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ASX Limited
Market Announcements Platform

15 November 2021

Airborne Magnetic-Radiometric Survey Commenced at Gascoyne Project

Highlights:

- **5,189 line-kilometre airborne magnetic–radiometric survey has commenced at the Gascoyne Project covering the entire tenement area**
- **The survey will be flown over the recently discovered outcropping REE ironstone and seeks to identify further prospective ironstones outcropping or under shallow cover**
- **Southern Geoscience Consultants engaged to process the geophysical data**
- **Survey should take approximately 1 week to complete with the results expected in mid December 2021**
- **Large land position with very limited historical exploration covering 230km² of prospective Proterozoic Durlacher Supersuite lithology, host to the adjacent world-class Yangibana Deposit 27.42Mt @ 0.97% TREO[1], exploring for light rare-earth oxides of Neodymium (Nd_2O_3) and Praseodymium (Pr_6O_{11}) critical to the production of permanent magnets with demand set to increase 5x by 2030[2]**
- **Ongoing desktop review and compilation of historical datasets to identify targets and assist in future exploration programs**

Frontier Resources Ltd (ASX: FNT) (**Frontier** or the **Company**) is pleased to announce a significant airborne magnetic-radiometric survey has commenced over two exploration licence applications in the Gascoyne Region of Western Australia that are considered to be prospective for REE's (**Gascoyne Project**).

The detailed survey will be flown with 50m line spacing at a low altitude with sensor height of 30m, which will be a significant improvement on the existing public data flown at 500m line spacing in the 1990's. The survey data is expected to highlight additional REE anomalies and to allow for mapping under shallow cover to trace any ironstones that may be present. This survey data will assist in designing drill programs to commence in the March 2022 quarter.

Mr Brian Thomas, Non-Executive Director commented "It's great to be getting our exploration program underway so soon following our recent discovery by our Technical Consultant, Tom Langley, of ironstone outcrop on our tenure. I'm excited by what other targets may show up from the magnetic-radiometric survey and the ongoing regional data review. I look forward to progressing the Company's existing projects and the growing REE portfolio, exploring for critical metals that can help the world reach targets of being net zero carbon by 2050."

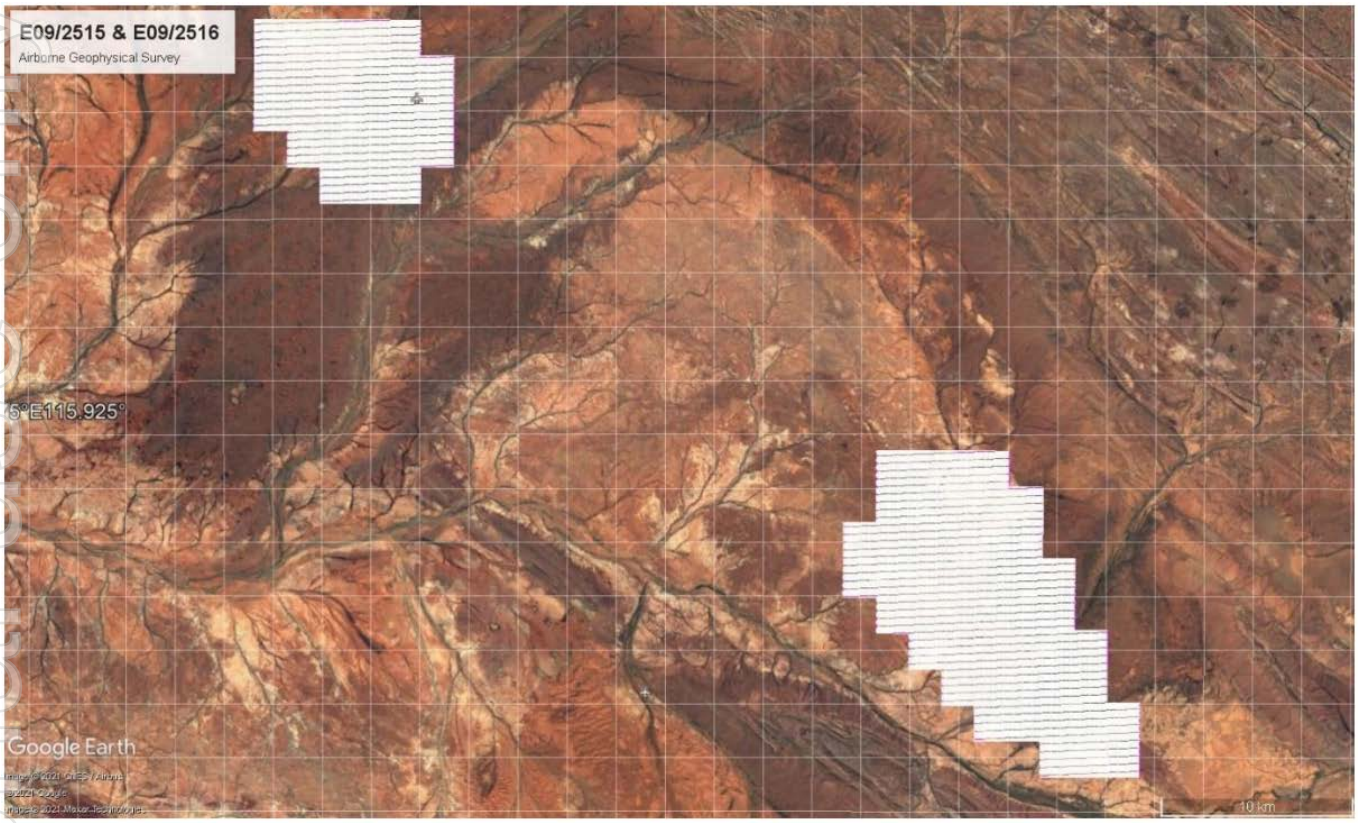

Figure 1. Magnetic-Radiometric Geophysical survey area, with planned 50m flight line spacing with a sensor height of 30m.

Figure 2. MAGSPEC survey airplane Cessna 206

Gascoyne Rare Earth Element Project – Background

The Gascoyne REE Project adjoins the world-class Yangibana Deposit (ASX.HAS ~A$460 million market capitalisation) in the Gascoyne Region of Western Australia, set to be the next REE producer outside of China by 2023. The project area is also proximal to recent discoveries made by Dreadnought Resources at their Mangaroon Project located ~15kms southwest of the Yangibana REE Resource[1] (ASX.DRE ~A$110 million market capitalisation).

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 Technology Metals (ASX.HAS) acquired the project in 2011. Hastings has since delineated a world-class JORC 2012 Mineral Resource[1] of 27.42Mt @ 0.97% TREO with 0.33% Nd_2O_3+Pr_6O_{11} 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, in part due to shallow alluvial cover which has led to the area being overlooked. The southeastern Lyons tenement E09/2515 does have some areas of outcrop at the historic Tabletop Well[3] copper prospect and where the recent ironstone outcrop was discovered.

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. A detailed airborne magnetic-radiometric survey consisting of 5,189 line kilometres flown over the entire tenement area has now commenced. The data gathered from this survey will assist with target definition within the prospective Durlacher Supersuite across the entire project area.

Access into the project area is good with a combination of well-maintained gazetted and station roads located on Edmund, Gifford Creek and Wanna Pastoral Leases which will greatly assist exploration work programs.

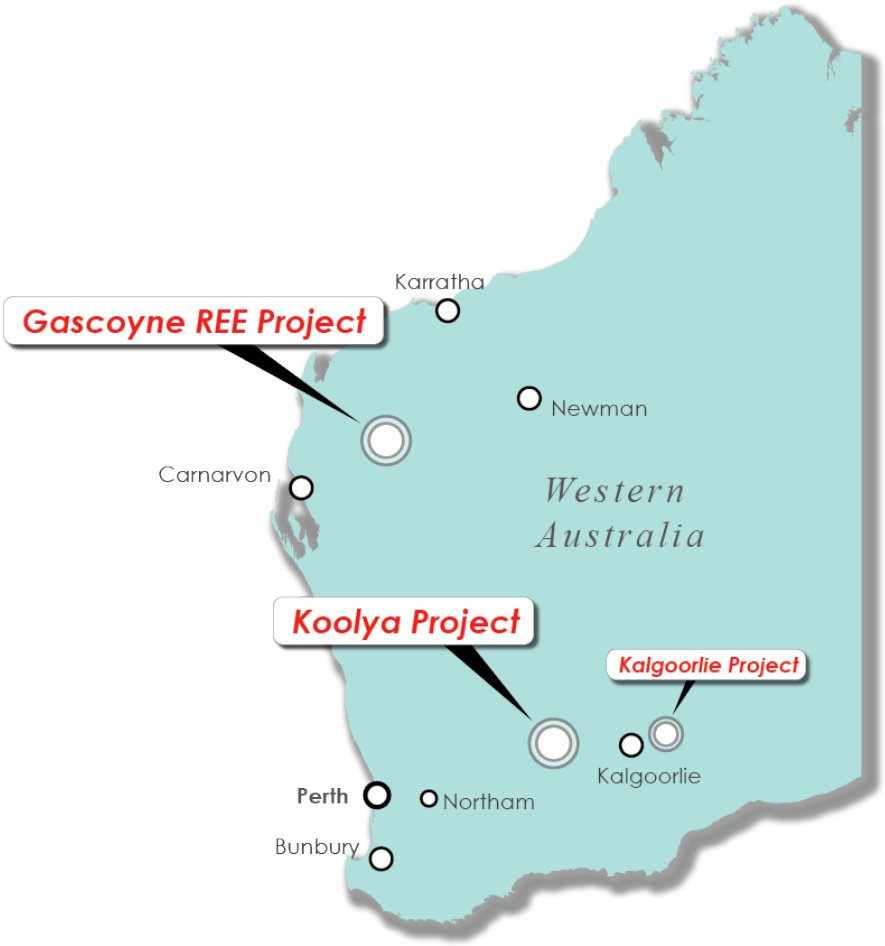

Figure 3. Location Map of the Gascoyne and Koolya Projects in Western Australia.

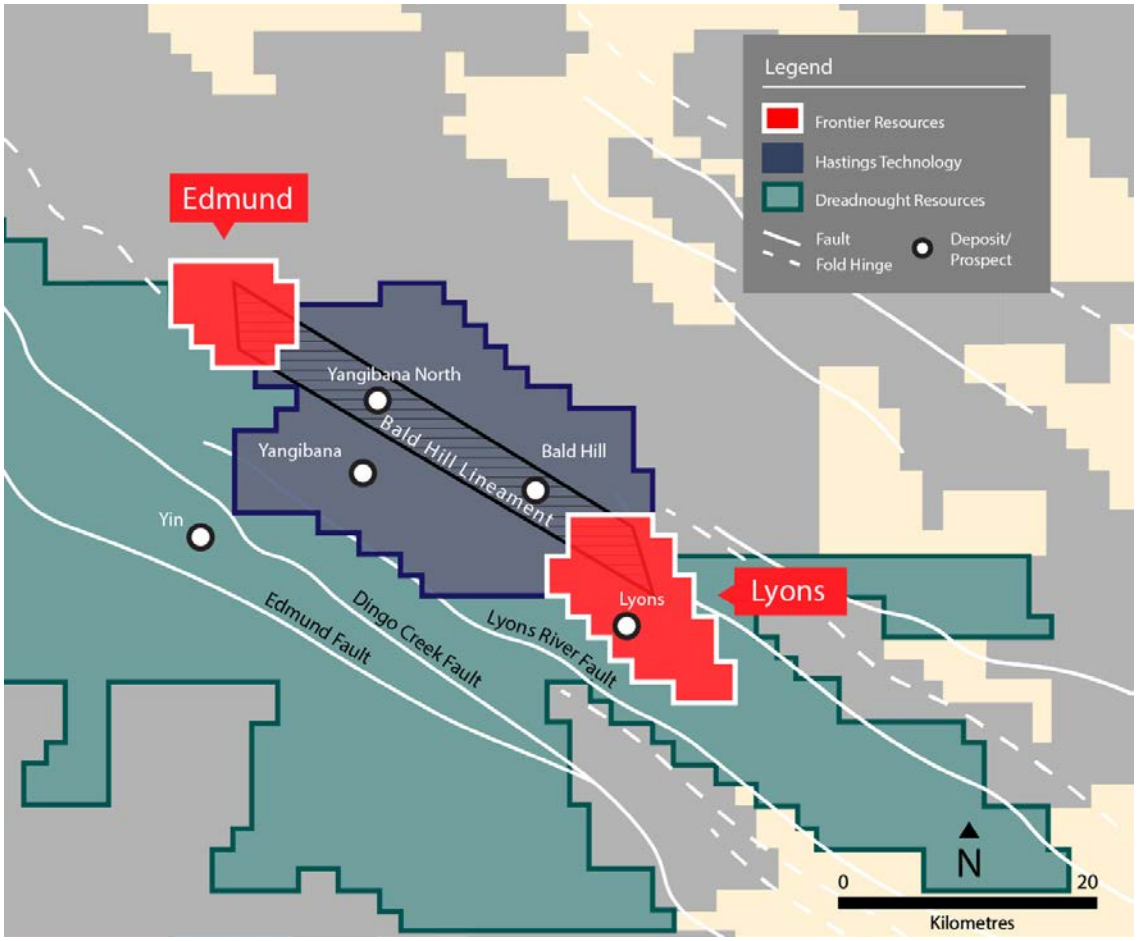

Figure 4. Location Map of the Edmund and Lyons tenements which make up the Gascoyne Project in Western Australia.

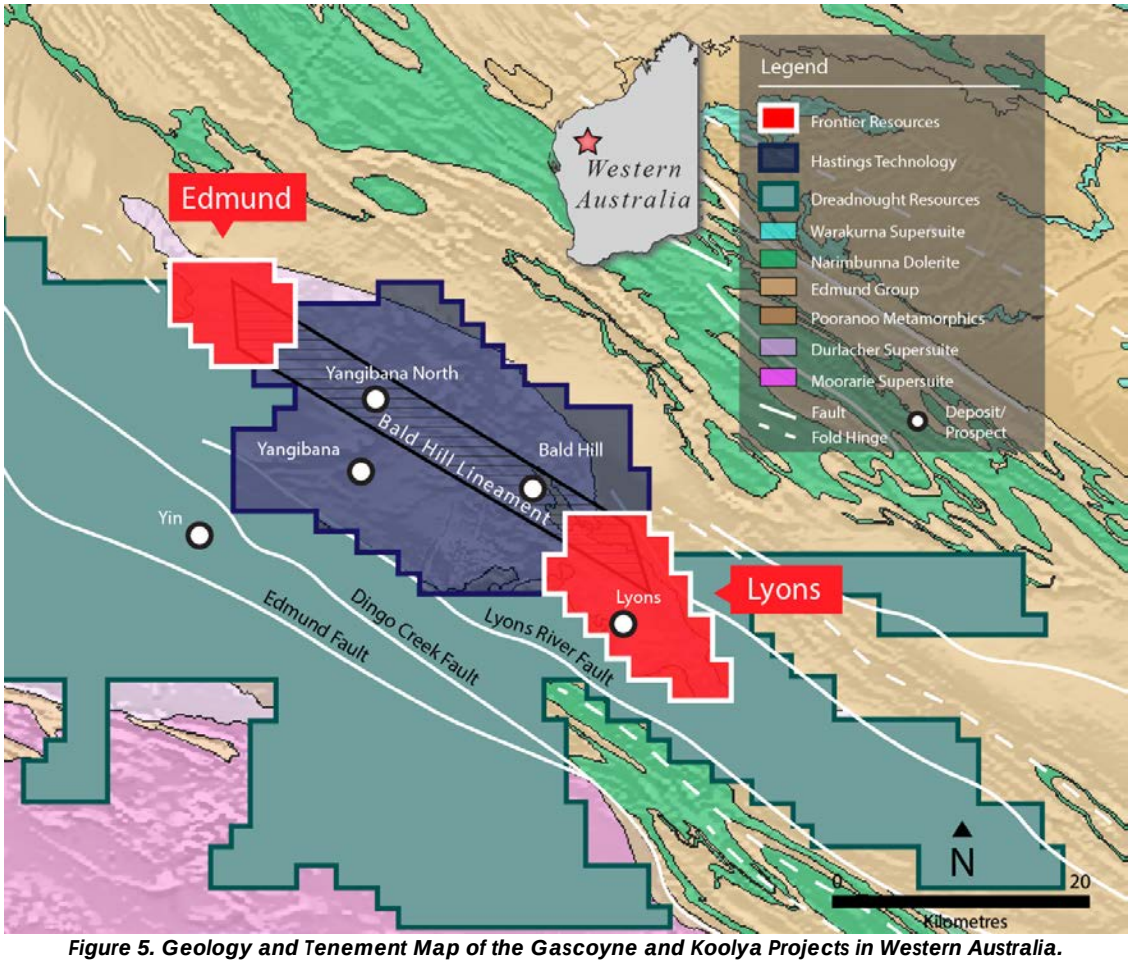

Figure 5. Geology and Tenement Map of the Gascoyne and Koolya Projects in Western Australia.

Gascoyne Rare Earth Element Geology – Background

The Yangibana rare earth element (REE) district consists of multiple mineral deposits/prospects hosted within the Mesoproterozoic Gifford Creek Carbonatite Complex (GCCC), which comprises a range of rock types including calcite carbonatite, dolomite carbonatite, ankerite–siderite carbonatite, magnetite–biotite dykes, silica-rich alkaline veins, fenite, glimmerites and what have historically been called "ironstones". The dykes/sills were emplaced during a period of extension and/or transtension, likely utilising existing structures.

The GCCC sits adjacent to the Lyons River Fault, which has been determined via seismic reflection surveys to extend down to, and offset, the Mohorovičić Discontinuity (Johnson et al. 2013). The Lyons River Fault is a major shear zone that sutured the Neoarchean Glenburgh Terrane with the Archean Pilbara Craton during the 2215 to 2145 Ma Ophthalmia Orogeny (Sheppard et al. 2005; Johnson et al. 2011, 2013)[5], Figure 6. The Lyons River fault system was activated during tectonic events in the Gascoyne Province (Cutten et al., in press; Johnson et al., 2012) and is suggested by F. Pirajno et al. (2014), that in one of these events, at about 1050 Ma, a small pull-apart structure, possibly defined by the Lyons River Fault and the Bald Hill Lineament, was formed on the sites, where the ferrocarbonatites had been previously intruded at ~1075 Ma. This stimulated the re-activation of the carbonatite system, widening the fenitic halo in the country rocks and producing a sinuous carbonatite veins system which eventually was locally altered to the ironstone veins, Figure 7.

The ironstone dykes or "ironstones", as they have historically been called, specifically refer to large (up to several metres wide) dyke-like structures that protrude from the landscape. They are mainly located subparallel to the Bald Hill Lineament and along the eastern and western flanks of the GCCC[5].

The primary ore mineral at Yangibana is monazite, which is contained within ankerite–siderite carbonatite, magnetite–biotite dykes and ironstone units. The ironstones comprise boxwork-textured Fe oxides/hydroxides, quartz, chalcedony and minor monazite and subordinate rhabdophane. The ironstones do not exhibit any primary igneous textures. Most features relate to low-temperature mineral precipitation and include botryoidal banding of Mn oxides and hydrous Fe oxides, such as goethite[5].

Based on petrology, geochemistry and isotopic systematics, the GCCC is considered to have formed via emplacement of evolving, mantle-derived, alkaline magma at mid to upper crustal levels (Slezak and Spandler 2020). The variation in rock types across the complex is interpreted to reflect magma evolution via fractionation (with or without liquid immiscibility), melt wall–rock reaction and hydrothermal alteration (Slezak and Spandler 2020). The REE-rich ironstones of the Yangibana District have spatial associations and similar Nd isotopic compositions to these alkaline igneous rocks[5].

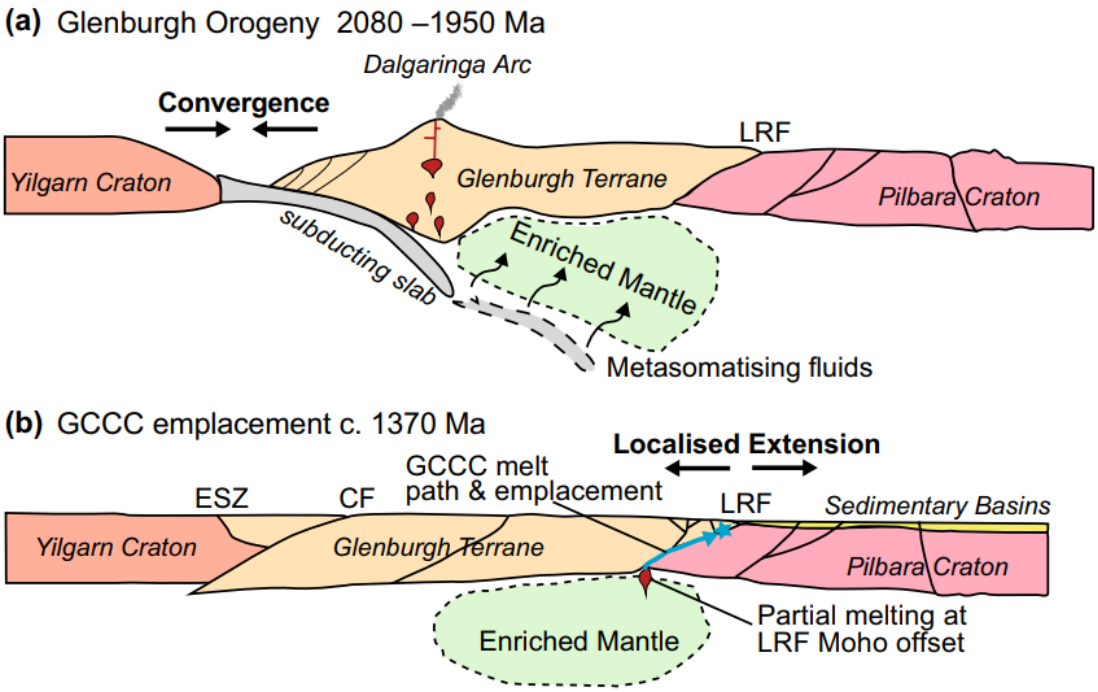

Figure 6. Mantle metasomatism under the Glenburgh Terrance resulting from plate subduction during the Glenburgh Orogeny (2018–1950 Ma). b Localised extension caused minor decompression melting at the Lyons River Fault Moho ofset, creating the alkaline melts that travel along the fault and are emplaced as the GCCC. CF Cardilya Fault, ESZ Errabiddy Shear Zone, LRF Lyons River Fault. Modifed from Johnson et al. (2011, 2013).

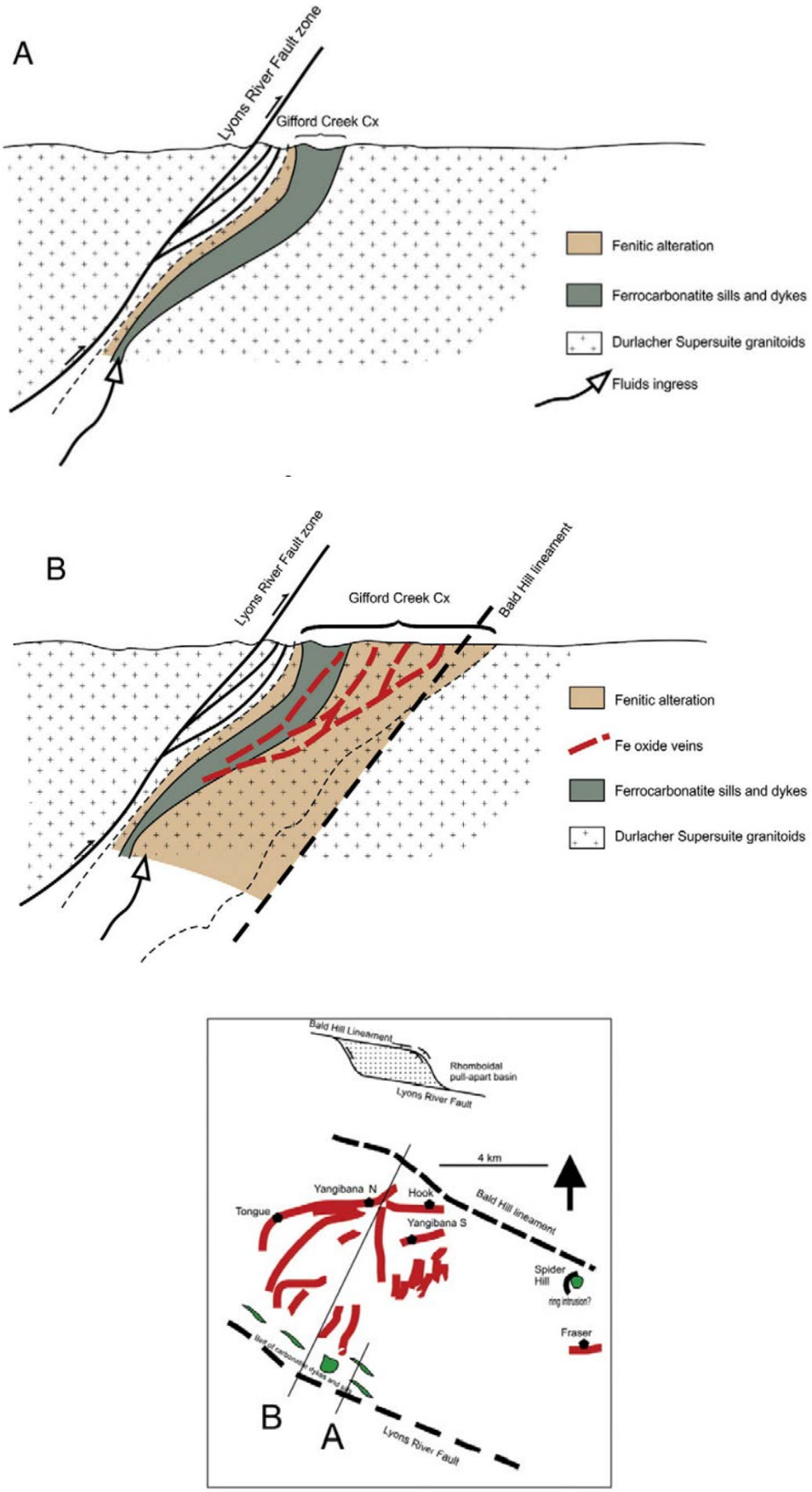

Figure 7. Two-stage model for the emplacement of ferrocarbonatite sills and dykes at ~1075 Ma along Lyons River Fault (A), followed by strike–slip movements, formation of a pull-apart structure and emplacement of carbonatite-ironstone veins swarm at ~1050 Ma (B); bottom panel shows a schematic spatial distribution of the 1075 Ma ferrocarbonatites dykes and sill and the adjacent 1050 Ma Fe oxide veins swarm emplaced in a pull-apart structure formed during re-activation of the Lyons River Fault; lines A and B in this panel schematically represent the two cross-sections above.

Proposed exploration and study activities on the Gascoyne Project

The Company proposes to undertake the following exploration and study activities within 12 months following the completion of the acquisition:

- Further rock-chip, geochemical sampling, and geological mapping across the entire Gascoyne Project;
- A detailed airborne magnetic-radiometric survey of 5,189 line kilometres will be flown over the entire tenement area, due to commence early November 2021; and
- Systematic drill programs of targets identified from the combination of the geophysical survey, geochemical and rock-chip sampling programs, to test the continuation at depth and along strike of any geochemical anomalism and/or geophysical targets.

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

Alec Pismiris
Non-Executive Chairman

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)
[2] Adamas Intelligence September 2020
[3] Minedex Site; Tabletop Well (S0023828), 16km ENE of Gifford Creek Hmsd
[5] Geology and ore genesis of the carbonatite-associated Yangibana REE district, Gascoyne Province, Western Australia, P. Slezak et al. (2020)
[6] The Gifford Creek Ferrocarbonatite Complex, Gascoyne Province, Western Australia: Associated fenitic alteration and a putative link with the ~ 1075 Ma Warakurna LIP, F. Pirajno et al. (2014)