

Exploration Update-RC drilling commences, Diamond drilling continues at the Burns Cu-Au Prospect

- An RC drilling program is underway at the Burns copper-gold prospect at the Eastern Lefroy project, near Kalgoorlie, Western Australia.
- The initial 12-hole program will evaluate multiple targets generated from modelling the results of earlier RC drilling and the ongoing diamond drilling at the Eastern Porphyry
- Early geological observations indicate Burns is an intrusion related system with multi-phase diorite porphyry body's intruding basalt which are both overprinted by a magnetite copper-gold mineralisation event
- The key focus of this program is to expand the multi host rock Burns system with RC drilling evaluating the strike and down dip extents of the Western Basalt zone but also to extend the strike of the Eastern Porphyry.
- The program totalling approximately 3000m will take 2 weeks to complete with results estimated to be available in late September
- RC drill evaluation of the broader Burns system complements the diamond drilling that continues evaluation of the Eastern Porphyry. Drilling of three holes on the 40N section is now complete and hole LEFD005 is in progress on the 40S line, located 40m to the south of the baseline discovery section
- Hole LEFD005 is the final hole of the initial diamond drilling program along the Eastern Porphyry that is expected to be completed shortly. Results from the three holes on the 40N section and LEFD005 are estimated to be reported over the next 2 months.

Lefroy Exploration Managing Director, Wade Johnson said *"We are very pleased to be expanding our drilling program at Burns to evaluate and extend multiple Cu-Au targets and broaden the extent of the system which we are yet to define limits to. The commencement of the step out RC drilling will test extensions to both the Western Basalt and the Eastern Porphyry zones and provide additional foundation geochemical data to support advancing the geological model to this intriguing Cu-Au system and expanding the extents of the mineralisation. The new data will also provide baseline information that will contribute to fast tracking exploration along this developing north trending corridor including out onto Lake Randall."*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce the commencement of a reverse circulation (RC) drill program to evaluate multiple targets at the Burns copper gold prospect. Burns is within the Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km southeast of Kalgoorlie (Figure 1).

The Burns gold copper 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. 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.

Broad high-grade gold mineralisation is hosted within a newly discovered hematite-pyrite-chalcopyrite-magnetite altered diorite porphyry (refer LEX ASX release 23 February 2021) that intrudes high Mg basalt. This porphyry, termed the Eastern Porphyry, is open to the north and south. Diamond drilling on the zero north (baseline) and 40N sections has defined the eastern extent of the Eastern Porphyry marked by foliated basalt that may indicate a major structure. The alteration and mineralisation are open at depth. The copper and gold mineralisation hosted by both the magnetite altered diorite porphyry and basalt is considered by the Company to be a new style of mineralisation in the area, a land position dominated by Lefroy (Figure 1). The existence of additional mineralisation further east under Lake Randall is not discounted by the current drilling campaign and will be the subject of more exploration and drilling in the future.

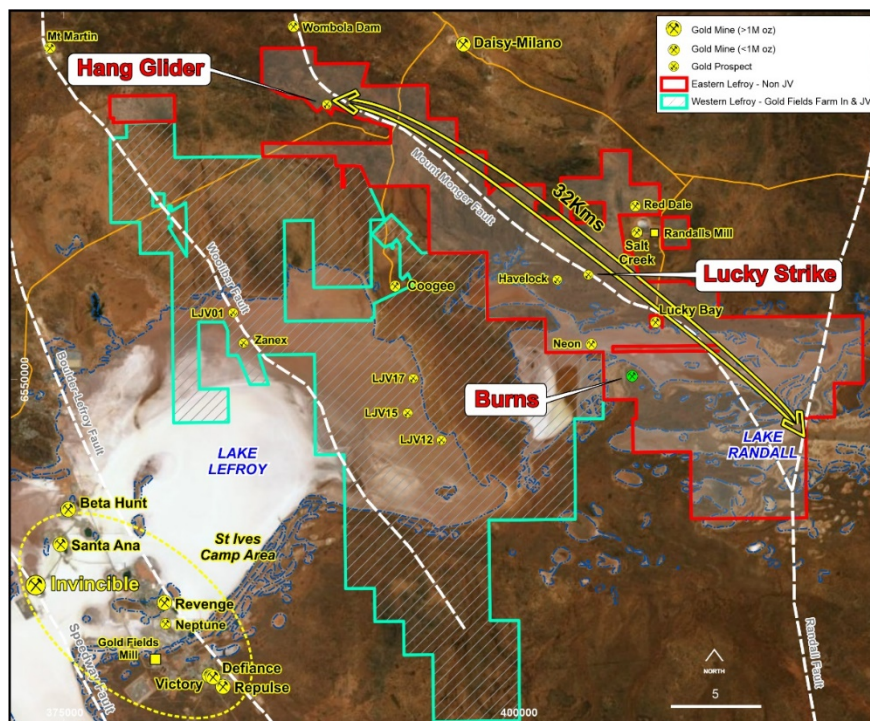


Figure 1 Lefroy Gold Project, highlighting Eastern and Western Lefroy, the location of the Burns prospect and proximity to Lucky Strike. Refer to Figure 2 for Burns drill hole plan.

Diamond Drill Program-Update

A fourteen-hole diamond drill program commenced on 20 April 2021 to evaluate the Eastern Porphyry over a 200m strike length on three 40m spaced drill sections. The diamond drilling focussed on the discovery section, known as the baseline (0N section), is complete and results are pending for these 5 holes.

The first hole of the program (LEFD004) was completed on 3 May 2020. That hole was designed to twin and extend past the high-grade interval found in LEFR260 to find any further mineralisation and determine the width of the Eastern Porphyry (Figure 2) on the zero north drill section (0N or Baseline). Details of that drill hole were reported to the ASX on 3 May 2020.

The porphyry was interpreted to have a near vertical dip and an estimated true width of approximately 110m bounded by basalt to the west and east. That hole confirmed three distinct variations of the host diorite porphyry which are interpreted as multi-phase intrusive events.

Details of four further diamond holes on the zero-north section, OBURCD025, LEFRD267, LEFRD268 and LEFRD282 were reported to the ASX on 13 May, 25 May and 18 June 2021 respectively. Those holes confirmed the extension to, and the geometry of, the altered Eastern Porphyry at depth. Assay results from these holes are pending, delayed due to the backlog of samples at the laboratory. These results are expected shortly.

Diamond drilling is also now complete on the 40N drill section, located 40m north of 0N (Figure 2). Three holes have been completed LEFRD261, LEFRD262 and LEFRD283. Hole LEFRD261 was completed as the first step out diamond hole and reported to the ASX on 18 June 2021. That hole intersected a broad 110m downhole interval of haematite-magnetite-pyrite altered Eastern Porphyry, followed by foliated altered basalt to EOH at 393.8m. The entire interval of porphyry is altered and or mineralised, demonstrating the northern continuity of mineralisation within the altered Eastern Porphyry 40m to the north of the zero-north section.

Hole LEFRD 283 was drilled to evaluate the porphyry approximately 30m up dip from LEFRD261, confirmed the porphyry but was abandoned before reaching final depth due to ground conditions. The final hole on this section, LEFRD262 intersected the porphyry down dip of LEFRD 261 that included two broad zones of combined altered and mineralised (sulphides) porphyry. These three holes have confirmed the geometry and dimensions of the Eastern Porphyry, that including the same alteration characteristics 40m to the north of the zero-north section.

Diamond drilling is currently underway on the 40S section (Figure 2), 40m to the south of zero-north. Hole LEFD005 is targeting the interpreted position of the Eastern Porphyry that has not been evaluated on this section and has a planned depth of 320m (Figure 4). Assay results from this hole are not expected until late September. Given the time lag with assay results, LEFD005 will be the last diamond hole of this initial program. The period of time waiting for results will allow provide time to interrogate all results and plan the next stage of diamond drill evaluation.

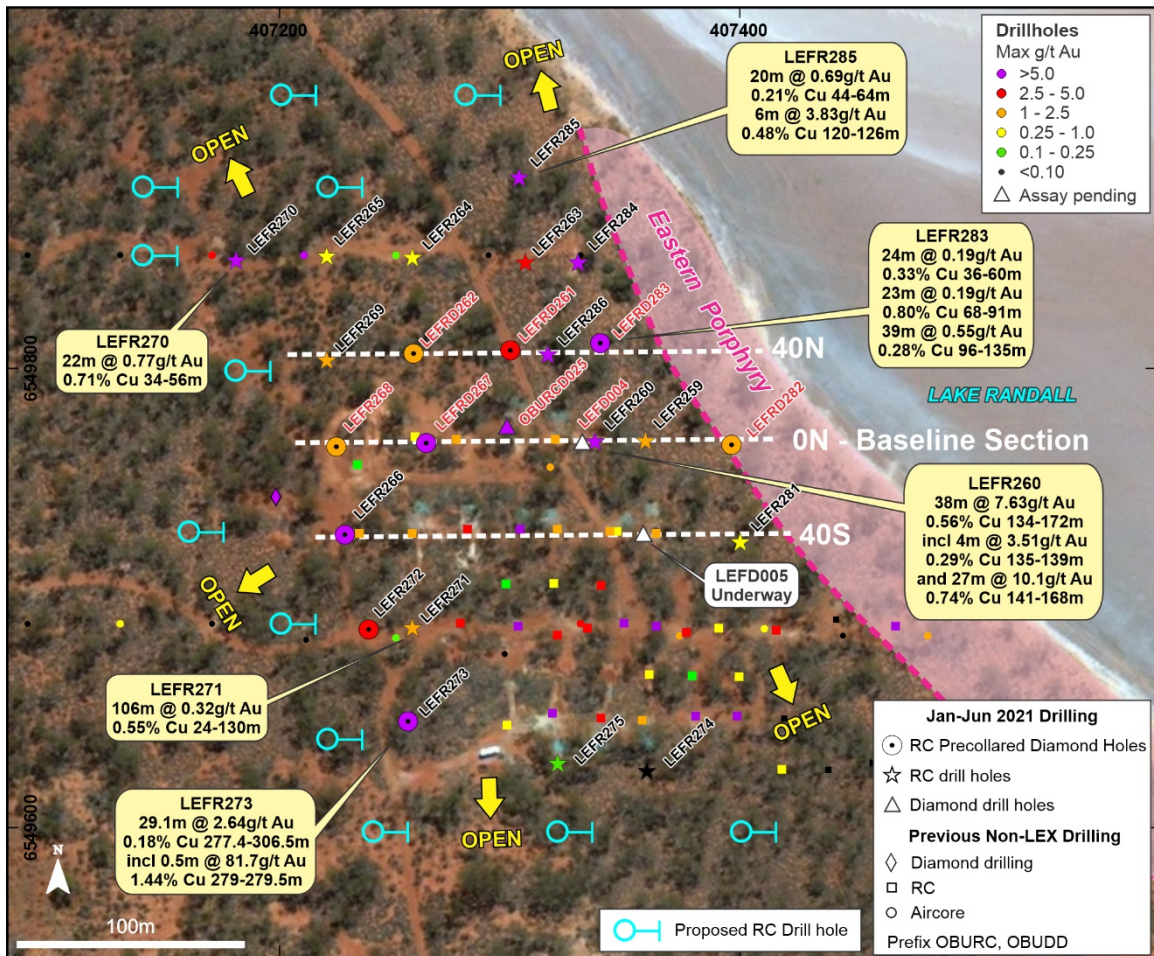


Figure 2 Drill hole plan at the Burns prospect highlighting recently completed diamond drill tails (red font) relative to LEFR260 and the interpreted extent of the Eastern Porphyry. Proposed RC holes are shown as blue open circles. Refer to Figure 4 for drill section 40S that depicts current hole LEFD005.

RC Drill Program

A twelve-hole RC drill program is underway at Burns. The program totalling approximately 3000m will evaluate multiple targets prioritised to extend the broader Burns system along strike and at depth. The Burns system is characterised by copper gold mineralisation hosted by both diorite porphyry and high Mg basalt over a 300m strike length and approximately 200m wide.

The drilling will target both strike extensions to the Eastern Porphyry but also strike and down dip extensions to the Cu-Au mineralisation in the western basalt. The key areas of focus are as follows:

- Testing the northern strike of the Eastern Porphyry, 40m to the north of LEFR285 that intersected 20m @ 0.69g/t Au and 0.21% Cu from 44m (refer LEX ASX release 29 April 2021)
- Evaluating the northern strike extent and down dip continuity of shallow oxide mineralisation in LEFR270 that intersected 22m @ 0.77g/t Au & 0.71% Cu from 34m (refer LEX ASX release 27 April 2021)
- Extending the multiple broad Cu Au intersections hosted in the western basalt down dip from holes such as OBUDD001 (55.95m @ 0.5g/t Au & 0.2% Cu from 184.5m) and LEFR272 (48m @ 0.39g/t Au & 0.41% Cu from 146m) (refer LEX ASX release 9 March 2021)
- The southern strike extension of the new mineralisation in LEFR273 that intersected 29.1m @ 2.64g/t Au & 0.18% Cu from 277.4m, including 0.5m @ 81.7g/t Au & 1.44% Cu from 279m (refer LEX ASX release 29 April 2021)
- Testing the southern limit of the Eastern Porphyry approximately 160m south of the 40S drill section.

The program is estimated to take two weeks to complete. Initial assay results from the program are expected in late September.



Figure 3 RC drill rig set up on hole LEFR287 (looking northwest)

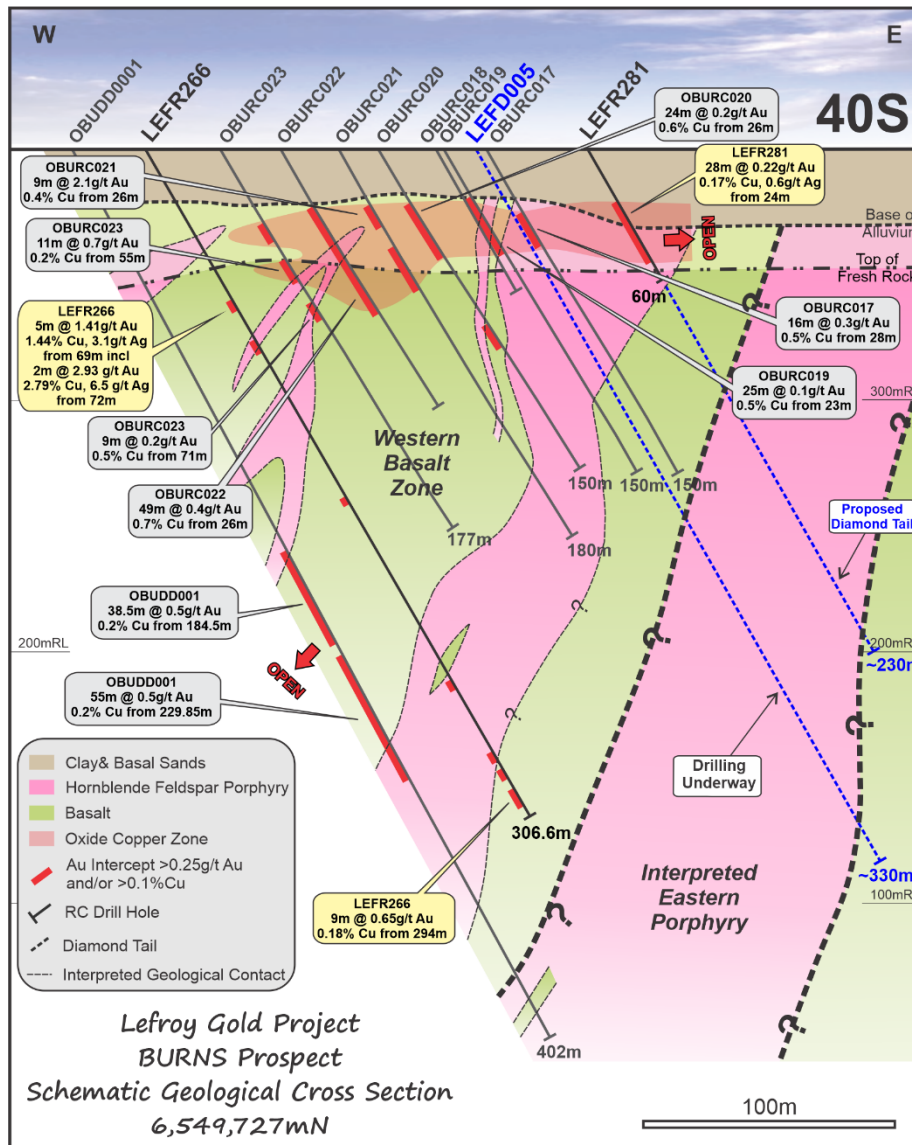


Figure 4 Drill section 40S highlighting position of current diamond hole LEFD005 and planned depth to intersect the interpreted position of the Eastern Porphyry

This announcement has been authorised for release by the Board



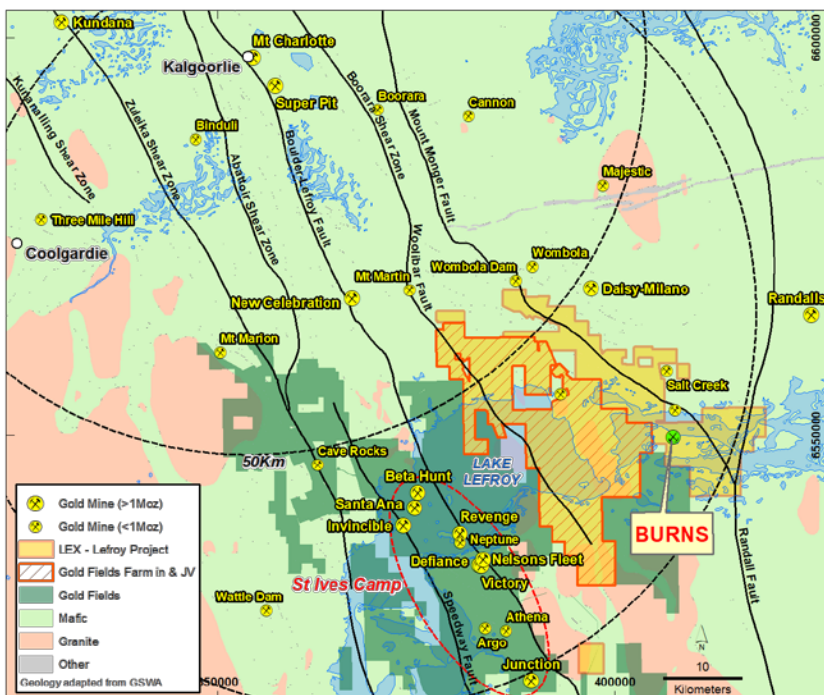
Wade Johnson
Managing Director

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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 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 621km² 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

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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 by the Company of previous exploration at Burns at the Lefroy Gold Project.

- Lefroy Exploration Limited-Prospectus: 8 September 2016
- Managing Directors AGM Presentation: 5 December 2016
- Lefroy Expands Tenement Holding & Secures Au-Cu Prospect: 10 December 2019
- June 2020 Quarterly Activities Report: 31 July 2020
- Multiple Gold Trends Confirmed from Eastern Lefroy: 1 September 2020
- Tenement Granted over Burns Au-Cu Prospect: 16 September 2020
- September 2020 Quarterly Activities Report: 29 October 2020
- Drilling Underway at Burns Au-Cu Prospect: 12 January 2021
- Drilling Update-Native copper Intersected at Burns Prospect: 2 February 2021
- Outstanding High-Grade Gold and Copper Mineralisation Intersected at Burns: 23 February 2020
- New Basalt Hosted Gold-Copper Zone Supports Large Burns Mineral System: 9 March 2021
- Exploration Update-Drilling Extends Porphyry at Burns: 26 March 2021
- Diamond Drilling Underway at the Burns Cu-Au Prospect: 21 April 2021
- Resampling of RC holes at Burns confirms and better defines recent Copper Gold intersections: 27 April 2021
- Drill Results Extend Copper Gold Zones at Burns: 29 April 2021
- Multiple Intervals of Altered Porphyry Intersected at Burns: 3 May 2021
- Burns Success Continues-55m vertical depth extension and more strong mineralisation established: 13 May 2021
- Burns Continues to Grow-deeper-wider and a new zone: 25 May 2021
- Burns Update-Drilling Confirms Northern Extension: 18 June 2021

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