Exploration Update-Drill Program to Advance Lucky Strike

- A step out RC drilling program is scheduled to commence in early June at Lucky Strike to evaluate the strike and plunge extensions to the significant gold intersection of 17m @3.58g/t Au in hole LEFR132.

- The LEFR132 result is one of the highest gram-meter intersections to date from Lucky Strike and supports the interpretation of a south east plunge to the BIF hosted gold mineralisation.

- Analyses of cores from the four diamond drill holes, three of which are EIS co funded, have not returned any significant gold results. The holes have, however, provided important geological data for future targeting of the BIF and sulphide altered basalt.

- Further work on the information from these holes will be done, to enhance the geological understanding of the controls on gold mineralisation at Lucky Strike under a research project in conjunction with the University of Western Australia.

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to advise the market that a step out drilling program is scheduled to commence at the Lucky Strike Prospect in early June. A 5-hole step out program of reverse circulation (RC) drilling is proposed to evaluate the along strike and down plunge extent of the strong gold mineralisation hosted by Banded Iron Formation (BIF) intersected in hole LEFR 132 in May 2019.

Lucky Strike is located within a granted Mining Lease that falls within the Eastern Lefroy tenement package, that is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km south east of Kalgoorlie.

The LGP is referenced in two packages i.e.

- Eastern Lefroy covering 226km² of wholly owned tenements including Lucky Strike, Red Dale, Havelock, Hang Glider and other sub-projects along or adjacent to the regional Mt Monger fault; and

- Western Lefroy JV tenements covering 372km² adjoining the St Ives gold camp that are subject to a Joint Venture agreement with Gold Fields Limited (“Gold Fields”). A large aircore drilling program is underway by Gold Fields on tenements covering Lake Lefroy.
**Lucky Strike**

Lucky Strike is located approximately 35km north east of Gold Fields St Ives processing plant and 5km south west of the Randalls Processing Plant operated by Silver Lake Resources (ASX: SLR). Gold mineralisation at Lucky Strike is hosted within multiple north west trending Banded Iron Formation (BIF) units. Lucky Strike is approximately 5km along strike to the northwest of the high-grade Lucky Bay open pit, mined by Silver Lake Resources (ASX: SLR) during 2015. The gold mineralisation at Lucky Bay is also hosted within BIF.

A dual drilling program of 14 holes comprising ten (10) reverse circulation (RC) drill holes and four (4) RC pre-collared diamond holes (extensions or tails to RC holes) was recently completed at Lucky Strike (LEX:ASX release 13 May 2019). A standout gold mineralised zone was intersected in hole LEFR132, i.e. 17m at 3.58g/t Au from 129m including 2m at 11.8g/t Au from 132m.

This interval is hosted within highly oxidised and quartz veined BIF. The intersection is interpreted as being the 100m down plunge extension of the high grade mineralisation intersected in hole LEFR120 (Figure 1). Importantly, the intersection in LEFR132 is one of the strongest gold intercepts at Lucky Strike (+60gram metres) and potentially demonstrates a strengthening of the gold tenor to the south east and down plunge.

Subsequent to the RC drilling, a four (4) hole diamond drilling program was completed totaling 624m. Three of these holes are part funded through the Western Australian State Government’s Exploration Incentive Scheme (EIS) (refer LEX:ASX release 2 June 2018).

The diamond holes (LSRD010 and LSRD012) were drilled to evaluate the down dip projection of the BIF hosted gold system in the central part of Lucky Strike. In addition, the holes were designed to penetrate the footwall basalt to provide a wider appreciation of the geology and explore for new mineralisation. Diamond tails (extensions) were completed on LEFR120 and LEFR132 to test the lower BIF position and penetrate the footwall basalt contact (refer LEX:ASX release 13 May 2019).

Three of the holes (LSRD012, LEFR120 and LEFR132) intersected the lower BIF unit and the footwall basalt contact on or about the expected positions and discovered a strongly sulphidic alteration zone within the basalt in contact with shale. Assay results from the diamond drilling have been received, with no significant intersections being reported from either the lower BIF unit or the sulphide altered basalt.

The fundamental focus of exploration at Lucky Strike, which is the BIF hosted gold mineralisation, remains the focus for the next round of RC drilling with the aim of delivering an initial resource that can be developed rapidly, given that the Lucky Strike area is covered by an existing Mining Lease.
The relationship between the strong BIF hosted gold mineralisation in LEFR 132 and the adjacent sulphide altered basalt is unclear. The adjacent sulphide altered basalt, is considered by the Company to be part of the larger Lucky Strike system and thus could host gold mineralisation in the right structural position(s) along strike or at depth.

To advance the geological understanding, and to assist with ongoing target generation both at Lucky Strike and the district, the Company has initiated a focused research project with the Centre of Exploration Targeting (CET) at the University of Western Australia (UWA). The research has commenced with detailed geological logging of the Lucky Strike diamond drill core.

**Next Steps**

The Company has secured an RC drill rig and drilling is scheduled to recommence in early June at Lucky Strike. This program is designed to evaluate the along strike and down plunge continuity of the BIF hosted gold mineralisation in LEFR132. The program will involve an 80m step out drill section along strike of LEFR132 comprising four 40m spaced deep RC holes. An additional hole will be drilled to evaluate the down dip projection of the mineralisation in LEFR132.

A total of five holes will be drilled for approximately 1000m. Results from the program are expected in late June.

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Figure 1 Lucky Strike Schematic Long Section highlighting approximate pierce points of proposed holes
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 and covers 598km² 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. The Project is divided into the Western Lefroy package, subject to a Farm-In Agreement with Gold Fields and the Eastern Lefroy package (100% Lefroy owned). The Farm-In Agreement with Gold Fields over the Western Lefroy tenement package commenced on 7 June 2018. Gold Fields can earn up to a 70% interest in the package by spending up to a total of $25million on exploration activities within 6 years of the commencement date.

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The following announcements were lodged with the ASX and further details (including supporting JORC Reporting Tables) for the drill results 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 RC and diamond drilling results at Lucky Strike at the Lefroy Gold Project.

- 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
- RC Drill Results Enhance Lucky Strike Gold Discovery: 12 December 2017
- Exploration Update: RC Drilling Underway at Lucky Strike: 25 January 2018
- Drill Results Extend Gold Mineralisation at Lucky Strike: 14 February 2018
- March 2018 Quarterly Activities Report: 27 April 2018
- High Grade Gold Intersected at Lucky Strike: 16 May 2018
- Lucky Strike Update Successful EIS grant: 2 June 2018
- High Grade Gold Mineralisation at Lucky Strike: 15 June 2018
- Lucky Strike Drilling Update: 3 October 2018
- Exploration Update: RC drilling commenced at Lucky Strike: 19 November 2018
- Drilling at Lucky Strike enhances Oxide Gold Zone: 3 December 2018
- High Grade Results Continue to Enhance Lucky Strike: 7 January 2019
- High Grade Results Expand Lucky Strike Footprint: 6 March 2019
- Strong Gold Intersection Extends Lucky Strike: 13 May 2019

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.