



December 2022 Quarterly Activities Report

LEFROY EXPLORATION LIMITED

Western Australian Focused
Gold Explorer

ASX Code: LEX

Shares on Issue:
159M

Current Share Price:
23.5c

Market Capitalisation:
\$37.4m

Board of Directors

Chairman
Gordon Galt

Managing Director
Wade Johnson

Non-Executive Director
Michael Davies

Non-Executive Director
Tara French

Flagship Exploration Project

Lefroy Gold Project

- Eastern Lefroy
- Western Lefroy JV

Growth Exploration Projects

Lake Johnston Nickel Project
Glenayle Nickel Project

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No new information on exploration results is included in this quarterly report. When available, new results will be released in specific press releases.

HIGHLIGHTS

Exploration in the December 2022 Quarter was focused on the RC Resource drill program at Burns Central to support a maiden Mineral Resource Estimate in Q1/23. A smaller drill program was also concluded at Lovejoy, which is located at the northern end of the Burns project.

Burns Central Results

- *Partial assay results were received for the 1245m EIS, diamond drill hole, LEFD006, completed at Burns in the September Quarter. Those results confirm a new zone of gold-copper-cobalt mineralisation and provide further support for Burns being a large, polymetallic intrusion-related system. Intercepts include:*
 - *19.6m at 0.33g/t Au and 0.75% Cu from 428m-447.6m, including 3.50m at 0.86g/t Au, 0.72% Cu and 0.09% Co from 430m, and 6.30m at 0.47g/t Au, 1.70% Cu and 223ppm Co from 433.5m*
- *A 67-hole RC Resource program was completed at Burns Central to define a maiden Mineral Resource. The program totalled 16,735m on a 40m-by-40m grid and tested up to 200m from surface to cover a 700m by 450m mineralised footprint at Burns.*

Assay results returned multiple copper and / or gold intervals, including:

- *LEFR335 – 12 m @ 0.21% Cu & 0.56 g/t Au from 81 m and 34m @ 0.69% Cu, 0.47g/t Au from 214m*
- *LEFR353 – 48m @ 1.11g/t Au from 204m to EOH*
- *LRR003 – 103m @ 1.65g/t Au from 25 m, including 38m @ 3.83g/t Au from 26m*
- *LRR004 – 38m @ 2.04g/t Au from 27m, including 17m @ 3.90g/t Au from 38m, and 100m @ 0.47g/t Au from 93m*

Lovejoy

- *Assay results were received for the two maiden diamond holes drilled in September 2022 at Lovejoy, 1.5km north of Burns Central. These returned multiple broad downhole intervals of copper and gold, including:*
 - *LEFD008 - 15m @ 0.40% Cu from 223.1 m and 19m @ 0.57% Cu & 0.11g/t Au from 255m, including 2m @ 2.12% Cu from 272m*
 - *LEFD009 - 11m @ 0.68% Cu & 0.4g/t Au from 50m and 40m @ 0.20% Cu from 208m and 45m @ 0.33% Cu & 0.3g/t Au from 258m*
- *The new discovery of Cu and Au mineralisation has generated a new porphyry-style target along the 2.5km Burns Corridor. The mineralisation extents remain open and untested and highlight the growing scale of the Burns Cu-Au system.*

Western Lefroy JV

- *Sixty-three aircore drillholes for 1788m were completed. This exploration generated two low tenor Au anomalies in mafic rocks which will be assessed by follow-up drilling.*

Corporate

- *A \$3.5 million oversubscribed share placement to institutional and sophisticated investors was also completed in December 2022, positioning the Company to have \$3.22 in cash and equivalents and no debt as of 31 December 2022.*

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 December 2022 Quarter. Lefroy is an exploration Company employing a methodical generative targeting approach to exploration at the wholly owned Eastern Lefroy subproject within the greater flagship Lefroy Gold Project (“**LGP**”). The Company’s aim continues to be focused on the discovery of high-value gold and more recently gold-copper deposits. This exploration and strategy is complemented by the work undertaken at Western Lefroy, which is funded by a Joint Venture (JV) with Gold Fields Limited (NYSE: GFI) (“**Gold Fields**”).

Lefroy Gold Project (LGP)

The Lefroy Gold Project is located approximately 50km to the southeast of Kalgoorlie in the Eastern Goldfields Province of Western Australia (Figure 1). This semi-contiguous, granted land package covers 539km² immediately east of and adjoining the world class St Ives gold camp (in excess of 10 million oz produced), operated by 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 Gold Project** covering 301.7 km² of wholly owned tenements (Figure 1) that includes the Lucky Strike, Coogee South, Hang Glider Hill, Havelock, Burns and other sub-projects along or near the regional scale Mt Monger fault, and;
- **Western Lefroy Joint Venture (“WLJV”)** tenements (Figure 1) covering 253.7 km² 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 \$25 million on exploration activities within 6 years of the commencement date of 7 June 2018.

At Eastern Lefroy, the Company continued to focus exploration at the high priority Burns Copper-Gold Project (“**Burns Cu-Au Project**” or “**Burns**”) (Figure 1). This involved the completion of a 67-hole Reverse Circulation (RC) drilling program to support the delivery of a maiden Mineral Resource Estimate (**MRE**) expected in the March 2023 Quarter (subject to assay turn around). Assay results returned from the laboratory during the December Quarter generated multiple broad gold and copper-gold assay intercepts.

At Western Lefroy, Gold Fields continued the extensive land-based and wide spaced Full Field Aircore (**FFAC**) drilling program, completing 63 holes in the Quarter for a total of 1,788m. Drilling was centered around the Anomaly F prospect, which is approximately 3km north of Lefroy’s Zanex gold anomaly (Figure 7). The results generated two low tenor (<0.5g/t Au) gold anomalies within slightly weathered to near-fresh mafic rock, which will be assessed for follow-up drilling. Further heritage surveys were completed in advance of further AC drilling scheduled for the March 2023 Quarter.

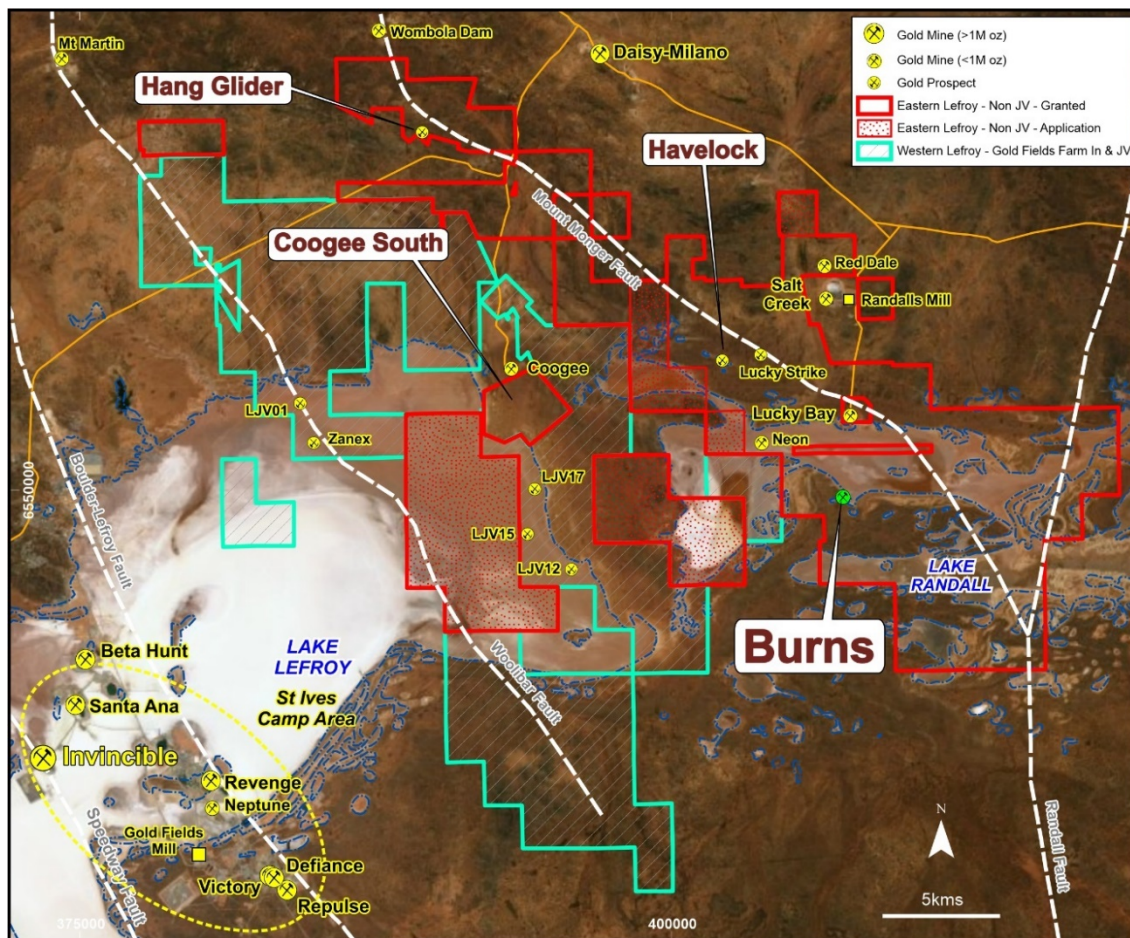


Figure 1 Lefroy Gold Project showing extent of the Eastern and Western sub projects, proximity to the St Ives and Daisy Milano gold mines and the position of the priority Burns Copper-Gold Project

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 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 although the area lacks a significant degree of exploration.

The Company identified three priority centres, or hubs, along the Mt Monger Fault trend in Eastern Lefroy where greenfields exploration for gold is focused. These hubs are ranked according to the level of prior exploration activity, gold anomalies identified as noted below (Figure 1), and the structural setting.

P1- Lake Randall Exploration Hub: Advanced Exploration (e.g., Burns, Neon)

P2- Lucky Strike Exploration Hub: Advanced Exploration (e.g., Havelock, Lucky Strike, Red Dale)

P3- Hang Glider Hill Exploration Hub: Early-Stage Exploration (e.g., Hang Glider, Coogee South)

During the December 2022 Quarter the Company continued to focus field activities within the priority Lake Randall Exploration Hub. This included a 67-hole RC drill program at the Burns Cu-Au Project designed to support a maiden MRE expected to be delivered in the March 2023 Quarter (subject to assay turn-around). Partial assay results were also received for a deep 1245m diamond hole (LEFD006) completed at Burns Central in the September Quarter, and for two diamond holes drilled at the Lovejoy anomaly, located 1.5km north of Burns (Figure 2).

Burns Copper-Gold Project

The Burns Cu-Au Project lies within the Lake Randall Exploration (LRE) Hub, which is immediately southeast of the linear trending Lucky Strike (Figure 1)-Havelock-Erinmore banded iron formation (BIF) trends (refer LEX ASX Release 7 July 2022) and west of the highly prospective, regional Mt Monger Fault. Burns is an intrusion-related Cu-Au-molybdenum (Mo) and silver (Ag) mineral system, hosted by Archaean-age diorite-porphyry intrusive rocks that intrude high-magnesium basalt. The Company considers this Au-Cu-Mo-Ag intrusion-related style of mineralisation to be entirely new and unique to the Eastern Goldfields Province (EGP) of Western Australia.

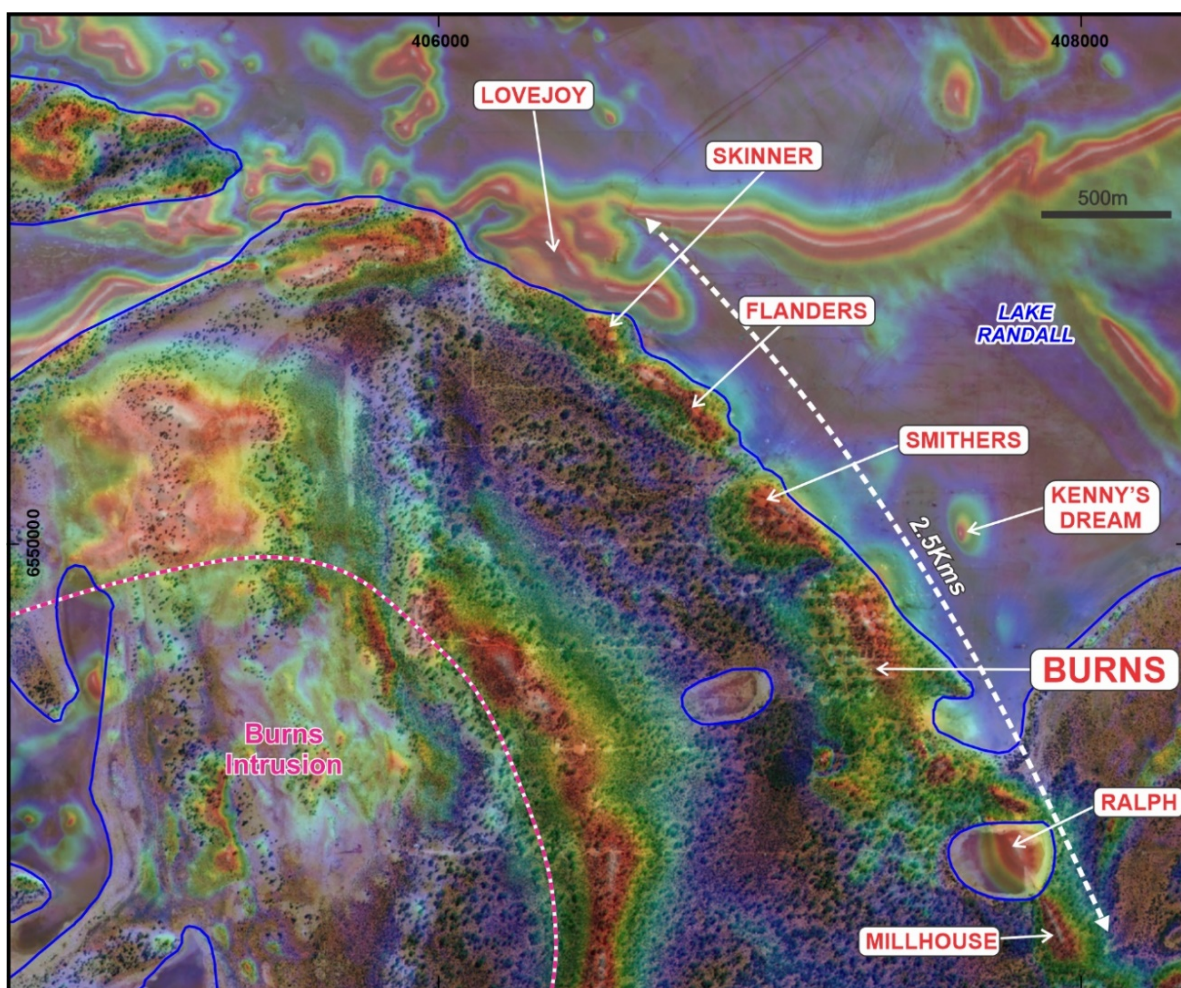


Figure 2 Combined satellite image with transparent TMI RP aeromagnetic image highlighting the discrete magnetic anomalies along strike of the **Burns Corridor** over a length of 2.5km (drill holes have been removed from the figure to highlight the discrete magnetic anomalies- represented by the warm colours).

A maiden 22-hole Reverse Circulation (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 in diorite porphyry intrusive. The results from that RC program provided geological and geochemical data that highlighted the unique geological characteristics of Burns that are a key guide to subsequent and ongoing exploration activity.

Further targeted aircore, RC and diamond drilling at Burns since January 2021 has established a broad footprint to the intrusive porphyry system that extends beneath Lake Randall, with the limits of mineralisation still to be fully defined. The system is considered by the Company to extend over more than 2km (**Burns Corridor**) along strike, based on drilling between Lovejoy in the north and the main Burns Central area in the south (Figure 2).

Burns Deep Diamond Drill Program

Activity during the December 2022 Quarter involved the interpretation and reporting of initial assay results from hole LEFD006 (1245.8m EOH), an Exploration Incentive Scheme (EIS) co-funded diamond drill hole, and one of two diamond holes completed at Burns Central in the September quarter (Figures 3, 4). Drilling was designed to advance the understanding of the scale and genesis of the mineralised system (refer to LEX ASX release 31 October 2022).

Initial assay results returned from LEFD006 have confirmed a new zone of gold-copper-cobalt mineralisation at Burns Central within a 61m interval of altered diorite porphyry located west of the main 'Central Porphyry' (which is a known host of mineralisation at Burns) and from a downhole depth of 400m (Refer LEX ASX Release 5 October 2022). These new results correspond to stronger zones of visually identified sulphide (chalcopyrite, pyrite) and magnetite mineralisation identified in or adjacent to the diorite porphyry, and include:

- 19.6m at 0.33g/t Au and 0.75% Cu from 428m-447.6m, including**
 - 3.50m at 0.86g/t Au, 0.72% Cu and 0.09% Co from 430m, and**
 - 6.30m at 0.47g/t Au, 1.70% Cu and 223ppm Co from 433.5m**

The 19.6m interval from 428m downhole corresponds to a fault zone containing brecciated diorite porphyry with pervasive hematite and biotite alteration (refer Figure 3 LEX ASX release 5 October 2022). This interval contains a narrow 3.5m ductile shear zone, from 430m downhole, with intense hematite alteration, strong magnetite veining, pyrite and the presence of elevated cobalt.

The identification elevated cobalt content in the magnetite is a new and important development for the Burns system and supports the view that Burns is a multiphase mineral (gold copper cobalt silver) system.

Previous diamond and RC drilling at Burns has intersected numerous intervals of strong magnetite veining and alteration within the basalt and porphyry host rocks which had not been routinely assayed for cobalt. The Company has now initiated a program of retrieval and analysis of pulp samples in storage for intervals containing strong magnetite veining and/or alteration. Results of this cobalt analysis are pending and will highlight the extent of this mineralisation and its economic significance at Burns.

'Next Steps' - Burns Deep Diamond Drill Program

Final results for holes LEFD006-007a at Burns Central remain pending and are expected to be returned in the March 2023 Quarter. Further drilling will be planned after these are received.

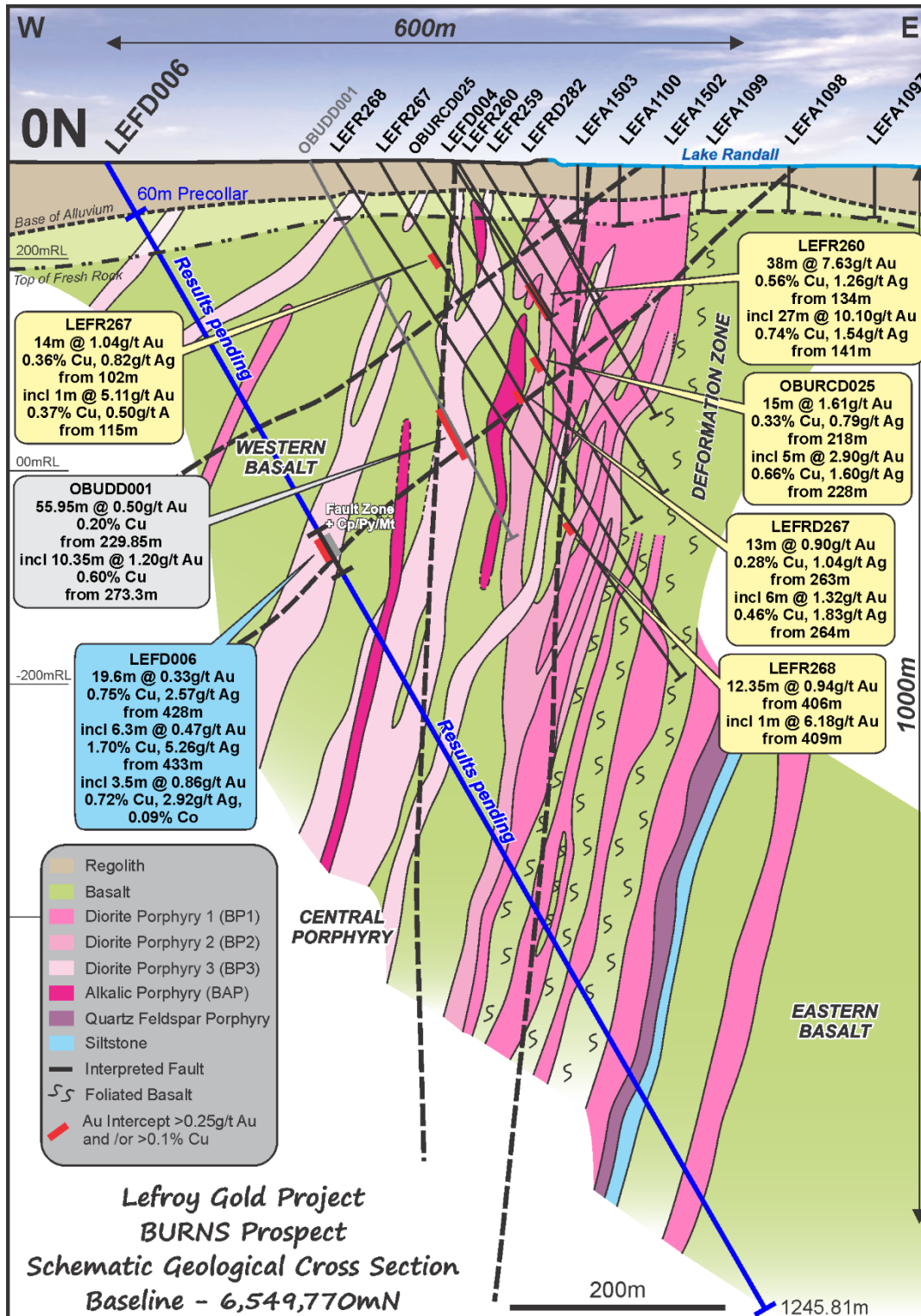


Figure 3 Burns baseline drill section showing completed drill holes, extent of the multiphase porphyries that make up the 'Central Porphyry' and best intercepts for diamond hole, LEFD006, within 400m-461m interval.

Lovejoy

Assay results were received for two maiden diamond holes (LEFD008-009) completed at Lovejoy for a total combined drill meterage of 831.7m. Lovejoy is the northernmost magnetic anomaly of a linear trend of discrete magnetic features that represent porphyry intrusive centres, extending north and south of Burns Central over a 2.5km trend known as the Burns Corridor (Figure 2).

Multiple broad downhole intervals of copper and gold were intersected in both holes, hosted within a hydrothermal breccia structure and the surrounding (basalt) wall rock (Figure 4), which has confirmed a new intrusive target along the Burns Corridor. Best results included:

- **LEFD008 – 34m of copper and gold, comprising:**
 - 15m at 0.40% Cu from 223.1 m, and
 - 19m at 0.57% Cu & 0.11g/t Au from 255.5m, including:
 - 2m @ 2.12% Cu & 0.18g/t Au from 272m
- **LEFD009 – 96m of Cu and Au, comprising:**
 - 11m at 0.68% Cu & 0.4g/t Au from 50m, and
 - 40m at 0.20% Cu from 208m, and
 - 45m at 0.33% Cu & 0.3g/t Au from 258m

This newly discovered mineralisation remains open to the north and extends at least 800m south of LEFD008, based on logging of silicified breccia in four wide spaced RC holes drilled at Skinner and Flanders (Figure 2) in October 2021. The Company considers the grade and downhole thickness of mineralisation has the potential to increase with depth, which offers significant down-dip potential (Figure 4).

Unidirectional solidification textures (“USTs”) were observed in the breccia and provide evidence of a magmatic origin for the breccia and related copper mineralisation. USTs typically occur within the carapace zone (top) of a porphyry system, which indicates Lovejoy and Burns may be part of a potentially much larger alkalic porphyry mineral system. The Company also considers the extent of the copper-gold mineralisation at Lovejoy could be far greater than initially interpreted and is a key area for follow-up drilling in 2023.

Importantly, the breccia is also crosscut by undeformed “BP2” diorite porphyry (Figure 4) (a known type of mineralised porphyry to Burns Central), which supports multiple overprinting mineralising events at Burns, and which highlights the growing scale of the Burns copper-gold system.

Lovejoy Next Steps

Planning for further RC and diamond drilling at Lovejoy is underway. A major part of that program will involve drilling on Lake Randall to the north of LEFD008 and LEFD009. In addition, further diamond drilling will aim to provide a more in-depth evaluation of the Lovejoy magnetic anomaly. The Company is also planning a series of land and lake-based RC drillholes to further test the multiple remaining aeromagnetic anomalies (including Skinner, Flanders, Smithers, Ralph) within the Burns Corridor that are largely untested and considered to represent a series of intrusive centres located north and south of Burns Central (Figure 2).

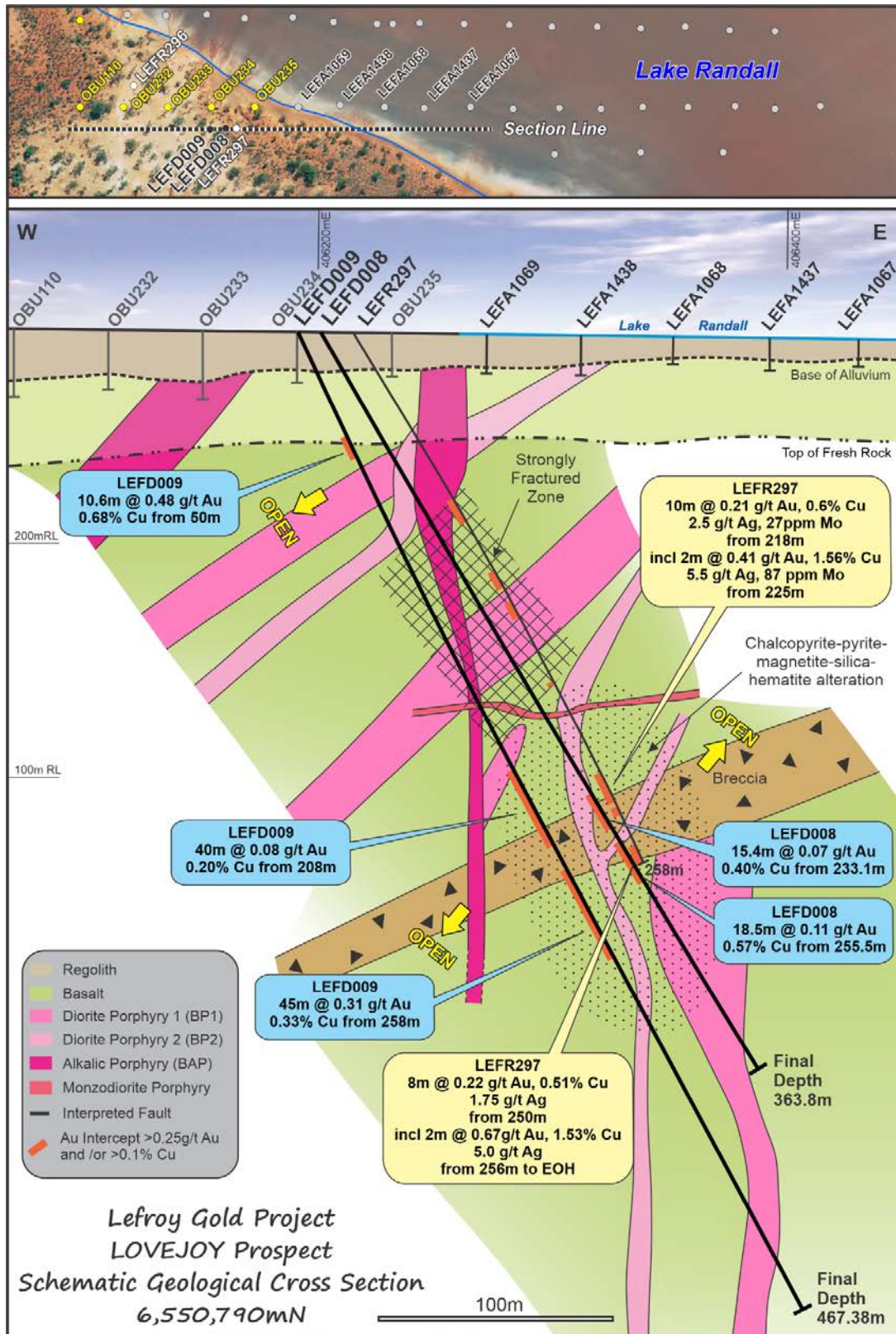


Figure 4 Schematic cross section of Lovejoy prospect, including 2 maiden diamond holes (LEFD008-009). Best results returned in the December Quarter are highlighted for broad downhole intervals of copper and gold mineralisation, hosted in hydrothermal breccia and basaltic wall rock.

Burns Central Maiden Resource Drill Program

Activity during the December 2022 Quarter included the completion of the Burns Resource drill program, which comprised 67 angled RC holes for 16,735m of drilling. The drill holes were designed on a nominal 40m by 40m drill grid to infill between previous Company and historical drill holes over 240m north and south of the baseline (discovery hole) section (Figure 4), and to downhole depths of up to 250m.

The data from this program, when combined with previous drilling data, will evaluate the three key geological domains at Burns Central (Central Porphyry, Western Basalt and Eastern Deformation Zone) and support the compilation of a mineral resource estimate (MRE) to be finalized by the end of the March 2023 Quarter.

Encouraging copper and gold assay results were returned for the first three RC drill holes, LEFR333-335, located west of the Burns Central Porphyry (refer LEX ASX release 21 November 2022) (Figure 5), with all three holes intersecting multiple, broad copper/gold intervals hosted by altered basalt, including:

- **LEFR 333 – 17m @ 0.26% Cu from 24m and 12m @ 0.32% Cu & 0.22 g/t Au from 227m**
- **LEFR 334 – 64m @ 0.17% Cu & 0.25 g/t Au from 173m**
- **LEFR 335 – 34m @ 0.69% Cu & 0.47 g/t Au from 214m and 12 m @ 0.21% Cu & 0.56 g/t Au from 81m**

The intersections quoted above are hosted within epidote-magnetite altered basalt (the “Western Basalt”), immediately west of the suite of diorite porphyries that make up the Burns Central Porphyry (Figure 5). This mineralised portion of the Western Basalt is considered by the Company to be part of the outer alteration halo of the Central porphyry, which supports an intrusive related model.

The Company considers that owing to the absence (or rare occurrence) of chalcopyrite within the mineralised intervals noted above that copper mineral in the basalt is chalcocite (Cu₂S). Chalcocite, with a 79.8%Cu content is a rich and valuable sulphide of copper compared to chalcopyrite (CuFeS₂), which has a 34.5% Cu content.

The Company has interpreted that the chalcocite occurs as fine disseminations and fracture fill within the basalt host unit resulting in the broad anomalous downhole intervals (Refer LEX ASX release 21 November 2022). These intervals, when combined over multiple drill traverses (sections) form a large copper mineralised domain within the Western basalt to complement the mineralisation hosted within in the Central Porphyry.

The drill holes note above are on sections are located on the southern-most drill sections (200S-240S) completed at Burns to date (refer LEX ASX Release 21 November 2022). Mineralisation remains completely untested and open to the south in both the Western Basalt and Central Porphyry. These untested areas are considered key target areas for follow-up drill programs.

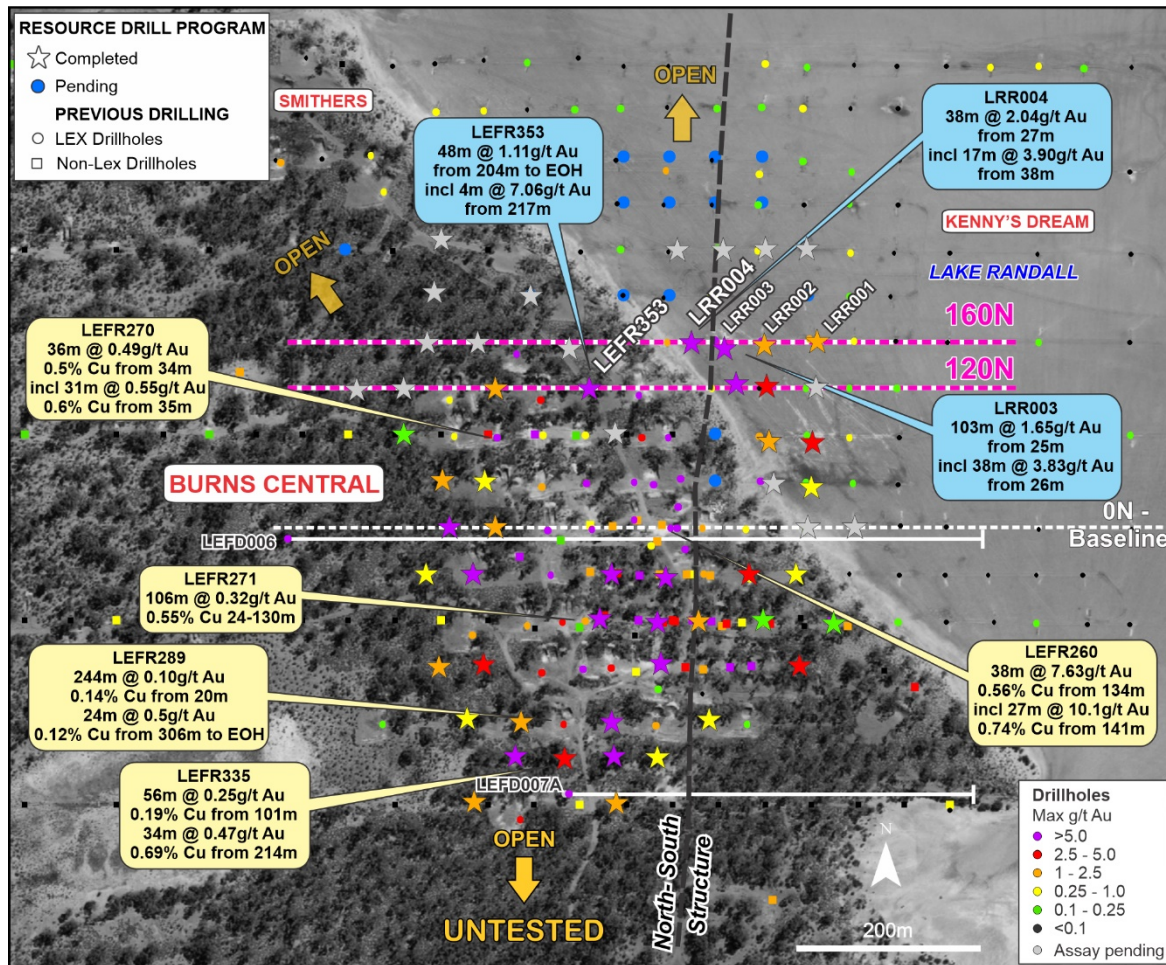


Figure 5 Burns Central Drill Hole Location Plan highlighting key gold and copper intersections from RC holes in the Burns Resource Drill Program (from LEX ASX release 5 December 2022)

Additional gold-only assay results were returned from RC holes, LRR001-LRR007, located on Lake Randall and one land-based hole, LEFR353, (Figure 5) located 160m north of the Burns discovery hole (LEFR260) and hosted in the Burns ‘Central Porphyry’ (Refer ASX releases 23 November & 5 December 2022). Better results from these holes included:

- LRR003 – 103m @ 1.65g/t Au from 25 m, including 38m @ 3.83g/t Au from 26m
- LRR004 – 138m of mineralisation, including 38m @ 2.04 g/t Au from 27m and 100m @ 0.47 g/t Au from 93m, including 8m @ 2.02 g/t Au from 100m
- LEFR353 – 48m @ 1.11 g/t Au from 204m to EOH, including 4m @ 7.06 g/t Au from 217m

The strongest mineralisation was intersected in holes LRR003-004 located on Lake Randall, which returned wide, shallow intervals of gold in altered basalt and diorite porphyry, and which included higher-grade zones of 103m at 1.65 g/t gold from 25m in hole LRR003 and in hole LRR004, that includes 38m @ 2.04g/t Au from 27m (Figure 5).

A new broad interval of gold mineralisation was intersected in hole LEFR353 (Figure 5) that extended the mineralisation on that section by approximately 50m down-dip from a previously drilled RC hole (LEFR285) (refer LEX ASX release 29 April 2021).

LEFR353 contained a higher-grade gold zone of 48m at 1.1 g/t gold to the end of hole (EoH) that is coincident with a north-south trending structure that has an interpreted 600m strike that is open in both directions (Refer LEX ASX release 5 December 2022).

Holes LRR001-002 and LRR005-007 returned intervals of lower tenor gold mineralisation primarily within the oxide zone that are interpreted to be part of a shallow, flat-lying supergene zone that was identified by previous aircore holes, LEFA1088-1089 (refer LEX ASX release 21 February 2022). Best mineralised intercepts included:

- **LRR007 – 13m @ 0.93g/t Au from 38m, including 4m @ 2.29g/t Au from 28m, and 5m @ 0.32g/t Au from 174m**
- **LRR006 – 11m @ 0.70g/t Au from 28m, including 2m @ 0.26g/t Au from 199m, and 2m @ 0.26g/t Au from 199m**

The Company considers holes LRR005-007 were collared east of and over the core target zone of higher-grade gold mineralisation (Figure 6), interpreted to occur at depth as indicated by the higher-grade gold interval intersected in hole LEFR353 and in previously drilled RC hole, LEFR285 (refer LEX ASX release 5 December 2022). To adequately test this higher-grade target zone the Company completed a further 3 RC holes (holes LRR023-025) either side of the existing 120N and 160N drill sections, including one steep-dipping drillhole east of LEFR353 (Figure 6) for which results are pending.

Next Steps- Burns Central RC Resource Drilling

Four of the 67 RC Resource holes completed at Burns Central have received assay results that incorporate a complete multi-element suite (e.g., gold, copper, cobalt, molybdenum, silver, etc.). Subject to the return of these final assay results for the remainder of the holes, the Company will deliver a maiden Mineral Resource Estimate for the shallow portion of the larger Burns mineralised system/complex in late March 2023.

The Company engaged the Measured Group Pty Ltd to undertake the Burns Mineral Resource Estimate, with the estimation work commencing during the December 2022 Quarter.

Burns Research Project

The Company executed a research program with the Centre of Exploration Targeting (CET) at the University of Western Australia (UWA) on 1 July 2022. This program aims to address the relationship of gold-copper mineralisation to the spatially associated Burns intrusion complex and the relative (gold-copper) fertility of mafic to felsic magmas that produced those intrusions, using geochronology and mineralogy.

During the December 2022 Quarter, 6 diamond holes were logged, including LEFD006, with initial results suggesting Burns is a subvolcanic magma chamber with apparent lithological variation explained by hydrothermal alteration rather than variations in magma composition. Copper mineralisation in the intrusions and high-Mg basalt begin with a magnetite-chalcopyrite stage that is overprinted by auriferous pyrite. This research with the CET is ongoing to 30 June 2023.

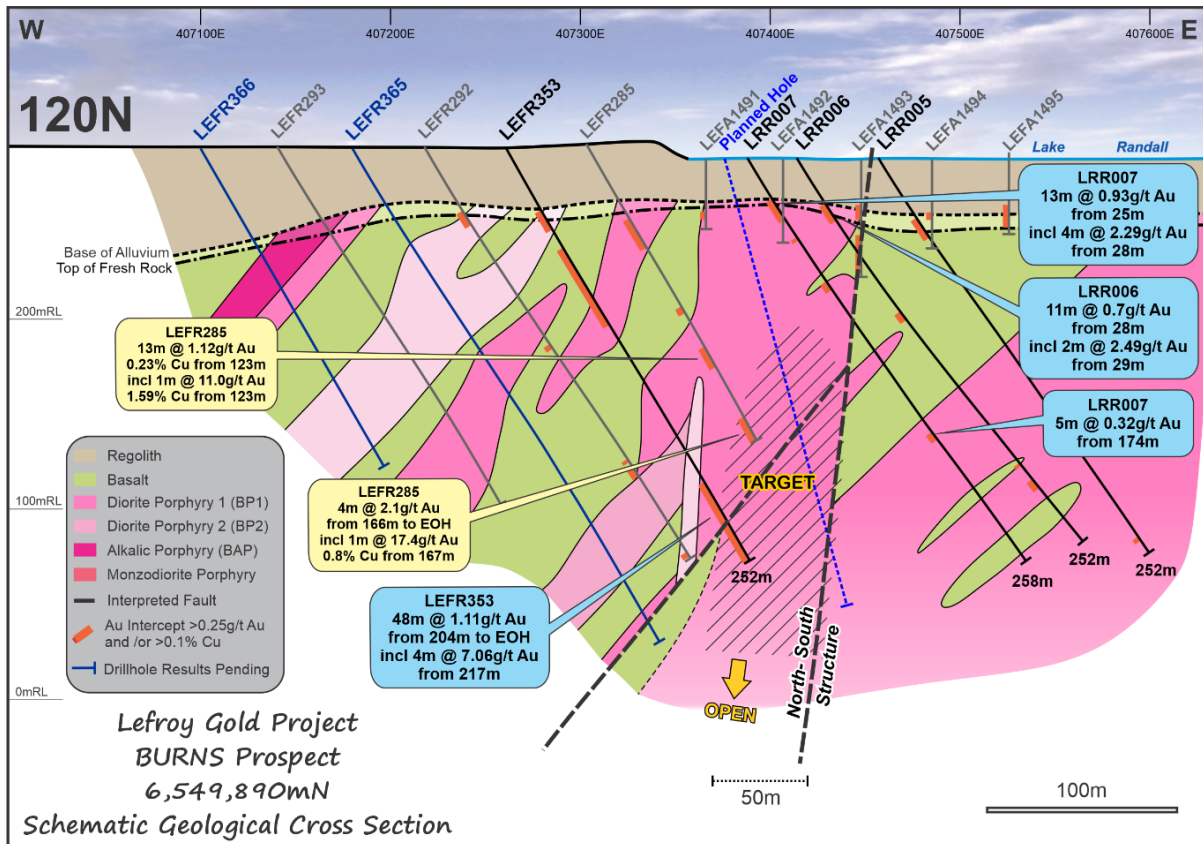


Figure 6 Schematic geological cross-section for the 120 North (120N) drill traverse, highlighting holes LRR005-007 which intersected a north-south trending mineralised target zone that is open.

Western Lefroy Farm-In (WLF) & Joint Venture (Gold Fields Earn-in)

The Western Lefroy tenement package being farmed into by Gold Fields covers the eastern part of Lake Lefroy and the surrounding area. The package comprises 253.7km² of the total 476.2km² of the LGP and is adjacent to Gold Fields' +10 million-ounce St Ives Gold operation (Figure 1).

Gold Fields is in the second 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). In July 2021, Gold Fields elected to solely fund a further \$15 million of expenditure over 3 years (by July 2024) to earn an additional 19% interest in the Joint Venture to bring its total interest to 70%.

Gold Fields reported exploration expenditure of \$220k for exploration activities completed in the December 2022 Quarter to bring the total spend to date in the Stage 2 earn-in to \$3million.

During the December 2022 Quarter, Gold Fields continued to focus their exploration activities on the land based wide spaced 400m by 400m grid Full Field Aircore (FFAC) program, which aims to deliver foundational geological and geochemical information to generate specific targets for AC, RC and diamond drilling.

Gold Fields completed a total of 63 holes over the Quarter for a total of 1,788m, centered around the Anomaly F prospect, which is located approximately 3km north of Lefroy’s Zanex gold anomaly (Figure 7). The results generated two low tenor (<0.5gt) gold anomalies in lower saprolite.

No significant alteration or veining was observed, but the anomalous gold mineralisation remains open and untested along strike to the northwest and may warrant deeper investigation by follow-up drilling.

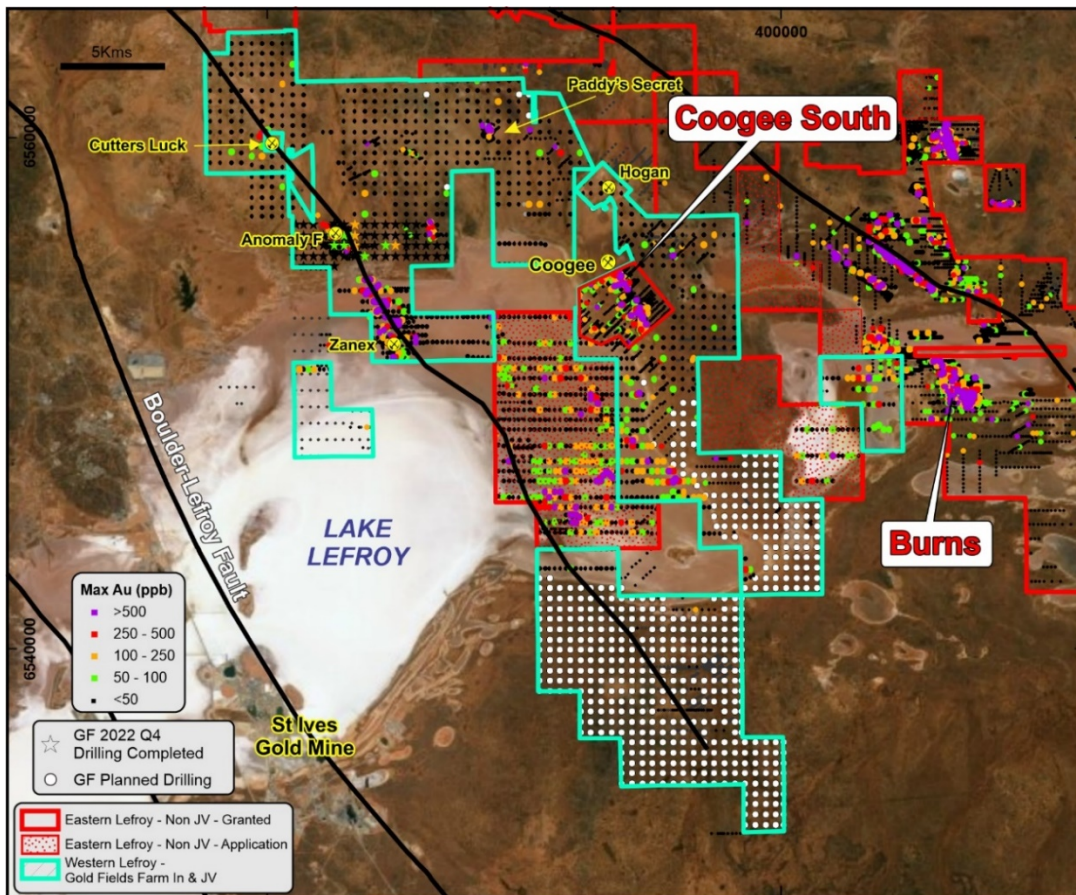


Figure 7 Lefroy Gold Project highlighting the Gold Fields Farm in & JV package, proximity to St Ives Gold Mine and location of the Full Field Aircore (FFAC) drilling program adjacent to Lake Lefroy and highlighting remaining planned drill holes (white).

WLFI Next Steps

An aircore rig is scheduled to complete 480 planned aircore holes (18,750 metres) during the next phase of the FFAC program (Figure 7), which will commence once final clearance for the heritage surveys is approved. An additional heritage survey will be undertaken in the March 2023 Quarter for a small area that remains outstanding from the prior survey. Anomalies that warrant follow-up drilling will be assessed once all FFAC geology and geochemical data has been consolidated into a detailed geology interpretation of the area.

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

During the Quarter, the Company continued to advance the demerger of its wholly owned entity, Johnston Lakes Nickel Ltd (JLN) from LEX and its ASX listing by way of Initial Public Offering (“IPO”) which is planned for the first half of CY2023 (refer LEX ASX release 13 October 2022).

The Lake Johnston Project is located 120km west of Norseman in Western Australia and 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 highly experienced board commenced in full during the Quarter, including JLN’s Managing Director designate, Graeme Gribbin (former Western Areas NL Group Exploration Manager) on 31 October 2022. The JLN board will be led by David Kelly as Non-Executive Chair, and with Tim Netscher, Michael Davies and Wade Johnson as Non-Executive Directors.

The JLN divestment strategy will allow LEX to focus on the Lefroy Gold Project to the southeast of Kalgoorlie, including the Company’s flagship Burns Copper-Gold discovery.

Next Steps

LEX will continue to progress JLN toward an indicative listing date in the first half of CY2023. LEX shareholder and ASX approvals will be sought prior to the listing. Due diligence, prospectus preparation and the submission to the ATO for demerger relief are also nearing completion.

Over the coming months LEX will confirm other relevant details for the proposed Demerger of JLN. Further announcements regarding these matters will be made in the March 2023 Quarter.

Marloo Farm-In (SensOre Ltd Earn-In)

The single Marloo tenement (E15/1498) adjoins SensOre Limited’s Maynards Dam project, located 25km east of 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 (LEX ASX release 9 February 2022).

A combined aircore/slimline RC drilling program was completed at Marloo in Q3 of CY22, which returned no significant gold results in assays, (refer to SensOre ASX release 27 October 2022). During the December Quarter, SensOre completed rehabilitation of these holes following the unsuccessful results returned in the previous quarter.

EXPLORATION OUTLOOK MARCH 2023 QUARTER

Eastern Lefroy (100% LEX, Non-JV)

The Company will continue to work with Measured Group Pty Ltd to deliver the MRE for Lefroy's flagship Burns Copper-Gold Project, which is expected in the March 2023 Quarter (subject to assay result turnaround). The Company is awaiting the return of all pending assay (gold and multi element) results from the Burns resource RC drill program prior to advancing the next stage of drilling at Burns Central.

Planning is underway to conduct early-stage evaluation of the multiple magnetic/intrusive centres along the Burns Corridor, including further drilling at Lovejoy.

CORPORATE

During the December 2022 Quarter the Company's total outgoings on its operating activities were \$2.6 million, of which \$1.75 million was direct exploration expenditure, as noted in this report.

As of 31 December 2022, the Company had cash reserves of \$3.22 million and no debt.

During the December 2022 Quarter payments totalling \$126,000 were paid to related parties of the Company and their associates for Director fees and consulting services (refer to section 6 of the December 2022 Quarterly cash flow report for further detail).

On 13 December 2022, the Company advised that it had completed an oversubscribed placement ("Placement") of 14.6 million fully paid ordinary shares at \$0.24 per share to raise A\$3.5 million (before issue costs) to institutional and sophisticated investors and certain Directors (LEX ASX release 13 December 2022). The proceeds of the Placement will be used for exploration at the Company's 100% owned Eastern Lefroy Gold Project and for general working capital purposes.

The Company held its 2022 Annual General Meeting on 6 December 2022 (refer LEX ASX releases 6 December 2022).

The Company announced on 30 December 2022 that a General Meeting of Shareholders would be held on 30 January 2023 to ratify the Placement and approve the issue of shares under the Placement to certain Directors (refer LEX ASX release 30 December 2022).

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



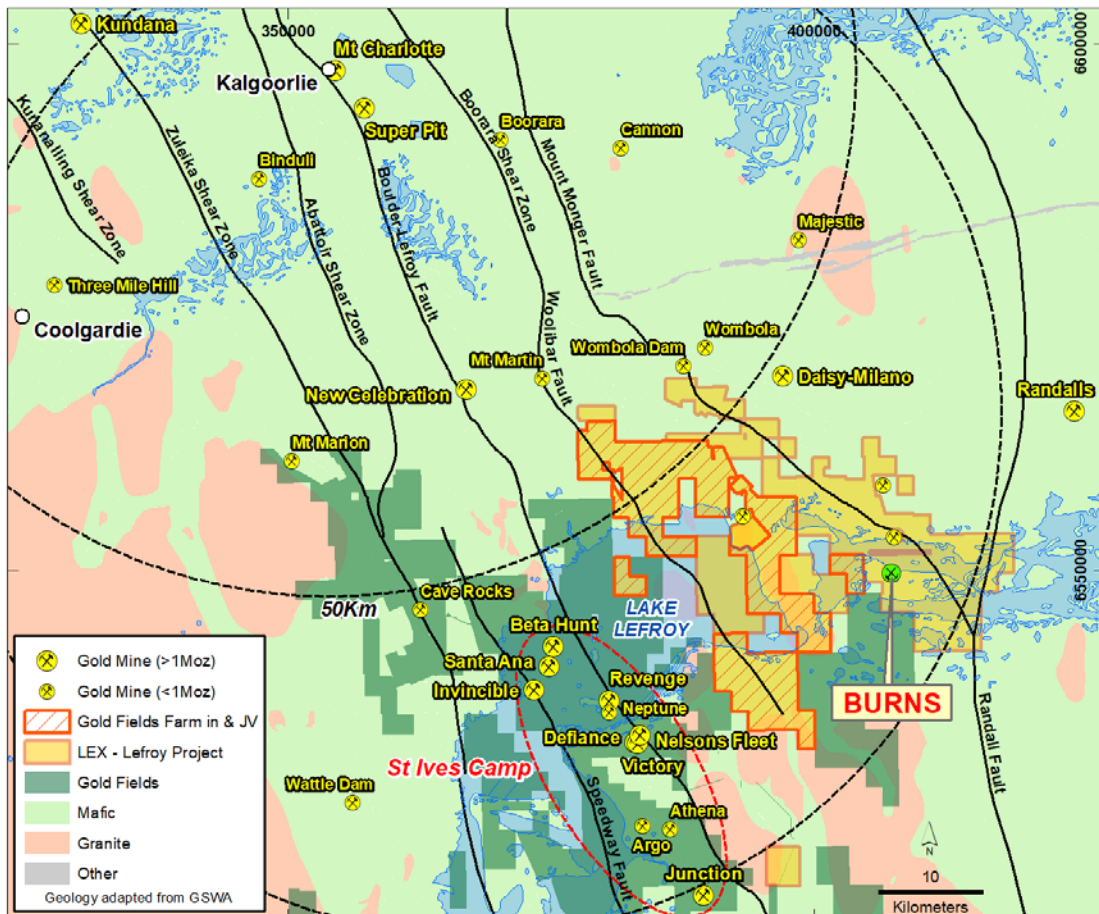
Wade Johnson

Managing Director

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 539km² 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 is also highlighted.

For Further Information please contact:

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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 by the Company but specific to exploration completed during the December 2021, March 2022, June 2022, September 2022 and December Quarters and as reported in this announcement.

- 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 Results Extend Copper Gold Zones at Burns: 29 April 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 Resumed 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 Au Cu 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
- AC Drill Results Continue to Expand the Burns Gold-Copper System Beneath Lake Randall: 4 July 2022
- Exploration Update-1200m Deep Diamond Hole Underway at Burns: 12 July 2022
- Burns 1200m Diamond Drill hole Update: 1 August 2022
- Drilling Continues to Define Larger Scale to Burns Au Cu System: 1 September 2022
- Burns Update: Significant Copper Mineralisation Intersected at Lovejoy: 20 September 2022
- Resource RC Drilling Program Underway at Burns: 6 October 2022
- Lefroy Confirms Demerger/IPO for Nickel Assets: 13 October 2022
- Burns Drill Out Update- Multiple Broad Cu-Au Intersections: 21 November 2022
- Burns Drill Update 2- Outstanding Gold Intersection: 23 November 2022
- Multiple Gold Intercepts Continue to Expand Burns: 5 December 2022
- Lefroy Exploration Raises \$3.5M for Further Exploration: 13 December 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.

LEFROY EXPLORATION LTD TENEMENT SCHEDULE 31 December 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 ⁽¹⁾
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 ⁽¹⁾
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 ⁽¹⁾
M25/0366	Lefroy	Live	MONGER EXPLORATION PTY LTD	100 ⁽¹⁾
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 ⁽¹⁾

LEFROY EXPLORATION LTD TENEMENT SCHEDULE 31 December 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 & LIT (Li rights)	Live	Johnston Lakes Nickel Pty Ltd	100(2)
E63/1722	Lake Johnston – CHR & LIT (Li rights)	Live	Johnston Lakes Nickel Pty Ltd	100(2)
E63/1777	Lake Johnston – CHR & LIT (Li rights)	Live	Johnston Lakes Nickel Pty Ltd	100(2)
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⁾
E69/4045	Glenayle	Pending	Johnston Lakes Nickel Pty Ltd	100 ⁽¹⁾
E26/240	Lefroy	Pending	MONGER EXPLORATION PTY LTD	100 ⁽¹⁾
E26/241	Lefroy	Pending	MONGER EXPLORATION PTY LTD	100 ⁽¹⁾
E15/1954	Lefroy	Pending	MONGER EXPLORATION PTY LTD	100 ⁽¹⁾
E15/1955	Lefroy	Pending	MONGER EXPLORATION 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.

DMIRS-- Department of Mines Industry Regulation and Safety