

10 February 2020

Mr John Williams
Head of Admissions
National Stock Exchange of Australia Limited
1 Bligh Street
Sydney NSW 2000

By email: john.williams@nsx.com.au

Dear Mr Williams

Pyx Limited – Pre-quotation Disclosure

We refer to the listing application for South Pacific Resources Limited (to be renamed Pyx Resources Limited) (ACN 073 099 171) (**Company**) to the National Stock Exchange of Australia Limited (**NSX**) dated 18 December 2019 including the original prospectus dated 22 November 2019 and the replacement prospectus dated 13 January 2020 (**Prospectus**) to raise AU\$14,000,000 (**Offer**). The Offer closed on 24 January 2020 and the Company has raised the requisite AU\$14,000,000.

On 28 January 2020 approval was granted to the Company for admission to the official list of the NSX, subject to the certain conditions being met prior to the commencement of Official Quotation of the Company's shares.

The following information is provided to NSX for release to the market in connection with the Company's admission to the official list of NSX. Terms undefined in this pre-quotation disclosure statement have the meaning given to them in the Prospectus.

1. **Prospectus Compliance with JORC Code, NSX Listing requirements, ASIC requirements regarding forward looking statements and VALMIN code**
 - 1.1 The Company clarifies that the abbreviations Mandiri and PTIM refer to PT. Investasi Mandiri throughout the Prospectus
 - 1.2 On page 45 and 46 of the Prospectus, the cut-off grade underpinning the Resource Table is erroneously reported at 3%, instead of 2%. The cut-off grade is correctly reported at 2% on page 3, 23 and 30 of the Geological and Technical Report forming part of the Prospectus
 - 1.3 Page 4 of the Geological and Technical Report included in the Prospectus includes a statement referring to gold in the context of "additional resources" defined as Exploration Targets. This is contrary to the requirement of clause 17 of the JORC Code, which states that the terms "Resources or Reserves" should not be used in the context of Exploration Targets.
 - 1.4 Page 5 of the Geological and Technical Report included in the Prospectus includes an estimate of gold as an Exploration Target, with no indication in the same paragraph that the estimation is conceptual in nature. This is contrary to the requirement of clause 17 of the JORC Code, which states that "a clarification statement within the same paragraph as the first reference of the Exploration Target in the Public Report, stating that the potential quantity and grade is conceptual in nature" should be included.

- 1.5 The Company confirms that it does not intend to pursue the exploration for gold, and any reference to gold has been provided for disclosure purposes only and are statements of fact.
- 1.6 On page 10 of the Prospectus the term “soil” should be read as “alluvium” as the context applies.
- 1.7 The Mandiri Tenement consists of 2,032 ha with 40% secondary forest, 30% bush, 15% community gardens and 15% open space. The Company confirms that it does not foresee any issues with local authorities who have an interest in the community gardens in relation to compensation for access in the areas covered by the licences.
- 1.8 A section on page 57 of the Prospectus headed “Reserves and Resources” should be headed “Resources” as the project does not include Ore Reserves under the JORC Code.
- 1.9 On page 39 – 44 of the Geological and Technical Report, the following terms are clarified:
- (a) Inferred Mineral Resource, defined as “That part of a Mineral Resource for which tonnage, grade, and mineral content can be estimated with a low level of confidence” is to be defined in accordance to Clause 21 of the JORC Code as “that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.”
- (b) Mineral Resource, defined as “In-situ mineral occurrence for which there are reasonable prospects for eventual economic extraction. The location, quality, quantity, grade, geological characteristics, and continuity are known, estimated, or interpreted from specific geological evidence and knowledge. A ‘Mineral Resource’ is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction” should have been defined in accordance with Clause 20 of the JORC Code as “a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.”
- (c) Ore Reserve, defined as “The economically minable part of a Measured and/or Indicated Mineral Resource” is defined in accordance to Clause 29 of the JORC Code as “the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at a Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported”.
- (d) Probable Reserve, defined as “A measured and/or indicated mineral resource which is not yet proven, but where technical economic studies show that extraction is

justifiable at the time of the determination and under specific economic conditions” is defined in accordance with Clause 30 of the JORC Code as “the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.”

(e) Proven Reserve, defined as “A measured mineral resource, where technical economic studies show that extraction is justifiable at the time of the determination and under specific economic conditions” should have been defined in accordance with Clause 31 of the JORC Code as “Proved Reserve”, meaning “the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors”.

(f) Resource Category, defined as “Category of a mineral resource, such as Inferred, Indicated, Measured, Proven or Probable” is incorrect as the resource categories are Inferred, Indicated and Measured. Proven (Proved) and Probable are not resource classifications.

- 1.10 The legend on the geology map on page 45 of the Prospectus is not fully legible. The date reported is December 2018 and the scale is 125,000.
- 1.11 The item entry for slimes in Table 3.2 on page 17 of the Geological and Technical Report is clarified as slime%.
- 1.12 In Table 3.5 on page 20 of the Geological and Technical Report, values and ppm value labels are mixed. The correct table is reported below.

Table 3-5 Results of testing certified reference material

Standard	Reading 11		Reading 2		Reading 3		Reading 4		Reading 5	
	Zr (ppm)	Ti (%)	Zr (ppm)	Ti (%)	Zr (ppm)	Ti (%)	Zr (ppm)	Ti (%)	Zr (ppm)	Ti (%)
OREAS 461	656	2.75	633	2.68	641	2.73	669	2.73	686	2.7
Certified value	603	1.84								
AMIS 0304	1135	1.39	1193	1.36	1154	1.35	1190	1.39	1112	1.38
Certified value	1002	1.08								
OREAS 465	1703	9.74	1665	9.72	1676	9.59	1676	9.45	1657	9.58
Certified value	1879	6.30								
-	Zr (ppm)	Ti (ppm)	Zr (ppm)	Ti (ppm)	Zr (ppm)	Ti (ppm)	Zr (ppm)	Ti (ppm)	Zr (ppm)	Ti (ppm)
OREAS 98	212	2863	225	3009	228	3128	212	3079	208	3014
Certified value	67	2398								
OREAS 045e	363	8645	368	8632	361	8803	371	9257	358	9115
Certified value	242	5840								

- 1.13 The amendments listed in paragraphs 1.1 to 1.11 of this letter are reflected in the relevant pages from the Prospectus which, for ease of reference, have been extracted and can be seen in Annexure A.

2. **JORC Code**

2.1 The Company confirms that it:

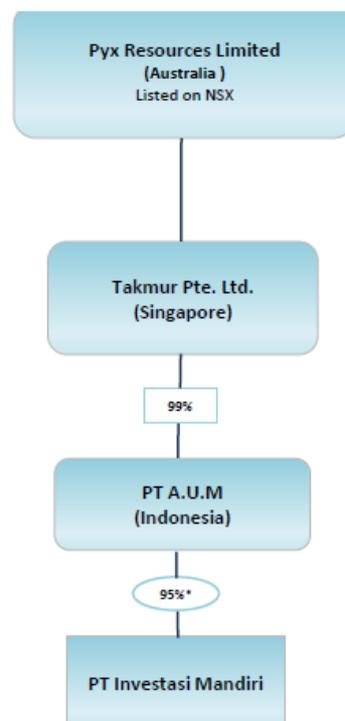
- (a) will continue to comply with the necessary disclosure requirements of the JORC Code and relevant NSX Listing Rules
- (b) is not currently aware of any new information or data that materially affects the information included in the Geological and Technical Report included in the Prospectus; and
- (c) will retain Mr John Chisholm as a Competent Person (as that term is defined in the JORC Code) to sign off on relevant announcements.

2.2 The Company will continue to comply with the relevant JORC disclosure requirements.

3. **Group Structure Ownership**

3.1 As set out in section 3.4 of the Prospectus, on completion of the Acquisition and Listing on the NSX, the Company will own 100% of Takmur Pte (Takmur). Takmur owns 99% of PT AUM, which in turn holds a 95% economic interest in Mandiri. This means that PT AUM is entitled to 95% of the net profit generated by PT Mandiri which is a consequence of an operation and management agreement dated 24 January 2019, discussed further below at paragraph 3.7.

3.2 A diagram illustrating the corporate structure of Company on completion of the Acquisition is provided below:



All Subsidiaries are owned 100% unless otherwise noted

** Economic interests through operation and management agreement*

- 3.3 The Company notes that shareholder approval for the Acquisition and Disposal of Indo Pacific Energy Pty Ltd was obtained at a general meeting of the Company held on 13 December 2019.
- 3.4 The beneficial owner of Takmur is therefore Pyx Resources Limited (100% shareholding).
- 3.5 PT AUM's beneficial owners are Takmur (99% shareholding) and Mr Danny Paulus (1% shareholding).
- 3.6 The beneficial owners of Mandiri are:
- (a) Mr Victor Rommel Latuheru (49% shareholding);
 - (b) Mr Budiyanto Karwelo (46% shareholding); and
 - (c) Mr Bahing Djimat (5% shareholding).
- 3.7 As disclosed at sections 3.5 and 11 of the Prospectus, PT AUM's economic interests in Mandiri are the result of an operation and management agreement dated 24 January 2019 (**Management Agreement**). Under the terms of the Management Agreement Mandiri and its shareholders have delegated to PT AUM:
- (a) the power to determine the financial and operational policy of Mandiri;
 - (b) the right to appoint the majority of Mandiri directors; and
 - (c) the right to receive 95% of Mandiri's net profit on an annual basis as compensation for the services provided to Mandiri.
- 3.8 Additionally, PT AUM will invest in Mandiri up to US\$15,000,000 over a period of 10 years for mining equipment, other capital expenditures, exploration and geology studies, operational and administrative best practices, and management and other consulting services.
- 3.9 In return for PT AUM's services to Mandiri, Mandiri will pay service fees to PT AUM equal to 95% of its annual net profit per annum for the term of the Management Agreement.
- 4. Operation Controls and Oversight**
- 4.1 The Mandiri Project is currently operating through the use of contract miners. However it should be noted that the Company has evidence of there being a history of artisanal mining on the Mandiri Tenement.
- 4.2 There is a risk that where historical artisanal mining has occurred, a lack of control and oversight existed over operations and, as a result, a risk that all licence conditions have not always been complied with in the past. Since Takmur has been involved with the Mandiri Project in January 2019, it has put in place appropriate measures to ensure that the miners are properly engaged by the holders of the Mandiri Tenement. Current management of Mandiri has ensured that all engagements of contract miners are done exclusively through written employment contracts, in accordance with local mining laws and regulations. The Company is confident that it has been compliant with its licence conditions since January 2019.
- 4.3 It should be noted that the gold content of drilling results and concentrate delivered to the Mandiri Plant varies significantly, as such Mandiri cannot guarantee that the contract miners

are not (illegally) mining for gold. The Technical Report included in the Prospectus indicates that gold is present in heavy mineral sand¹ (**HMS**) samples, but gold is mostly absent from the heavy mineral concentrate² (**HMC**) delivered to the Mandiri Plant.

- 4.4 Mandiri does not yet have in place accurate systems which will effectively monitor contract miners to prevent them from extracting gold from the Mandiri Tenement. However, over the next 24 months the level of mine mechanisation will be significantly increased and the role of contract miners will be substantially reduced. Additionally, the mechanisation of the mine and increased supervision over the tenement over the next 24 months will enable Mandiri to implement accurate systems to prevent any gold extraction by the residual contract miners still engaged by the Company.
- 4.5 The Mandiri Project currently operates as follows:
- (a) Ore is extracted by contracted miners using pumps where the soil is pumped over riffle boxes which results in a HMC being collected at the Mandiri Tenement;
 - (b) the HMC is then loaded onto trucks under the supervision of engaged mining supervisors, and is trucked by road to the Mandiri Plant;
 - (c) the Mandiri Plant consists of standard HMC processing equipment, including gravity shaking tables, dryers, electro-static separators and electro-magnetic separators, which processes the HMC into saleable Zircon product;
 - (d) the Zircon product is then bagged and verified at the Mandiri Plant by a Factory and Mining Officer, loaded onto trucks and driven to the nearest Port at Banjarmasin where the Zircon is sold and/or shipped to the customer.
- 4.6 The Mandiri Plant only processes feedstock supplied by its contract miners in compliance with Indonesian mining laws and regulations. Mandiri tracks and measures the amount of HMC obtained by the contract artisanal miners. There is currently no electronic tracking of the ore processed to produce HMC.
- 4.7 The extraction and processing set out above is directly supervised and controlled by chairman and chief executive officer Mr Oliver B. Hasler and a Factory and Mining Officer who are responsible for ensuring adherence to best practice and compliance with licence conditions, including compliance with conditions relating to export of Zircon from Indonesia. Mandiri's management and its security unit also monitor access to the Mandiri Tenement so as to mitigate against any interference from non-authorized parties.
- 4.8 The Company's approach to oversight and control on the Mandiri Project and employment of the contract miners are consistent with the Company's corporate governance policies and procedures which can be accessed from <https://www.pyxresources.com> at the page About Us/Governance.
- 4.9 The Company recognises the importance of addressing modern slavery. While the Company does not fall under the definition of a 'reporting entity' as provided in the *Modern Slavery Act 2018* (Cth), the Company will endeavour to identify and address the risk of modern slavery in its operations and supply chains moving forward.

¹ **Heavy Mineral Sands** means a subsection of the heavy mineral contained in tenement soil.

² **Heavy Mineral Concentrate** means a concentrate of heavy mineral where waste and other impurities have been almost completely removed, therefore incorporating only valuable heavy minerals (mostly zircon, rutile and ilmenite) and some residual waste.

4.10 As of January 2019, the Company has entered into written contracts of employment with its contract miners and it considers that its current risk of practicing modern slavery in the course of its business is low. The Company reviews its employment contracts with its contract miners every 12 months for compliance and regulatory compliance and will consider its operations and modern slavery risk at this time.

5. **PT AUM Investment**

5.1 As part of the Management Agreement mentioned above in paragraph 3.8 and 3.8, PT AUM will invest in Mandiri up to US\$15,000,000 over a period of 10 years for mining equipment, and other expenditures including exploration and geology studies, operational and administrative best practices, and management and other consulting services.

5.2 The investment consists of two main areas:

- (a) **Mining Equipment:** This part of the investment will occur over the next 12 – 36 months for a total amount of AU\$7,000,000, equivalent to approximately US\$4.7 million, to be financed with listing proceeds as per page 20 of the Prospectus, and in particular:

Mining Equipment by Category	AUD
Heavy Mining Transport Equipment including trucking expenses to transport HMC and zircon product	1,000,000
Mining Field Unit for extraction of mineral sand bearing zircon	4,200,000
Separation Factory Equipment at the Mandiri Plant	1,000,000
Exploration Programs on the Mandiri Tenement	800,000
Total Capital Equipment	7,000,000

- (b) **Other Expenditures:** This part of the investment, for a total amount of up to US\$10.3 million, will be financed by the internal cash flow of PT AUM and will occur gradually over the next 10 years when and if required by the Mandiri business. In particular, this will include:

- (1) exploration and geology studies to define addition mineral resources;
- (2) operational and administrative consulting activities to identify and implement mining and manufacturing best practices; and
- (3) management and other consulting services.

For an on behalf of the Board

Oliver Hasler

Chairman and Chief Executive Officer

Annexure A - Amended Pages from the Prospectus

Letter from the Chairman

Dear Investor

On behalf of the Board of Directors, I am pleased to present to you the opportunity to become an investor in the Company. The Public Offer proposed in this Prospectus is seeking to raise AU\$14,000,000 through the issue of 35,000,000 Shares at a price of \$0.40 per share.

The Company is currently listed on ASX but is suspended. The Directors of the Company have determined that the most appropriate method by which the Company can pursue its objectives as stated in this Prospectus is to seek listing on the NSX. ASX has advised that it will remove the Company from the ASX upon listing on the NSX. Prospective investors should be aware that the NSX is a different platform than the ASX that operates in substantially the same manner as ASX with a similar regulatory regime and settlement procedures. The Public Offer is conditional upon the removal of the Company from ASX and the approval of NSX to the listing of the Company.

It is important to note that the NSX differs in size from the ASX with 66 companies currently trading on NSX while ASX has 2,240 entities listed as at December 2019. Over the course of 2019 a total of \$66 million of initial capital was raised via NSX issuers while on ASX there was initial capital of approximately \$11.598 billion raised during 2019. During 2019, 11.458 million shares were traded on NSX while on the ASX during the same period 428.5 million shares were traded. Both of the ASX and NSX covers various industries including manufacturing, consumer goods, information technology, agricultural and resources. There are currently 6 companies on NSX which are primarily focussed upon the mining and exploration sector while on the ASX there are over 700 companies involved in mineral exploration, development and production.

The Company has entered into an agreement pursuant to which the Company will acquire 100% of the issued capital of Takmur Pte Ltd (**Takmur**) to be affected by a share exchange agreement made by and between the Company and Takmur on 30 July 2019 (**Share Exchange Agreement**).

The funds raised by the Public Offer will allow the Company to meet the funding requirements arising from its acquisition of Takmur (**Acquisition**) and to conduct exploration and development programs on its flagship Mandiri Project in Indonesia. The Mandiri Project consists of a licensed concession area of 2,032 hectares located in Central Kalimantan, Indonesia for mineral sands exploration and premium grade Zircon production and export. Zircon processing occurs at the Mandiri Plant which has been built and is operational.

The proposed Acquisition will see the Company focus its commercial and strategic activities on mineral sands exploration and production. The Company intends to establish itself as a significant player in mineral sands exploration and production through the development of the Mandiri Project.

It is important to note that the interests of the Company in the Mandiri Project are contractual in nature in that Takmur has an exclusive operation and management agreement with PT. Investasi Mandiri (**Mandiri**, or **PTIM**). The Company does not have a direct ownership interest in the Mandiri Tenement or the Mandiri Plant. Prospective investors should carefully consider the details of this agreement summarised in Section 11 of this Prospectus.

The Mandiri Project is currently being exploited through the use of contract artisanal miners however it should be noted that the Company has evidence of there being a history of artisanal mining on the Mandiri Tenement (being the investigations of the Company into the current practices of Mandiri and feedback from the appointed Technical Expert, Continental Resource Management Pty Ltd).

In the period from September 2010 and up to December 2016, Mandiri undertook technical and geological analysis in order to determine the tenement areas suitable for HMC extraction and the necessary specifications for the processing plant to produce zircon. In addition, during the same period, Mandiri completed landscape improvement operations to facilitate HMC extraction and sourced appropriate personnel for the Mandiri Project.

There is a risk that where historical artisanal mining has occurred, a lack of control and oversight exists over operations and, as a result, a risk that all licence conditions have not always been complied with. Since Takmur has been involved with the Mandiri Project in January 2019 it has put in place appropriate measures to ensure that artisanal miners are properly engaged by the holders of the Mandiri Tenement. Prospective investors should be aware of these risks and should consider the appropriateness of making an Application in this context as a breach of licence conditions may result in fines, penalties or forfeiture. It should be noted that the gold content of drilling results and concentrate delivered to the Mandiri Plant varies significantly, as such Mandiri cannot guarantee that the contract artisanal miners are not (illegally) mining for gold. The Technical Report indicates that gold is present in HMS samples, but gold is mostly absent from the HMC delivered to the Mandiri Plant. Mandiri does not yet have in place accurate systems which will effectively monitor contract miners to prevent them from extracting gold from the Mandiri Tenement.

As at the date of this Prospectus the Mandiri Project currently operates as follows:

- Ore is extracted by contracted miners using pumps where the alluvium is pumped over riffle boxes which results in a heavy mineral concentrate (HMC) being collected at the Mandiri Tenement;
- The HMC is then loaded onto trucks under the supervision of engaged mining supervisors, and is trucked by road to the Mandiri Plant;
- The Mandiri Plant consists of standard HMC processing equipment, including gravity shaking tables, dryers, electro-static separators and electro-magnetic separators, which processes the HMC into saleable Zircon product;
- The Zircon product is then bagged and verified at the Mandiri Plant by a Factory and Mining Officer, loaded onto trucks and driven to the nearest Port at Banjarmasin where the Zircon is sold and/or shipped to the customer.

The extraction and processing set out above is directly supervised and controlled by Mr Oliver B. Hasler and a Factory and Mining Officer who are responsible for ensuring adherence to best practice and compliance with licence conditions, including compliance with conditions relating to export of Zircon from Indonesia. Mandiri's management and its security unit also monitor access to the Mandiri Tenement so as to mitigate against any interference from non-authorised parties.

The Company held a General Meeting of its Shareholders on 13 December 2019 (**General Meeting**) to seek approval for, among other matters, the issue of securities to effect the Acquisition, the change in nature and scale of the Company's operations and the change of the name of the Company to "Pyx Resources Limited". Shareholder approval was given for each of these resolutions.

This Prospectus contains detailed information about the Company. This is a highly speculative investment and investors should refer to, and consider carefully, the risk factors outlined in this prospectus at Section 5 prior to making any investment decision. An investment in the Company involves a number of risks and consequently such an investment must be taken having paid due regard to the risks involved to the security of any capital invested. Before you make any investment I wholly recommend and encourage you to read this Prospectus in its entirety and to seek appropriate financial advice.

Yours faithfully



Domenic Martino
Chairman

[**Note:** This text is a continuation of Section 3.5 "Mineral Sands Operations of the Company" in the Prospectus. No other material in that section is changed.]

that holding a Clean and Clear designation does not necessarily guarantee good standing or that the relevant title is indefeasible and prospective investors should refer to the Indonesian Legal Opinions at Section 9 and the specific risks relating to work done on the Mandiri Tenement prior to January 2019 set out in the Investment Overview and Section 5.

In order to obtain a Clean and Clear Certificate an operating entity must prove that they have:

- no outstanding royalty obligations and that all taxes are up to date and fully paid;
- contributed all required funds for rehabilitation obligations to be met;
- fulfilled all applicable exploration and environmental commitments; and
- demonstrated that license areas do not overlap with any protected areas or other companies license areas.

The Directors have evaluated the risk of possible illegal mining activity on the Mandiri Tenement prior to the acquisition of control by current management. In particular, the Directors have considered the risk arising from the activity of artisanal miners on the site extracting and retaining non-zircon minerals and the risk of sourcing HMC feedstock for the processing plant from outside the Mandiri Tenement area.

As with any mining project it cannot be stated with 100% certainty that all activity that has ever occurred on the Mandiri Tenement has been in strict compliance with all applicable law. However the Directors have taken all reasonable steps to determine that mining activity conducted on the Mandiri Tenement has been conducted legally. The Company is of the view that this is supported by the fact that the Mandiri Tenement has been declared 'Clean and Clear' by the Indonesian Ministry of Energy and Mineral Resources with this certification being obtained on 22 September 2014.

During their due diligence, the Directors did not receive any notification from local authorities indicating that Mandiri was part of any legal proceeding concerning illegal mining activities or any other activity that could impact its Clean and Clear Certificate. The Directors have also not received any request for clarification in relation to the sourcing of HMC feedstock for the Mandiri processing plant.

As at the date of this Prospectus, none of the aforesaid licenses, permits and approvals for Mandiri have been suspended, revoked or cancelled. To the best of the Directors' knowledge and belief, the Company is not aware of any facts or circumstances which would cause such licenses, permits and approvals to be suspended, revoked or cancelled as the case may be, or for any applications for, or renewal of, any of these licenses, permits and approvals to be rejected by the relevant authorities. While the Mandiri Tenement consists of 2,032 ha with 40% secondary forest, 30% bush, 15% community gardens and 15% open space, the Company does not foresee any issues regarding local authorities' interests in the community gardens in relation to compensation for access to those areas covered by the licences. Prospective Applicants should refer to the Indonesian Legal Opinions contained at Section 9 of this Prospectus for further details and confirmations as to title.

3.6 Sale Process of Mandiri Zircon

To date Mandiri has sold only 65.5 grade zircon sand, in accordance with the terms and conditions of its mining and production license. All product is sold at prevailing spot prices. Mandiri only sells its product directly to customers and there are no sales facilitated by agents or other intermediaries. In 2018, Mandiri's top 3 customers were responsible for 84% of its sales. These 3 customers were the CFM Group, headquartered in Spain, Comptoir de Mineraux Premieres, based in France and Euronics Inc, based in Taiwan.

To date the customer base consists of a pool of diversified and established international organisations with long operating histories including:

CFM Group

CFM Group was founded in 1986 in Castellón (Spain) and provides raw materials and specifically metal oxides. It deals in traditional raw materials distribution but also transforms them using milling equipment and constantly looks for new strategic products with new industrial developments. Zirconium and zirconium flour product is currently CFM's main product. CFM is a global mineral sands processor with operations in Spain, Mexico and Indonesia.

Comptoir de Mineraux Premieres (CMMP)

CMMP is an independent and family owned company founded in 1932. With more than 65 years of experience in the field of industrial minerals, CMMP has developed a comprehensive range of more than 140 products. CMMP has been certified under ISO 9001 since January 2010. CMMP trades and processes in excess of 30,000 tons per annum of mineral sands.

Euronics Inc

Euronics distributes products from Taiwan into China, including ceramics and other products made from zircon. Euronics Inc is one of the largest zircon purchasers in Asia.

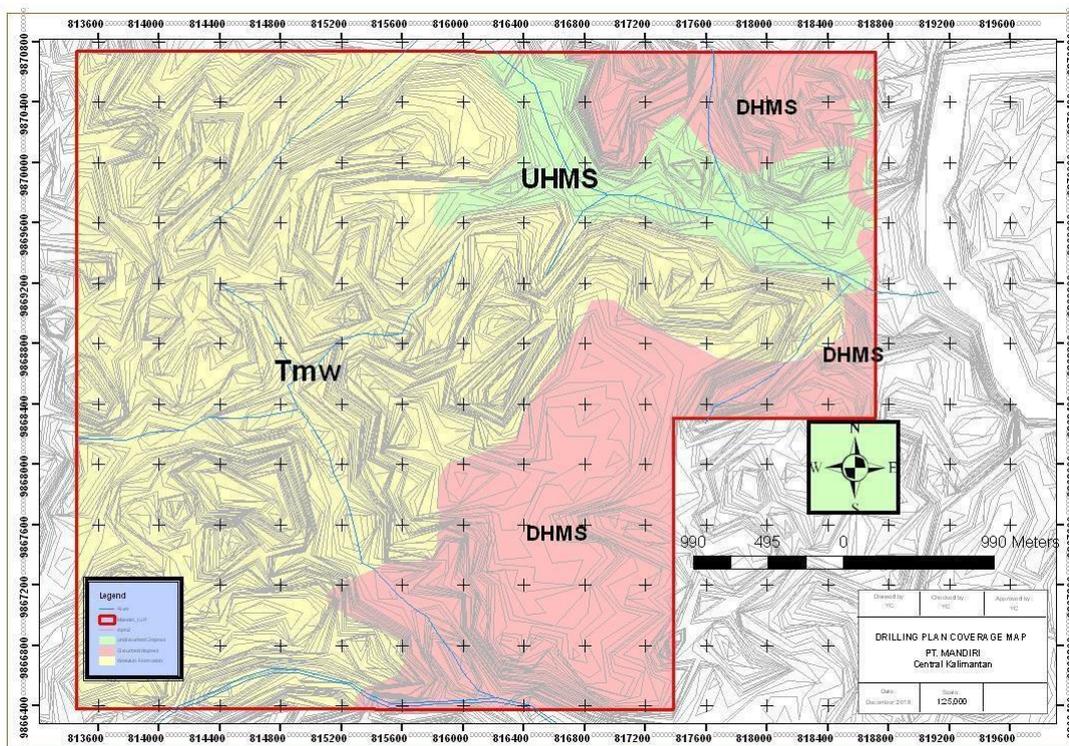
The Company does not have in place any off take agreements at the date of this Prospectus but will consider entering into such arrangements if favorable terms can be obtained. All zircon sand sold to date has been sold free on board or cost, insurance freight out of Banjarmasin Port, a medium sized Port on the Barito River which flows directly into the Java Sea.

The heavy mineral sand deposit covers about 760 ha or 37% of the total tenement area. Approximately 78% of 760 ha has been disturbed and is classified as such in the figure below. The disturbed heavy mineral sands deposit is still in basin . The disturbed heavy mineral sands deposit is not eligible to be estimated or included in a resource statement.

Geological Mapping

General geological mapping was commenced in November 2018 over an area of 1,550 hectares. GT applied the best practice of surface geological mapping procedure on flood plain area, which complies with Indonesia National standard (SNI). The technical team commenced work by using handheld GPS and applying tape and compass along the proposed traverse line in grid basis and along creeks and foot-tracks where possible to observe the outcrops. Actual traverse line, point of observation and marking points were properly recorded and saved in bankable data base. The alluvium strata, tertiary sediment unit and structural geology outcrops were treated according to SNI technical procedures. Traverse lines were extended until the boundary of the IUP is defined. The completed Heavy Mineral Sand geology surface map was interpreted for Mandiri deposit and provides the actual Heavy Mineral Sand occurrence boundary.

Geology Map of Mandiri Property



Note: This map is dated December 2018 and the scale is 125,000.

Augering

A blade barrel auger drilling was used extensively for exploration of the Mandiri deposit in November to December 2018. The equipment and methods are fully described in Section 8 below. The number of auger holes drilled in the deposit and the drill spacing for the majority of the Heavy Mineral Sand deposit is shown below;

Mandiri Drilling summary

DRILLING OBJECTIVE	SCHEME	YEAR 2013	
		No. Hole	T. Depth (M)
Deposit Prospecting Drilling			
Auger Hole	200m, 200m	18	91
Re-drill		1	3.6

Resource Tables

Mineral resources within the Mandiri Tenement are set out below. The resources are reported at a lower block cut-off grade of 2% heavy minerals (HM) which includes zircon, magnetite, ilmenite and rutile.

Mineral Resources above 2% HM lower block cut-off grade (unrounded)

Area	Category	Tonnage (Mt)	HM (%)	Slimes (%)	Oversize (%)
Mandiri	Inferred	126.3	7.43	8.98	16.14

The Inferred Mineral Resources for the Mandiri HMS deposit on the Mandiri Tenement are defined as 126 Mt containing 7% HM, 9% slimes and 16% oversize at a lower cut-off grade of 2%.

The mineral assemblage for the Mandiri HMS deposit is based on production data from the Mandiri Plant.

Inferred Resources by Lower Block Cut-off grade (Unrounded)

Component	Zircon	Ilmenite	Rutile	Other	Waste + h2o	Total
Relative %	68%	9.5%	8.5%	1%	13%	100%
Contained mineral	6.00 Mt	0.84 Mt	0.75 Mt	0.09 Mt	1.15 Mt	8.82 Mt

Based on the data available, the tonnage of contained zircon, ilmenite and rutile, which together comprise the valuable heavy minerals, is 7.59 Mt.

Resources are given at various lower block cut-off grades of contained HM.

Inferred Resources by lower block cut-off grade(unrounded)

Category	Cut-off Grade (% HM)	Cumul. Tonnage (Mt)	HM (%)	Slimes (%)	Oversize (%)
Inferred	8	43.3	8.47	9.23	16.42
	7	88.4	7.99	9.18	16.19
	6	112.2	7.70	9.10	16.18
	5	125.0	7.53	9.01	16.25
	4	126.1	7.48	8.99	16.20
	3	126.1	7.44	8.99	16.16
	2	126.3	7.43	8.98	16.14

Note: Mt = million tonnes

There is only minor material less than 2% HM.

Exploration Potential

- Heavy Mineral Sands

The main area for potential mineralisation is below the water table as the auger drilling only tested the alluvial zone above the water table. The deepest auger hole that intersected bedrock was 10 m in depth. It is most likely that an additional resource will be located below the currently defined resource. Testing this zone will require drilling using an air-core

Mineral Sands Products Price Volatility

The revenues the Company will derive through the sale of commodities exposes the potential income of the Company to commodity price and exchange rate risks. Commodity prices fluctuate and are affected by many factors beyond the control of the Company.

The demand for, and price of mineral sands is highly dependent on a variety of factors, including international supply and demand, the level of consumer product demand, weather conditions, actions taken by governments and international cartels, and global economic and political developments.

Fluctuations in mineral sands prices and, in particular, a material decline in the price of zircon may have a material adverse effect on the Company's business, financial condition and results of operations.

Investors should be aware that decreases in zircon price levels may ultimately affect the viability of exploration activities within the Company's focus areas, which could result in a negative effect on the Company's future cash flow and the viability of potential future projects. This in turn may affect the value of the Company's Shares.

Marketability of Production

The marketability and commerciality of mineral sands to be acquired and/or produced by the Company is subject to several factors which include (but are not limited to) reservoir characteristics, market fluctuations, the proximity and capacity transportation, the market price of zircon and governmental regulations. Restrictions on the ability of the Company to market the Company's production may have a material adverse effect on the Company's revenues and financial position.

Substitution of Zircon

The Company notes the existence and the development of alternative materials acting as substitution products for zircon.

If the costs and commercial prices for such alternative materials fall this may have a significant effect upon the Company's overall financial performance and ability to perform as a company operating in the mineral sands industry. The Company can give no guarantee that the Company's products or prospects will remain competitive in the future due to changes in the marketplace.

Local Community and Landowner Risk

The Company may be required to pay compensation to landowners, local authorities, traditional land users and others who have an interest in the area covered by the licences. The Company's ability to resolve compensation issues and compensation costs involved will have an impact on the future success and financial performance of the Company's mineral sands operations. If the Company is

unable to resolve such compensation claims on economic terms, this could have a materially adverse effect on the business, results or operations and financial condition of the Company.

Foreign Exchange Risk

The operations of the Company will initially be in Indonesia and the costs of and revenues from operations will be in Indonesian rupiah and US dollars. The Company may deal in other currencies from time-to-time, as appropriate. As the Company's financial reports will be presented in US dollars, the Company will be exposed to the volatility and fluctuations of the exchange rate between local currencies, the US dollar and the Australian dollar.

Global currencies are affected by a number of factors that are beyond the control of the Company. These factors include economic conditions in the relevant country and elsewhere and the outlook for interest rates, inflation and other economic factors. These factors may have a positive or negative effect on the Company's exploration, project development and production plans and activities together with the ability to fund those plans and activities.

The Board may consider whether to manage currency fluctuation risk by hedging however, there can be no assurance that the Company will hedge its exchange rate exposure, nor that it will be able to hedge such exposure on acceptable terms in the future or that any exchange rate hedging conducted by the Company will be effective or will not result in an adverse financial impact arising from the inability to benefit from a favourable movement in exchange rates.

Mineral Resource Estimates

Mineral resource estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which were valid when originally calculated may alter significantly when new information or techniques become available. In addition, by their very nature, resource and reserve estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate. As further information becomes available through additional drilling and analysis the estimates are likely to change. This may result in alterations to development and production plans which may in turn, adversely affect the Company and its operations.

Environmental Risks

The Company's activities will be subject to the environmental risks inherent in the mineral sands industry. The Company will be subject to Indonesian environmental laws and regulations in connection with operations it may pursue in the mineral sands industry. Environmental compliance is an ongoing liability of the Company. The Company intends to conduct its activities in an environmentally responsible manner and in accordance with all applicable laws. However, the Company may be the subject of accidents or unforeseen

HM 9% slimes and 16% oversize at a lower cut-off grade of 2%¹.

The mineral assemblage of the product from the Mandiri project is well established based on production records from the PTIM processing plant and confirmed² by the certified laboratory analyses required by legislation for export product.

Table 1-4 Mineral assemblage and contained tonnes of the components (unrounded)

Component	Zircon	Ilmenite	Rutile	Other	Waste +H ₂ O	Total
Relative %	68%	9.5%	8.5%	1%	13%	100%
Contained mineral	6.00 Mt	0.84 Mt	0.75 Mt	0.09 Mt	1.15 mt	8.82 Mt

Based on the data available, the tonnage of contained zircon, ilmenite and rutile which together comprise the VHM is 7.59 Mt.

Potential for additional resources

As a result of many of the auger holes being unable to penetrate below the water table there remains considerable potential for mineralisation to be present below the water table. The currently defined Inferred Mineral Resources are only for the alluvial zone above the water table. The deepest auger hole that intersected bedrock was 11 m in depth which is considerably more than the 3.68 m average thickness of the alluvial material within the Inferred Resource. It is most likely that additional mineralisation will be located below the currently defined resource and these are referred to as Exploration Targets. Testing this zone will require drilling using an air-core mechanised drilling rig.

In addition to the Exploration Target below the water table there is the potential for additional HMS mineralisation to be located to the northwest of the current resources below the younger Werukin Formation.

In the case of the Mandiri tenement the Exploration Target for HMS within the Mandiri tenement is in the order of 25 – 30 Mt of sand containing 4 - 7 % heavy minerals. Mineralisation expressed as Exploration Targets are in addition to Mineral Resources. It should be noted that the potential quantity and grade is conceptual in nature, and there has been insufficient exploration to estimate a Mineral Resource in relation to this Exploration Target and it is uncertain if further exploration will result in the estimation of a Mineral Resource in relation to this Exploration Target. The basis for defining the Exploration Target for HMS mineralisation is the presence of HMS occurring below the water table. Auger testing was only possible above the water table during the current exploration phase and future exploration to test the Exploration Target HMS mineralization will require drilling using an air-core drilling method.

An Exploration Target which is an estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade, relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. In the case of the Mandiri tenement the Exploration Target has been conservatively estimated as potential HMS mineralisation extending a further 25% in depth below the water table beneath the Inferred Mineral Resources at a grade not exceeding the grade of the Inferred Mineral Resources.

In addition to the HMS the tenement is known to contain alluvial gold and platinum which is currently being exploited by artisanal miners. It is not known how much gold the artisanal miners are producing but significant quantities of gold are being recovered by the PTIM processing facility which purchases heavy mineral concentrate from the artisanal miners. In the course of panning samples during the auger drilling the site geologists reported small gold grains in auger hole DA-206R.

Laboratory analysis of concentrate from the processing plant reports gold grades of 5 – 37 g/t Au in concentrate but this is from concentrate purchased from artisanal miners who have already worked the

¹ The Statement of Resources are rounded in accordance with the JORC Code and consequently unrounded totals in the associated table may not agree.

² Based on the known chemical composition of each mineral present in the assemblage.

material for gold. Platinum has also been reported in laboratory analysis of rutile concentrate at levels of 215 and 101 g/t.

While there is insufficient analytical data to estimate Mineral Resources for gold the Exploration Target for gold mineralisation is estimated to be 30 -50 Mt of sand at a grade – 1 – 5 g/t Au. The basis for defining the Exploration Target is the presence of gold in the zircon concentrate obtained by the artisanal miners contracted by the company to provide zircon feed to the processing plant, past exploitation of gold by artisanal miners in the region and the presence of visible gold obtainable by panning the present day watercourses within the concession. Testing the Exploration Target will require systematic analyses for gold as part of the HMS exploration programme. The potential quantity and grade for this Exploration Target is merely conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Table 3-1 Basic statistics for mineralised intervals for the laboratory analyses

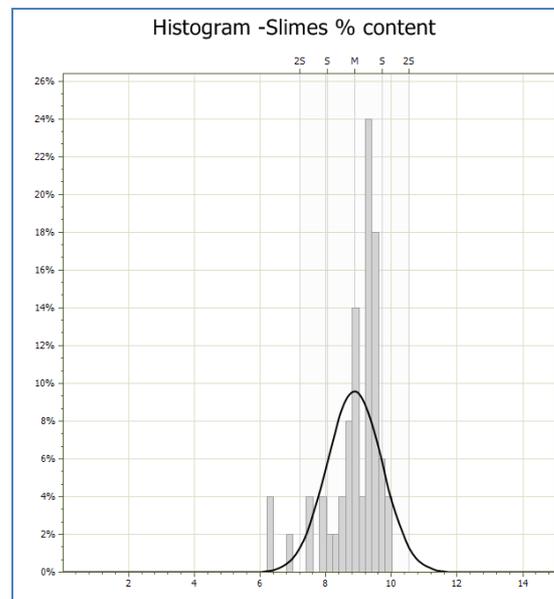
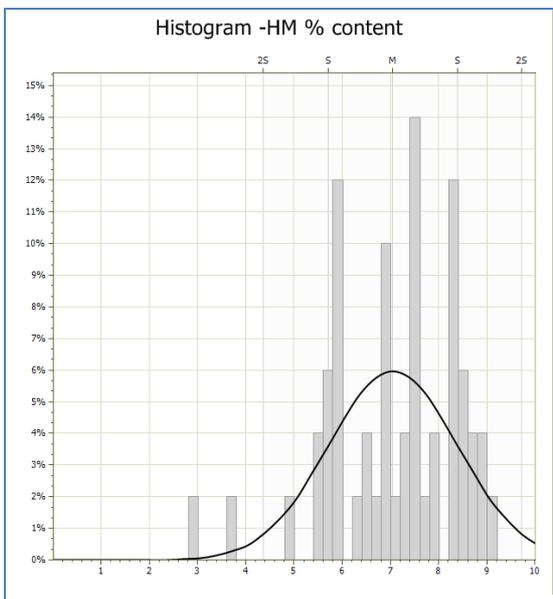
Item	Minimum	Maximum	Mean
Zirconium %	0.93	1.65	1.26
Titanium %	0.43	1.21	0.91
Iron%	0.78	1.90	1.30
Zircon% - calculated	1.86	3.32	2.53
Rutile% - calculated	0.08	0.22	0.17
Ilmenite% - calculated	1.22	3.40	2.57
HM% - calculated	3.96	6.52	5.26

Note: zircon, ilmenite and rutile content was calculated from elemental Zr, & Ti. The ratio of rutile to ilmenite was based on production data from the plant.

Table 3-2 Basic statistics for the HM, slime, oversize and mineralised intervals

Item	Minimum	Maximum	Mean
HM%	2.94	9.10	6.91
Slimes%	6.24	9.85	8.70
Oversize%	6.42	21.23	15.44
Interval (m)	0.3	11.5	3.68

The distribution of the analyses for HM, slimes and oversize in percent and mineralised interval in metres are shown in the figures below.



with a suffix “R”. The second twinned hole was only 1.2 m in depth and no samples were collected. The results for auger holes DA-206 & DA-206R are presented in Table 3-4.

Table 3-4 Results of twinned auger drilling

Hole-ID	East-	North-	Depth	Interval	HM%
DA-206	818591	9869569	4	4	8.45
DA-206R	818611	9869571	4.6	3.6	8.22

Hole-ID	Zr (%)	Ti (%)	FE (%)	Zircon (%)	Rutile (%)	Ilmenite (%)	HM (%)
DA-206	1.66	1.07	1.6	3.47	0.19	2.93	6.59
DA-206R	1.80	1.08	2.03	3.62	0.20	3.05	6.86

3.11.2 Standards

A set of six standards were purchased to test the accuracy of the Olympus portable XRF unit. The results (Table 3-5) are equivocal and probably due to the different matrix of the samples relative to HMS material.

Table 3-5 Results of testing certified reference material

Standard	Reading 1		Reading 2		Reading 3		Reading 4		Reading 5	
	Zr (ppm)	Ti (%)								
OREAS 461	656	2.75	633	2.68	641	2.73	669	2.73	686	2.7
Certified value	603	1.84	-	-	-	-	-	-	-	-
AMIS 0304	1135	1.39	1193	1.36	1154	1.35	1190	1.39	1112	1.38
Certified value	1002	1.08	-	-	-	-	-	-	-	-
OREAS 465	1703	9.74	1665	9.72	1676	9.59	1676	9.45	1657	9.58
Certified value	1879	6.30	-	-	-	-	-	-	-	-
-	Zr (ppm)	Ti (ppm)								
OREAS 98	212	2863	225	3009	228	3128	212	3079	208	3014
Certified value	67	2398	-	-	-	-	-	-	-	-
OREAS 045e	363	8645	368	8632	361	8803	371	9257	358	9115
Certified value	242	5840	-	-	-	-	-	-	-	-

10 Glossary of Technical Terms and Abbreviations

Air-core drilling	A rotary drilling technique that uses compressed air to cut a core sample and return fragments to the surface inside drill rods.
Auger	A method of drilling by which a sample of unconsolidated material is brought to the surface up the inclined flights of an auger.
Backshore	The zone of the shore or beach above the high-water line, acted upon only by severe storms or exceptionally high tides.
Basement	The oldest layer of igneous and metamorphic rocks in the earth's crust, covered by layers of more recent, usually unconformably overlain sedimentary rocks.
Clastic	A sedimentary rock composed of grains or fragments derived at a different locality.
Clay	A rock or mineral fragment or a detrital particle of any composition with a diameter <4 microns.
Composite	A number of discrete samples collected from a body of material into a single homogenized sample for the purpose of analysis.
Concentrate	Heavy mineral concentrates are usually prepared by tabling or wet sieving a very large sample of till or stream sediments (up to 20 kg may be routine). The heavy mineral concentrate collected at this stage is then further processed with heavy liquids using methylene iodide (SG = 3.3). The resultant concentrate then is separated into magnetic and non-magnetic fractions and it is the non-magnetic fraction which is usually analyzed.
Cut-off grade	The lowest grade of mineralised material that qualifies as ore or resource in a given deposit.
De-slimed	Clay-sized particles have been removed from crushed rock.
Digital terrain model (DTM)	A digital terrain model (DTM) provides a bare earth representation of terrain or surface topography and can be described as a three – dimensional representation of a terrain surface consisting of X, Y, Z coordinates stored in digital form. It includes not only heights and elevations but other geographical elements and natural features such as rivers, ridge lines, etc.
Exploration Target	An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the

	statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource (JORC Code clause 17).
Foreshore	The seaward-sloping area of a shore that lies between the average high tide mark and the average low tide mark.
GIS	Geographic information system. It is a system designed to capture, store, manipulate, analyse, manage, and present spatial or geographic data.
Gneiss	High-grade metamorphic rock composed of alternating bands respectively rich in light and dark coloured minerals
Grade	Expression of relative quality of mineralisation (e.g. high-grade) or of numerical quality (e.g. 1.2% Ni).
Granitic	Descriptive term used for igneous rocks with a holocrystalline texture and anhedral constituents of a similar grainsize, composed chiefly of orthoclase and albite feldspars and of quartz, usually with lesser amounts of one or more other minerals, as mica, hornblende, or augite.
Heavy mineral (HM)	An accessory detrital mineral of a sedimentary rock, of high specific gravity (> 2.9 t/m ³), e.g., magnetite, ilmenite, zircon, rutile.
Heavy mineral assemblage	The suite of heavy minerals contained in a deposit.
Ilmenite	A titanium-iron oxide mineral (FeTiO ₃).
Indicated Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
Inferred Mineral Resource	That part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

JORC Code	The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition). Prepared by The Joint Ore Reserves Committee. A compliance standard for professional and public reporting of Ore Reserves and Mineral Resources.
Kg	Kilogram
Leucoxene	A titanium oxide-rich heavy mineral formed by the alteration of ilmenite.
Lithified	The process by which a sediment composed of individual particles is converted into a coherent rock through cementation or compaction.
Logging	The practice of making a detailed record (a log) of the geological formations penetrated by a borehole.
Measured Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.
Metamorphic	Descriptive of rock that has been altered by physical and chemical processes involving heat, pressure and/or fluids.
Mineral assemblage	Group of minerals commonly associated with another.
Mineral Asset	All property including (but not limited to) tangible property, intellectual property, mining and exploration Tenure and other rights held or acquired in connection with the exploration, development of and production from those Tenures. This may include the plant, equipment and infrastructure owned or acquired for the development, extraction and processing of Minerals in connection with that Tenure.
Mineral Resource	A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Mineralisation	The concentration of metals and their minerals within a body of rock.
Mineralogical	Connected with the scientific study of minerals.
Miocene	The epoch of geological time within the Cenozoic Era between about 5 and

	23 million years ago.
Monazite	A rare phosphate mineral with a chemical composition of (Ce,La,Nd,Th)(PO ₄ ,SiO ₄). It usually occurs in small isolated grains, as an accessory mineral in igneous and metamorphic rocks such as granite, pegmatite, schist, and gneiss.
(Ore) block model	An (ore) block model is created using geostatistics and the geological data gathered through drilling of the prospective ore zone. The block model is essentially a set of specifically sized "blocks" in the shape of the mineralized orebody. Although the blocks all have the same size, the characteristics of each block differ. Once the block model has been developed and analyzed, it is used to determine the ore resources and reserves (with project economics considerations) of the mineralised orebody.
Ore Reserve	The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at a Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
Oversize	Sand material greater than 1 mm in diameter.
Pegmatite	Very coarse-grained igneous intrusive body, usually granitic and in dyke or sill form; may contain economically important minerals.
Precambrian	That portion of geological time older than about 545 million years ago.
Pre-feasibility stage	A project at a stage where a pre-feasibility study has been undertaken or is about to be commenced. A pre-feasibility study of a project is a precursor to a feasibility study. Its purpose is to examine the size, cost and value of the main components of the project in sufficient detail to ensure there is a solid basis for proceeding to the more costly and rigorous feasibility study.
Probable Reserve	The economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.

Proved Reserve	The economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.
QA/QC	QA/QC is the combination of quality assurance, the process or set of processes used to measure and assure the quality of a product, and quality control, the process of ensuring products and services meet consumer expectations.
Quaternary	The period of geological time from about 2.6 million years ago to the present.
Quartzite	A granular metamorphic rock composed predominantly of quartz; derived from quartz sandstone.
Resource category	Category of a mineral resource, such as Inferred, Indicated, or Measured.
Resource modelling	Creating a model of a mineral resource through assessment of the quantity and quality of the data available including database management and verification, the creation of 2D and/or 3D geological and mineralisation models for the deposit, statistical and geostatistical analyses of the data and the determination of the most appropriate grade and density interpolation methods.
Royalty	A payment to the owner of mineral rights for the privilege of extracting the mineral from the ground based on a lease agreement. The royalty payment is based on a portion of earnings from production and varies depending on the type of mineral and the market conditions.
Rutile	A mineral containing titanium dioxide (TiO ₂).
Sandstone	A sedimentary rock composed primarily of sand sized grains.
Slimes	Clay material less than 45 microns (,45μ).
Specific gravity	The term specific gravity refers to the ratio of the density of a solid or liquid to the density of water at 4 degrees Celsius.
Tetrabromoethane (TBE)	A halogenated hydrocarbon, chemical formula C ₂ H ₂ Br ₄ .
THM	Total heavy minerals (concentrate). Components are typically rutile ilmenite, zircon and leucoxene.
Thorium	A chemical element with symbol Th. Thorium metal is silvery and tarnishes black when exposed to air, forming a dioxide.
TPM	Tonnes per month

Twin (Twinned holes)	A pair of parallel holes drilled close together.
Unconformably	The attribute of a series of younger strata that do not succeed the underlying older rocks in age or in parallel position, as a result of a long period of erosion or non-deposition.
Uranium	A chemical element with symbol U. It is a silvery-white metal in the actinide series of the periodic table.
VALMIN Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (2015 Edition). Prepared by The VALMIN Committee. A compliance standard for professional and public reporting of Mineral Asset valuations.
Valuable heavy minerals (VHM)	Heavy minerals with economic value. The principal valuable heavy minerals are ilmenite, leucoxene, rutile, and zircon.
μ or μm	Micron; a millionth of a metre.
XRF	An X-ray fluorescence (XRF) spectrometer is an x-ray instrument used for routine, relatively non-destructive chemical analyses of rocks, minerals, sediments and fluids. It works on wavelength-dispersive spectroscopic principles that are similar to an electron microprobe. It is typically used for bulk analyses of larger fractions of geological materials. The relative ease and low cost of sample preparation, and the stability and ease of use of x-ray spectrometers make this one of the most widely used methods for analysis of major and trace elements in rocks, minerals, and sediment.
Zircon	A mineral belonging to the group of nesosilicates. Its chemical name is zirconium silicate and its corresponding chemical formula is ZrSiO ₄ .