28 April 2022



# March 2022 Quarterly Activities Report

#### **LEFROY EXPLORATION LIMITED**

Western Australian Focused
Gold Explorer

**ASX Code: LEX** 

Shares on Issue: 147M

**Current Share Price:** 

31c

**Market Capitalisation:** 

\$45.6m

**Board of Directors** 

Chairman Gordon Galt

Managing Director Wade Johnson

Non-Executive Director Michael Davies

#### Flagship Exploration Project Lefroy Gold Project

- Fostore Lefra

- Eastern Lefroy
- Western Lefroy JV

**Growth Exploration Projects** 

Lake Johnston Nickel Project Glenayle Nickel Project

# **Australian Registered Office**

Level 3, 7 Rheola Street West Perth, 6005

E: info@lefroyex.com T: +61 8 9321 0984 F: +61 8 9226 2636 ARBN: 052 123 930

www.lefroyex.com

## **HIGHLIGHTS**

Exploration during the March 2022 Quarter included multiple drilling programs evaluating targets at and near the Burns Au-Cu prospect at Eastern Lefroy, supported by the ongoing FFAC drilling at Western Lefroy by JV partner, Gold Fields.

#### **Eastern Lefroy**

#### **Burns**

- Significant Au Cu results were received from a 3-hole RC program at Burns with hole LEFR320 intersecting multiple intervals of mineralisation totalling 111m including an impressive intercept of
  - 64m @ 2.83 g/t Au & 0.34% Cu & 1.25g/t Ag from 118m including
  - 37m at 4.23 g/t Au & 0.44% Cu & 1.65 g/t Ag from 126m
- Wide intersections of gold were also returned from aircore drilling in Lake Randall with the best intercepts located 140m to the north of LEFR320, including:
  - 16m @ 3.79 g/t Au from 20m including 8m at 7.31 g/t Au from 20m in hole LEFA1088, and
  - 24m @ 2.86 g/t Au from 16m including 16m at 4.04 g/t Au from 20m in LEFA1089
- The combined drill results support the Company's interpretation that Burns is host to a large Au-Cu intrusion related mineral system, that remains open at depth and along strike.
- A +1000m co-funded EIS diamond drill hole is scheduled to commence in May to target the down plunge position of the highgrade Au-Cu zone in addition to the broader system.

#### Western Lefroy Farm In (WLFI)

 Gold Fields continued with the 46,000m land based Full Field Aircore (FFAC) program that remains ongoing. Diamond drilling is scheduled to evaluate a target identified at Paddy's Secret.

#### Corporate

- The Company secured \$0.8 million Farm-In and Joint Venture with SensOre Yilgarn Ventures Pty Ltd at Marloo Dam
- The Company had \$5.1m in cash and equivalents and zero debt as of 31 March 2022.

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#### INTRODUCTION

#### Overview

The Board of Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or the "Company") is pleased to provide its report on exploration activities during the March 2022 Quarter. Lefroy is an exploration company taking a systematic generative exploration approach at the Eastern Lefroy subproject within the greater flagship Lefroy Gold Project ("LGP") to discover high-value gold and gold-copper deposits.

#### Lefroy Gold Project (LGP)

The Lefroy Gold Project is wholly owned by the Company and is located approximately 50km to the southeast of Kalgoorlie in the Eastern Goldfields Province of Western Australia (Figure 1). The commanding, semi-contiguous, granted land package covers 607km² immediately east of and adjoining the world class +10Moz St Ives Gold camp, operated by Gold Fields Limited (NYSE: GFI) ("Gold Fields"), and is immediately south of the high-grade Mt Monger gold centre operated by Silver Lake Resources Limited (ASX:SLR) ("Silver Lake"). Four gold processing operations are strategically located within 50km of the project and provide commercial options for processing any gold resources discovered.

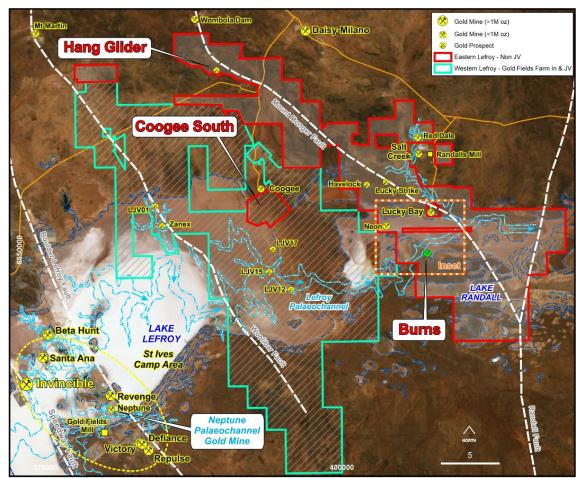
LGP is referenced in two packages, i.e.

- Eastern Lefroy covering 235.6km<sup>2</sup> of wholly owned tenements (Figure 1) including Lucky Strike, Red Dale, Hang Glider Hill, Havelock, Burns and other sub-projects along or near the regional scale Mt Monger fault, also including Coogee South, and;
- Western Lefroy Joint Venture ("WLJV") tenements (Figure 1) covering 372km² adjoining the Gold Fields tenements that make up the St Ives mining operation. Gold Fields can earn up to a 70% interest in the LEX tenements by spending up to a total of \$25million on exploration activities within 6 years of the commencement date of 7 June 2018

The main focus of exploration by the Company in Eastern Lefroy during the quarter was at the priority Burns Gold-Copper Prospect ("Burns Au-Cu Prospect") located within the Non-JV Eastern Lefroy sub project (Figure 1). This involved the completion of multiple aircore drilling programs evaluating the broader geological and geochemical footprint of Burns out onto Lake Randall, and RC drilling at and immediately adjacent to the Burns area itself.

At Western Lefroy Gold Fields continued the massive land based Full Field Aircore (FFAC) drilling program and two heritage surveys in conjunction with the Ngadju and Marlinyu Ghoorlie Native Title groups over priority areas in advance of drilling.





**Figure 1** Lefroy Gold Project showing extent of the Eastern and Western sub projects, proximity to the St Ives and Daisy Milano gold mines and the extent of the Lefroy Palaeodrainage that extends from St Ives to Burns and Lake Randall. Refer to Figure 2 for the inset and detail to the exploration at Burns.

#### **EXPLORATION ACTIVITIES**

#### Eastern Lefroy Gold Project (LEX 100%)

The Eastern Lefroy project is a semi contiguous package of wholly owned tenements that cover approximately 37km of strike along and straddling the regional scale Mt Monger Fault (Figure 1). The Mt Monger Fault is considered to be structurally analogous to other major regional faults in the Kalgoorlie terrain (e.g., Boulder-Lefroy, Zuleika, Randall) that are likely a primary control to gold mineralization. The Company considers the Mt Monger Fault to be similarly prospective to host large gold deposits adjacent to its interpreted position, however the area lacks a significant degree of exploration.

The Company has identified three priority centres, or hubs along the Mt Monger Fault trend where greenfields exploration for gold is being focused. These hubs are ranked according to the level of prior exploration activity, gold anomalies identified as noted below, and the structural setting.

- P1- Lake Randall Exploration Hub: -Generative Exploration (Burns)
- P2- Lucky Strike Exploration Hub: -Advanced Exploration (Havelock, Lucky Strike)
- P3- Hang Glider Hill Exploration Hub: -Early-Stage Exploration (Hang Glider, Coogee South)

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During the March 2022 Quarter the Company continued to focus field activities on the Lake Randall Exploration Hub, completing a staged aircore drilling program designed to test the broader limits of the Burns mineral system and surrounding geology (commenced in December 2021), subsequent to the strong gold copper discovery intersection recorded in hole LEFR260 at the Burns Cu-Au Prospect in February 2021.

The March 2022 Quarter programs included:

- The recommencement in January 2022 of an early stage aircore drill program on Lake Randall totaling 301 holes to evaluate multiple geophysical targets within the periphery and parallel to the Burns Corridor. Plus, an additional 30 aircore holes also on Lake Randall within 250m of the Burns Au Cu prospect to infill and follow up recent gold intersections, and;
- 2. An RC drill program comprising.
  - 9 RC holes designed to evaluate 1.5 km of strike along the Burns palaeochannel following on from the new mineralisation discovered in hole LEFR307, and;
  - 3 angled RC holes at the Burns Au Cu prospect which tested 20 metres north and south of discovery hole (LEFR260) to further understand the geometry of the high-grade Au Cu zone in advance of planning a deep +1000 metre diamond hole, to target the intrusion related mineral system at depth.

## **Burns Au-Cu Prospect**

The Burns Au-Cu Prospect lies within the Lake Randall Exploration (LRE) Hub, which is immediately southeast of the linear trending Lucky Strike-Havelock-Erinmore banded iron formation (BIF) trends (Figures 1 & 2) and west of the Mt Monger Fault. The Burns prospect is situated on the eastern margin of a large interpreted felsic intrusion, termed the Burns Intrusion. The intrusion does not outcrop and is represented by a distinctive annular aeromagnetic and gravity geophysical signature (refer LEX ASX release 15 September 2020).

A maiden 22-hole RC drill program completed in Jan-Feb 2021 intersected a spectacular gold and copper interval in hole LEFR260 containing 38m @ 7.63g/t Au & 0.56% Cu from 134m. The results from that RC program provided the geological and geochemical data that highlighted the unique geological characteristics of Burns and the stepping block to continued exploration activity.

The broad high-grade gold mineralisation is hosted within hematite-magnetite-biotite-chalcopyrite-pyrite altered diorite porphyry (refer LEX ASX release 22 February 2021) that intrudes high magnesium basalt. This porphyry, termed the Eastern Porphyry, is open to the north and south, and its extent has been defined, on multiple drill sections, by foliated basalt (footwall basalt). The copper and gold mineralisation hosted by both the diorite porphyry, basalt and massive magnetite veins is considered to be a new and unique style of Au-Cu mineralisation near Kalgoorlie, within a land position dominated by LEX.

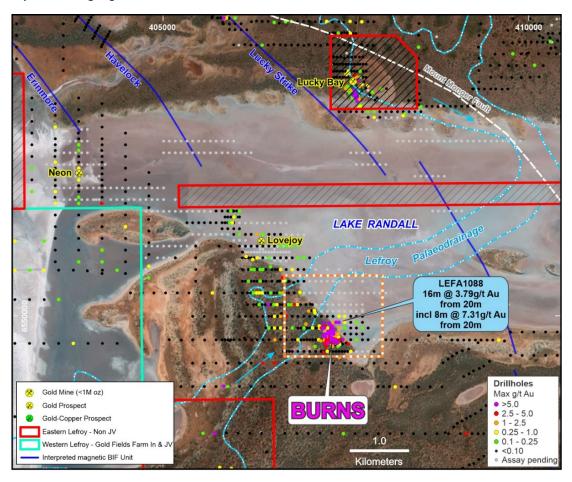
One of four known cross-cutting diorite porphyries is strongly alkalic and known as the Burns Alkalic Porphyry (BAP), which the Company considers to be an important component in the genesis of the Au-Cu mineralisation. Analysis of Au, Cu and molybdenum (Mo) 3D metal models, sourced from an extensive multi-element drill database collected over the Burns project since January 2021, provided an enhanced interpretation of the geometry of the Burns mineral system, suggesting a north trending

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and south plunging zone of Au, Cu, Ag +/- Mo which encloses a higher grade north trending Au Cu zone. Within the high-grade zone, the Au Cu mineralization has an indicative strike length of 240 metres, extending from the Burns discovery hole to multiple Au aircore intersections on Lake Randall where the intrusion is interpreted to 'daylight'. Of these aircore holes, a best intersection of 24m at 2.86g/t Au from 16m was intersected in LEFA1089 (LEX ASX release 22 February 2021), hosted within diorite porphyry and obscured by transported overburden

During the March 2022 Quarter, the Company completed two key drilling programs to explore the broader geological and geochemical footprint of Burns in order to place the system in a regional context. An aircore program comprising 301 aircore holes was completed on Lake Randall as part of the early- stage program (which commenced in December 2021), including an additional phase of infill aircore drilling for a total of 30 holes. A follow-up RC program was subsequently completed, including 9 RC holes at the Burns Paleochannel, and 3 angled RC holes to test the modelled geometry of the high-grade Au Cu mineralisation in LEFR260.



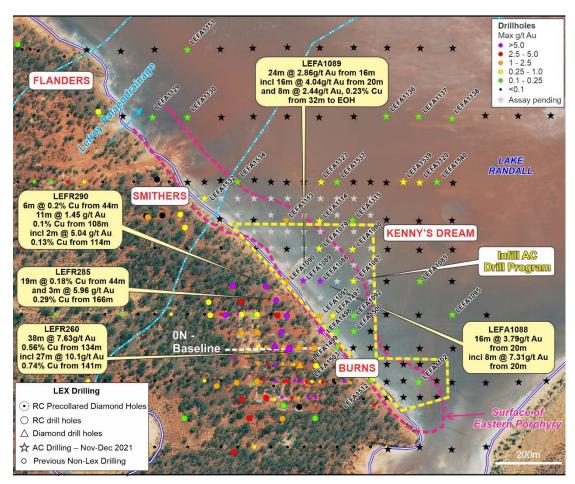
**Figure 2** Satellite image of the location of Burns relative to Lake Randall highlighting the extent of the recent AC drilling and a segment of the Lefroy Palaeodrainage. Grey dots represent holes with pending results. The inset area refers to the area of detailed RC&D drilling at the Burns Au-Cu prospect and the location of LEFA1088 and LEFA1089 (Figure 3).



#### Aircore Program

A detailed aeromagnetic survey completed over the broader Burns area in August 2021 defined multiple Burns look alike magnetic anomalies over a 3000m trend known as the Burns Corridor. The Company interpreted the anomalies to represent magnetite alteration zones within and surrounding porphyry dioritic intrusions that are additional to and similar in style to Burns.

This triggered the Company to commence a staged drilling program in October 2021 (ASX release 4 Oct 2021) to assess the broader limits of the Burns mineral system and surrounding geology. Stage 1 of the program involved drilling land-based targets in Lake Randall using an RC rig, with results reported earlier in 2022 (LEX ASX release 25 January 2022). The Stage 2 program required a specialised lake aircore rig to evaluate aeromagnetic targets (e.g., Lovejoy, Kenny's Dream) in Lake Randall (offshore) immediately adjacent to and along the Burns Corridor.



**Figure 3** Inset map of Burns highlighting the extent of the recent AC drilling on Lake Randall, interpreted extent of the Eastern Porphyry and area of infill drilling. Grey stars represent AC holes with pending results. (Refer to Figures 2 & 3 in LEX ASX release dated 21 February 2022 for location and regional context.)

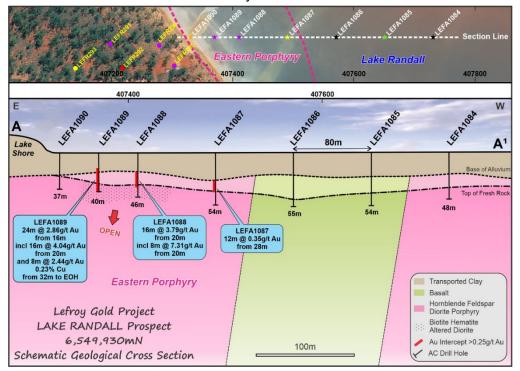
In late December of 2021, 199 aircore holes were drilled in the Stage 2 program, totaling 7989m of drilling on a nominal broad 160 metre by 80 metre hole centre pattern. Assay results were announced for these holes in February 2022, which highlighted high grade gold intersections hosted in diorite porphyry north of Burns (LEX ASX release 21 February 2022).



Encouraging gold mineralisation was intersected in 3 holes on adjacent 80m spaced drill sections, with significant results inclusive of:

- 16m @ 3.79g/t Au from 20m in LEFA1088 Including 8m at 7.31g/t Au from 20m
- 24m @ 2.86g/t Au from 16m to EoH in LEFA1089 Including 16m @ 4.04g/t Au from 20m

Importantly, hole LEFA1089 ended in gold (Au) and copper (Cu) mineralisation, that included 8m at 1.91g/t Au & 0.31% Cu from 32m to the end of hole (Figure 4). The results to date from these three holes and others immediately northeast of the discovery section demonstrate the expanding footprint to the north of the discovered Burns system.



**Figure 4** Drill section (traverse) and window plan view highlighting LEFA1088 and LEFA1089 and the depth of cover (transported clay) beneath the lake.

This program also returned positive first results for a maiden drill program at Lovejoy, including a best intercept of 4m @ 1.57g/t Au from 16m in LEFA1044 in a diorite host of a similar geochemical signature to the Eastern Porphyry, a key host for Au Cu mineralisation at Burns. Results are pending for the remainder of the program.

To follow up the high-grade gold intersections in LEFA1088 and LEA1089, the Lake Randall aircore program was expanded in February 2022 (LEX ASX release 25 February 2022) to include a further 30 aircore holes on a 40m-by-40m infill drill pattern along the interpreted trend of the Eastern Porphyry (Figure 3). The assay results are expected to be returned in May 2022. A lake RC drill rig is being sourced for follow-up RC drilling scheduled for commencement in the June quarter 2022.



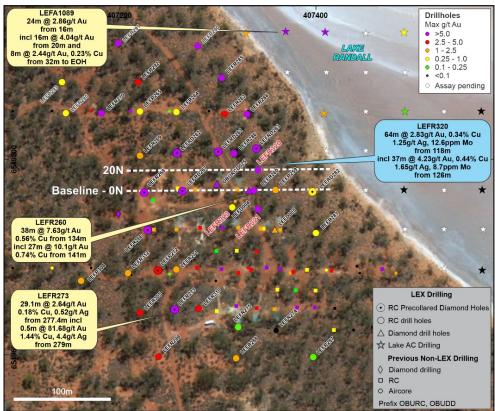
## RC Drill program

In the March 2022 Quarter, the Company completed a 12-hole RC drill program at Burns evaluating two targets. Nine of the twelve holes were aimed at assessing the interpreted deeper part of the palaeochannel at Burns where the gold-bearing basal gravels of the paleochannel are interpreted to occur (refer to LEX ASX release 17 March 2022).

The nine holes were aimed to follow up hole LEFR307 that successfully intersected a broad gold interval at the base of the transported cover for a total of 17m @ 1.70g/t Au from 75m including 7m @ 3.68 g/t Au from 80m, indicating gold in palaeochannel sediments that is open at depth. This hole also intersected and established gold mineralisation in basement monzodiorite within an interval of 11m @ 0.42g/t Au from 100m downhole (LEX ASX release 25 January 2022).

The nine vertical holes totaled 1189m and were drilled on a nominal 320m by 80m drill pattern to evaluate approximately 1.5 km of the channel. Selected one metre samples from intervals containing basal gravels have been prioritized for analysis, with assay results expected in May 2022. The results from this initial broad evaluation of the channel at Burns will provide the base for follow-up, more detailed pattern of RC drilling.

In addition to the Burns channel program, two drill sections were selected 20m to the north (20N) and south (20S) of the discovery hole, LEFR260 on the baseline (0N), as the optimal position to test an interpreted north trending and south plunging high grade Au Cu zone (Figure 5). This interpretation was supported by the recent results obtained from LEFR1088 & 1089 140m to the north in Lake Randall.



**Figure 5** Drill hole plan highlighting the location of the 20N drill section and LEFR320 relative to the discovery hole LEFR260 and recent hole LEFA1088 &1089. (Refer to Figure 6 for cross section)

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A single angled hole, LEFR320, was drilled to 222m downhole depth on the 20N section (Figure 6), and two angled holes, LEFR321 and 323, were drilled on the 20S section (Figure 5). Hole LEFR 323 was abandoned at 96m and did not reach the target zone. This target remains untested and will be a priority follow up.

Final assay results were received in April 2022 (LEX: ASX release 19 April 2022) for the three RC holes which were sampled (rotary split) at 1m intervals downhole and analysed for Au, Cu, Mo, Ag and a suite of multi-elements. Multiple gold copper intervals totaling 111m were intersected in hole LEFR320 with an impressive intercept of:

 64m at 2.83g/t Au & 0.34% Cu & 1.25g/t Ag from 118m, including 37m at 4.23g/t Au & 0.44% Cu & 1.65g/t Ag from 126m.

The strong 37m interval is entirely mineralised (Figure 6) with a minimum and maximum grade of 1.11 g/t Au and 11.6g/t Au respectively, and no internal dilution (LEX: ASX release 19 April 2022). The broader 64m downhole interval is based upon a lower cut-off grade of 0.25g/t Au with a total of 3m of internal dilution.

The style, tenor and host of the Au Cu mineralization in LEFR320 is similar to that observed in hole LEFR260, located 20m to the south. As such, LEFR320 both validates the Au Cu discovery intercept in LEFR260 and demonstrates continuity of the high-grade zone to the north in support of the modelled north trending, south plunging interpretation (Figure 7).

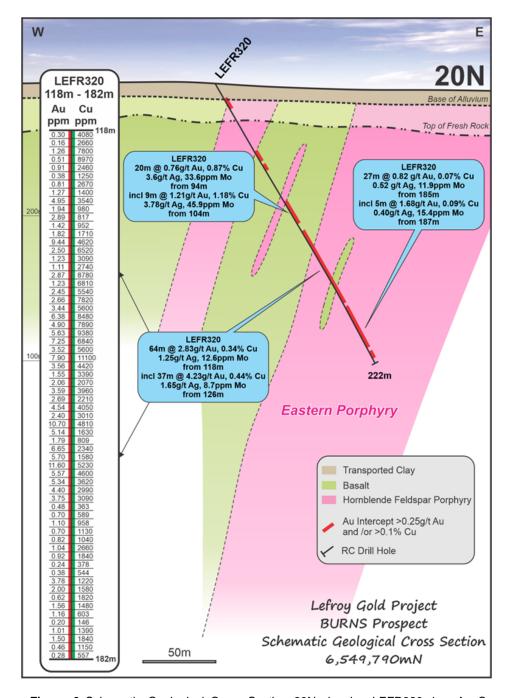
In addition to this high-grade intercept, a zone of basalt hosted primary mineralisation was intersected containing an interval of 20m at 0.76g/t Au & 0.87% Cu & 3.60g/ Ag from 94m. This includes 9m at 1.21g/t Au & 1.18% Cu and 3.78g/t Ag from 104m.

Hole LEFR321, drilled on the 20S section intersected multiple intervals of gold mineralisation including 15m at 1.17g/t Au from 100m. Multi-element results including Cu are pending for this hole. Subsequent to this hole, an additional hole was drilled (LEFR323), designed to intersect the high-grade zone in LEFR260. The hole was abandoned at 96m due to ground conditions and as such, the target position remains untested on this section.

The results from the three recent holes when incorporated into the mineral (Au-Cu-Mo) model support and enhance a large gently southerly plunging body of mineralisation that includes a high-grade Au Cu zone that is a component of the broader system (Figure 7). The surface projection of the northerly trending high-grade zone, which has a 500m extent, is beneath Lake Randall (Figure 7), where assay results are pending for the program of infill AC drilling completed in February.

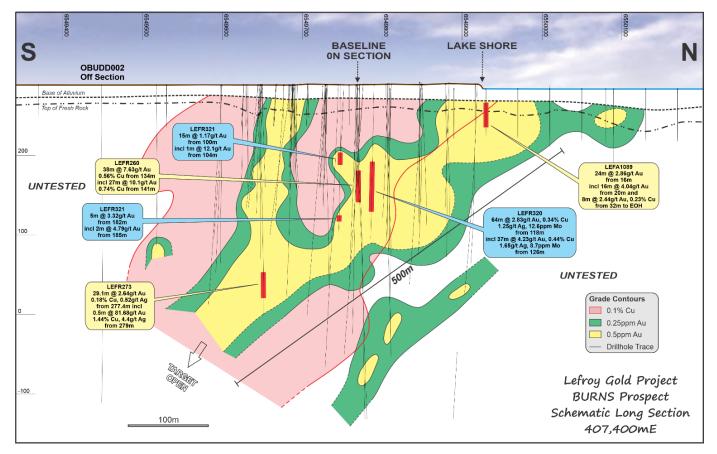
The entire intrusion related Au Cu system is open at depth and that will be the subject of evaluation by a +1000m diamond drill hole that is planned to commence in May.





**Figure 6** Schematic Geological Cross Section 20N showing LEFR320, key Au Cu intersections and individual assay results for the 64m interval from 118m.





**Figure 7** Schematic Longitudinal Section 407400N looking west showing drill hole traces, modelled grade contours and selected previous and recent drill hole intercepts to demonstrate the system. (From LEX ASX release 19 April 2022)

#### **Next Steps**

The key objective to progress evaluation of the Burns system is the completion of the deep +1000 m diamond hole into the Burns system, which is currently being planned. The hole will provide a section through the entire system (Including western basalt) with a key focus to intersect the down plunge extent of the high-grade Au Cu zone defined by holes LEFR260 & LEFR320.

Co-funding for this hole is provided under the Exploration Incentive Scheme (EIS) managed by the Department of Mines, Industry Regulation and Safety (DMIRS) (refer LEX ASX release 21 February 2022). The diamond hole is scheduled to be commenced in May 2022.

The recently announced results which support the geological model and the Company's interpretation, will also provide guidance for a program of infill RC drilling designed to support a mineral resource estimate.

The broader aircore drilling campaign on Lake Randall is ongoing and expected to recommence in May 2022, to continue to further test a portfolio of targets over the eastern part of Lake Randall (refer LEX ASX release 17 January 2022).

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## Western Lefroy Farm In (WLFI) & Joint Venture (Gold Fields earn in)

The Western Lefroy tenement package being farmed into by Gold Fields covers Lake Lefroy and the surrounding area. The package comprises 372km<sup>2</sup> of the total 607km<sup>2</sup> of the LGP and is adjacent to Gold Fields' +10 million-ounce St Ives Gold operation (Figure 1 and 8).

Gold Fields is currently in the first year of the Stage 2 earn-in of the Western Lefroy Project Farm-In and Joint Venture Agreement, dated 7 June 2018 (refer to ASX release 6 June 2018), whereby Gold Fields has elected in July 2021 to sole fund a further \$15 million of expenditure over 3 years (by June 2024) to earn an additional 19% interest in the Joint Venture to bring its total interest to 70%.

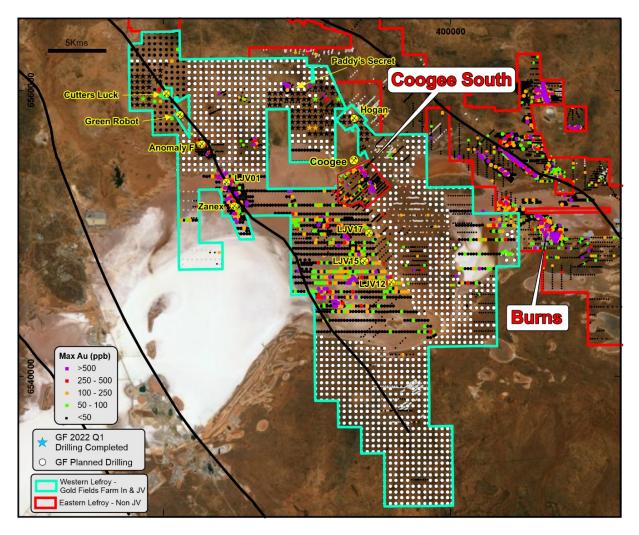
Subsequent to the end of the March 2022 Quarter, Gold Fields reported exploration expenditure of \$1,196,804 million for the exploration activities completed. The focus for work completed in the Quarter was the continuation of the massive Full Field Aircore (FFAC) drill program which commenced in December 2021 (LEX ASX release 12 October 2021). Several heritage surveys were completed in advance of the AC drill programs.

Gold Fields continued with of the extensive 46,000 metre land based Full Field Aircore (FFAC) drilling program (Figure 8). A total of 88 vertical drillholes were completed on a 400m by 400 metre grid spacing for a total of 1,676 metres. The FFAC program will yield foundational geological and geochemical information that will be interrogated in conjunction with the geophysical data to deliver specific targets for AC, RC and diamond drilling. Results are pending for these holes

Results from a detailed 40m by 40m shallow geochemical AC drill program, completed in the prior quarter at Paddys Secret (Figure 8), defined a narrow northeast trending linear feature over a 250m strike. Paddys Secret is the site where multiple high-grade alluvial gold nuggets (+10 oz) were previously unearthed in 2013-2014 in a 400m by 200m area (LEX:ASX release 11 October 2017). Two diamond holes are planned to test the structure, currently scheduled for the June quarter

Two heritage clearance surveys were undertaken by Gold Fields in conjunction with the Ngadju and Marlinyu Ghoorlie Native Title groups over key priority areas ahead of drilling, earlier in the Quarter.





**Figure 8** Lefroy Gold Project highlighting the Gold Fields Farm in & JV package, proximity to St Ives and location of the Full Field Aircore (FFAC) drilling program adjacent to Lake Lefroy. White dots refer to holes still to be completed

## Next Steps

A quarterly exploration committee meeting was held on 12 April 2022 with Gold Fields to plan and discuss the exploration activities completed in the March CY21 and the ongoing exploration program.

Depending on rig availability, planned work for the following Quarter includes two follow-up diamond drillholes at Paddy's Secret to test for high-grade gold in steeply dipping zones under the north-east trending gold anomalism, in addition to the ongoing FFAC aircore drilling program (Figure 8). The Company will be kept informed as the diamond program and FFAC program progress.

Heritage Surveys are scheduled to be completed in advance on the FFAC drilling.

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#### Lake Johnston Project (Gold and Nickel), Lefroy 100% of Gold and Nickel Rights

The Lake Johnston Project is located 120km west of Norseman in Western Australia and now comprises four granted exploration licenses (refer attached tenement schedule) held under title by Johnston Lakes Nickel Pty Ltd. These holdings form a cohesive package of 180km² over the Lake Johnston Greenstone Belt. The lithium rights for three of the tenements are held by Charger Metals NL (ASX CHR) and Lithium Australia NL (ASX LIT).

The Company continues to progress the opportunity to accelerate nickel exploration on the project and is actively pursuing tasks to assist this strategy. The Company is conscious of the exploration prospectivity for nickel and gold mineralisation on the cohesive land package, but with the full focus being at Eastern Lefroy, there is limited opportunity to run parallel exploration programs. The Company also recognizes the appreciation in the nickel price and future demand by the EV industry and the opportunity to develop a dedicated nickel exploration Company.

During the March 2022 Quarter, the Company continued to focus on a separate listing the nickel assets, that includes the Lake Johnston Project, via its wholly owned subsidiary company, Johnston Lakes Nickel Pty Ltd (JLN) (refer to the tenement schedule).

The Company registered JLN in October 2021 (refer LEX ASX release 25 October 2021) and undertook an internal transfer of the Lake Johnston tenements and Ni rights to five tenements at Carnilya South, held by Monger Exploration Pty Ltd (also a subsidiary of the Company) to JLN in December 2021. This was completed during the quarter.

The new JLN entity also has under application a further five contiguous large exploration licenses covering 2738km² north of Wiluna in WA, to form the Glenayle project (refer to ASX release 25 October 2021). The Glenayle Project is located in the Proterozoic Salvation Basin, which is a sedimentary sequence intruded by multiple dolerite sills of the Warakurna Large Igneous Province which the company considers to be prospective for nickel and copper mineralisation.

Subsequent to the end of the March Quarter, the Company has continued to complete key procedural steps to list JLN on ASX, including an in-principle advice application to ASX.

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#### **EXPLORATION OUTLOOK JUNE 2022 QUARTER**

#### Eastern Lefroy (100% LEX, Non-JV)

The Company will continue to actively progress field-based exploration in the June 2022 Quarter on the Non-JV Eastern Lefroy package.

An aircore drilling program will be completed in May at Coogee South which was postponed in the March 2022 Quarter due to rig availability and drilling priority at Burns. The primary focus for this program is to expand the footprint of the Catalina and Bronte gold anomalies that are located south of an along strike of the Coogee open pit.

A +1000m diamond hole is scheduled to commence in May to test the depth and plunge extension of the Burns Au Cu system to a vertical depth of approximately 400m. It is expected to be completed over a duration of 4-5 weeks. Co-funding for this hole is provided under the Exploration Incentive Scheme (EIS) managed by the Department of Mines, Industry Regulation and Safety (DMIRS) (refer LEX ASX release 25 February 2022).

Final assays are expected to be returned early in the June Quarter for aircore samples from the infill AC drilling in Lake Randall adjacent to Burns following up earlier AC holes LEFR1088 &1089. Anomalous zones will be followed up using a specialised Lake drill RC rig in July, dependent rig availability.

Compilation of the gold and multielement data and from this large lake AC drill program with existing RC and diamond drill data, and new information gained from the deep (+1km) EIS funded diamond drill hole at Burns will provide guidance for a program of infill RC drilling designed to support a maiden mineral resource estimate at Burns.

#### Western Lefroy (Farm-In and JV Gold Fields right to earn 70%)

The FFAC program will be ongoing subject to land access clearances in advance of the drilling.

Planning for a two-hole diamond program to follow up gold anomalism at Paddy's Secret is underway, and drilling scheduled to be completed (subject to rig availability).

## Lake Johnston (Lefroy 100% of Gold and Nickel Rights)

The Company will continue progressing a listing of JLN as noted above to realise value from this asset. A detailed aeromagnetic survey is scheduled to be completed in July to cover the Brians Bluff Trend located approximately 15km east of the Maggie Hayes nickel mine.

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#### **CORPORATE**

During the March 2022 Quarter the Company's total outgoings on its operating activities was \$1.24 million, of which \$0.95 million was attributed to direct exploration expenditure, as noted in this report.

As of 31 March 2022, the Company had cash reserves of \$5.13 million and no debt.

During the March 2022 Quarter payments totalling \$141,000 were paid to related parties of the Company and their associates for Director fees and consulting services (refer to section 6 of the March 2022 Quarterly cash flow report for further detail).

On the 9 February 2022, the Company announced that it had entered into a binding Farm-In and Joint Venture agreement with SensOre Yilgarn Ventures Pty Ltd (ASX release 9 February 2022), a subsidiary of SensOre Ltd (ASX: S3N) to progress the next phase of exploration of its Marloo Dam tenement ("Marloo Tenement"). Marloo adjoins SensOre's Maynards Dam project, located east of the Gold Fields-owned St Ives Gold Mining operation.

Under the Agreement, Sensore can earn up to a 70% joint venture interest in the Marloo Tenement by spending up to \$0.8 million on exploration activities within 4 years from the commencement of the agreement. The Farm-In expenditure includes a minimum expenditure requirement of \$0.2 million in the first 12 months before SensOre can elect to withdraw.

SensOre will manage all exploration activities during the farm-in period and after the joint venture is created. The exploration farm-in terms under the Agreement will enable the Company to maintain its focus at Eastern Lefroy, and principally Burns and its immediate surrounds.

This announcement has been authorised for release by the Board of Lefroy Exploration Limited.

Wade Johnson

**Managing Director** 

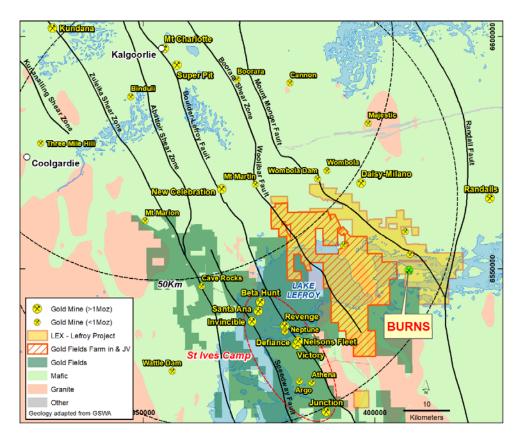
Wade Johnson.



#### **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 southeast 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 607km² 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. The Western Lefroy tenement package subject to the Gold Fields joint venture, and Gold Fields tenure are also highlighted

#### For Further Information please contact:

Wade Johnson Managing Director

Telephone: +61 8 93210984

Email: wjohnson@lefroyex.com

28 April 2022



## **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 by the Company but specific to exploration completed during the December 2021 and March 2022 Quarters and reported in this announcement.

- Exploration Update Geophysical Surveys Commenced: 11 October 2017
- LEX secures \$25M Farm In and JV Agreement with Gold Fields: 6 June 2018
- Tenement Granted over Burns Au-Cu Prospect: 16 September 2020
- Outstanding High-Grade Gold and Copper: 22 February 2021
- Drill Testing of Multiple Magnetic Targets Underway at Burns: 4 October 2021
- Massive drilling program planned for the Western Lefroy JV: 12 October 2021
- LEX Expands Nickel Portfolio Securing a Major Land Package: 25 October 2021
- Major Drilling Programs Recommenced at Lefroy: 17 January 2022
- RC Drill Results Outline New Gold Zone at Burns: 25 January 2022
- LEX Secures \$0.8million Farm-In & JV with Sensore at Marloo: 9 February 2022
- High-Grade Results Extend the Burns Cu Au System Beneath Lake Randall: 21 February 2022
- Exploration Update Drilling Program Underway at Burns: 25 February 2022
- Exploration Update RC Drilling Underway at Burns: 17 March 2022
- Impressive Au-Cu Intersection in New RC hole at Burns: 19 April 2022

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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LEFROY EXPLORATION LTD TENEMENT SCHEDULE 31 March 2022						
Project	Tenement ID	Ten Status	Holder	Interest %		
P26/3765	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
P26/3889	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100 <sup>(1)</sup>		
P26/3890	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
P26/3891	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E26/0134	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E26/0193	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E26/0150	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E15/1615	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E26/0131	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E26/0184	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
E15/1447	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
M26/0842	Goldfields JV	Live	HOGANS RESOURCES PTY LTD	100(1)		
M26/0850	Goldfields JV	Pending	HOGANS RESOURCES PTY LTD	100(1)		
M26/0851	Goldfields JV	Pending	HOGANS RESOURCES PTY LTD	100(1)		
E15/1498	Lefroy	Live	MONGER EXPLORATION PTY LTD	100		
E26/0195	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(2)		
E15/1497	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P25/2488	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4443	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4444	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4423	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4424	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4425	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4437	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4438	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P25/2317	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P25/2316	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E25/0517	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E25/0518	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
P25/2421	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E15/1715	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E26/0182	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E25/0587	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
E26/0183	Lefroy	Live	MONGER EXPLORATION PTY LTD	100 <sup>(1)</sup>		
E25/524	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
M25/0362	Lefroy	Live	MONGER EXPLORATION PTY LTD	100(1)		
M25/0363	Lefroy	Live	MONGER EXPLORATION PTY LTD	100 <sup>(1)</sup>		
M25/0366	Lefroy	Live	MONGER EXPLORATION PTY LTD	100 <sup>(1)</sup>		
E25/0606	Lefroy	Pending	MONGER EXPLORATION PTY LTD	100(1)		
P26/4392	Lefroy - JLN (Ni rights)	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4393	Lefroy - JLN (Ni rights)	Live	MONGER EXPLORATION PTY LTD	100(1)		
P26/4394	Lefroy - JLN (Ni rights)	Live	MONGER EXPLORATION PTY LTD	100 <sup>(1)</sup>		



LEFROY EXPLORATION LTD TENEMENT SCHEDULE 31 March 2022 - Continued						
P26/4391	Lefroy - JLN (Ni rights)	Live	MONGER EXPLORATION PTY LTD	100(1)		
E26/0176	Lefroy - JLN (Ni rights)	Live	MONGER EXPLORATION PTY LTD	100(1)		
L25/0061	Lucky Haul Road	Pending	MONGER EXPLORATION PTY LTD	100(1)		
L25/0063	Mulga Haul Road	Pending	MONGER EXPLORATION PTY LTD	100(1)		
E63/2073	Lake Johnson	Live	Johnston Lakes Nickel Pty Ltd	100(1)		
E63/1723	Lake Johnston – CHR &	Live	Johnston Lakes Nickel Pty Ltd	100(2)		
	LIT (Li rights)					
E63/1722	Lake Johnston – CHR &	Live	Johnston Lakes Nickel Pty Ltd	100(2)		
	LIT (Li rights)					
E63/1777	Lake Johnston – CHR &	Live	Johnston Lakes Nickel Pty Ltd	100(2)		
	LIT (Li rights)					
E69/3945	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100(1)		
E69/3946	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100(1)		
E69/3947	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100(1)		
E69/3948	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100(1)		
E69/3949	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100(1)		

## Notes to accompany tenement listing

- (1) Hogans Resources Pty Ltd, Monger Exploration Pty Ltd and Johnston Lakes Nickel Pty Ltd (JLN Pty Ltd) are wholly owned subsidiaries of Lefroy Exploration Limited
- (2) E63/1722, E63/1723 and E63/1777 Held under title by JLN. Charger Metals NL (ASX CHR) and Lithium Australia NL (ASX:LIT) have the rights to Lithium. Transfer of title to JLN Pty Ltd by DMIRS during the March quarter.

DMIRS-- Department of Mines Industry Regulation and Safety