JORC Code, 2012 Edition – Table 1: Nataka Deposit

Indicated Resource/Probable Reserve & Measured Resource/Proved Reserve

31 December 2021

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• Air-core drill samples taken (predominantly 18,970 samples out of 22,196) at 1m intervals typically 7 kg, riffle split to 100g in the lab then analysed for oversize (+1mm), slimes (-45 micron), and heavy minerals (+2.8 SG). Heavy mineral (HM) mineralogy determined by compositing HM fractions from the drilling samples by geology unit, then analyzing magnetic and non-magnetic fractions using XRF.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Air-Core Drilling. Drilling is conducted on a regular grid using air-core drilling technology, an industry standard drilling technique for HM deposits. Drilling rods are 3m long and 3 samples are taken for each rod at 1m intervals. • Collar Survey. Collar positions are surveyed using GPS RTK equipment, accurate to within 0.1m in the z direction. .
	• *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.*	• Heavy mineral mineralisation occurs as disseminated zones within sedimentary units. At Nataka the units are deposited as aeolian dunes with greater vertical continuity than at the Namalope deposit. Mineralised zones extend for many hundreds of metres to kilometres along strike with minor local variability. • Downhole sampling is conducted at 1m intervals principally to delineate the edges of the layers for mine planning purposes. This leads to an excess of grade information - above that strictly required for grade estimation for the geological model.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc)*	• NQ air-core drilling with hole diameter approx 75mm, all holes are vertical. Air-core drilling is a form of reverse circulation drilling requiring twin tubes, and where the

Criteria	JORC Code explanation	Commentary
	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).	sample is collected from the open face drilling bit and blown up the inner tube. It is well suited to drilling unconsolidated sediments and is one of the few drilling techniques to give good sample quality below the water table. It is the most common method used for mineral sands deposit definition.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Field assessment of sample volume. Samples with good recovery weigh 7-8kg for each metre (7.7 kg theoretical). With air-core method, there is normally lower than average sample recovery at the very top of the drillhole due to air and sample losses into the surrounding soil. Sample recovery below the water table can be greater than 100% as water flowing into the hole causes the hole to have a greater diameter than the drilling bit. With careful management, though, sampling below the water table still gives uncontaminated samples provided the sample stream is only sampled when the bit is cutting new material. • With the disseminated style of mineralisation typical of heavy mineral deposits, it is preferable to have samples of lower volume that are free of contamination, rather than samples of correct sample weight that may be contaminated. Therefore, while drilling the sampling team focus on ensuring that the sample stream coming from the drilling rig is only sampled when the bit is drilling into new, uncontaminated material. Contamination is most often a problem during rod changes and where there is a high flow of groundwater into the drillhole.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• The entire drill sample is delivered to the laboratory for further analysis, thereby eliminating the possibility of sample bias caused by splitting the sample in the field. • Samples are collected in calico bags and allowed to drain and partially dry in the field or in the exploration yard prior to delivery to the laboratory. With very wet samples there can be a slight loss of the slimes fraction through the weave of the cloth of the bag as the sample drains, but this is only a very small fraction of the total slimes in the sample.
	• *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.*	• Materials sampled by the air-core drilling rig can be dry, moist or wet. Dry samples may lose some of their slimes fraction due to blowing out of the sampling equipment, but HM and oversize are not affected. Moist drill samples are the most representative as the whole sample is returned as "clumps" of material from the bit face. There is no chance for HM or slimes to segregate in the moist samples, because all of the material stays stuck together. Wet samples taken from permeable sands and gravels underneath the water table where there is a high flow of water into the drillhole may segregate at the bit face and in the drill string and there is potential for slimes to be washed out of the sample, and for HM to segregate from the quartz sand and to preferentially be flushed out of the system with the other drill spoils at rod changes. • No bias is observed.

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Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Drillholes are logged in the field. All samples are qualitatively logged for lithology, grainsize, colour, clay content, sorting and a description of any unusual features. Sand samples are panned to estimate HM content which is useful as a check on the laboratory analysis. The laboratory also records the colour of the dried samples. • Virtually all of the drill samples are sand or sandy clay. Drillhole logs are useful in separating geology units and for checking the laboratory results, but do not provide any information additional to the laboratory data that is fundamentally required for the resource estimation. • Information obtained is sufficient to support the level of resource classification
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• All of the field samples are delivered to the laboratory for analysis. This eliminates the need for field splitting and the possibility of bias from this source. • At the laboratory the sample is oven dried then "gently pulverised" by hitting the cloth sample bag with a rubber mallet. The resulting sample is then coarsely sieved at 1 mm and any aggregate lumps broken down so that they pass through the screen. Any genuine oversize (+1mm grains) are weighed at this stage and the oversize% is then calculated on the entire sample. The sample is then dry riffle-split down to a nominal 100g sample size for further analysis.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Virtually all drill samples consist of sand, clayey sand or sandy clay. For these samples the sample preparation method is appropriate. Very rarely, samples are taken of weathered bedrock, where the sample consists of rock fragments and clay with little sand fraction, and while these samples are slower to analyse, the method still gives relevant results.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• All sample preparation stages are documented in standard operating procedures. • Employees conducting the work are constantly monitored by their supervisor to ensure standard procedures are being followed. • Work is also monitored by geology staff, who work in an adjacent office. • Laboratory duplicates are taken as part of Laboratory internal quality control at an approximate rate of 1:20. • Geology staff takes blind duplicates at a rate of about 1:20.
	• *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.*	• The entire sample is delivered to the lab, so it is representative. Care is taken with the sample collection and handling to ensure that the sample delivered to the laboratory is representative of the interval drilled.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The one-metre drill sample of 7kg nominal size is certainly large enough to reliably capture the HM, slimes and oversize characteristics of the in-situ material. Smaller diameter drilling systems have been tested in the past, which give smaller sample

Criteria	JORC Code explanation	Commentary
		volume; the sample quality was not as good as with NQ system. • The portion split at the laboratory is nominally 100g. This is sufficiently large to consistently estimate HM%, but is too small to consistently measure the generally very low percentage of oversize. However, it is sufficient for the level of resource estimate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• Sieving to determine +1mm (oversize) and -45micron (slimes). • Heavy mineral separation using LST heavy liquid to separate HM from other minerals (predominantly quartz). • Control procedures include laboratory duplicates and blind duplicates. LST density is monitored and kept above 2.8 (it is water soluble).
	• *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.*	• Not used, panning and laboratory analysis are seen as the most appropriate techniques. .
	• *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.*	• Duplicates (both lab internal, and blind geology duplicates) and external laboratories are used to ensure accuracy and precision. • XRF analysis is used to estimate mineralogy. The XRF is calibrated using standards and known samples. • Round-robin inter-lab checking. • QAQC systems return acceptable results. For HM, 90% of the blind duplicates completed in 2015 were within 11% margin of error for HM and 14% for Slime, with extremely good correlation and no bias apparent. • Duplicate samples analysed by an external lab in 2017 returned the following comparison, 90% of the samples were within 11% of the assay average value (data limited to assays greater than 2%). The correlation coefficient was 0.95 and there was no significant bias.

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		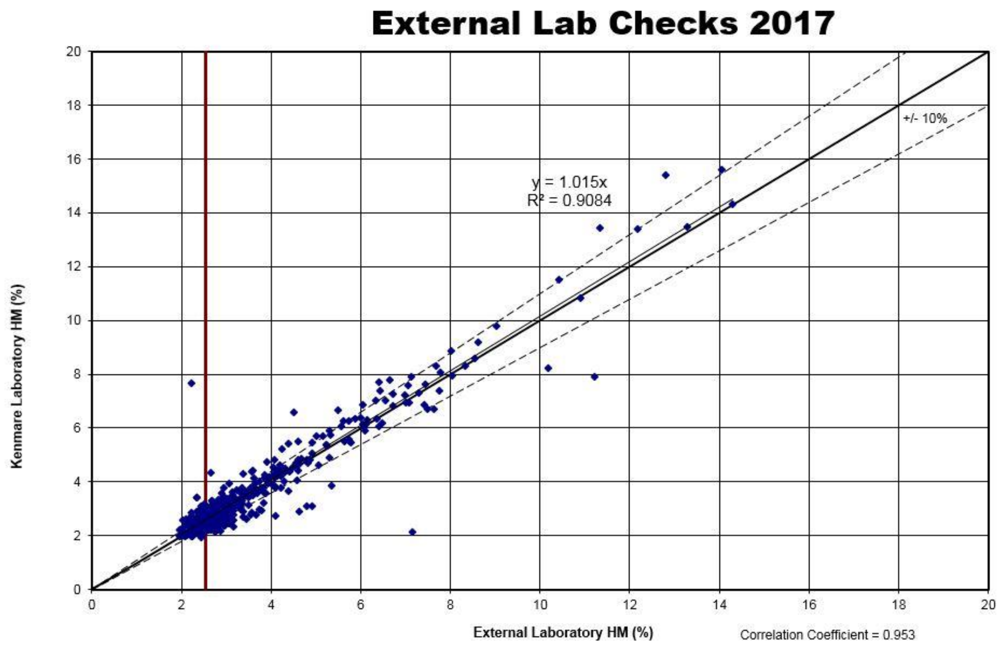
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • •	• Mineral sands drilling involve hundreds or thousands of drillholes with moderate grade intersections. Although high-grade intersections are a relatively insignificant part of the overall mineralisation, high grade results are often checked by examining the HM "sinks" from the analysis (the HM resulting from the analysis process is stored for further testing). Sometimes, especially near weathered bedrock, iron-rich sediments and concretions can give false positive HM values. False positives are excluded or re-assayed.
	• *The use of twinned holes.*	• Not used at this stage as deemed too early in assessment. Will be used upon infill.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• The primary data storage is in a Microsoft Access database. Collar data, geology data, assay data and mineralogy data are loaded from separate sources and verified with queries designed to detect common errors. Data is then loaded into mining software (Datamine Studio RM) and geologists check the resulting cross sections to ensure drillholes are correctly positioned and assays are appropriate for the geology unit and location.
	• *Discuss any adjustment to assay data.*	• No adjustment is made to the assay data for the purposes of public reporting.

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• A RTK GPS system is used to survey drillholes. • The grid is UTM37S (WGS84) • The grid is tied into the national Mozambican topographic controls via a number of beacons setup around site. However, these are rarely used as the satellite based GPS system is primarily used for drillhole surveys. The base station for this has been levelled using a nearby beacon. A difference of +/- a few metres relative to the national grid is not a concern because the regional topographic data is never used in any case.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• No Exploration Results are reported. • Variograms in the main mineralised units show ranges of 2500m to 2606m. • Drill spacings range from 200mx400m to 500mx1000m. • Areas with drill spacing of 200m x 400m are classified as Indicated Resources. Areas drilled more coarsely than that are classified as Inferred Resource. An area to the west of the deposit has traverses at >1000m spacing and has been excluded from the resource. • In view of the variogram ranges, the 200mx400m spacing is appropriate for Indicated Resource status. • There is a moderate degree of confidence in the continuity of mineralisation in areas tested at drill spacing of 500mx1000m and Inferred Resource classification is appropriate. • Sample compositing has not been used in the modelling process for HM, Slimes and Oversize components of the ore. • Compositing is used to determine mineralogy, but this is far less variable than the HM content, and is appropriate.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The mineralisation has a general NE – SW trend, but is a large planar body with across-strike widths >3000m. • Drilling is aligned with the UTM grid with the 200m spacing across strike. The grid spacing is suitable for the orebody shape.
Sample security	• *The measures taken to ensure sample security.*	• Samples are sun dried in calico bags and then stored in weather-proof shelters. • HM recovered from the analysis of samples is stored and retrieved as required for mineralogical analysis. • Sample bags remain in Kenmare custody from drill rig to laboratory.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits conducted specifically for sampling.

Section 2 Reporting of Exploration Results

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

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
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<td>Mineral tenement and land tenure status</td>
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Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.
The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.

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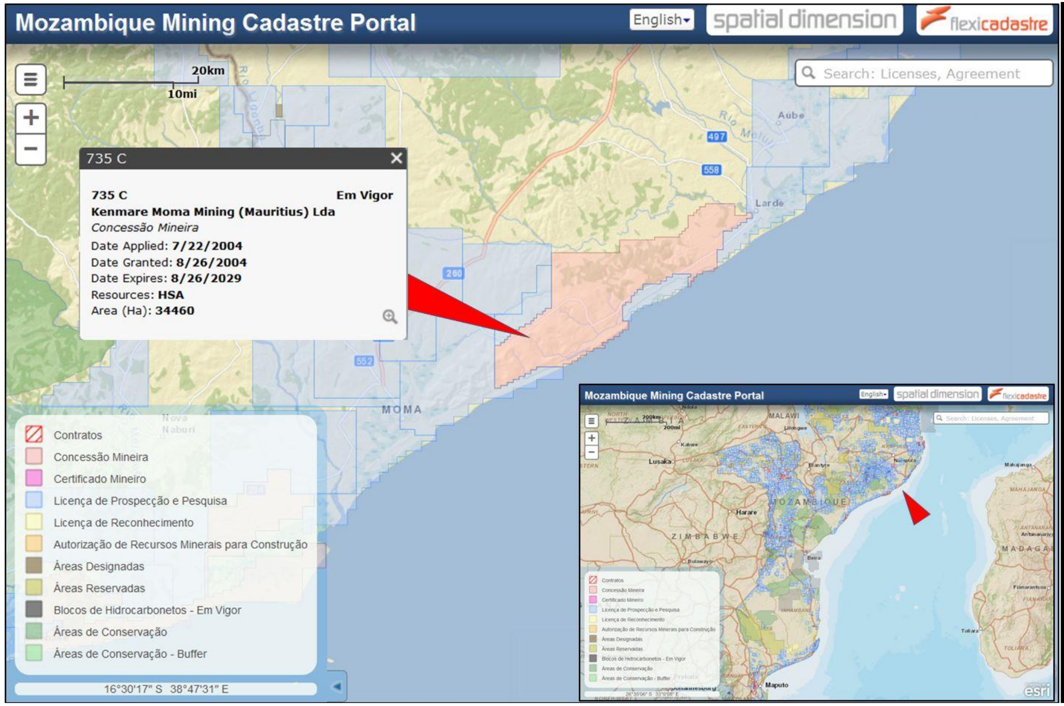
Concessão mineira (Mining Concession) No. 735C held by Kenmare resources subsidiary Kenmare Moma Mining, as shown below:



The Mining Concession is valid until 26 August 2029 and Kenmare currently has a licence to mine over the Proved Reserves in the Namalope orebody. Kenmare reasonably expects to obtain all requisite licences to mine the area containing the Probable Reserves in the Nataka orebody.

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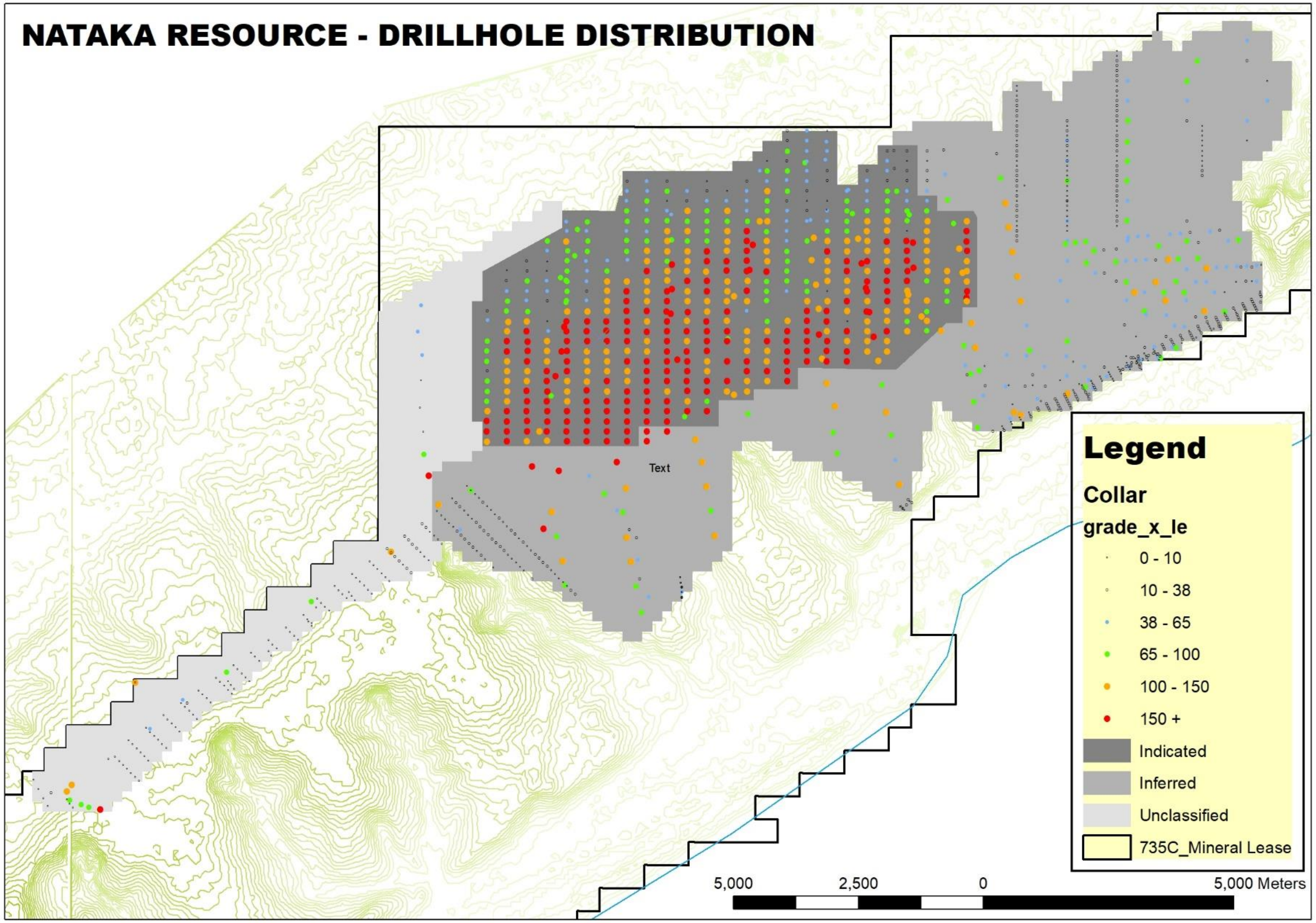
Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In the late 1990s Kenmare held a joint venture over the Nataka deposit with BHP. BHP conducted exploration work on the deposit for several years. The work was of a high quality and BHP were able to take advantage of their experience with other titanium resources to conduct initial metallurgical testing and mineralogy of the minerals at Namalope.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Mineralisation at Nataka is hosted in dune sands forming part of a very large dunal feature, approximately 50km long, 10km wide and 100m high, located 2.5 – 3km inland from the Mozambique Coast. This dune has been subjected to moderate weathering and is now red-brown in colour and is generally known as the "Old Red Dune" or "Deck Sands'. Local geology Unit 2 forms the host unit for the mineralisation with HM concentrated in a thick, planar body approximately 10km by 3km in the northern half of the dune west of the Namalope orebody. HM grade is diffuse with relatively low variability and the host unit extends from surface to base of the dune pile. There is some evidence of reworking on the northern side of the dune where it terminates against the Larde River flood plain. Slimes content varies both laterally and vertically with a trend to higher slimes toward the base of the deposit and on the northern side of the deposit.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Delineation of heavy mineral deposits requires many thousand shallow drillholes, most of them with moderate or low-grade intercepts. The information is best presented in plan view, where all the relevant information can be presented in a more concise form - see drill plan below. The plan summarises the grade information as a "metal factor", classified by grade x thickness. The grade is HM%, with a threshold at 2% HM (values below this are not included and would give a "0" value). The thickness value is the total aggregate intercept in the drillhole exceeding the 2% threshold. Only those depth intervals exceeding 2% HM are included in the thickness value.

Criteria	JORC Code explanation	Commentary



Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration results have been reported for this deposit.
Relationship between mineralisatio n widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The drillholes are vertical and the mineralisation is generally sub-horizontal.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See drillhole plan above.
Balanced reporting	• *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.*	• Exploration data is not being reported. Only Inferred and Indicated Resources are the subject of this report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• There is no other relevant exploration data for this area.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Detailed drilling to the east to join up with Namalope Deposit will be undertaken to allow design of optimal mine path. • The resource is limited in lateral extent to the north and south because the mineralised geology units do not occur further in those directions. Mineralisation does extend to the west and will be the subject of further investigation as the project progresses.

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	• *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.* •	• The primary measure to avoid data corruption is the input and storage of all sample data in a relational database. Checks are made on all data input into the database to ensure data integrity. The final check is the visual presentation of the new data in cross section, where geologists confirm that the information matches the expected results for the unit and location, the logged data, and is consistent with previously generated information for that area.
	• *Data validation procedures used.*	• Database integrity rules for all input data & visual checking of new data in cross section.
Site visits	• *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.*	• The Competent Person is currently a full time employee of Kenmare Resources and works at the site. He has had sufficient exposure to the drilling and sampling practices to be satisfied as to the suitability for this data to be used in resource estimation.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	• The resource model is fundamentally based on the geology interpretation. Each unit making up the model is modelled separately. • The geology consists of a single unit that is easy to distinguish from basement units.
	• *Nature of the data used and of any assumptions made.*	• The geology data is used, including elevation, lithology, clay content, colour, HM content and oversize content. • Variogram data is used to set the parameters for HM estimation in the different units.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	• The drill data is relatively closely spaced and so alternative interpretations have little effect on the model.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	• The geology model is used as the over-riding control in the resource estimation. Each geology unit is modelled separately.

Criteria	JORC Code explanation	Commentary
	• *The factors affecting continuity both of grade and geology.*	• The mineralisation was deposited in sand dunes formed parallel to the coastline. The grade is disseminated with general trends following the direction of the dunes. At a smaller scale there is some local variation related to individual dune formation. However, grade trends are generally elongate and tabular.
Dimensions	• *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.*	• Mineralisation extends for 19km in a NE-SW direction and varies between 3km and 8km wide. Mineralisation extends from about 9 mASL up to 78 mASL.
Estimation and modelling techniques	• *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 current resource model is a block model where the block estimates have been calculated using Ordinary Kriging algorithm. • The key assumptions are that the grade is continuous within the ellipsoid used to select samples. Ranges for the x, y and z directions are determined using Variography. • The OK model estimates grades in blocks using variances, weighted distances and nugget effect calculated from variogram analysis. • Extreme values are not cut in this model. • Ordinary Kriging Interpolation Factors for NATF geology block model.

VARIABLE	EST. METHOD	SEARCH DIST. X-DIRECTION	SEARCH DIST. Y-DIRECTION	SEARCH DIST. Z-DIRECTION	MIN NUMBER OF POINTS	MAX NUMBER OF POINTS
HMIN	OK	2606	2500	18	1	20

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• There have been numerous previous estimations, with the last published in 2015. Each revision to the model is verified against the previous version.
	• *The assumptions made regarding recovery of by-products.*	• The main products are ilmenite, zircon and rutile. None of these are regarded as “by-products”. No other minerals are considered as potential by-products in this estimate.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	• Ilmenite TiO_2 quality is estimated during the mineralogy determination. Problematic trash minerals such as kyanite, chromite, and monazite are estimated. None of the materials mined at Namalope contain sulphides or would qualify as “Potentially Acid Forming” material.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	• The block model uses 200m x 200m x 1m parent block size. These are set to the sample support size from the drill spacing (x,y), but have the same size as the drill samples in the z direction. Sub-celling has been allowed to allow good fit to the wireframes. • Most of the ore mined at Namalope is dredged and it is planned to mine the Nataka ore

Criteria	JORC Code explanation	Commentary
	•	by the same method. The dredges typically sweep a channel 40m wide at the base and about 80m at the top. The drill spacing and block sizes are appropriate for this type of mining.
	• *Any assumptions about correlation between variables.*	• The mineralogy is determined on a HM basis (e.g. an ilmenite content of 80% of the HM), and then multiplied by the HM content to obtain the in-situ estimate for each of the minerals. The mineralogy is much less variable than the HM content and so this is an appropriate way of determining in-situ estimates for each of the different minerals.
	• *Description of how the geological interpretation was used to control the resource estimates.*	• Block modelling is constrained within the geology unit – including using only the sample values from that unit, and the variogram range parameters specific to that unit.
	• *Discussion of basis for using or not using grade cutting or capping.*	• The samples are not capped in order to have all mineralogical grades influencing the estimation process. In general capping is not necessary for this type of deposit as grades are not significantly variable and volume-variance is low.
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• The block model is aggregated vertically into a two-dimensional display and the results compared with the previous version of the model. • The block model is aggregated vertically into a two-dimensional display and the resulting grades are compared to the drill samples. • SWATH analysis comparing drill hole data and resource model data is undertaken for all lithological units
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated dry.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• All drill values within the mineralized zone were included in the model, and only those zones that averaged 2% HM or above were included in the resource estimate. • Cut-off grades are calculated using applicable contract prices under KMPL's existing contracts and current operating costs. The marginal economic cut-off grade is actually 1.4% HM, but within the mineralised units, there is very little material which is below 2% and this is used to balance with MSP production.
Mining factors or assumptions	• *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*	• The resource is considered as dredge feed. For dredge mining the ore must be greater than 5m thick and typically be wider than 180m. Dredge mining must proceed continuously so all of the ore zones must be connected, unless a channel is to be constructed. In general dredge feed should have less than 14% average slimes content. However, it is assumed that the Nataka orebody will be mineable at higher levels by the introduction of upgraded slimes handling facilities and mining systems.

Criteria	JORC Code explanation	Commentary
	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. •	
Metallurgical factors or assumptions	• *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.*	• Metallurgical recovery is based on test work of representative bulk samples designed to follow the operating Mineral Separation Plant (MSP) flowsheet. It is assumed that this plant will be used to recover the individual products for sale and that only minor changes will be required, if any, to the circuits to produce saleable products.
Environmen-tal factors or assumptions	• *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.*	• Tailings sand from the Wet Concentrator plant are deposited immediately behind the dredges in separate paddocks. Slimes which build up at times in the paddocks will be pumped to drying cells within the tailing's areas. Mineral Separation Plant tailings are mixed in with the mine sand tailings. • The local vegetation environment generally consists of scrubby regrowth after sward-type agriculture practices. Topsoil stripped from in front of the mining operations will be placed on the dry tailings sand behind the mine and then regrowth encouraged from the natural seed bank in the soil.
Bulk density	• *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.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and*	• An assumed bulk density of 1.7 t/m3 is used for the block model. During feasibility study work there were many samples taken which gave average density values of about 1.6 t/m3. However, these samples were generally taken from the top few metres of the profile. • During the first year of production at Namalope, the tonnes mined by the dredges were reconciled to early geology models that used a density of 1.6. Both the measured feed tonnage and the HM production levels indicated that the ore density was higher than 1.6, and close to 1.7. This more closely accords with density measurements taken for

Criteria	JORC Code explanation	Commentary
	differences between rock and alteration zones within the deposit. • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Unit 2 and Unit 7. Therefore, since that time the models have used an assumed density of 1.7 and there have been no further problems with tonnage estimation of the model. The Nataka ore is similar to Unit 2 ore, so this has been maintained for Nataka and will likely be conservative.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Nataka deposit is divided into Inferred and Indicated resources on the basis of the drilling spacing and mineralogy density. Areas drilled at a density of 200mx400m with similar density mineralogical data are classified as Indicated. Those drilled at 400m x 1000m or without mineralogical data are classified as Inferred. • In the view of the Competent Person, all of the relevant factors have been taken into account in making the classification. • The current classification reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The resource estimates and reserves are audited annually by SRK of Cardiff and no substantial problems have been raised.
Discussion of relative accuracy/ confidence	• *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.* • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Overall accuracy is expected to be good at the global level as there is generally very little variability in the grades. Overall the model is conservative in average HM grade estimation compared to drill data mean (2.67 v 3.06), with mean slimes and oversize closely matching between the model and the drill data. • Mineralogy data is likewise very constant in terms of the mineral species contents and is not likely to change significantly. Ilmenite quality is, however, more variable and will need more detailed work to define prior to mining. • At a local level the data is too widespread for consistent interpretation and will need significant infill drilling prior to declaration of Measured Resources and mining. • The Company's experience of mining Unit 1 and 2 material at the Namalope orebody since 2013 has shown that the actual grade determined from feed samples is on average within +/- 1% of the predicted grade. No direct production data is available for the Nataka deposit, but this is seen as reasonable confirmation of the estimation techniques.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The NATF resource model is used as the basis for the Nataka Reserves. This model has been generated in Datamine Studio 3 software and mining designs applied using Datamine 5D Planner software. A series of schedule blocks have been overlain on the model, along the mining path for each of the mining plants (WCP-A and WCP-B). The material above the mining design is subjected to mining factors and the resulting reserves are scheduled into monthly advance blocks and the ore consumption information is used as the basis for the mine production schedule. • Mineral Resources are reported as additional to Ore Reserves.
Site visits	• *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.*	• The competent person is a full time employee of Kenmare Resources and is based at the Moma mine site. He has undertaken sufficient auditing of the drilling assaying and data management processes to assure himself that the data used is of sufficient quality for the resource modelling exercise.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• A Pre-Feasibility level study was undertaken on the Nataka orebody between September 2014 and February 2015. This study used current operating parameters wherever possible to increase the accuracy of the evaluation. The Competent Person has relied on the results of this study and subsequent reviews for definition of reserves. • The PFS examined all relevant Modifying Factors, including Environmental Impacts and permitting and concluded that the deposit was viable from both an economic and permitting perspective.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The marginal economic cut-off grade for dredging is 1.4% HM, however the resource model uses 2% HM as this is a “natural” cut-off and it provides an optimum balance between mine output and MSP consumption.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such*	• Most of the ore in the reserves will be dredge mined. For this mining method, the dredge floor level is taken as the base of the geological unit hosting mineralisation. This is appropriate because the rose-wheel cutter on the mining dredges is easily able to cut to the low slope angles found on these horizons. The dredge path is planned to maximize ore recovery, although in-situ bunds are left between mining strips to ensure geotechnical stability of the operation. Ore faces are planned at 30 degrees to the horizontal, and from experience in these materials, this has been found to be a stable angle. The top of the in-situ bund is planned to reach the same level as the natural

Criteria	JORC Code explanation	Commentary
	as pre-strip, access, etc. • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	surface, and where the dredging strip turns on itself, a top width of 100m is planned on the berm in order to place infrastructure and have secure dredge anchor positions during the turn. • Topsoil losses are planned according to 100mm topsoil stripping depth. Total remaining mining losses (dredge spillage, excavation losses, and berm losses) are planned to be 10%. • No dilution factors are used in the production schedule or the reserves. • For dredging, the mining path must be at least 200m wide on the dredge floor. The minimum dredging depth is 6 m for both mining units. • No Inferred Resources are included in the Nataka mining inventory. • Dredge and Dry Mining both require electricity and water infrastructure. Electricity is provided from 22 KV overhead powerlines which are erected along the mining path and connect the mining operations with the main substation at the Kenmare MSP. Water is provided from a borefield and is pumped to the mining sites via HDPE piping and regularly spaced booster pumps. Haul roads will be built to transport HMC from the mine site to the MSP.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The ore sand is treated initially in the Wet Concentrator Plant (WCP). The ore slurry is initially screened to remove any cemented or clay-rich lumps, then pumped over spirals to concentrate heavy minerals. After five stages of spiral concentration a heavy mineral concentrate is pumped to the Mineral Separation Plant (MSP). • At the MSP, the magnetic minerals are separated from the non-magnetic, and then various electrostatic and gravity separation techniques are used to produce saleable mineral products: ilmenite, zircon and rutile. Ilmenite is magnetic and conductive, rutile is non-magnetic and conductive and zircon is non-magnetic and non-conductive. • Ilmenite, zircon and rutile recovery is typically 86% - 92% through the WCP. • Ilmenite recovery is typically 88% through the MSP; zircon recovery is 75% and Rutile 55%. • Metallurgical studies conducted prior to the PFS show that similar recoveries will be obtainable from the Nataka ore. • Ilmenite contaminants (mostly chromite, monazite & staurolite) are managed with grade control processes in the MSP. • Zircon contaminants (Kyanite, rutile) and rutile contaminants (zircon, monazite) are also closely monitored and controlled. • Planned recoveries of ilmenite, zircon and rutile are based on achieving marketable levels of contaminants.
Environmen-tal	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the*	• Preliminary studies have been carried out and indicate no significant environmental concerns. More detailed studies (at DFS level) are to be completed over the next 2 years and it is expected that environmental approval will be granted, with mining in the

Criteria	JORC Code explanation	Commentary
	consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	similar Namalope deposit to the east already fully permitted. • All waste material will be either backfilled within the pit behind the mining plant or in separate drying cells. Formal application will be part of the ESHIA and no issues are expected.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Kenmare has an established operation within trucking distance of the mine site with much of the infrastructure available. Development will include haul roads, extension of power or provision of diesel generation and provision of water. All of these items are seen to be easily provided.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.*	Capital costs derived from a combination of Kenmare's experience in expanding operations in 2012 and 2013 and independent assessment from an experienced industry engineering consultancy.
	• *The methodology used to estimate operating costs.*	Operating costs are derived from the existing mining operations with appropriate escalations and additions applied based on quotes for additional items.
	• *Allowances made for the content of deleterious elements.* •	Product pricing for zircon and ilmenite depends on the content of deleterious elements. These prices are built into the business model.
	• *The source of exchange rates used in the study.*	For the current economic model: Bloomberg forward FX Rates.
	• *Derivation of transportation charges.*	Transport of HMC from mine site to MSP is based on firm quotes from haulage contractor. The other major product transportation cost is barging the product to the anchored ships offshore. This cost is covered by the annual budget for the Marine Department.
	• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*	Not relevant for this operation. All treatment/refining is done in-house and product prices are inclusive of specification penalties.
	• *The allowances made for royalties payable, both Government and private.*	Government royalties are payable, charged at 3% of the operating costs of the mine inflated by 15%.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* •	There are no revenue factors applied. For internal forecasting a 5% mine call factor is applied to the ore grades to better match estimated grades with those observed in mining. This call factor is not applied to the resource and reserve statement, but is applied to financial models and is based on historic operating statistics. Other factors described in relevant sections above.

Criteria	JORC Code explanation	Commentary
	• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	Assumed mineral prices are based on existing contracts, historic price trends and guidance from independent industry consultants.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	Kenmare maintains an internal marketing team and uses their market assessments plus those of respected external Mineral Sands Market Analysts to forecast future prices. The following marketing update is taken from Kenmare Regulatory Announcement: Q4 and FY 2021 Production Report and FY 2022 Guidance, 13 January 2022: FY 2021 was a strong year for all of Kenmare's product markets, resulting in record sales volumes at higher average received prices for all products, compared with FY 2020. Global pigment production reached a record high in FY 2021. Major pigment producers operated at high utilisation rates seeking to meet growing demand, while pigment capacity in China continued to increase. Combined with the improving titanium metal market throughout the year, demand for ilmenite was well supported. Global supply of ilmenite increased in FY 2021, primarily from Kenmare, and producers in China and Norway. There was also an increase in the export of low-quality ilmenite bearing concentrates from other producers in Mozambique to China. However, the increase in supply was insufficient to meet increased demand. The robust market for ilmenite continued through Q4 2021, with demand for Kenmare's ilmenite exceeding the Company's ability to supply. Consequently, average received prices increased by 13% compared to the previous quarter. This pricing momentum has continued into 2022, driven by demand for Kenmare products and low ilmenite inventories in the supply chain. The zircon market stabilised in Q1 2021 following several quarters of weaker demand. Market conditions improved in Q2, before demand accelerated in H2 2021 as major economies continued the recovery from COVID-19 restrictions being lifted. Coupled with significant supply disruption, this led to quarter-on-quarter price increases in Q2, Q3 and Q4. This positive momentum has continued into 2022, with further price increases expected in Q1. The Nataka orebody is not scheduled to be mined until 2025.

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Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	The discount rate used for NPV calculation is 10%, although 8% and 12% rates are also calculated for comparison. The economic model reports NPV estimates based on "real" discount rates. An inflation rate of 2% is applied.
	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	NPV values from the current business model are commercially sensitive. NPV is most sensitive to mineral prices, and then operating costs, particularly labour and energy costs.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	Kenmare has long record of consultation with the local communities and has maintained good relationships over the past 10 years of operation. A major part of the on-going social licence to operate is Kenmare's participation and sponsorship of KMAD – an organisation aimed at developing local communities through sponsoring initiatives in health, education, local business and sport.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	The major natural occurring risk in this area is the risk of cyclones. The risk is not high, with the local people maintaining that destructive cyclones hit the area every 40 years on average. Much of the equipment and infrastructure built for the Kenmare project has been built with this risk in mind. Legal agreements and government approvals are in place to allow the continued operation of the MSP. Mining is currently scheduled to start in this area in 2025. An ESHIA is planned to be completed by 2022.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	In general, the classification of reserves reflects the confidence in the underlying (Indicated) resource model, which in turn is based on drilling spacing and mineralogy data density. However, at this stage even with higher levels of resource confidence it would still be classified as "Probable Reserve" on the basis that there is still a level of uncertainty that mining approvals will be granted.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	The reserves are audited annually by SRK of Cardiff. Feedback from SRK is used to improve the reserves estimation process.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Kenmare has an on-going operation at the nearby Namalope deposit where there is the opportunity to compare the reserves estimation with actual production data with the monthly reconciliation process. The historical results show that the reserves estimations are generally within 15% every month (local estimation), and over longer periods the error is less. In 2019 the estimated grade of the reserves was 0.27% lower than the grade actually mined. However, the Nataka deposit is drilled at a lower density, which historic experience at Namalope has shown to be insufficient for mine planning and detailed forecasting purposes, but generally globally sufficient for longer term planning. Based on the above and Variography and sample support the Indicated resource is status is thought to be appropriate. Conversion to Probable Reserves is dependent upon the various modifying factors, the chief of which are slimes handling and environmental approvals. Kenmare has developed robust slimes handling systems for moderate slimes level deposits, but it is recognised that the higher slimes levels at Nataka will pose a greater risk. Environmental approvals are not seen as significant in the Nataka area.