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Positive Metallurgy Results for Gascoyne REE Project

- 96.7% Nd₂O₃ recovery at 13.9% grade achieved in concentrate
- Initial metallurgical results from outcropping rare earth elements (REE) ironstone at Lyons_11 achieved 92% recovery of TREO at 38% grade
- Lyons TREO are comprised of a significant proportion of neodymium and praseodymium (Nd₂O₃+Pr₆O₁₁). Importantly, the TREO has been confirmed as being predominantly hosted in monazite which is well-known to be amenable to commercial processing
- The metallurgical results are comparable to results announced by Hastings Technology Metals (ASX.HAS) and Dreadnought Resources (ASX.DRE)
- Heritage surveys planned to commence 30 May to 6 June 2022 to allow site works to begin at Lyons and Edmund for maiden drilling program

Mr Brian Thomas, Frontier Technical Director commented "I'm pleased the positive metallurgical results have confirmed the ongoing similarities between our REE projects and the Hastings deposit next door. These results provide further encouragement as we prepare for our maiden drill program. We anticipate drilling to commence in July pending the final heritage survey approvals and completion of siteworks. There have been some delays in organising the heritage surveys, which is a common theme throughout the mining and exploration industry at present. While this is not ideal, we have been proactive and pragmatic in ensuring the heritage surveys are done as soon as possible."

Frontier Resources Ltd (ASX: FNT) (**Frontier** or the **Company**) is pleased to announce that it has received results from metallurgical flotation test work carried out on outcropping ironstones at the Lyons Rare Earths Project in the Gascoyne, Western Australia (**Lyons Project**).

An initial flotation circuit using bulk surface samples from Lyons_11 performed well, achieving a recovery of 96.7% at 13.9% Nd₂O₃ grade in concentrate. This is calculated to be an average 92% recovery of total rare earth oxides (TREO) at 38% grade in final concentrate.



Initial metallurgical test work was undertaken to determine the amenability of the ironstones to produce a commercially treatable monazite concentrate. Encouragingly comparable results were returned, similar to results announced by Hastings Technology Metals (ASX.HAS) and Dreadnought Resources (ASX.DRE). While the results achieved are very positive, further bulk samples across the project will better reflect potential concentrator feed. More representative sampling will be undertaken during the maiden drilling program.

The headline results were achieved after a 90µm primary grind and four stages of cleaning. The flotation flowsheet recovered a single rougher concentrate which was then subject to a 20µm regrind to liberate rare earth oxides.

Figure 1. Successful flotation test work at Lyons_11.

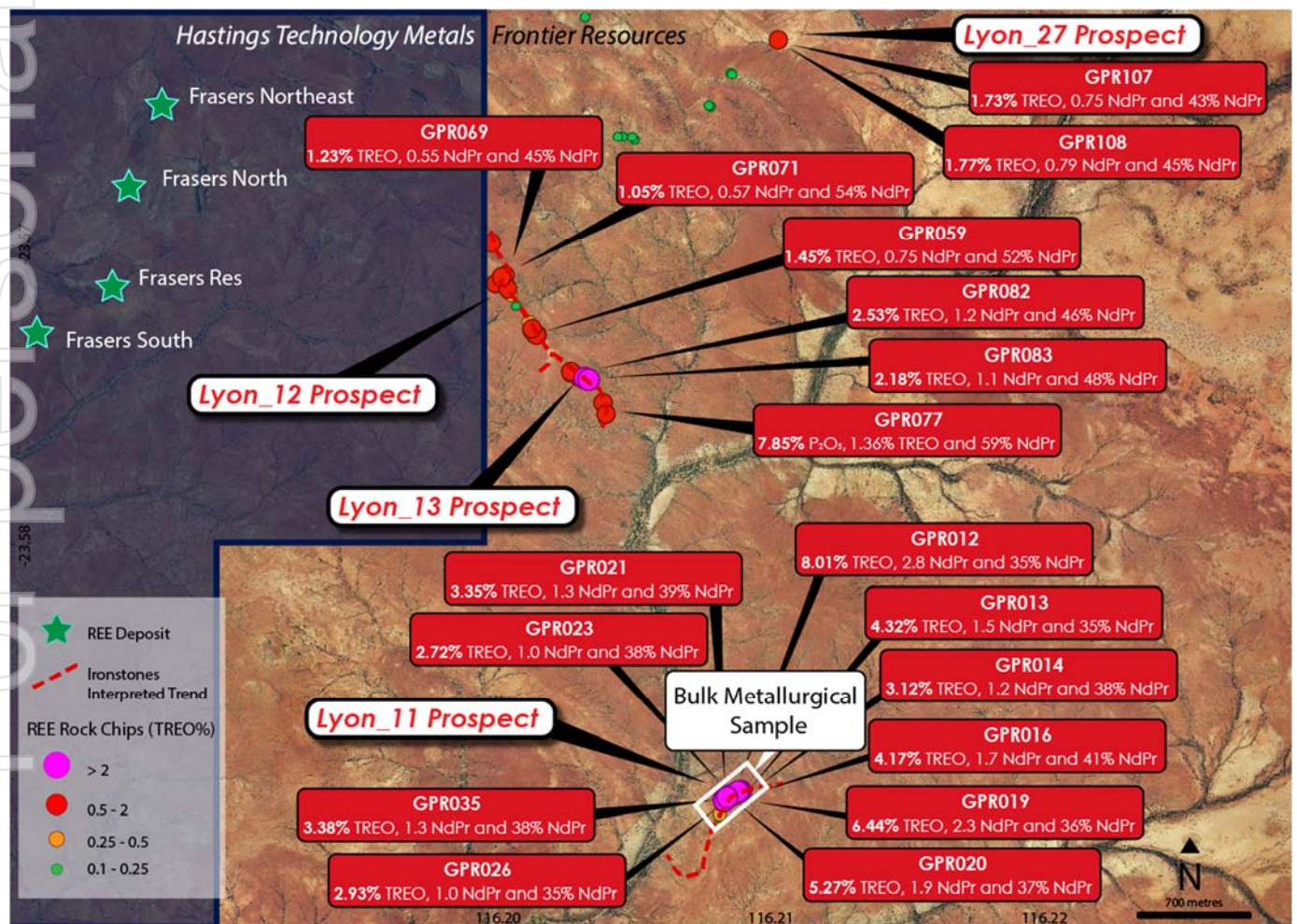


Figure 2. Map showing the location of high-grade rock chip samples at the Lyons Project and the location of mapped outcropping ironstones and their interpreted extensions under shallow cover. The Lyons metallurgical composite sample consisted of ironstone samples from Lyons_11 (GPR012, GPR019 and GPR020).

Gascoyne Rare Earth Element Project & Global Critical Minerals Thematic

The REE-bearing Yangibana ironstones within the Durlacher Supersuite lithology were first targeted by prospectors in 1972 as base metal bearing gossans however, the REE potential of the ironstones wasn't assessed until 1985 and remained underexplored until Hastings acquired the project in 2011. Hastings has since delineated a world-class JORC 2012 Mineral Resource¹ of 27.42Mt @ 0.97% TREO with 0.33% Nd₂O₃+Pr₆O₁₁ and a ratio of 52% Nd Pr:TREO making it one of the highest value REE projects for ore value per kg.

Despite the region's prospectivity for REE's, very limited exploration has been undertaken at the Gascoyne Project. With the use of modern exploration techniques and a renewed focus on REE's there is an exciting opportunity for the discovery of economic REE mineralisation.

There is currently unprecedented demand in the global rare earths sector amid a drive by rare earths magnet-end users to secure responsible and reliable sources of supply. Neodymium and Praseodymium concentrate (NdPr) are vital components used to manufacture permanent magnets used every day in advanced technology products ranging from electric vehicles to wind turbines, robotics, medical applications, digital devices and many other applications.

The increased demand from electrification of transport through EVs and the decarbonisation of the energy sector including wind turbines has created pressure for new supply sources to be brought online rapidly. The spot market price of NdPr oxide is experiencing multi year highs, increasing 45% in Q4 2021².

China has a dominant position in the rare earth supply chain accounting for approximately 60% of rare earths produced and 87% of end use extraction and processing³. Supply chain security and access to critical raw materials remains the most important topic in the sector, with the price of critical materials generally increasing due to strong demand from e-mobility and renewable energy sectors.

It has become widely accepted that to tackle the difficulties in securing the necessary critical materials, there needs to be collective action by national governments, the private sector and on an international front. This was clearly highlighted in the US Wilson Centre Supply Chain Initiative *"The Mosaic Approach: a Multidimensional Strategy for Strengthening America's Critical Minerals Supply Chain"* paper published.

This is further supported by recent announcements made by US Commerce Secretary Gina Raimondo, committing to help finance Australian critical minerals projects through America's export financing arms⁴. Cooperation between the US and Australian governments over the past 18 months has fostered ideal conditions to position Australian raw materials as part of the solution to the US's critical minerals supply chain needs. The Presidential Executive Order No. 13817, the Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals, the Presidential Memoranda on rare-earth supply chains, and directives in the National Defence Authorization Act 2019 are leading US agencies and industrial companies to reassess how they procure rare earths and other critical minerals⁴.

Furthermore, the Australian government has recently announced a nationally significant partnership with Iluka Resources (Iluka) to develop Australia's first fully integrated rare earths

refinery. This project will advance the development of Australia's sovereign critical minerals processing capability by producing separated rare earth oxides here in Australia. The government's \$1.25 billion loan through the Critical Minerals Facility will enable Iluka to establish the Eneabba Rare Earths Refinery in Western Australia⁵. The objective is to ensure a safe, ethical and reliable supply of critical minerals for the future.

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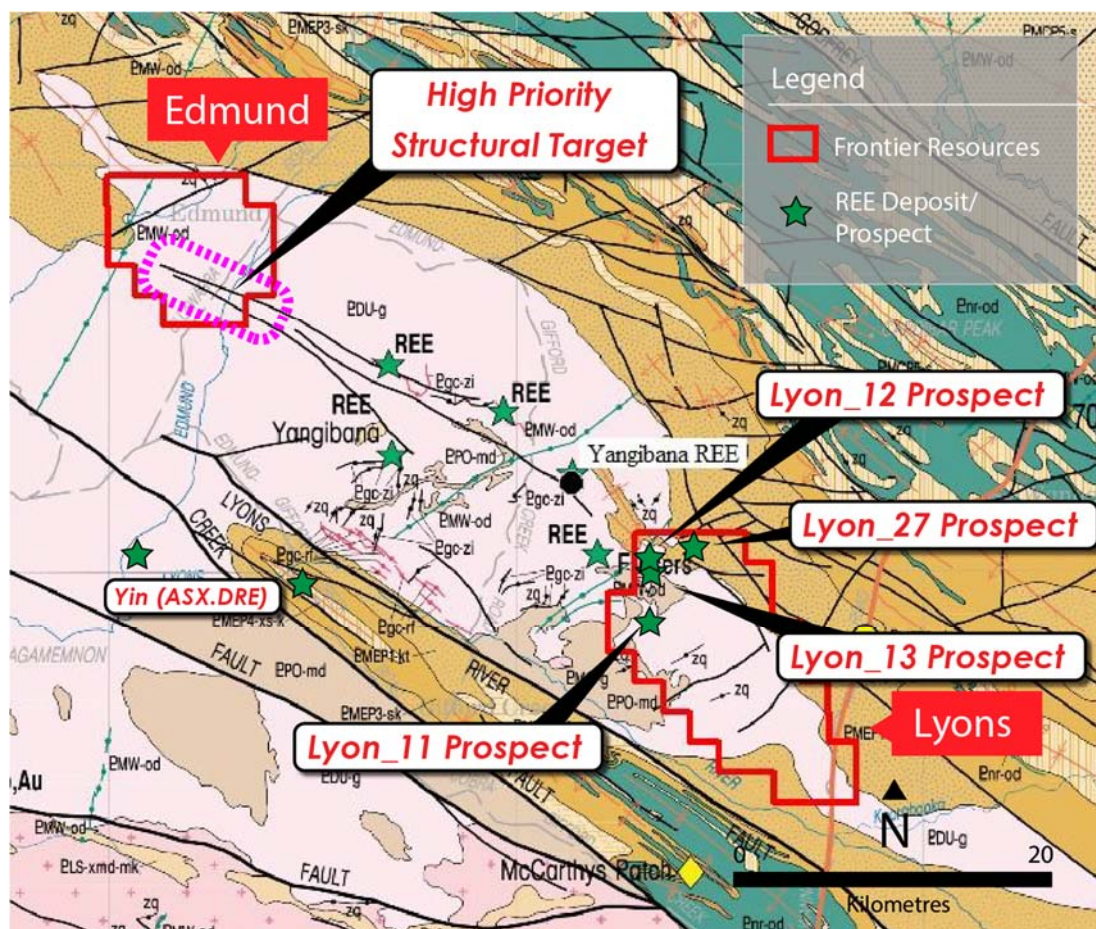


Figure 3. Location of Lyons and Edmund Projects in the Gascoyne, Western Australia, (geology overlay), highlighting the prospective Durlacher Suite of the Gifford Creek Carbonatite Complex, in pink underlying the project areas

This announcement has been authorised for release by the Directors of the Company.

For additional information please visit our website at www.frontierresources.net.au

FRONTIER RESOURCES LTD

The information referred to in this announcement relates to the following sources:

¹ ASX.HAS: 5 May 2021 "Yangibana Project updated Measured and Indicated Resource tonnes up by 54%" [b07ebf9d-03c.pdf \(investi.com.au\)](https://www.investi.com.au/b07ebf9d-03c.pdf). The HAS Resource estimate comprises 4.9Mt @1.01% TREO in the Measured category, 16.24Mt @0.95% TREO Indicated and 6.27Mt @0.99% TREO Inferred.

² [Rare earth project a gem for regional WA | Ministers for the Department of Infrastructure](#)

³ [Executive summary – The Role of Critical Minerals in Clean Energy Transitions – Analysis - IEA](#)

⁴ [US agrees to fund Australian critical minerals projects \(afr.com\)](#)

⁵ [Strategically significant government loan enables development of Australia's first fully integrated rare earths refinery | Department of Industry, Science, Energy and Resources](#)

Competent Person's Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr. Thomas Langley is a consultant of Frontier Resources Limited, and is a shareholder, however Mr. Thomas Langley believes this shareholding does not create a conflict of interest, and Mr. Langley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the format and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Rock Chips <ul style="list-style-type: none">Rock Chips were collected by Gascoyne Geological Services Geologist and submitted for analysis. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration. They are by nature difficult to duplicate with any acceptable form of precision or accuracy.Rock chips have been collected by Gascoyne Geological Services to assist in characterising different lithologies, alterations and expressions of mineralisation. In many instances, several rock chips were collected from a single location to assist with characterising and understanding the different lithologies, alterations and expressions of mineralisation present at the locality.Rock chips were submitted to ALS Laboratories in Perth for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME-XRF30).
Drilling techniques	<ul style="list-style-type: none"><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what</i>	No drilling undertaken.

Criteria	JORC Code explanation	Commentary
	<i>method, etc).</i>	
Drill sample recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	No drilling undertaken.
Logging	<ul style="list-style-type: none"> • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged. 	No drilling undertaken.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>Rock Chips</p> <p>Entire rock chips were submitted to the lab for sample prep and analysis.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	<p>Rock Chips</p> <ul style="list-style-type: none"> • All samples were submitted to ALS Laboratories in Wangara, Perth where 1-3kg rock chips samples were crushed so that >70% of material passes through -6mm, the sample is then pulverised to >85% passing 75 micron. • A 66-gram aliquot of pulverised sample is fused with 12:22 lithium borate flux containing an oxidizing agent, and poured to form a fused

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>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.</i> 	<p>disk. The resultant disk is then analysed by XRF spectrometry specifically for Rare Earths (ALS Method ME-XRF30)</p> <ul style="list-style-type: none"> Lithium borate fusion is considered a total digest and Method ME-XRF30 is appropriate for REE determination. No standards, duplicates or blanks submitted with rock chips. <p>Airborne geophysical data including magnetics and radiometrics (eK, eTh, eU) were collected by MagSpec Airborne Surveys. The survey was flown with a Cessna 206 aircraft. Magnetic data was collected from a G-823A cesium vapour magnetometer using a 50m line spacing and 30m sensor height. Radiometric data was collected from an RSI RS-500 gamma-ray spectrometer of 32L Crystal Volume flown at 30m sensor height and 50m line spacing. All readings (X,Y,Z) were within a 2m accuracy. Traverse Line Direction was East-West.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<p>Rock Chips</p> <ul style="list-style-type: none"> Rock chip and geological information is written in field books and coordinates and track data saved from handheld GPSs used in the field. Gascoyne Geological Services geologist inspected and logged all rock chips. Field data is entered into excel spreadsheets to be loaded into a database.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> All sample locations were recorded with a Garmin handheld GPS which has an accuracy of +/- 5m. GDA94 MGAz50.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<p>Sample spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for a Mineral Resource.</p>
Orientation of data in relation to geological	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> 	<p>At this early stage of exploration, mineralisation thickness's, orientation and dips are not known.</p>

Criteria	JORC Code explanation	Commentary
<i>structure</i>	<ul style="list-style-type: none"> If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	
<i>Sample security</i>	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All geochemical samples were collected, bagged, and sealed by Gascoyne Geological Services staff and delivered to Bennalong Transport in Carnarvon. Samples were delivered directly to ALS Laboratories in Wangara, Perth by Bennalong Transport ex Carnarvon.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	No audits have been completed.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<p>Frontier Resources Ltd entered into a conditional agreement to acquire all of the shares in Dalkeith Capital Pty Ltd (Dalkeith) which holds two granted exploration licences in the Gascoyne Region of Western Australia. The acquisition was completed on 4 January 2022.</p> <ul style="list-style-type: none"> The Gascoyne Project consists of 2 granted Exploration Licenses (E09/2515 and E09/2516). All tenements are 100% owned by Dalkeith Capital. The Gascoyne Project covers 2 Native Title Determinations including the Thudgari (WAD6212/1998) and the Combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli (WAD464/2016). The Gascoyne Project is located over the following pastoral leases; Edmund, Gifford Creek, and Wanna.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historical exploration of a sufficiently high standard was carried out in the region by a few parties including: <p>Hurlston Pty Ltd 1986-1987: WAMEX Report A23584 Newmont 1990: WAMEX Report A32886 Newcrest 1990: WAMEX Report A36887 Desert Energy 2006-2007: WAMEX Reports A78056, A80879</p>
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and 	<ul style="list-style-type: none"> The Gascoyne Project is located within the

Criteria	JORC Code explanation	Commentary
	<i>style of mineralisation.</i>	<p>Gascoyne Province of the greater Capricorn Orogen – the region that records the collision of the Pilbara-Glenburgh Terrane at 2215–2145 Ma (Ophthamian Orogeny) and eventual collision of Pilbara/Glenburgh and Yilgarn at 2005–1950 Ma (Glenburgh Orogeny), the Gifford Creek Carbonatite Complex (GCCC) intrudes the Durlacher Supersuite (including Yangibana and Pimbyana Granites) and the Pooranoo Metamorphics.</p> <p>The c.1360 Ma GCCC is composed of:</p> <ul style="list-style-type: none"> • ~NW striking Lyons River Sills (calcio-, magnesio- and ferrocarnatites) • ~NE striking fenite (alteration) veins • Yangibana Ironstones (REE ore bodies) • Magnetite-biotite dykes <p>• Carbonatites in the region are thought to have been generated from melting of the Glenburgh Orogen-fertilized mantle during reactivation of structures (e.g. Lyons River Fault) at c. 1370 Ma followed by magma ascent along the same structures.</p> <p>• The Gascoyne Project is prospective for Ferrocarnatite hosted REEs.</p>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> ◦ <i>easting and northing of the drill hole collar</i> ◦ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ◦ <i>dip and azimuth of the hole</i> ◦ <i>down hole length and interception depth</i> ◦ <i>hole length.</i> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	No drilling undertaken.
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade</i> 	No drilling undertaken.

Criteria	JORC Code explanation	Commentary
	<p><i>results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	No drilling undertaken.
<i>Diagrams</i>	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> Refer to figures within this report.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> The accompanying document is a balanced report with a suitable cautionary note.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> Suitable commentary of the geology encountered are given within the text of this document.
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Detailed airborne magnetic – radiometric surveys, surface geochemistry and mapping prior to drilling