

## Exploration Update

# Drilling Accelerated in Lake Lefroy

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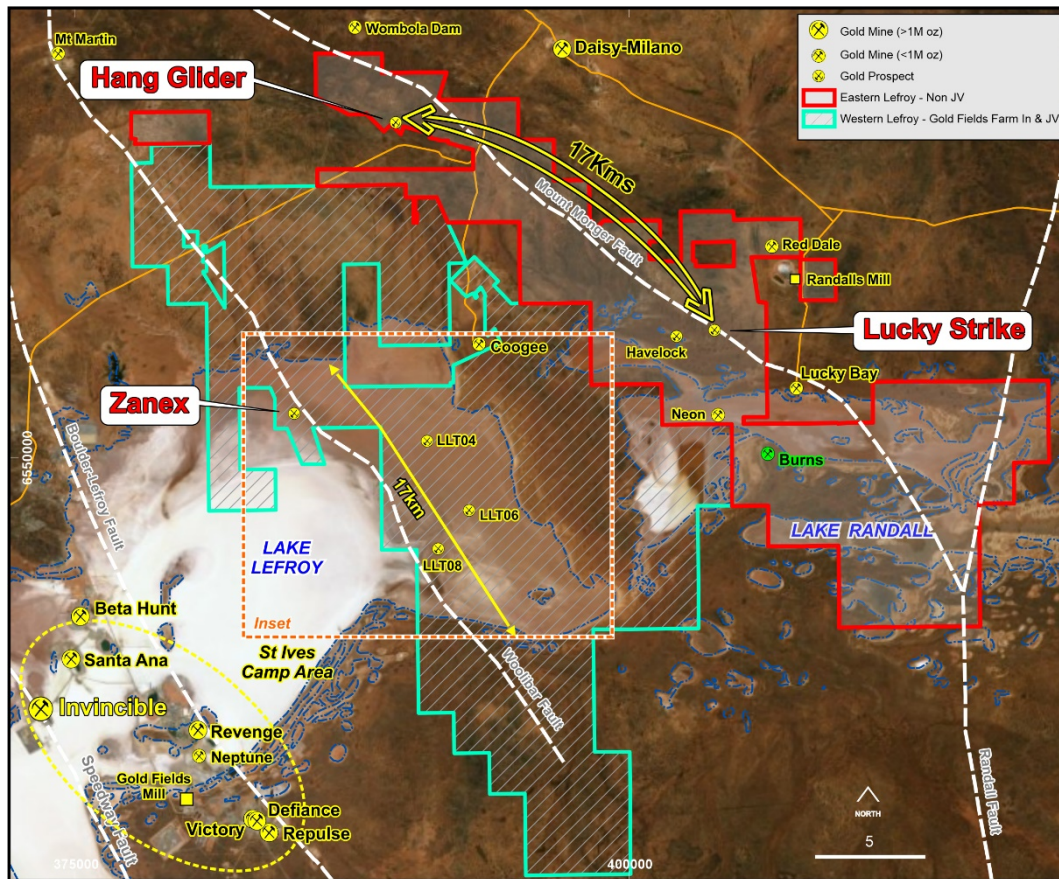
- Diamond drilling is under way to accelerate and support the 9000m multi-target drilling program that commenced in July on Lake Lefroy by JV partner Gold Fields
- The first diamond hole is well underway to evaluate the LLT08 target generated from wide spaced aircore drill results beneath transported cover
- The combined RC and Diamond drill program is evaluating six large targets hosted within a sequence of rocks similar to that hosting the gold deposits at the +10Moz St Ives Gold Mine, 15km to the west
- The similar sequence of rocks beneath Lake Lefroy, combined with the multiple large gold anomalies from earlier geochemical drilling enhances the prospectivity of this 100km<sup>2</sup> area covered by lake sediments for primary bedrock gold mineralisation
- The gold anomalies for this current phase of drilling are distributed over a 15km strike length in Lake Lefroy, with the largest being a linear 7km trend known as Eastern Shoreline where previous wide spaced shallow geochemical drilling has intersected:
  - 6m @1.53g/t Au from 88m in SAL1533
  - 5m @1.85g/t Au from 84m in SAL1741
- Gold Fields are embarking on an AUD \$6million exploration effort over the next 9 months to meet their expenditure commitment of AUD\$10million by 7 June 2020 and earn a 51% interest in the joint venture
- The current phase of drilling is expected to be completed in October with validated results due in November

Lefroy Exploration Managing Director, Wade Johnson said *“the addition of a second drill rig and the commencement of diamond drilling in Lake Lefroy to accelerate exploration is exciting news. The multiple large regolith gold anomalies over a prospective stratigraphic rock package in the vast area of Lake Lefroy requires the drill-based commitment and experience that than Gold Fields can bring. We are very supportive of the exploration methodology being undertaken by our partner and keen to see the outcome from this phase of drilling”*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to report an update to the multi target drill program that Gold Fields Limited (NYSE: GFI) (“Gold Fields”) commenced in July 2020 on the Company’s tenements over Lake Lefroy (Figure 1). The program is a follow up to the extensive foundation AC drilling that commenced in late January 2019 and part of the \$25million Farm-In and Joint Venture (JV) agreement between Lefroy and Gold Fields that commenced in June 2018.

Gold Fields has completed the \$4million minimum exploration spend and is required to fund an additional \$6million for AFY2021 to earn a 51% interest in the Western Lefroy Joint Venture (WLJV) (refer: LEX ASX release 29 June 2020)

The tenements form part of the Western Lefroy tenement JV package that cover 372km<sup>2</sup> adjoining the +10Moz St Ives gold camp (Figure 1). Western Lefroy is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km south east of Kalgoorlie. The Company is actively exploring the non-JV Eastern Lefroy that includes priority prospects along or near to the Mt Monger Fault where a major auger drilling program is underway.



**Figure 1** Lefroy Gold Project tenement package highlighting the Gold Fields Farm in & JV Western Lefroy package, proximity to Gold Fields St Ives and the non-JV Eastern Lefroy Project. Refer to inset Figure 2 for drill program detail.

## Program Update

Gold Fields commenced a 9000m reverse circulation (RC) drill program in July 2020 to evaluate six key targets generated in Lake Lefroy (refer LEX ASX release 27 July 2020). Each target area (Figure 2) will be drilled by one or more traverses of angled deep holes (+200m) to gain a greater appreciation of the primary (fresh) bedrock.

To accelerate and support the RC drilling program a diamond drill rig has commenced and is well underway on the first hole at target LLT08. Planned drill hole depths are variable but the current hole will be approximately 400m deep.

The drill core from the diamond drilling will provide valuable geological, geochemical and structural information to integrate with the ongoing development of the geological framework beneath Lake Lefroy. This new information will then be used to refine and add targets to the existing portfolio and drill program.

The current drilling program will continue with the two drill rigs and is expected to be completed in October 2020. Validated results and drill hole data are provided to the Company on a quarterly basis by Gold Fields. The first batch of validated results are expected in early October.

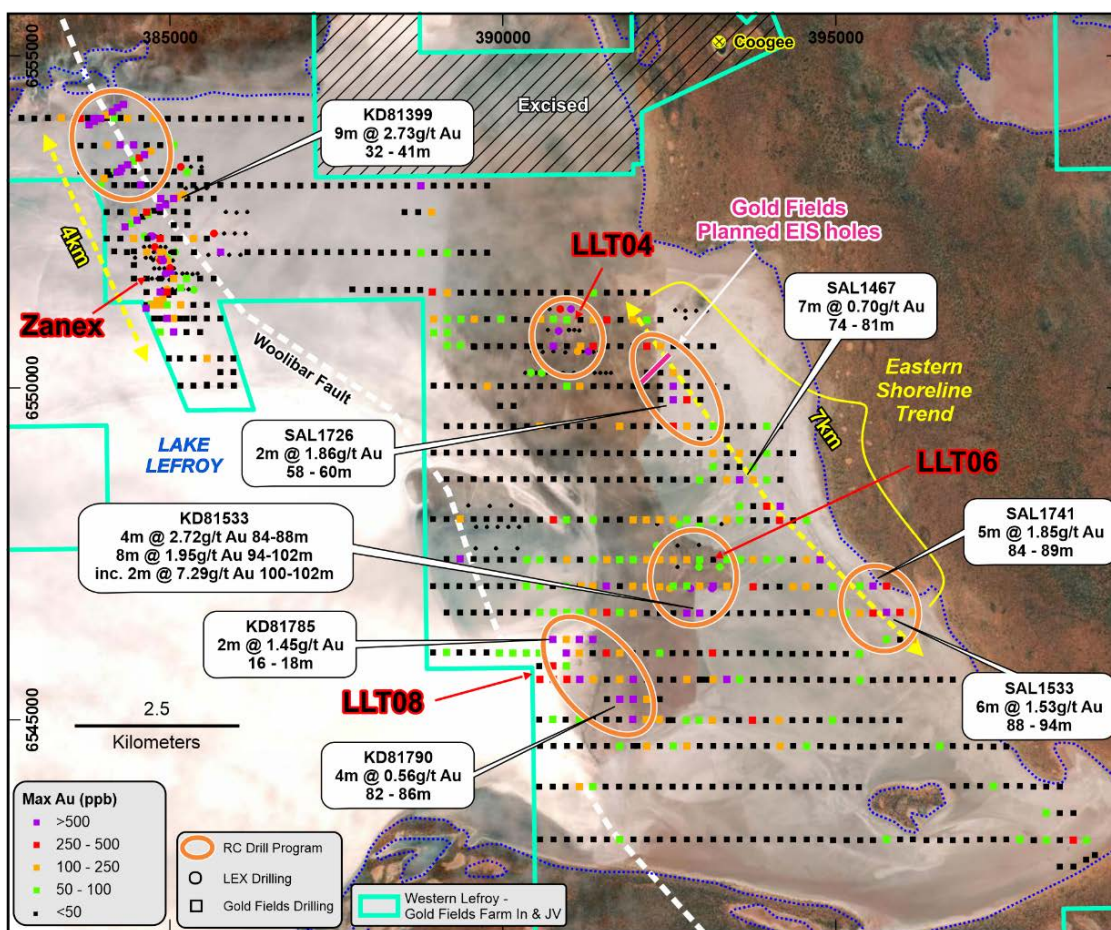


Figure 2 Plan of drill holes and priority RC drill targets within the Western Lefroy JV in Lake Lefroy

## ***Program Background***

Gold Fields commenced the major full field aircore (AC) drilling program in late January 2019 (refer: LEX ASX release 31 January 2019). That initial program involved completing approximately 350 vertical holes spaced 200m apart on traverses 1km apart to cover most of the JV tenure in Lake Lefroy using a specialised lake drilling rig.

In August 2019 Gold Fields completed the full field aircore (AC) drilling program on tenements within Lakes Lefroy and Randall with 776 vertical air core holes totaling 40,421m being completed. The program yielded foundation geological and geochemical information that has been interrogated in conjunction with the geophysical data to deliver specific drill targets for deeper drill testing and hence termed foundation drilling.

The results of that foundation program yielded multiple new gold anomalies in Lake Lefroy and expanded the footprint of the anomalies identified by the Company during its 2017 lake drilling campaign. These include the Zanex, LLT04 and LLT06 prospects and the new Eastern Shoreline trend (Figure 2).

A follow up AC program of 66 holes for 4300m was completed in April 2020 to further evaluate seven target areas (refer: LEX ASX release 29 June 2020). That program yielded encouraging results including 5m @ 1.85g/t Au from 84m to end of hole (EOH) in SAL 1741 along the growing Eastern Shoreline trend and outlined a new large gold anomaly known as LLT08, that has a strike length of 1500m and a width of 1000m

Systematic compilation and interrogation by Gold Fields of the data captured from the foundation AC drilling and detailed geophysical surveys completed during 2019 has outlined six priority targets within the WLJV in Lake Lefroy for initial reverse circulation drilling (Figure 2).

Importantly, detailed and thorough interpretation of the multi-element data collected from the end of hole (EoH) from each of the foundation AC holes, combined with geological observations has established a comprehensive understanding of the basement geology beneath the lake surface to assist target ranking. This litho-geochemistry or geochemical fingerprinting has confirmed that the rocks beneath Lake Lefroy are similar to the rocks hosting the multiple gold deposits at the +10Moz St Ives Gold Mine, 15km to the west.

The generative work and subsequent target ranking during the past 6 months has yielded six priority targets for initial wide spaced RC deeper drill testing of the regolith gold anomalies. These are LLT08, LLT06, LLT04, Eastern Shoreline (2) and Zanex North and depicted on Figure 2. The multiple targets are stretched over a 15km strike length and all within Lake Lefroy. The targets have been assessed and ranked according to observed geology, multi-element geochemical signature, geophysical response (aeromagnetism and gravity), tenor of gold anomalism and host rock geochemical signature that shares an affinity with the host rock sequence at St Ives.

The Eastern Shoreline trend (Figure 2), that has a strike length of 7km, is the largest of the six regolith gold anomalies. The better results from the AC drilling include:

- **6m @1.53g/t Au from 88m in SAL1533**
  - **5m @1.85g/t Au from 84m in SAL1741**
-

The gold intersection in SAL1741 was recorded in the April 2020 program (refer: LEX ASX 29 June 2020) comes from the southern end of the trend and is supported by an earlier intersection of 6m @1.53g/t Au in SAL1533, located 400m to the south. Two key target areas have been outlined along this trend for RC drilling. The Eastern Shoreline trend will be further evaluated by four 400m EIS Co funded diamond drill holes later in the year (refer: LEX ASX release 29 June 2020).

### ***Background to the Western Lefroy JV***

The Western Lefroy tenement package is a Joint Venture with Gold Fields which commenced on 7 June 2018 (ASX: LEX 7 June 2018). Gold Fields can earn up to a 70% interest in the Western Lefroy tenements by spending up to a total of AUD\$25million on exploration activities within 6 years of the commencement date. This includes a minimum expenditure requirement of \$4 million within 2 years before Gold Fields can elect to withdraw.

Gold Fields has met the minimum exploration commitment of \$4million before withdrawal. This was a requirement of the Stage 1 earn in commitment to sole fund \$10million to earn a 51% interest in the joint venture. Gold Fields are required to fund an additional \$6million for AFY2021 to earn that 51% WLJV interest.

Gold Fields is globally diversified gold producer with nine operating mines in Australia, Peru, South Africa and West Africa (including the Asanko JV), as well as one project in Chile. It has a total attributable annual gold-equivalent production of 2.2million ounces, attributable gold-equivalent Mineral Reserves of 51.3Moz and Mineral Resources of 115.7Moz. Mining assets in Australia include a 100% interest in the St Ives, Agnew and Granny Smith mines in the Eastern Goldfields of Western Australia, with a combined annual production of approximately 935koz. Gold Fields also has a 50% interest in the Gruyere mine with Gold Road Resources (ASX: GOR) also in the Eastern Goldfields.

Gold Fields commenced exploration on Western Lefroy in July 2018 involving multi-disciplinary ground and airborne geophysical surveys (gravity and magnetics) primarily located on or near Lake Lefroy. Those surveys built upon the data collected by the Company in 2017 to deliver a foundation detailed geophysical dataset used for target identification.

To complement this foundation geophysical data, Gold fields commenced a large full field aircore drill program on Lake Lefroy within the Western Lefroy JV tenements between January and August 2019.

This announcement has been authorised for release by the Board



Wade Johnson

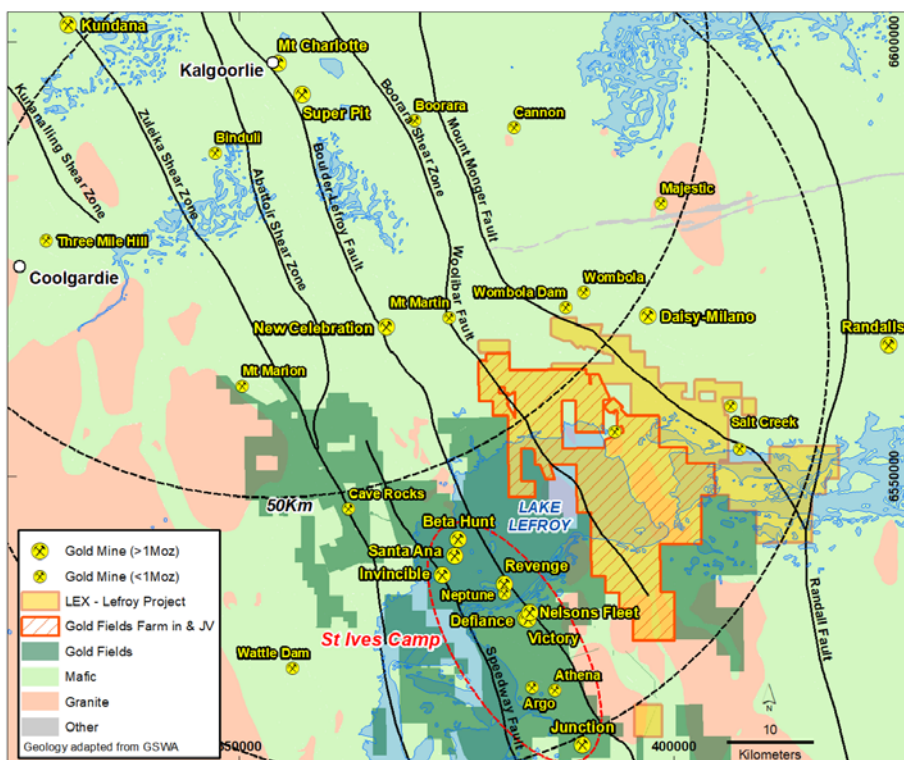
Managing Director

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## 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 searching 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 621km<sup>2</sup> 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.



Location of the Lefroy Gold Project relative to Kalgoorlie and the Western Lefroy tenement package subject to the Gold Fields joint venture.

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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 exploration by the Company on the Zanex, LLT04, LLT08 and LLT06 Prospects in Lake Lefroy at the Lefroy Gold Project.

- Lefroy Exploration Limited-Prospectus: 8 September 2016
- Managing Directors AGM Presentation: 5 December 2016
- Initial Drilling at Lake Lefroy completed: 9 March 2017
- New Anomalies on Lake Lefroy: 3 April 2017
- March 2017 Quarterly Activities Report: 28 April 2017
- June 2017 Quarterly Activities Report: 27 July 2017
- Drilling Extends gold anomalies along the Woolibar trend: 20 June 2017
- September 2017 Quarterly Activities Report: 25 October 2017
- December 2017 Quarterly Activities Report: 25 January 2018
- Gold Fields Commences Drilling on Western Lefroy JV: 31 January 2019
- Drilling Extends Two Gold Trends Under Lake Lefroy: 15 April 2019
- Drilling Continues to Deliver Gold Mineralisation Under Lake Lefroy: 29 May 2019
- Drilling Extends the Zanex Gold Trend in Lake Lefroy: 11 June 2019
- Drilling by Gold Fields Enhances New Gold Prospect in Lake Lefroy: 8 July 2019
- Further Results Reinforce LLT06 Gold Prospect in Lake Lefroy: 6 August 2019
- Aircore Drilling Underway in Lake Lefroy: 26 March 2020
- Large Gold Anomalies Confirmed at the Western Lefroy JV: 29 June 2020
- Major Multi-Target RC Drill Program Underway in Lake Lefroy: 27 July 2020

*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.*

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