuss any adjustment to assay data.</i>	<i>Assay data adjustments are made to convert laboratory collected weights to assay field percentages and to account for moisture.</i>
<i>Location of data points</i>	<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 Resources estimation.</i>	<i>Base Resources used a real time kinematic global positioning system ('RTK GPS') to survey drill sites.</i>
	<i>Specification of the grid system used.</i>	<i>The grid system used is the Arc1960 (zone 37 South). Modelling was conducted in a rotated local mine grid.</i>
	<i>Quality and adequacy of topographic control.</i>	<i>LiDAR surveys flown in 2013 and 2015 were joined to cover the resource areas. Drill holes were projected to this surface prior to resource estimation. Stated accuracy of the LiDAR survey is 0.015m.</i>
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	<i>The drill data spacing is nominally 100m North, 50m East, and 1.5m down hole for the 2016-17 Kwale drill programme. Previous drilling is nominally spaced at 200m North, 100m East and has a 3m down-hole sample interval. Variations occur when lower-density drilling is applied to exploration areas or from line-clearing difficulties prior to drilling and drill site survey.</i>
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resources and Ore Reserves estimation procedure(s) and classifications applied.</i>	<i>Based on the experience of the competent person, the data spacing and distribution through the drill hole programs is considered adequate for the assigned Mineral Resources classifications. HM grade continuity was verified using variography of the discrete geological domains.</i>

Criteria	Explanation	Comment
	<i>Whether sample compositing has been applied.</i>	<p><i>No sample compositing or de-compositing has been applied to previous resource estimates. The majority of previous sampling was taken on 3 m intervals with some 1 m intervals drilled for geological boundary definition on a vertical basis. Sample length weighting was used during the interpolation process.</i></p> <p><i>For the 2017 Kwale South Dune Mineral Resource, all historic 3m sample intervals are de-composited to 1.5m for the interpolation. Samples for mineralogical analysis were composited, generally on-section, on a like-for-like basis with reference to HM sink logs and conforming to the geological interpretation.</i></p>
<i>Orientation of data in relation to geological structure</i>	<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>Sample orientation is vertical and approximately perpendicular to the dip and strike of the mineralisation resulting in true thickness estimates. Drilling and sampling is carried out on a regular rectangular grid that is broadly aligned and in a ratio consistent with the anisotropy of the mineralisation.</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>	<i>There is no apparent bias arising from the orientation of the drill holes with respect to the strike and dip of the deposit.</i>
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	<i>All samples are numbered, with samples split and residues stored securely at the Kwale site, along with HM sinks.</i>
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<p><i>GNJ Consulting Pty Ltd and IHC Robbins conducted reviews of previous Mineral Resources estimates completed by Base Resources.</i></p> <p><i>Hornet Drilling and Geological Services Pty Ltd conducted three site visits during preparation and data collection stages relating to the 2016-17 Kwale drill programme. These were made to establish and review drilling, sample preparation and geological interpretation procedures and monitor adherence. Minor recommended changes were made on each occasion.</i></p> <p><i>IHC Robbins was engaged to complete peer review of the 2017 Kwale South Dune Mineral Resource estimate.</i></p>

## Section 2: Reporting of Exploration Results

Criteria	Explanation	Comment
<i>Mineral tenement and land tenure status</i>	<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 resource lies within the granted Special Mining Lease No.23. Mining is currently taking place on the Kwale Central Dune deposit. An ad valorem royalty of 2% is payable to the previous owners, and a 2.5% royalty is payable to the Kenyan government.</i>
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	<i>There are no known impediments to the security of tenure for the Kwale Operations deposits.</i>
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<i>The previous owners of the project (Tiomin Kenya Ltd) undertook exploration over the Kwale Project prior to purchase by Base Resources Ltd.</i>
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	<i>The Kwale Central Dune and South Dune deposits are aeolian detrital heavy mineral sand deposits.</i>
<i>Drill hole Information</i>	<p><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></p> <ul style="list-style-type: none"> <li><i>- easting and northing of the drill hole collar</i></li> <li><i>- elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>- dip and azimuth of the hole</i></li> <li><i>- down hole length and interception depth</i></li> <li><i>- hole length.</i></li> </ul> <p><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></p>	<i>There are no drill hole results that are considered material to the understanding of the exploration and resource drill out. Identification of the wide and thick zone of mineralisation is made via multiple intersections of drill holes and to list them all would not give the reader any further clarification of the distribution of mineralisation throughout the deposit.</i>

Criteria	Explanation	Comment
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	<i>No grade cutting was undertaken, nor compositing or aggregation of grades made prior or post the grade interpolation into the block model. Selection of the bottom basal contacts of the mineralised domains were made based on discrete logging and grade information collected and assayed by Base Resources and Tiomin.</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>Does not apply</i>
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	<i>No metal equivalents were used for reporting of Mineral Resources.</i>
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	<i>All drill holes are vertical and perpendicular to the dip and strike of mineralisation and therefore all interceptions are approximately true thickness.</i>
	<i>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 (e.g. 'down hole length, true width not known').</i>	
<i>Diagrams</i>	<i>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.</i>	<i>Refer to main body of report.</i>

Criteria	Explanation	Comment
<i>Balanced reporting</i>	<i>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.</i>	<i>Reporting of results is restricted to Mineral Resources estimates generated from geological and grade block modelling.</i>
<i>Other substantive exploration data</i>	<i>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.</i>	<i>Bulk density is derived from algorithm.</i>
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<i>Minor in-fill drilling is recommended at deposit extremities to confirm pit margins. Drilling of the eastern South Dune extension is recommended upon this area optimising.</i>
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<i>Refer to main body of report.</i>

**Section 3: Estimation and Reporting of Mineral Resources**

Criteria	Explanation	Comment
<i>Database integrity</i>	<i>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 Resources estimation purposes.</i>	<p><i>The surveying, logging and assay data were stored in a Microsoft Access database prior to being imported into a more secure SQL database format.</i></p> <p><i>The drill logs were recorded electronically at the rig for the Base Resources drilling programme, and the hole locations recorded by hand-held GPS at the time of drilling. The hand-held GPS locations were used by the RTK GPS operator to locate the holes.</i></p> <p><i>Each field of the drill log database was verified against allowable entries and any keying errors corrected.</i></p> <p><i>Heavy mineral sing logs were completed against a strict set of codes and captured digitally.</i></p>
	<i>Data validation procedures used.</i>	<p><i>Look-up tables are employed at data capture stage on industry-leading software equipped with on-board validation and quarantine capability. Cross-validation between related tables is also systematically performed by field logging software. Data are loaded into a secure SQL database where a second validation is performed.</i></p> <p><i>Visual comparison is undertaken in cross-section using Mapinfo software. Sanity checks of sample preparation fields were undertaken to ensure correct procedure was followed (e.g. sample weight pre v post-oven drying). Calculation of assay fields were checked to ensure correct moisture adjustment and weight to percentage adjustment.</i></p> <p><i>Statistical, out-of-range, distribution, error and missing data validation is completed on data sets before being compiled for resource estimation.</i></p>

Criteria	Explanation	Comment
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	<i>Richard Stockwell established industry-leading procedures for data capture and storage for the 2016-17 Kwale drill programme. Three site visits were completed by Mr Stockwell during data capture stages and recommendations were made where improvements were required. There were no issues observed that might be considered material to the Mineral Resource under consideration.</i>
	<i>If no site visits have been undertaken indicate why this is the case.</i>	
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<i>The geological interpretation is compiled from field geological observations during drill sample logging, microscope investigation of heavy mineral sinks and interpretation of sample assay data. A strong correlation between these three sources of information was observed and a high degree of confidence results.</i>
	<i>Nature of the data used and of any assumptions made.</i>	<i>The interpreted zones were used to control the wireframed zones in the resource model. Primary data, generated by Base Titanium was used exclusively for the resource estimation. No assumptions were made.</i>
	<i>The effect, if any, of alternative interpretations on Mineral Resources estimation.</i>	<i>The weight of mutually supportive data weakens the case for alternate geological interpretation.</i>
	<i>The use of geology in guiding and controlling Mineral Resources estimation.</i>	<i>The Mineral Resources estimate was controlled by the geological / mineralised surfaces and beneath the topographic surface.</i>
	<i>The factors affecting continuity both of grade and geology.</i>	<i>The Kwale Operation deposits sits on top of an erosional high which is dissected by streams. The extent of geological and mineralised zones is constrained by the erosional surface surrounding the basement high.  Heavy mineral grade and geology is consistent within mineralised horizons, typical of aeolian deposits. Grade and geological continuity in the lower mineralised horizon (Ore Zone 4) is compromised by variable induration.</i>

Criteria	Explanation	Comment
<i>Dimensions</i>	<i>The extent and variability of the Mineral Resources expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resources.</i>	<i>The Kwale South Dune deposit is approximately 6.5km long, 300-1000m wide and approximately 12-20 m thick on average. Mineralisation is present from surface over the majority of the deposit.</i>
<i>Estimation and modelling techniques</i>	<i>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.</i>	<i>Geovia Surpac software was used to estimate the Mineral Resource. 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 into the block model. The 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 the clustering of samples was required.</i>  <i>Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of 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.</i>  <i>Hard domain boundaries were used and these were defined by the geological surfaces that were interpreted.</i>
	<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resources estimate takes appropriate account of such data.</i>	<i>The resource estimate was checked against previous resource estimates and these are detailed in the report. The 2017 Kwale South Dune Mineral Resource estimate accurately reflects additional resource discovery in addition to the previously reported resource estimate.</i>  <i>Reconciliation of current mining operations validates the resource estimate with respect to production.</i>
	<i>The assumptions made regarding recovery of by-products.</i>	<i>No assumptions were made during the resource estimation as to the recovery of by-products.</i>

Criteria	Explanation	Comment
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	<i>All potentially deleterious elements were included as part of the mineral composite analysis and were included in the modelling report. There is no significant sulphide mineralisation.</i>
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	<i>The average parent cell size used for the 2017 Kwale South Dune Mineral Resource estimate is approximately half that for the average drill hole spacing over the bulk of the deposit (100m*100m) and equal to the dominant sample spacing down-hole employed by the 2016-17 Kwale drill programme (1.5m). This resulted in a parent cell size of 50m*50m*1.5m for the volume model.</i>
	<i>Any assumptions behind modelling of selective mining units.</i>	<i>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 ore 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 for each deposit.</i>
	<i>Any assumptions about correlation between variables.</i>	<i>No assumptions were made about correlation between variables.</i>
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	<i>Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation.</i>
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	<i>Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing and the fact that samples were not clustered nor wide spaced to an extent where elevated samples could have a deleterious impact on the resource estimation.</i>  <i>Sample distributions were reviewed and no extreme outliers were identified either high or low that necessitated any grade cutting or capping.</i>

Criteria	Explanation	Comment
	<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>	<i>Validation of grade interpolations were done visually In Surpac 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 both drill holes and the model 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.</i>
<i>Moisture</i>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	<i>Tonnages were estimated on a dry basis. This is based on test work carried out on the bulk density which was determined on a dry weight basis.</i>
<i>Cut-off parameters</i>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	<i>A 1% HM bottom cut has been applied to the Resource Estimate. This cut-off is used on a sub-economic basis in consideration of the valuable heavy mineral content indicated by mineral assemblage analysis.</i>
<i>Mining factors or assumptions</i>	<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 rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	<i>The mining method is assumed to be high pressure hydraulic mining, which blends the ore from top of the face to the bottom.  Hydraulic mining is not selective, which suits the generally thick and homogenous depositional style of the mineralisation.  Given the thickness of the Kwale South deposit and proposed mining method, dilution is not considered to be an issue.</i>

Criteria	Explanation	Comment
<i>Metallurgical factors or assumptions</i>	<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>	<i>The metallurgical recovery and separability factors are similar to other mineral sand operations. There are no fine grained lower shoreface sediments. The level of kyanite is greater than at other deposits, and the mineral separation plant has been designed to cater for this.</i>
<i>Environmental factors or assumptions</i>	<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>	<i>Thickened clay tailings are being disposed inside a tailing storage facility that is being constructed from sand tailings. The facility will be complete by March 2018 and from then sand tailing will take place in the mined void. Mineral separation plant tailing is disposed with the sand tails.</i>
<i>Bulk density</i>	<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>An extensive programme of test work was designed by GNJ Consulting and implemented by Base Resources utilising a procedure to collect Troxler nuclear density meter measurements and HM and SL assays. These were used in the development of an algorithm to estimate the bulk density of in situ material within the deposit based on variable HM and clay (SL).</i>

Criteria	Explanation	Comment
	<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>This sampling was undertaken within the mineralised ore zones of the Kwale Central Dune deposit during mining operations and representative sampling was undertaken for those domains.  It is considered appropriate to utilise the new bulk density algorithm for the Kwale South Dune deposit given that the geological units are closely related and part of the same sequence (given the close local proximity this is also a reasonable assumption).</i>
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	<i>Assumptions were made regarding packing factor of sand, bulk density of HM, sand and clay in the development of the bulk density algorithm. The algorithm was refined using nuclear density meter measurement of the soil profile being sampled.  Ongoing test work is planned to take place in order to further refine and build a database of results to support the ongoing use of the bulk density algorithm.  Once mining commences on the Kwale South Dune deposit bulk density test work will continue to be undertaken.  The use of a bulk density algorithm is considered industry standard practice for the estimation of mineral sands Mineral Resources.</i>
<i>Classification</i>	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>	<i>The classification for the 2017 Kwale South Dune Mineral Resource estimate was based on the following criteria: drill hole spacing; experimental semi-variograms; the quality of QA/QC processes; post-depositional modification and the distribution of mineral assemblage samples.</i>
	<i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i>	<i>The classification of the Measured and Indicated Mineral Resources for the 2017 Kwale South Dune Mineral Resource estimate were supported by all of the criteria as noted above.</i>
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	<i>The Competent Person considers that the result appropriately reflects a reasonable view of the deposit categorisation.</i>

Criteria	Explanation	Comment
<i>Audits or reviews.</i>	<i>The results of any audits or reviews of Mineral Resources estimate.</i>	<i>IHC Robbins undertook audits of the resource estimate, and found them to be suitable for reserve optimisation.</i>
<i>Discussion of relative accuracy/ confidence</i>	<i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resources 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>Variography was completed for the 2017 Kwale South Dune Mineral Resource estimate. Results of variography, qualitative assessment of the Mineral Resource estimate and comparison with previous resource estimates indicates the robustness of this particular resource estimation exercise.</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>The estimates are global.</i>
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<i>Trial mining and pilot plant-scale mineral processing of Kwale South Dune ore has shown it to be similar to the Kwale Central Dune Ore Zone 1 material currently being mined and fed to the MSP. No alteration to the MSP is recommended for treatment of the South Dune ore.</i>

## GLOSSARY

<b>Mineral Resources</b>	Mineral Resources are a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
<b>Measured Resource</b>	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.
<b>Inferred Resource</b>	An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
<b>Indicated Resource</b>	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
<b>Ore Reserves</b>	Ore Reserves are the economically mineable part of Measured and/or Indicated Mineral Resources.
<b>Competent Person</b>	The JORC Code requires that a Competent Person must be a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a 'Recognised Professional Organisation'.  A Competent Person must have a minimum of five years' experience working with the style of mineralisation or type of deposit under consideration and relevant to the activity which that person is undertaking.
<b>JORC</b>	The Joint Ore Reserves Committee: The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code'), as published by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.
<b>Variography</b>	A geostatistical method that investigates the spatial variability and dependence of grade within a deposit. This may also include a directional analysis.
<b>LIDAR survey</b>	LIDAR is a remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light.
<b>DTM</b>	Digital Terrain Model
<b>XRF analysis</b>	A spectroscopic method used to determine the chemical composition of a material through analysis of secondary X-ray emissions, generated by excitation of a sample with primary X-rays that are characteristic of a particular element.
<b>Inverse distance weighting</b>	A statistical interpolation method whereby the influence of data points within a defined neighborhood around an interpolated point decreases as a function of distance.

# CORPORATE PROFILE

Base Resources Limited ABN 88 125 546 910

## DIRECTORS

<b>Keith Spence</b>	Non-Executive Chairman
<b>Tim Carstens</b>	Managing Director
<b>Colin Bwye</b>	Executive Director

<b>Sam Willis</b>	Non-Executive Director
<b>Michael Stirzaker</b>	Non-Executive Director
<b>Malcolm Macpherson</b>	Non-Executive Director

## NOMINATED ADVISOR & BROKERS

Nominated Advisor:

### **RFC Ambrian Limited**

Andrew Thomson / Stephen Allen

Phone: +61 (0)8 9480 2500

Joint Brokers:

### **RFC Ambrian Limited**

Jonathan Williams

Phone: +44 20 3440 6800

### **Numis Securities Limited**

John Prior / James Black / Paul Gillam

Phone: +44 20 7260 1000

## SHARE REGISTRY

### **ASX**

#### **Computershare Investor Services Pty Limited**

Level 11, 172 St Georges Terrace

PERTH WA 6000

Enquiries: 1300 850 505 / +61 (3) 9415 4000

[www.computershare.com.au](http://www.computershare.com.au)

### **AIM**

#### **Computershare Investor Services PLC**

The Pavilions

Bridgwater Road

BRISTOL BS99 6ZZ

Enquiries: +44 (0) 870 702 0003

[www.computershare.co.uk](http://www.computershare.co.uk)

## COMPANY SECRETARY

Chadwick Poletti

## AUSTRALIA MEDIA RELATIONS

### **Cannings Purple**

Annette Ellis / Andrew Rowell

Email: [aellis@canningspurple.com.au](mailto:aellis@canningspurple.com.au) /  
[arowell@canningspurple.com.au](mailto:arowell@canningspurple.com.au)

Phone: +61 (0)8 6314 6300

## UK MEDIA RELATIONS

### **Tavistock Communications**

Jos Simson

Phone: +44 (0) 207 920 3150

## KENYA MEDIA RELATIONS

### **Africappractice (East Africa)**

Evelyn Njoroge / Joan Kimani

Phone: +254 (0)20 239 6899

Email: [jkimani@africappractice.com](mailto:jkimani@africappractice.com)

## PRINCIPAL & REGISTERED OFFICE

Level 1, 50 Kings Park Road

West Perth WA 6005

Email: [info@baseresources.com.au](mailto:info@baseresources.com.au)

Phone: +61 (0)8 9413 7400

Fax: +61 (0)8 9322 8912