

Exploration Update: RC drilling underway at Lucky Strike

LEFROY EXPLORATION LIMITED

Western Australian Focused
Gold Explorer

ASX Code: LEX

Shares on Issue:
64.5m

Current Share Price:
14.5c

Market Capitalisation:
\$9.3m

Board of Directors
Chairman
Gordon Galt

Non-Executive Directors
Michael Davies
James Beecher
Geoffrey Pigott

Managing Director
Wade Johnson

Flagship Exploration Project
Lefroy Gold Project

Growth Exploration Projects
Lake Johnston Project
Murchison Project

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Key Points

- Reverse Circulation (RC) drilling is underway at the Lucky Strike gold prospect, located 4km south west of Silver Lake Resources' Randall's Processing Plant, south east of Kalgoorlie
- Nine angled holes totalling 850m are targeting the strike extensions to the new gold system discovered from aircore drilling in 2017
- Lucky Strike lies adjacent and parallel to the regional Mt Monger Fault and falls within a 3000m long trend define by wide spaced drilling
- This drilling programme will follow up multiple shallow gold intersections from recent RC drilling including:-
 - 8m at 2.49g/t Au from 23m in LEFR043;
 - 5m at 2.97g/t Au from 58m in LEFR044; and
 - 28m at 1.13g/t Au from 26m in LEFR046.
- The previous RC drilling at Lucky Strike has demonstrated that the gold mineralisation is hosted within multiple highly oxidised Banded Iron Formation (BIF) units



RC drilling at Lucky Strike January 2018
(Hole LEFR028-looking south west)

Further to the ASX announcement of 12 December 2017, the Board of Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce that reverse circulation (RC) drilling has commenced at the Lucky Strike Prospect located approximately 55km to the south east of Kalgoorlie in the Eastern Goldfields Province of Western Australia (Figure 1).

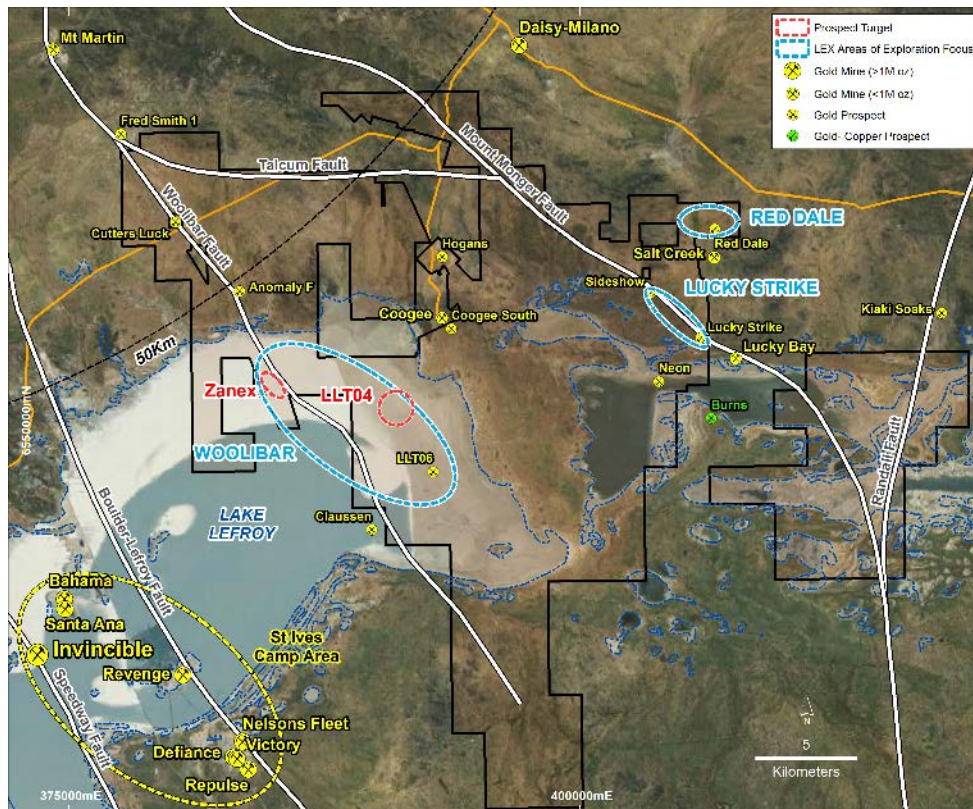


Figure 1 Lefroy Gold Project and the location of Lucky Strike and its proximity to the interpreted Woollibar Fault and two other key areas of active exploration focus by the company.

A focused nine hole RC drilling program has recently commenced at Lucky Strike to evaluate the strike extensions to this new Banded Iron Formation hosted gold system.

Managing Director, Wade Johnson commented; “The commencement of an additional phase of RC drilling at Lucky Strike is an important step to expand the dimensions of this gold system in a unique BIF hosted setting along the Mt Monger Fault. We have made the discovery of this gold system along a 3km trend under cover in 12 months that compliments the gold anomalies we have defined in Lake Lefroy where diamond drilling is underway at Zanex. These outcomes are a testament to the generative exploration principles we have been applying to the Lefroy Gold Project and I look forward to seeing the results of this program.

The Lucky Strike Trend is located approximately 2km to the northwest of the high grade Lucky Bay open pit mined by Silver Lake Resources (ASX:SLR) during 2015 and 4km to the south west of the Randalls Processing Plant operated by SLR (Figure 2). The Company has interpreted that the Lucky Strike Trend shares similar geological and structural settings to the Lucky Bay deposit, that is located approximately 2km’s along strike to the south east (Figure 2).

Reconnaissance early stage air core drilling by the Company since November 2016 has defined this gold mineralised trend hosted within sedimentary rocks over a 3,000m strike length. The geological sequence at Lucky Strike and the mineralisation intersected is considered similar to the Lucky Bay gold deposit. This supports the Company's view of the emergence of a combined 4.5km long gold mineralised structural trend from the Lucky Bay deposit to the northwest, along the Lucky Strike Trend, and coincident with the interpreted position of the Mt Monger Fault

The results from the two earlier aircore drill campaigns returned encouraging near surface oxide gold intersections from the nominal 160m spaced drill sections including **11m at 3.53g/t Au from 60m to End of Hole (EoH) in LEFA136** and 10m at 4.60g/t from 24m to EoH in LEFA171.

In August 2017 a precollared diamond drilling program consisting of 6 holes for a total of 362.5m of core drilling was completed to determine the geometry of the host rock and gold mineralisation. The drilling evaluated three key sections spaced approximately 1,000m apart along the 3,000m gold mineralised trend defined from the earlier air core drilling campaigns.

Drill hole LSRD006 (Figure 3) returned significant multiple narrow high grade oxide gold intersections. The mineralised intervals correspond to a wide zone (approximately 25m down hole length) of highly oxidised Banded Iron Formation (BIF) and siltstone. Significant intersections from LSRD006 include **1.7m at 63g/t Au from 44.7m** (Inc. 0.9m at 107g/t Au) and 0.3m at 10.3g/t Au from 46.6m.

A follow up maiden RC drilling program in November 2017 delivered strong broad gold intersections from three 20m spaced sections drilled that demonstrated strike continuity to the newly defined system (Figure 3). More importantly the re-oriented drilling intersected multiple BIF units that form a package approximately 60m wide within a sequence of black shale, i.e. a much broader host sequence to host gold mineralisation.

The host unit is an altered iron rich sediment, known as a BIF that contains variable amounts of quartz veining. The BIF is within a sequence of fine grained sediments, commonly siltstone, shale and black shale. The BIF is highly magnetic and the results of a recent detailed ground magnetic survey confirm the trend of the unit over a 500m strike length.

Better results from the RC drill program include:-

15m at 0.54g/t Au from 24m in LEFR041

8m at 2.49g/t Au from 23m in LEFR 043

8m at 2.69g/t Au from 58m in LEFR043

5m at 2.97g/t Au from 58m in LEFR044

28m at 1.13g/t Au from 26m in LEFR046

Lucky Strike is part of a group of gold targets identified by LEX within 5km's of the Randalls Processing Plant (Figure 2). These include the Red Dale prospect and the recently announced Capstan anomaly. These targets are a continued key focus for exploration and drilling by the Company.

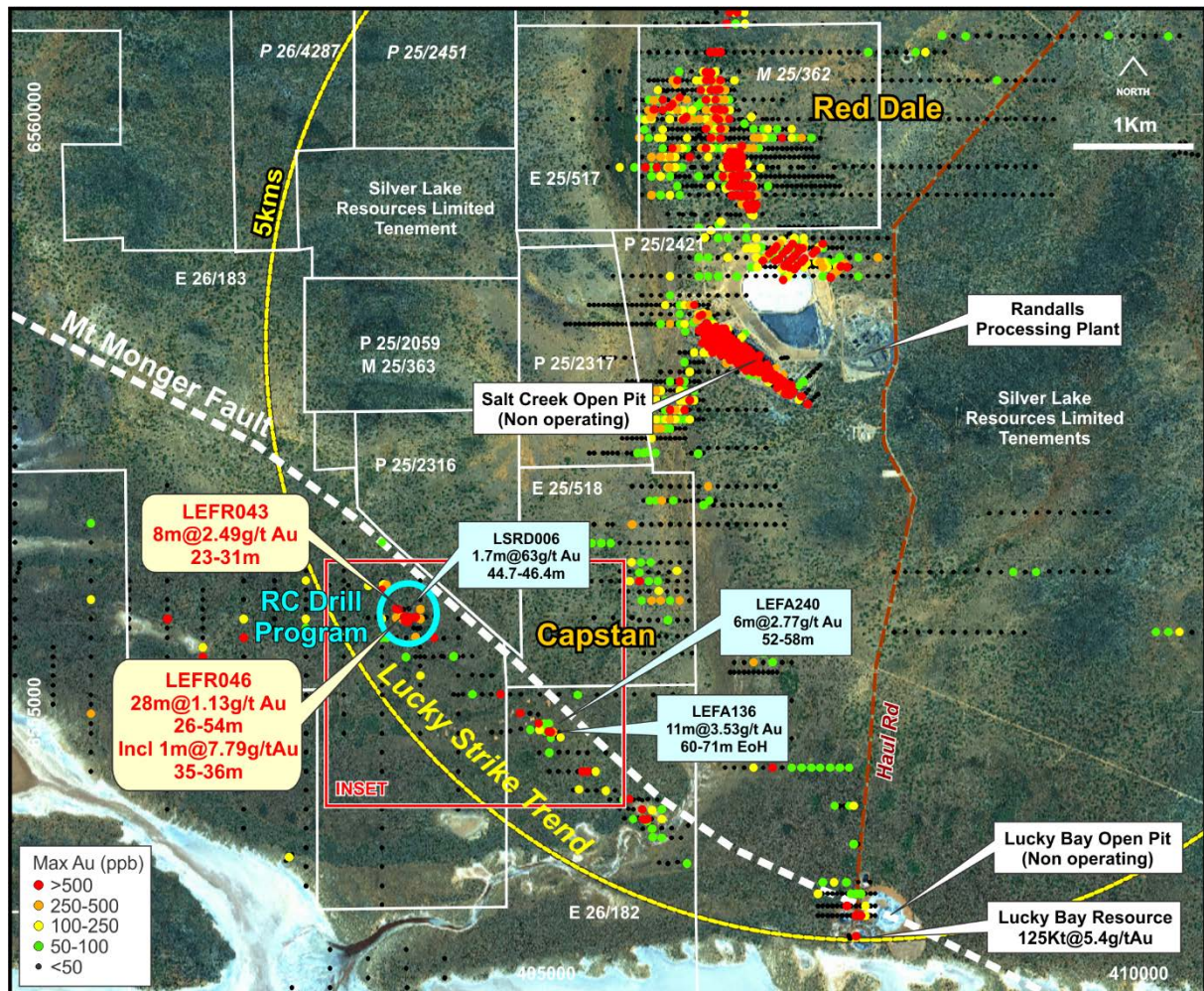


Figure 2 Lucky Strike Prospect location plan highlighting extent of drilling completed with key intersections and proximity to other LEX exploration prospects and Silver Lake Resource's Randall's processing facility.

To further evaluate this new gold system a focused program of angled RC drilling (Figure 3) is underway to evaluate the strike extension to the multiple mineralised BIF units. This program will primarily focus on evaluation of the BIF units within 80m of the surface with nine holes ranging in depth between 50m to 100m and will total approximately 850m of drilling.

Three holes on two 20m step out sections are planned to evaluate the immediate strike extension to the defined system and an additional three holes are planned as a 60m step out to the southeast to test the trend in a favourable geological setting defined from detailed ground magnetics.

The drilling is expected to be completed by the end of January with assay results returned in late February.

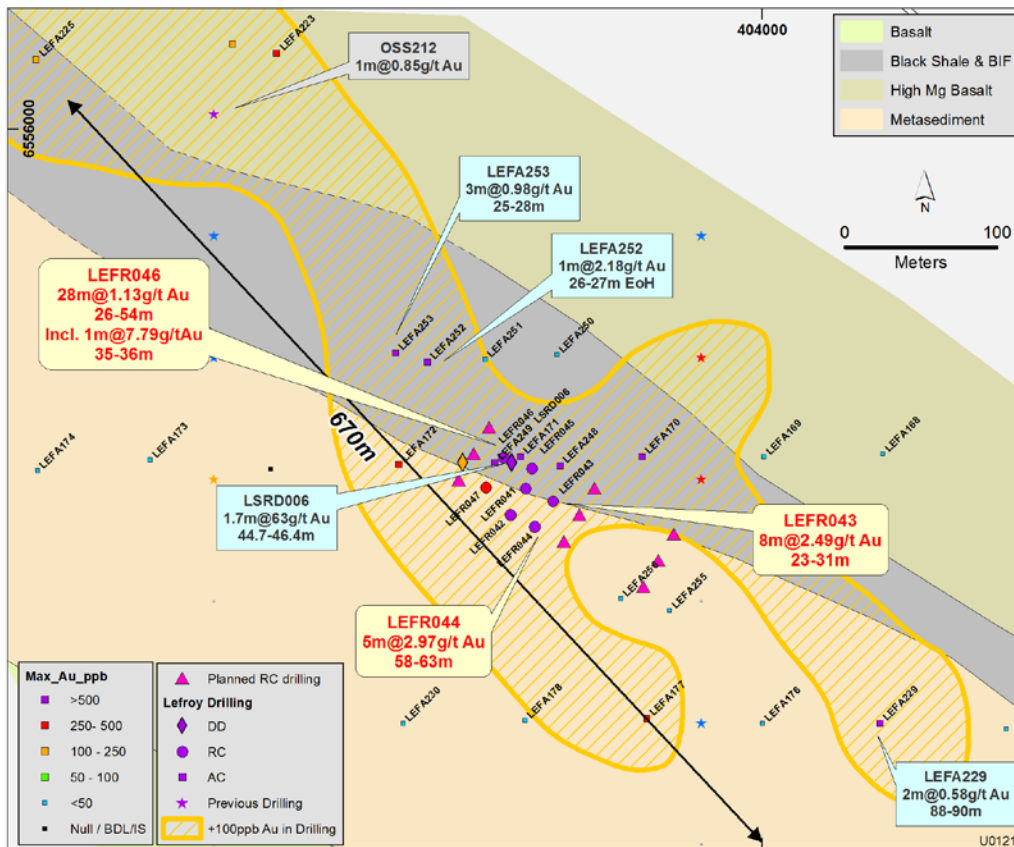


Figure 3 Lucky Strike Prospect drill hole location plan highlighting key gold intersections and planned RC drilling (mauve triangles) and extent of gold anomaly defined by aircore drilling.

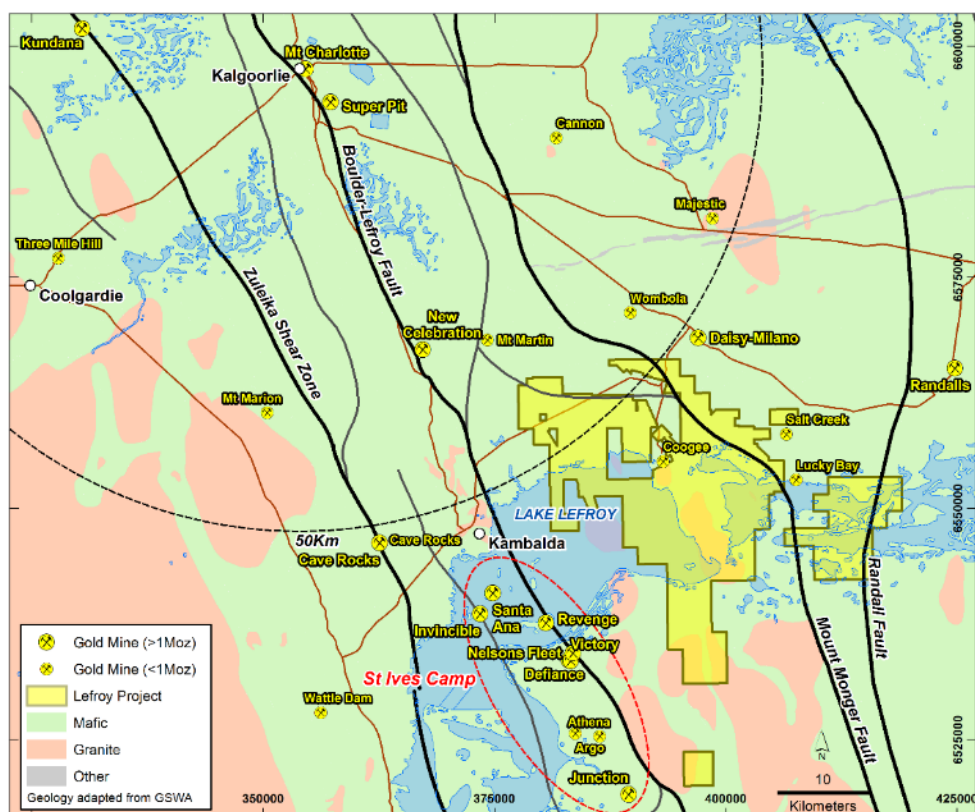


Figure 4 Drilling and sampling on drill hole LEFR029 of the current program, Lucky Strike.

About Lefroy Exploration Limited and the Lefroy Gold Project

Lefroy Exploration Limited is a WA based and focused explorer taking a disciplined methodical and conceptual approach in the search for high value gold deposits in the Yilgarn Block of Western Australia. Key projects include the Lefroy Gold Project to the south east of Kalgoorlie and the Lake Johnston Project 120km to the west of Norseman.

The 100% owned Lefroy Gold 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 Invincible gold mine located in Lake Lefroy, and is also immediately south of Silver Lake Resources' (ASX: SLR) Daisy Milano gold mining operation.



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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Notes Specific-ASX Announcements

The following announcements were lodged with the ASX and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Announcement can be found in the following releases. Note that these announcements are not the only announcements released to the ASX but specific to exploration reporting on the Lucky Strike Prospect at the Lefroy Gold Project.

- Lefroy Exploration Limited-Prospectus: 8 September 2016
- Lefroy Commences Exploration: 24 October 2016
- Lefroy Commences Drilling at Lucky Strike: 17 November 2016
- Managing Directors AGM Presentation: 5 December 2016
- Drilling at Lucky Strike Supports and Extends Gold Trend: 23 December 2016
- Exploration Update: Aircore Drilling to Recommence at Lucky Strike: 29 March 2016
- Significant Intersections at Lucky Strike Prospect: 18 April 2017
- Aircore Drill results enhance the Lucky Strike Trend: 7 July 2017
- Exploration Update: Diamond Drilling Commences at the Lucky Strike Trend: 31 August 2017
- High Grade Gold Mineralisation Intersected at Lucky Strike: 21 September 2017
- September 2017 Quarterly Activities Report: 25 October 2017
- RC Drilling Commenced at Lucky Strike: 23 November 2017
- Significant RC drilling results enhance Lucky Strike gold discovery: 12 December 2017

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson a competent person who is a member of the Australian 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.