

18th January 2016

39% INCREASE in Measured and Indicated Resources within Mining Leases

RANOBE ZIRCON/RUTILE PROJECT, MADAGASCAR

Measured and Indicated Resources increased by 39% in Mining Leases
 to 244.7 mt grading at 8.02% HM

World Titanium Resources (ASX:WTR) is pleased to announce an updated measured and indicated resource estimate of 244.7 million tonnes grading 8.02% Heavy Mineral (HM) with mining leases PE37242 and PE39130, an increase of 39% over the 2012 maiden resource estimate of 176 mt at 8.13% HM at its wholly owned Ranobe Mineral Sands Zircon/Rutile Project. The upgrading of the resource classification is inclusive within a revised global mineral resource estimate of 884.2 mt at the measured, indicated and inferred confidence levels grading at 6.19% HM.

The 2015 updated mineral resource estimates provided below replace the previous estimates prepared in accordance with the 2004 edition of the JORC Code, and first disclosed by the Company in 2012 (reference Australian Stock Exchange (ASX) releases of 9 August and 28 August 2012). This updated estimate includes:

- Additional drilling of 363 air-core holes into the Ranobe deposit undertaken in late 2012 for a total of 8088.2 metres.
- Inclusion of a digitized 3% HM cut-off.
- Reporting in accordance with the 2012 edition of the JORC Code.

Jeff Williams, CEO of WTR stated "our team has a considerable drill hole database which provided the foundation to develop a new mine plan and formed the basis of the updated mineral resource estimate. A new scoping study based on the new mine plan is nearly finalized and we expect to release details before the end of January."

ALTERNATE MINE PLAN

Given the scale of the capital costs from Independent Consultant, EPMS, of over US\$175m plus working capital (reported September quarterly 2015) and the difficulty your company envisaged in securing offtake ilmenite contracts in the current over-supplied world market, we are shaping a new mine plan:

- 1. Similar to 2012 mine plan and excavate to an average depth of some 17.5 metres below the natural surface;
- 2. To increase sand processing from 8 to 12 mtpa, and

3. Simplify wet processing and produce a simpler metallurgical circuit.

We aim for a smaller scale operation focusing on the high margin products of zircon and rutile. Independent Consultants, ADP Marine and Modular (ADP) in Cape Town, South Africa are finalizing the scoping study based on the new mine plan.

We expect to release the ADP scoping study by the end of January.

MINERAL RESOURCE ESTIMATE

The updated mineral resource estimate includes all drilling data reported in the 2012, independent maiden resource estimate undertaken by McDonald Speijers and Associates (2012; see ASX release dated 28 August 2012), with the addition of the 2012 drilling data. The new resource estimate includes a digitized 3% Heavy Mineral (HM) cut-off, and the recognition of a western boundary formed by the on-lap of a younger dune formation. Whilst a westward extension to the deposit at or greater than 3% HM in the overlying younger dunes and the underlying Upper Sand Unit is indicated by the drilling data, no mineralogical data for the younger dune system is available at present, and thus the Company is not currently treating this area as a resource, and has excluded it from the current resource estimate.

Mineral Resource Estimate ¹

Resource Category	Tonnes (10 ⁶)	Oversize %	Slimes %	HM %	llmenite %	Rutile %	Zircon %	Monazite/ Xenotime %
Measured	360.2	0.12	3.96	7.23	71.64	2.33	5.58	1.84
Indicated	171.2	0.15	3.90	5.94	72.3	2.33	5.6	1.85
Inferred	352.8	0.52	4.98	5.25	72.3	2.33	5.59	1.85
Measured, Indicated and Inferred	884.1	0.28	4.36	6.19	72.03	2.33	5.59	1.85

100 % Basis

Notes:

- 1. Quantities and grades are based on an analysis of the Upper Sand Unit only.
- 2. A digitized cut-off grade of 3% HM has been applied to all composites whereby all composites must start at the surface with a 3% HM grade or greater and end in a grade of 3% HM or greater, with an aggregate grade of 3% HM or greater. Sample intervals must contain 20% or less slimes to be included.
- 3. Tonnes have been rounded to the nearest 100,000 tonnes. Totals may not sum due to rounding.
- 4. Grades have been rounded to two decimal places.
- 5. Oversize is defined as the plus 1mm fraction, with slimes constituting the minus 62 microns fraction. HM is defined as recoverable HM.
- 6. The mineral assemblage (ilmenite, rutile, zircon, and monazite and xenotime) are reported as a percent fraction of HM.

¹ Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition, sets out minimum standards, recommendations and guidelines for public reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves, authored by the Joint Ore Reserves Committee of The Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.

7. Ilmenite is reported as an aggregate percentage of ilmenite, leucoxene, psuedorutile, and psuedobrookite.

Reconciliation with the previous estimate undertaken in 2012 by MacDonald Speijers and Associates is given below:

Resource Category	Tonnes Movement	Tonnes (10 ⁶)	HM%
Measured	Increase	151	-0.36%
Indicated	Decrease	54.8	-0.18%
Inferred	Decrease	171.2	- 0.25%
Measured, Indicated and Inferred	Decrease	75	+0.09%

Notes:

- 1. Tonnes have been rounded to the nearest 100,000 tonnes. Totals may not sum due to rounding.
- 2. Grades have been rounded to two decimal places.

Competent Person's Statement

Information in this report that relates to Mineral Resource estimates is based on information compiled by Ian Ransome, a Competent Person who is a Member of the South African Council for Natural Scientific Professions and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity, being undertaken 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'. Mr Ransome who is a director on the board of WTR consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

SCOPING STUDY PRODUCTION TARGET ²

A scoping study being prepared by ADP Consultants has defined a pit outline, based upon:

- Mining rate of 12 mtpa ore;
- Extracting rutile and zircon to produce a mixed concentrate averaging 66,000 tpa whilst stockpiling an average of approximately 670,000 tpa ilmenite, and
- Current rutile and zircon prices of US\$800 and US\$1000/tonne, respectively.

The precision of the capital and operating cost estimates in the scoping study is not sufficient to enable the attribution of reserve status to the resources. The resources within the pit outline established by the scoping study are as follows:

Resource Category	Tonnes (10 ⁶)	Oversize %	Slimes %	HM %	Ilmenite %	Zircon %	Rutile %
Measured	210.5	0.14	4.07	8.21	71.27	5.55	2.35
Indicated	34.1	0.35	3.81	6.84	72.35	5.60	2.34
Measured and Indicated	244.7	0.17	4.04	8.02	71.42	5.56	2.35

² The stated production target is based upon the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

Notes:

- 1. Quantities and grades are based on an analysis of the Upper Sand Unit only.
- 2. A digitized cut-off grade of 3% HM has been applied to all composites whereby all composites must start at the surface with a 3% HM grade or greater and end in a grade of 3% HM or greater, with an aggregate grade of 3% HM or greater. Sample intervals must contain 20% or less slimes to be included.
- 3. Tonnes have been rounded to the nearest 100,000 tonnes. Totals may not sum due to rounding.
- 4. Grades have been rounded to two decimal places.
- 5. Oversize is defined as the plus 1mm fraction, with slimes constituting the minus 62 microns fraction. HM is defined as recoverable HM.
- 6. The mineral assemblage (ilmenite, rutile, zircon, and monazite and xenotime) are reported as a percent fraction of HM.
- 7. Ilmenite is reported as an aggregate percentage of ilmenite, leucoxene, psuedorutile, and psuedobrookite.

GEOLOGICAL DESCRIPTION

The Morondava Basin is located in the southwest of Madagascar and is comprised a series cretaceous sandstones punctuated by basaltic and gabbroic intrusions unconformiably overlying a Precambrian meta-igneous basement. These are progressively overstepped westwards along a series of disconformities by a sequence of Mesozoic limestones and marls, and Tertiary (Eocene) limestones, chalks and marls, which form the bulk of the Limestone Plateau of Mahafaly. Post Eocene extension has produced a number of coastal parallel faults and insubordinate conjugate faults striking N100°E and N010°E. The most prominent of the coastal parallel faults can be trace from Cap St. Marie in the south of the island to north of Toliara (over 300km) which produce a coastal parallel escarpment and defines the eastern boundary of the coastal plain. The downthrown coastal plain is predominantly underlain by Eocene limestone disposed in a series of poorly defined horst and grabens. Isolated inliers of cretaceous basalts are also present in the rocks underlying the coastal plain, sub cropping as tectonic windows.

Post Eocene to Quaternary unconsolidated sediments overly the coastal plain. These are almost exclusively clastic sequences, comprised of a series of shallow marine to sub aerial aeolian deposits. The predominant sub-aerial transport direction is from south to north.

The Ranobe project lies within a north northwest – south southeast trending belt of palaeocoastal sand dunes arrested along the faulted scarp face of the Plateau of Mahafaly approximately 30 km inland from the coast. The primary feature of the deposit comprises a scarp slope parallel stabilized mega-dune system, Quaternary in age, pale orange to orange in colour which overstep an earlier Quaternary sequence of mineralised shallow marine sands and lagoonal sediments eastwards on to a limestone basement. The dune sequence thickens westwards away from the scarp face to over 50 metres in thickness, prior to being onlapped to the west by a later semi-fixed dune system. The entire dune system is mineralized by a HM assemblage constituted by ilmenite, zircon, rutile and monazite. Higher HM grades tend to be concentrated by wind action along the mega-dune crest line running parallel to the limestone scarp slope.

Geological figures, including cross-sections, drill maps, schematic diagrams and block model are included as Appendix A.

RESOURCE ESTIMATION

Although all units overlying the limestone basement are mineralized, only the aeolinite Upper Sand Unit (USU) is considered by comprise a resource in terms of the JORC (2012) code. The estimation used drill samples collated over 1 to 3 metre intervals from reverse circulation drilling. Drill cross sections were constructed from the data, and a 3% HM cut-off wireframe was digitized from the borehole data to constrain the lower limit of the mineralization within the USU. The applied criteria for meeting the 3% HM cut-off for inclusion in the resource estimation were as follows:

- For each hole, 0 m to the base of material containing 3% Heavy Minerals (HM) must average >= 3% HM for that entire interval of the drill-hole to be included.
- Where all samples to the base of material grading >= 3% HM do not average >= 3%, then only the contiguous samples starting at 0 m and averaging >= 3% were used.
- In all cases, the bottom sample in the included interval for each hole has a HM grade >=3%.
- If Slimes exceed 20%, then such material was excluded from the resource unless the THM was also >= 5%. Even then, samples in which Slimes are very high (>=40%) and THM only about 5% were excluded.

An upper DTM (Digital Terrain Model) wireframe was constructed from LIDAR data, and all drill collar and 3% HM wireframe normalized to the model surface. Drill samples were composited to 1.5 metre composites, and a block model constructed aligned north-south parallel to the drill grid using block sizes of 100 mN x 50 mE x 1mRL. The block model was populated using the ID2 method and a dynamic ellipsoid to follow the local variation in anisotropy of the deposit. Measured HM resources were defined by a search ellipsoid measuring 300 metre in the principle axis with an intermediate axis ratio of 2 based on variogram modelling, with a vertical search limit of 3 metres. Inferred Resources were defined by a multiplier X2, and inferred resources using a x4 multiplier. Resources were classified by drill spacing due to the uncomplicated geology, continuity of mineralization and confidence in drill hole data. Blocks which were drilled using a spacing 200 mN x 100 mE were classified as a measured resources, whilst blocks drilled at a drill spacing of 400 mN x 100 mE were classified as an indicated resource, with the remaining areas classified at the inferred resource level of confidence. Block grade estimates were cross checked against drill data by visual comparison of cross sections.

Mineral assemblage data exhibited little variation across the deposit, with ranges derived from variogram modelling in excess of 600 metres as a function of HM content. Mineral assemblage data were composited to 1.5 metre intervals and interpolated as a function of HM content using the ID2 method employing a dynamic ellipsoid with a principle axis measuring 600 metres with an intermediate axis ratio of 2 and a 3 metre vertical search limit. Blocks falling outside the search limits were populated using weighted mineral assemblage averages. Specific gravity values were calculate for each block using an industry standard of specific gravity = $1.61 + (0.01 \times HM \text{ Content})$.

For further information please contact:

Jeff Williams	Т	+61 61 (0) 3 9614 0600
Chief Executive Officer	Е	jwilliams@worldtitaniumresources.com

ABOUT WTR

World Titanium Resources Limited (ASX: WTR) is an Australian based mining company in the business of developing and exploiting Heavy Mineral Sand deposits in the Republic of Madagascar. The Company owns a 100% of the Toliara Sands Project located along the southwest coast of Madagascar that comprises four Heavy Mineral Sands properties including its flagship Ranobe property.

The Ranobe Property is at an advance state of development with environmental permitting in place. It is anticipated that a Definitive Feasibility Study incorporating an alternate mine plan to that announced in August 2012 (28th August 2012; Ranobe Engineering Results) with a name plate capacity of 12,000,000 tonnes per annum will be undertaken shortly.

FORWARD LOOKING STATEMENTS

Certain information contained in this report, including any information on WTR's plans or future financial or operating performance and other statements that express management's expectations or estimates of future performance constitute forward-looking statements. Such statements are based on a number of estimates and assumptions that, while considered reasonable by management at the time, are subject to significant business, economic and competitive uncertainties. WTR cautions that such statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of WTR to be materially different from the company's estimated future results, performance or achievements expressed or implied by those forward-looking statements. These factors include the inherent risks involved in exploration and development of mineral properties, changes in economic conditions, changes in the worldwide price of zircon, ilmenite and other key inputs, changes in the regulatory environment and other government actions, changes in mine plans and other factors, such as business and operational risk management, many of which are beyond the control of WTR.

CONTACT DETAILS

World Titanium Resources

Head Office: Level 17, 500 Collins Street, Melbourne, Victoria, 3000, Australia

Telephone: +61 (0) 3 9614 0600 Fax: +61 (0) 3 9614 0550

support@worldtitaniumresources.com

Registered Office: 15 Lovegrove Close, Mount Claremont, Western Australia 6010 Australia



APPENDIX A: GEOLOGICAL DIAGRAMS



Figure 1. Drill collar location map of the Ranobe Heavy Mineral Sands Project.



Figure 2. Schematic geological cross-section through the Ranobe Heavy Mineral Sands Deposit.



Figure 3. Block Model cross-section of mineralization LINE 7459400 N.



Figure 4. Areas of future resource development.

SECTION 1: SAMPLING TECHNIQUES AND DATA

A 14 1		
Criteria	JORC Code Explanation	Commentary
Sampling	 Nature and quality of sampling (eg 	 All holes were drilled vertically
Technique	cut channels, random chips, or	 All holes were sampled over a
	specific specialized industry standard	consistent 1 – 3 metre interval
	measurement tools appropriate to the	 All holes were drilled using a
	minerals under investigation, such as	reverse circulation Wallis Drill
	down hole gamma sondes or	sotup to collect the complete
	handheld XRF instruments, etc)	
	These examples should not be taken	sample with a basic cyclone
	a limiting the bread meaning of	separation by means of a swiver
	as infiniting the broad meaning of	outlet feeding two alternate
	sampling.	sample bags. No sample splitting
		was taken out on site
	Include reference to measures	
	taken to ensure sample representivity	
	and the appropriate calibration of any	
	measurement tools or systems used.	
	 Aspects of the determination of 	
	mineralisation that are Material to the	
	Public Report.	
	 In cases where 'industry standard' 	
	work has been done this would be	
	relatively simple (eq. 'reverse	
	circulation drilling was used to obtain	
	1 m camples from which 2 kg was	
	T III samples from which 5 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	
	(eq submarine nodules) may warrant	
	disclosure of detailed information.	
Drillina	Drill type (eg core, reverse	All holes were drilled vertically
Technique	circulation open-hole hammer rotary	 All drilling was undertaken using
roomiquo	air blast auger Bangka sonic etc)	an air prossured reverse
	and details (eq core diameter triple	air all pressured reverse
	and details (eg core diameter, inple	
	toile, feed compling bit or other type	Core diameter is HQ (96mm
	tails, lace-sampling bit of other type,	external diameter, 63.5mm
	whether core is oriented and if so, by	internal diameter), with 3 metre
	what method, etc).	rod lengths fitted with a face
		discharge drill bit
Drill Sample	 Method of recording and assessing 	 Wallis Mantis drill rig uses face
Recovery	core and chip sample recoveries and	discharge bits, at low air
-	results assessed.	pressures (105 – 140 kPa) and
	Measures taken to maximise	low rotation speeds (45-65 RPM)
	sample recovery and ensure	to maximize recovery
	representative nature of the samples	There is no correlation between
	Whether a relationship exists	 There is no correlation between recovery and grade reculting in po-
	between sample recovery and grade	
	and whether comple bics may have	sample blas
	and whether sample bias may have	
	occurred due to preferential loss/gain	
	of line/coarse material.	
Logging	• whether core and chip samples	All samples were weighed and
	nave been geologically and	logged on site by rig geologist and
	geotechnically logged to a level of	logged for lithotype, grain size,
	detail to support appropriate Mineral	sorting, colour, competence,
	Resource estimation, mining studies	moisture content
	and metallurgical studies.	 A small subsample was taken for

Sub-sampling techniques and sample preparation	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 each drill interval and manually panned for estimation of HM content. The material was split using a 40mm single tier riffle to produce a sample for submission of approximately 1 kg in a calico sample bag. The calico sample bags were sundried before being shipped. For one sample in every 20, an additional two 1 kg calico bagged samples were taken for checking purposes. These are referred to as the B and C samples, the primary sample being designated as the A sample. 2001 drill samples were dispatched to Western Geochem Labs in Perth, Australia. WGL was retained for the analysis of check samples were sent to IMP Laboratory in Boksburg, South Africa in 2003 and to ACT Laboratory in Pretoria, South Africa in 2005 and 2012. All laboratories: separation of concentrates was by heavy liquid (tetrabromoethane (TBE) at density 2.95 g/cc). All samples were: Dried, weighed Sample screened +1mm weighted Sample screened -62µm
		 weighted Sample screened -62µm weighted TBE for heavy media separation – HM% TBE Floats weighted
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Analytical procedure conforms to AS4350.2-1999; Australian Standards Heavy mineral sand concentrates – Physical testing using TBE; technique is total Quality control procedures: regular checks of analyses against estimates from field logging Submission of B and C samples to a second laboratory Submission of randomly inserted control samples at a rate on about 1 in 25 Duplicate sample analyses Extra samples taken irregularly in high grade areas.

Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Assay data was compared with geology logs of panned HM grades for out of range assay produced by site geologist. Replicate assaying undertaken 2003 and 2005 drilling and sample assaying undertaken independently by Ticor/Khumba Resources 2012 drilling, logging and sampling undertaken by independent site geologist Validation of the drill database was undertaken independently by McDonald Spiers and Associates and cross checked in house by WTR specialists
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. 	 2003, 2005, and 2012 drill hole collars were surveyed using DGPS. 2001 drill collars surveyed by GPS Topographic data was derived from ground controlled LIDAR survey undertaken by Southern Surveys All drill holes are vertical, down hole surveys were deemed inappropriate Grid system used throughout the program UTM Grid, Zone 38S, WG84 Mac Donald Spiers consider the lateral location of 2001 collars is not as accurate as for later drilling but this is not considered to be a risk for resource or ore reserve estimation in this deposit.
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. 	 Three basic drill patterns used; 100 mE spacing along line with 200 mN between lines with 50 m hole offset 100 mE spacing along line with 400 mN between lines 200 mE spacing along line with 800 mN between lines Variography demonstrates that drill spacing of 100 mE x 200 mN sufficient to classify as measured resource; 100 mE x 400 mN sufficient to classify as Indicated Resource No HM assay samples were composited. HM mineral assemblage samples were composited over 3 and 6 metre intervals
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 	 All drill holes were drilled vertically Drill line were drilled north – south, east – west within 12° of the deposit anisotropy No bias to drill grid sampling has been introduced

	drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample Security	The measures taken to ensure sample security.	 All samples were placed in calico bags and grouped in rice bags by drill hole. The samples bags were labelled by both marker and aluminum tags for drill hole number and sample depth. The samples were delivered to the laboratory sealed with cable ties and with a shipment form.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Audits and reviews or the sampling data and techniques have been carried out by: Ticor 2004 Khumba Resource 2006 Exxaro 2007 MacDonald Speijers and Associates 2012 All review and audits considered the sampling and analysis to be of good quality and suitable for resource estimation

SECTION 2: REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	Commentary
Mineral	Type, reference name/number, location	The Ranobe project is held
tenement and	and ownership including agreements or	under three mineral
land tenure	material issues with third parties such as	licences, PR3315,
status	joint ventures, partnerships, overriding	PE37242, and PE39130.
	royalties, native title interests, historical	PE37242 and PE39130
	sites, wilderness or national park and	both constitute mining
	environmental settings.	licences, whilst PR3315
	• The security of the tenure held at the time	comprises an exploration
	impediments to obtaining a licence to	are 100% ewood by WTP
	operate in the area	 DE37242 and DE30130 are
		both valid until 2052 with a
		right to extend for 40 years
		PR3135 current term
		ended March 2015, right of
		renewal for 3 years from
		date on which renewal
		executed
Exploration	 Acknowledgment and appraisal of 	 1999 – 2002 Deposit first
done by other	exploration by other parties.	discovered and explored
parties		by Madagascar Resources
		NL
		- 121 rc aircore
		noies for 308 i
		a 2003 2000 Ticor/Khumba
		2003 – 2009 HCOI/KHUIIDa Resources (Exvaro) joint
		- 688 rc aircore

		holes for 15558.8 metres - Pre-Feasibility Study completed • 2012 WTR - 361 rc aircore holes for 8053.2 metres
Geology	• Deposit type, geological setting and style of mineralisation.	 Project comprises a Heavy Mineral Sand deposit and is located on the southwest coast of Madagascar within the Mesoic Morondava Basin along a 30 km wide coastal plain juxtaposed to an Eocene limestone scarp. The coastal plain which is floored by faulted limestone is overlain by a succession of progressively shallowing sequence of beach and lagoon type unconsolidated clastic and subaerial dunes which successively overstep and on-lap onto the basement limestone scarp in the east. The deposit is hosted within a stabilized mega dune system which is arrested along the basement scarp slope and extend for approximately x km north northwest south southeast The entire dune unit is mineralized by an assemblage of ilmenite, zircon, rutile and monazite concentrated with the unit by aeolian winnowing. The unit generally thickens westwards away from the scarp slope from 3 metres to 60 metres. The deposit anisotropy parallels the scarp slope, with higher HM grades concentrated along the mega-dune crest line.
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 	 Madagascar Resource NL drilled: 121 rc aircore holes for 3081 Ticor/Kumba Resources (Exxaro) drilled: 688 rc aircore holes for 15558.8 metres As up to December 2012, WTR has drilled: 361 rc aircore holes for 8053.2 metres
	interception depth - hole length.	All holes were drilled vertically

	• 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.	 RC holes averaged 22.8 metres long See drill hole location plan; Appendix A, Figure 1. Exploration Results are not being reported at this time.
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. 	 Exploration results are not being reported at this time. No metal equivalent values were used. No aggregation of short length samples was used as samples were consistently sampled at 1 – 3m intervals.
Relationship between Mineralization 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 deposit is flat lying and intersected by vertical holes. The 3% HM cut-off zone averages 17.5 metres thick
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.	 Plan of Mineral Resources seeAppendix A, Figure x. Geological cross section, see Appendix A, Figure x.
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 results are not being reported at this time.
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.	Exploration results are not being reported at this time.
Further Work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Future work will consist of infill drilling of a 200 mN x 100 mE grid to convert inferred and indicated resources to measured resources Future exploration is proposed immediately to the west of the drilled area.

SECTION 3: ESTIMATING AND REPORTING OF MINERAL RESOURCES

(Criteria listed in Appendix B – Section1, and where relevant in Appendix B – Section 2, also apply to this section).

Criteria	JORC Code Explanation	Commentary
Criteria Database integrity	 JORC Code Explanation Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Commentary The original drill data derived by Madagascar Resources, Ticor/Khumba Resources (Exxaro) and the WTR drill data have been independently reviewed and validated by MacDonald Speijer and Associates and WTR personnel. Data review included: Cross checking collar data against original hard copies Cross checking of laboratory analysis certificates with from/to assay data Validation of reported assay data against field value estimates Cross checking lithology log interpretation with oversize, slimes and HM content An Access data base is updated and maintained by WTR, which has been reviewed by both site and project geologists. WTR validation checks of the drill database include: Assay comparison for out of range values Sample gaps Overlapping sample intervals Collar coordinate verification including collar elevations normalized to LIDAR digital terrain model
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. 	 Site visits were undertaken in 2012 and 2014 by Ian Ransome, the Competent Person for the OreResources. The 2012 site visit resulted in the recognition of a western on-lap onto the host sand unit by a younger dune system, and detailed definition of mineral resource boundary.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 There is a high degree of confidence in the geological interpretation of the sand units (aeolian and shallow marine sands). The extent of the upper mineralized sand unit was determined by a combination of LIDAR and drill hole data, with no assumptions made. Earlier Mineral Resource estimations included a series of younger dunes onlapping the western margin of the deposit. This area has been excluded from the current resource estimate on the basis that no mineralogical data is available at present for these units. The effect of this exclusion is to lower the current resource estimate. Only the aeolian Upper Sand Unit has been considered to host a mineral

		 resource. Dune morphology has been used with cross-sectional data to define search ellipsoid orientation in populating resource model. Main factor controlling grade and geology continuity is mega-dune morphology.
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.	 The resource extends for 22 km north – south and averages 2 km wide. The average depth of mineralization from the surface to the 3% HM cut-off in 17.5 metres.
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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by- products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of 	 Surpac Vision software was used to estimate the mineral resources. Drill data was statically evaluated for distribution and outliers, and composited to 1.5 metre intervals. A 3% HM cutoff wire-surface was digitized from drill data Topographic surface was created from LIDAR data Resource was modeled as a single domain, extending from the topographic surface to the 3% HM cutoff. Resource Block Model was constructed with block dimensions 50 mE x 100mN x 1 mZ, and populated using the ID2 method. Block Model was interpolated using a dynamic ellipsoid whose ranges were determined by variography : Major axis; 300 metres Major/Intermediate ratio; 2 Major/Intermediate ratio; 4 x (Inferred) Block Model was populated using the following search criteria: Multipliers 2 x (Indicated), 4 x (Inferred) Block Model was populated using the following search criteria: Maimum number of samples: 5 Maximum number of samples: 5 Maximum number of samples: 16 Maximum number of samples: 5 No data constraint Four previous Mineral Resource Estimates have been undertaken previously; Ticor 2004, Exxaro 2006, Miine 2010, MacDonald Speijers and Associates 2012. The current resource model has been reviewed against these previous estimates. No assumptions have been made regarding recovery of by-products. No deleterious elements or non-grade variables are present. All resource block are mined from the surface with no overburden. Mineral assemblages show little statistical variation over the deposit, and correlate well with HM content. Cross-sections and dune morphology

	reconciliation data if available.	 were used to guide the dynamic search ellipsoid used in populating the Block Model. Eastern and western extents of the block model were derived from mapped data. No grade capping was deemed necessary as grade values exhibited a normal Poisson distribution with no outliers. Sectional slices of the Model were visually compared and validated against drill hole data.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	 Tonnage estimates used a dry destiny. Moisture content was not determined.
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 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.	 Dry mining of deposits using excavator/front end loader with truck haul to conveyor. Deposit is surfaced mined with no minimum dimensions.
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. 	 Test work completed by Ticor/Kumba Resource 2004 Pre-Feasibility Study. Test work completed Exxaro 2009 Feasibility Study. Test work undertaken by AML 2007 and 2009 Process design TZMI 2012, Definitive Engineering Study Ongoing test work at Mineral Technologies, Brisbane Mineral Assemblage is consistent over the orebody comprising 72.03% Ilmenite group; 5.59% Zircon; 2,33% Rutile; 1,85% Monazite and Xenotime
Environmental 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	 EMP (Environmental Management Plan) approved by Government of Madagascar June 2015.

	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.	
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 differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials 	 In Situ density test were conducted by Soillab Pty.Ltd. Sand replacement dry density tests were conducted at 14 sites over the deposit in specially excavated trenches ranging from 1.0m – 2.15m for a total of nineteen samples, with particle size and other tests. Average density was determined as 1.701 tonnes per cubic metre. The average near-surface (0-3m) HM content of the nearest drill holes is 9.3% which suggests that the density measurements was biased towards a higher than average HM grade for the deposit. An industry wide standard of density = 1.61+ 0.01 * HM (in %), has been adopted in this resource model to negate against this effect.
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 resource was classified variography and on the drill hole spacing due to the uncomplicated geology, continuity of mineralization and confidence in the drill hole data. Blocks where the drilling was spaced 200 mN x 1000 mE were classified as Measured, with 400 mN x 100 mE blocks being classifies as Indicated resources. The remaining areas were classified as Inferred Resources.
Audits or reviews.	The results of any audits or reviews of Mineral Resource estimates.	 The current resource estimate has been reviewed against the previous Resource Estimate undertaken by MacDonald Speijers and Associates (2012) by the Competent Person and found to be reasonable.
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	 No statistical or geo-statistical review of the accuracy of the resource estimate has been undertaken. The resource statement is a global estimate. There has been no production to date.

by the Competent Berger For	
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	
toophical and oconomic	
evaluation. Documentation	
should include assumptions	
made and the procedures used.	
Inese statements of relative	
accuracy and confidence of the	
estimate should be compared	
with production data, where	
available.	