

ASX Release: 23 December 2016

Exploration Update

Highlights:

- **Initial interpretation of geophysical datasets over part of the Lefroy Project yields a number of priority structural targets for early drill evaluation**
- **Statutory land access approvals granted for drilling of targets in Lake Lefroy**
- **Lake drill rig secured with drilling to commence in March quarter 2017**
- **Airborne magnetic survey completed at Lake Johnston to initiate Ni exploration**

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to provide an update on gold and nickel exploration at its Lefroy and Lake Johnston Projects located in Western Australia

Lefroy Project

The acquisition of the detailed ground gravity survey has unlocked another new and important layer of information, and when combined with aeromagnetic data helps to reveal the geological setting beneath the transported cover within Lake Lefroy.

Processing and initial interpretation of the recently acquired detailed ground gravity survey data covering the eastern half of Lake Lefroy together with previous aeromagnetic surveys has highlighted an improved geological and structural setting beneath the lake cover (Figures 1&2). This preliminary interpretation has yielded 7 priority target areas in the lake that are considered to have favourable lithological and structural settings that could host gold mineralisation. The acquisition and advanced use of key geophysical datasets to explore for gold mineralisation beneath the lake cover provides the Company with a mechanism to focus and prioritise evaluation of targets generated.

The additional seven targets generated complement the existing Zanex Prospect, also in Lake Lefroy, where historical (1997) drilling has yielded encouraging gold mineralisation from wide spaced drilling.

To advance exploration on the priority targets within the Company’s tenements covering Lake Lefroy, a Programme of Works (POW) has been approved by the Department of Mines and Petroleum (DMP) and a Heritage Survey was recently completed. The Company has also contracted a specialised purpose-built lake drilling rig with drilling due to commence in February 2017.

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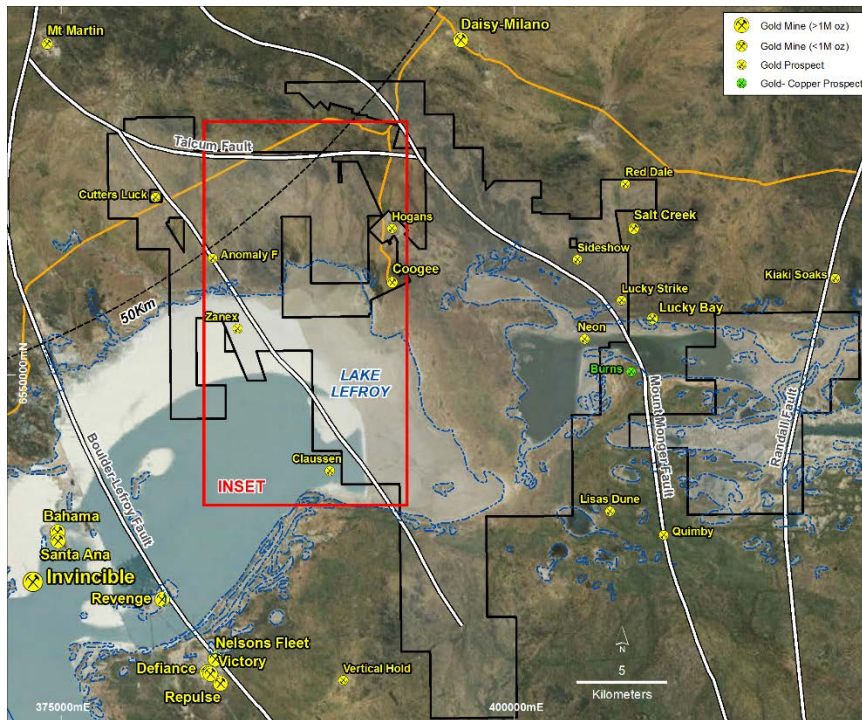


Figure 1 Lefroy Project tenement package and location and extent of geophysical interpretation

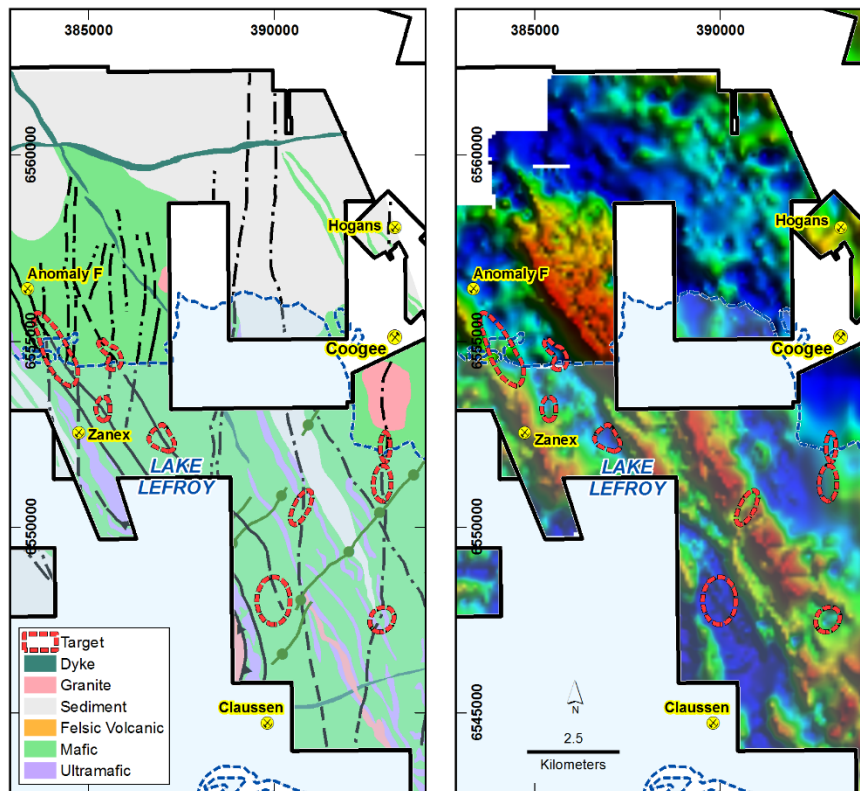


Figure 2 Inset Map-Highlighting geological interpretation on left and residual gravity image on right, both with targets and extent of Lake Lefroy.

Lake Johnston Project

Exploration for nickel has been initiated at the Company's Lake Johnston project located 120km west of Norseman, covering the northern portion of the Lake Johnston greenstone belt which host the Emily Anne and Maggie's Hayes nickel sulphide deposits. The Company has two wholly owned Exploration Licences at Lake Johnston where Lithium Australia NL (ASX:LIT) have the rights to Lithium, and LEX has secured the Au and Ni rights on the adjoining E63/1777 held by LIT. A 50m line spaced aeromagnetic survey was recently completed to cover areas interpreted to host ultramafic rocks that may be prospective for nickel sulphides, and to complement the existing detailed aeromagnetic data. Processing of the survey data with the existing dataset to commence in the March quarter and will provide the basis for follow up interpretation to advance the Ni exploration program. The survey was completed in collaboration with Lithium Australia NL (ASX:LIT).

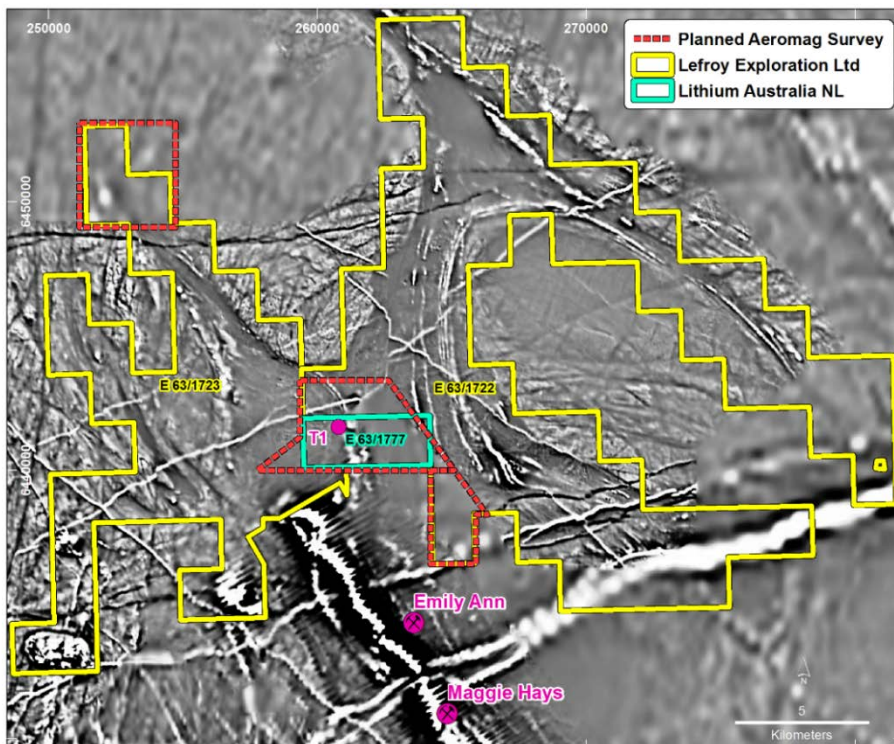


Figure 3 –Lake Johnston tenement package highlighting extent of aeromagnetic survey.

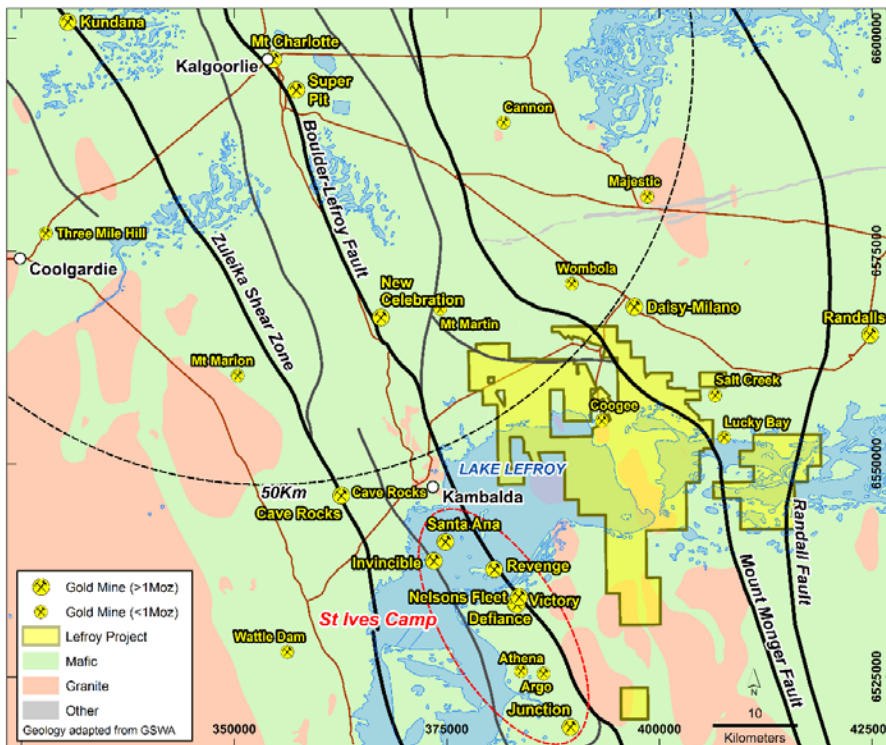
About Lefroy Exploration and the Lefroy Project

Lefroy Exploration is a new WA based and focused explorer. Key Projects include the Lefroy Project to the south east of Kalgoorlie and the Lake Johnston Project 120km to the west of Norseman.

The 100% owned Lefroy Project contains mainly granted tenure covering 547km², located in the heart of the world class gold production area between Kalgoorlie and Norseman. The Project is in close proximity to Gold Fields' St Ives gold camp, which contains the newly discovered Invincible gold mine located in Lake Lefroy, and is also immediately south of Silver Lake Resources (ASX: SLR) Daisy Milano gold mining operation.

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Location of the Lefroy Gold Project relative to Kalgoorlie, Gold Fields St Ives Gold Camp near Lake Lefroy, and major gold deposits.

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The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson and Geoff Pigott, both competent persons who are members of the Australasian Institute of Geoscientists (AIG). Wade Johnson is employed by Lefroy Exploration Limited. Wade has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Wade Johnson consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears. Geoff Pigott is a Non-Executive Director of Lefroy Exploration and has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Geoff Pigott consents to the inclusion in this report of the matters based on his work in the form and context in which it appears.

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