

Exploration Update

1200m Deep Diamond Hole Underway at Burns

- A 1200m deep diamond drill hole is underway at the Burns gold copper prospect located in the Company's wholly owned Eastern Lefroy Gold Project, 70km southeast of Kalgoorlie.
- Burns is a new and unique style of an intrusion-related Au-Cu mineral system in the Eastern Goldfields Province (EGP) of Western Australia, with understanding of the scale and genesis of the system will be advanced through this hole.
- The EIS co-funded diamond hole is designed to evaluate the Au-Cu mineralised diorite porphyry host rock to 1000m vertical depth from surface with key aims to:
 - Expand the vertical scale of the mineralisation discovered to date
 - Provide geological and geochemical information to support ongoing research
 - Demonstrate further that Burns is a new, large Au-Cu intrusion hosted mineral system
- The hole is part of a two-hole diamond drill program that will also involve drilling a 450m deep hole to evaluate an interpreted shallowly plunging high-grade Au-Cu zone within the broader Au Cu Ag Mo porphyry hosted mineral system at Burns.
- In addition, planning of an infill RC drill program to evaluate the system over a 700m strike length and to a vertical depth of 200m from surface to support a maiden near surface resource estimate has commenced.
- The diamond drill program is expected to be completed in August, with initial assay results anticipated in September. The infill RC drill program is scheduled to commence in August.



Lefroy Exploration Managing Director, Wade Johnson said *“The long wait for the diamond drill rig is over and the +1000m deep drill hole is finally underway at our high priority Burns gold copper prospect. The LEX team are excited to be back out drilling at Burns this time to explore the vertical extent of this unusual intrusion related Au-Cu system to demonstrate the scale and to realise its full potential. We are grateful for the EIS co-funded support for this hole that will provide further information to assist in assigning a genetic model for Burns”*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce that a 1200m deep diamond drill hole evaluating the Burns Au-Cu intrusion related mineral system is underway at the Company’s wholly owned Eastern Lefroy Gold Project (Figure 1), located 70km southeast of Kalgoorlie.

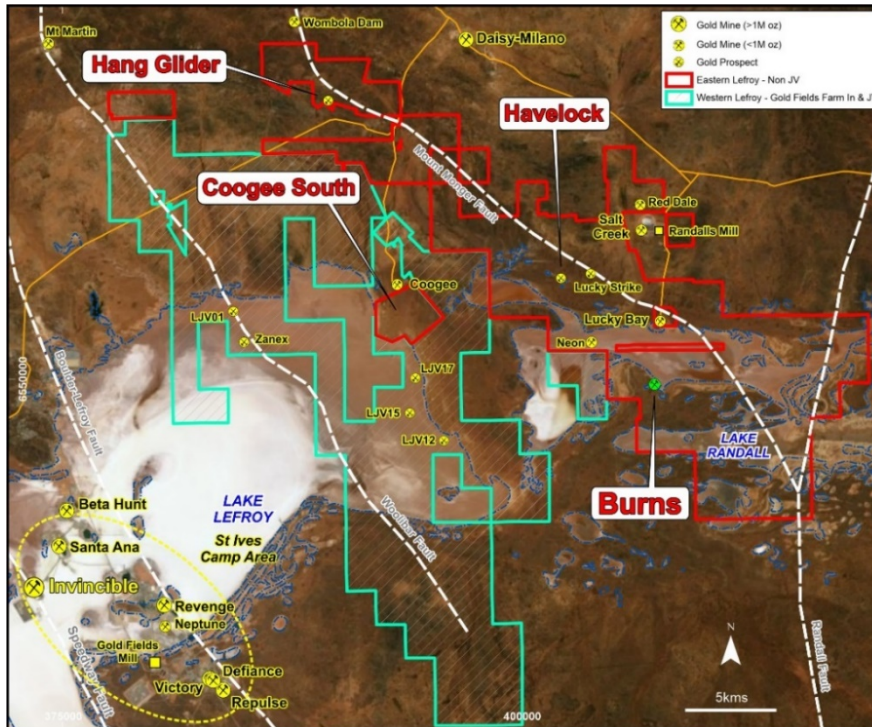


Figure 1. Lefroy Gold Project showing extent of the Eastern and Western sub projects and the location of Burns and other high priority prospects within the LEX portfolio.

The Burns Au-Cu prospect is situated on the eastern margin of a large interpreted intermediate intrusion, termed the Burns Intrusion (refer LEX ASX release 23 February 2021 & 28 September 2021).

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 was a key stepping stone to subsequent and ongoing exploration activity.

The broad high-grade gold mineralisation is hosted within a suite of hematite-magnetite-biotite-chalcopyrite-pyrite altered diorite porphyries (refer LEX ASX release 22 February 2021) that intrudes high-magnesium basalt. This porphyry suite, termed the Eastern Porphyry, is open to the north, south and at depth.

The gold and copper mineralisation hosted by both the diorite porphyry, basalt and massive magnetite veins are considered by the Company to be a new and unique style of Au-Cu mineralisation near Kalgoorlie, within a land position dominated by LEX.

Diamond Drill Program

A two-hole/1650m diamond drill program (Figure 2) is underway at Burns. The 1200m hole (LEFD006) currently underway will provide a section through the entire Burns system (including western basalt) to test the continuity of the multi-phase diorite porphyry intrusions, broadly known as the eastern porphyry, to a vertical depth of 1000m (Figure 3).

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 29 October 2021).

The second hole (DDH002) has a planned depth of 450m and is designed to intersect the down plunge extent of the high-grade Au Cu zone defined by holes LEFR260 & 320 (refer to long section Figure 4). The collar position of this hole is located 230m south of the baseline (0N) section (Figure 2 & 5).

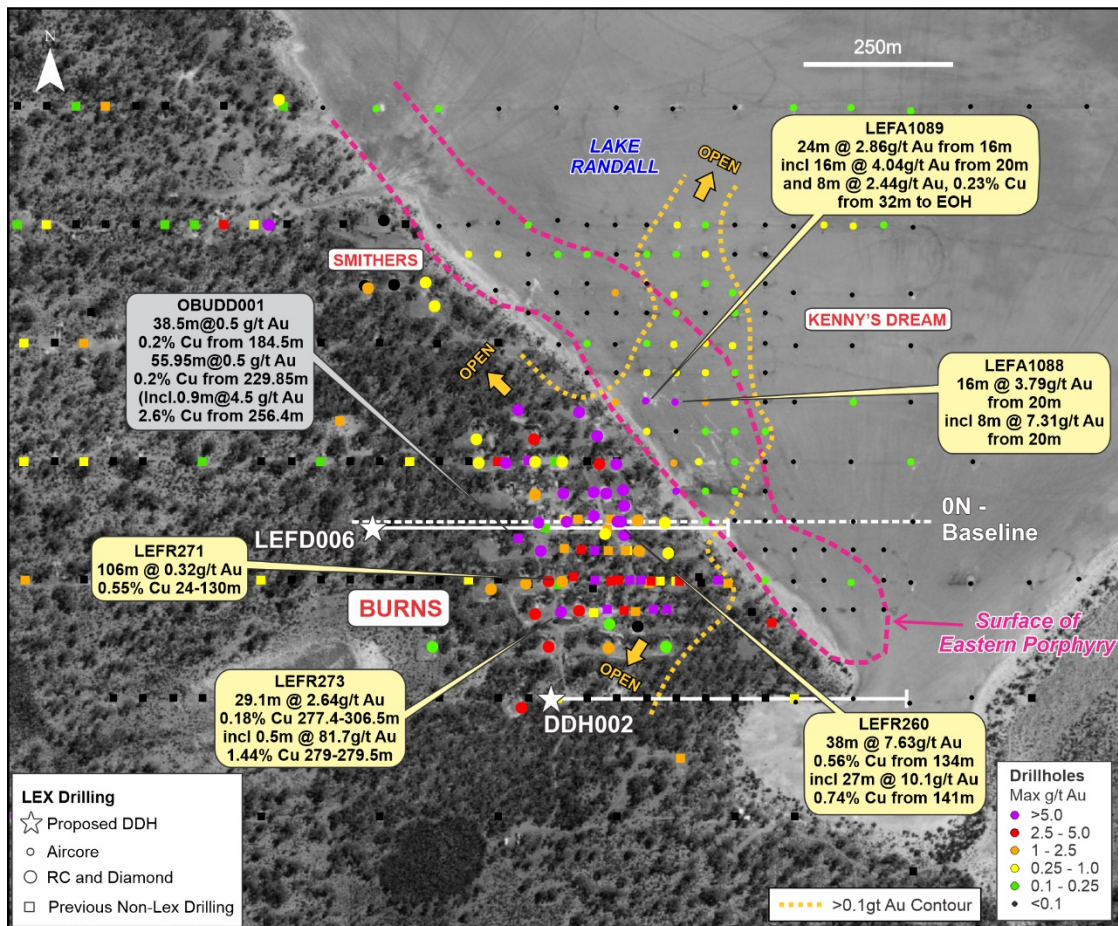


Figure 2 Burns site plan highlighting the extent of the recent AC drilling on Lake Randall and interpreted extent of the Eastern Porphyry and gold anomaly (>0.10g/t Au) at Burns. Position of the planned diamond holes are shown. Refer Figure 3 for baseline Cross section with hole LEFD006.

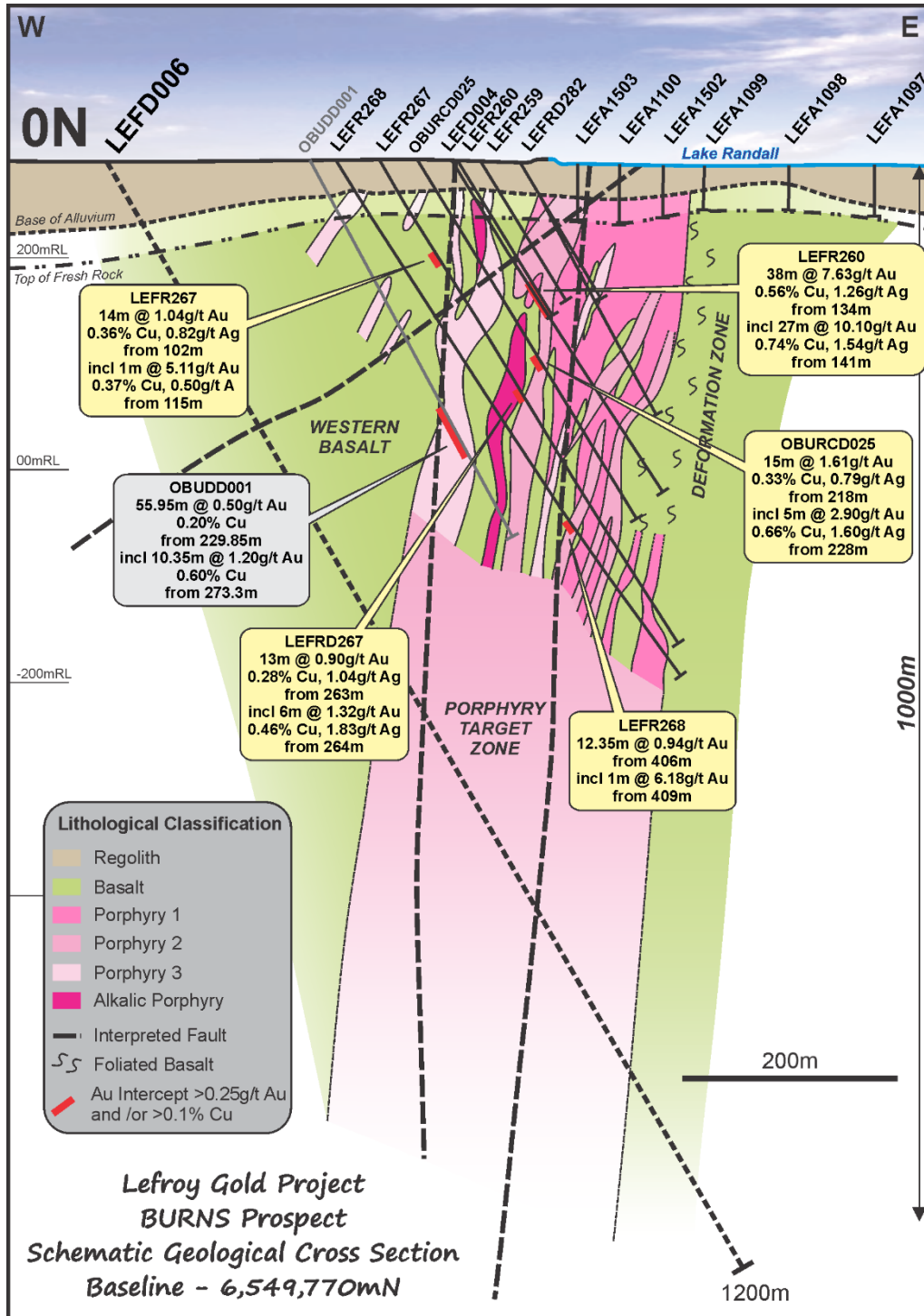


Figure 3 Burns baseline drill section showing completed drill holes, extent of the multiphase porphyries that make up the eastern porphyry and the 1200m diamond hole now underway

Interrogation of gold (Au), copper (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 (Figure 4 and 5). This has highlighted a large, northwest trending, southerly plunging mineral (Au, Cu, Ag, ± Mo) shell. Included within this shell is a higher-grade, northerly trending Au-Cu component (Figures 4 and 5) which provided the model to design and plan the two diamond holes.

This northerly trending, high-grade zone is further supported by the recent (LEX ASX 21 February 2021) multiple aircore (AC) gold intersections in Lake Randall, 240m north of discovery hole LEFR260 (refer Figure 2). This included an intersection of **24m at 2.86g/t Au from 16m in LEFA1089** (LEX ASX release 23 February 2021), hosted within diorite porphyry and obscured by transported overburden (Figure 2).

The two-hole diamond drill program is expected to be completed in August. Samples of the core will be progressively despatched in batches to the laboratory after completion of geological logging. Initial assay batches are expected in September, with final assay results in October at which time a full assessment of the program can be made.

Reverse Circulation (RC) Drill Program

In addition to the diamond drilling, which is focussed on the deep vertical extent of the system planning of an RC drill program to evaluate the system to 200m from surface and over a 700m strike length is well advanced (refer Figure 4). The drilling will be both land-based and on Lake Randall. The drilling will be on a nominal 40m by 40m grid pattern. The drill data when combined with existing drill data, will form the basis for a maiden gold copper resource estimate.

Subject to drill availability and assay result turnaround the Company aims to deliver a maiden resource estimate for the shallow part of the Burns system in the December 2022 Quarter.

A specialised lake RC drill rig has been secured and scheduled to commence in early August.

This announcement has been authorised for release by the Board



Wade Johnson
Managing Director

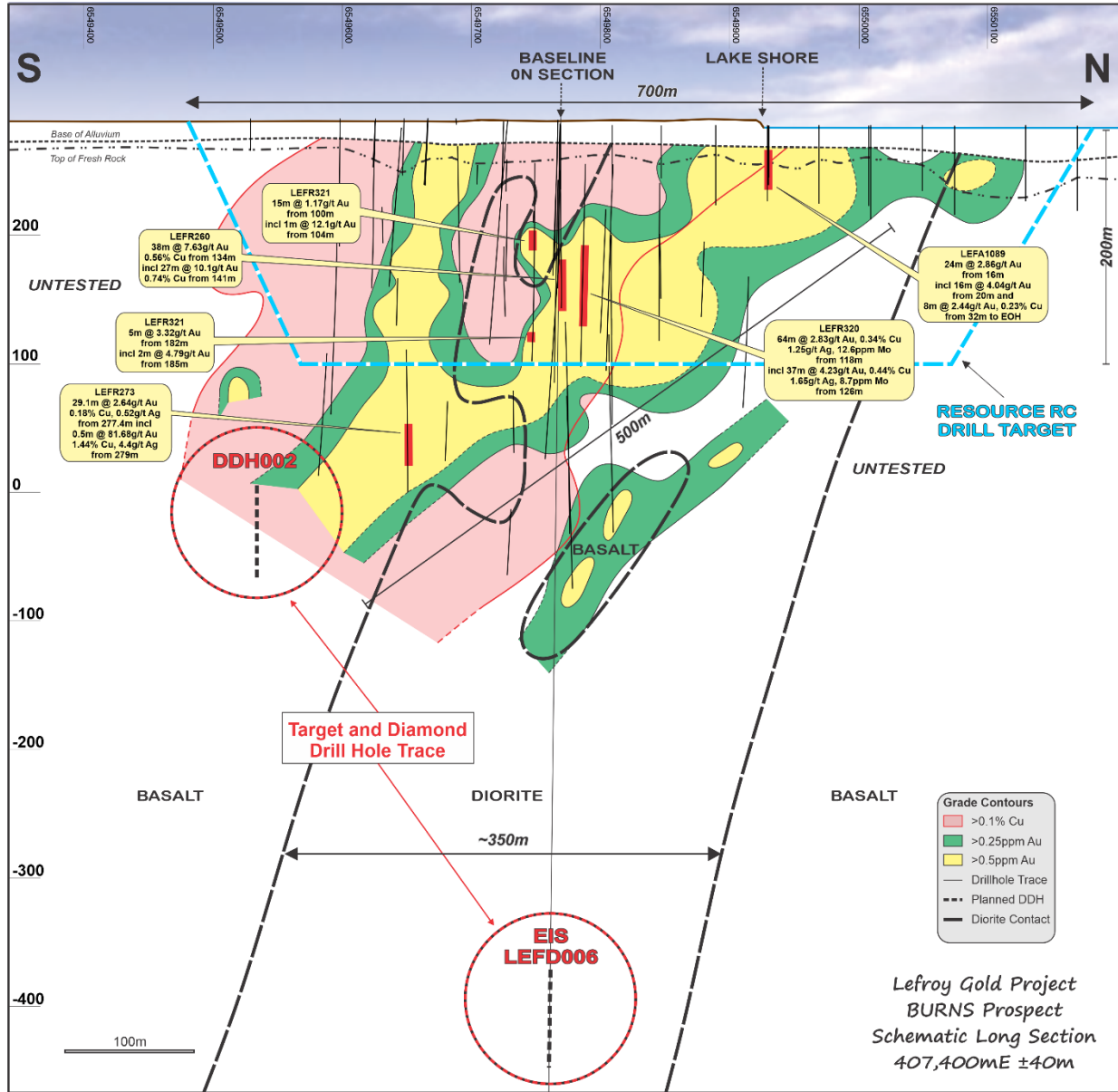


Figure 4 Schematic Longitudinal Section 407400N looking west showing drill hole traces, modelled grade contours and selected previous and recent drill hole intercepts to demonstrate the system. Trace of the planned diamond drill holes to test the two target positions is show. Refer to Figure 5 for the position of the long section

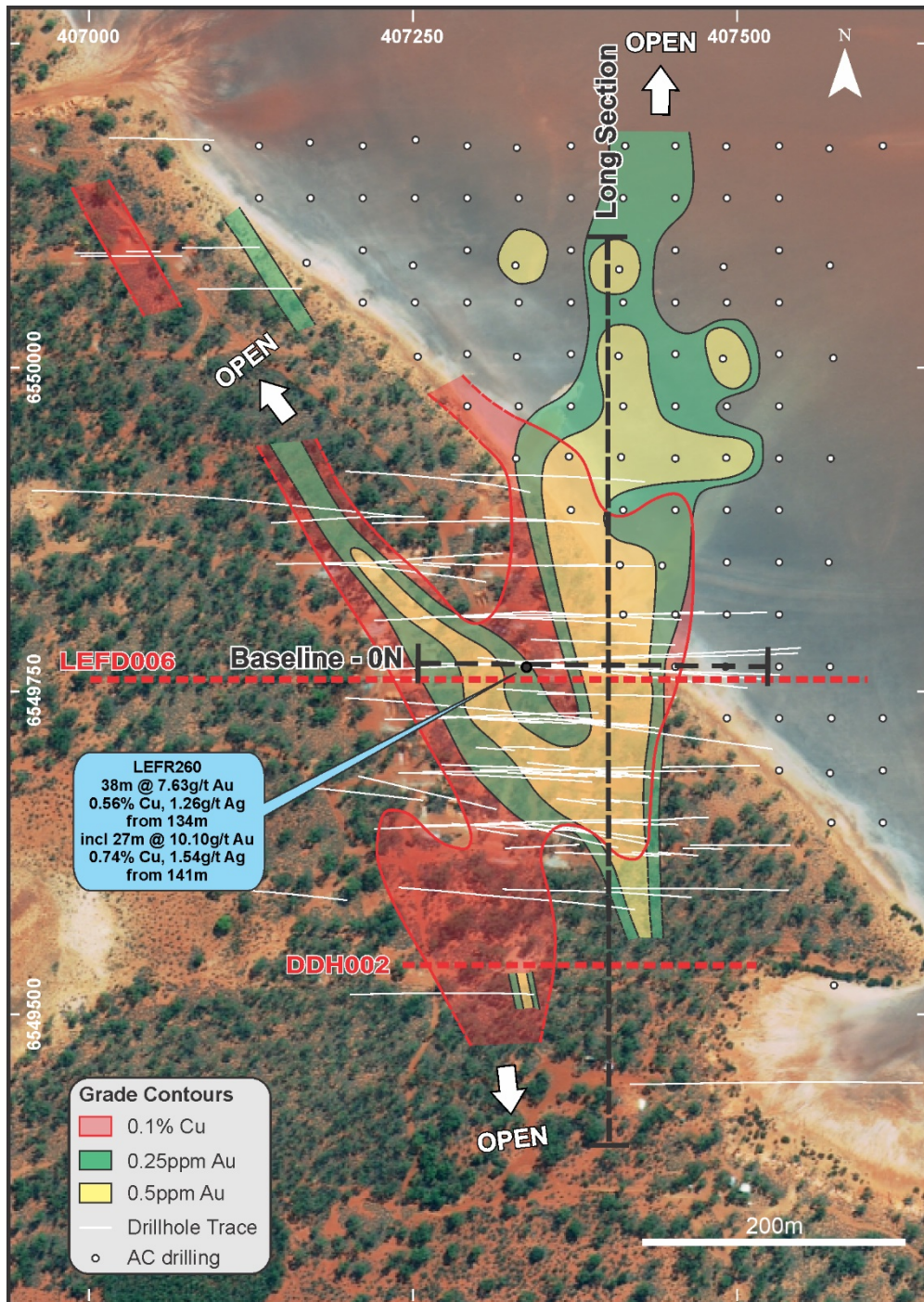
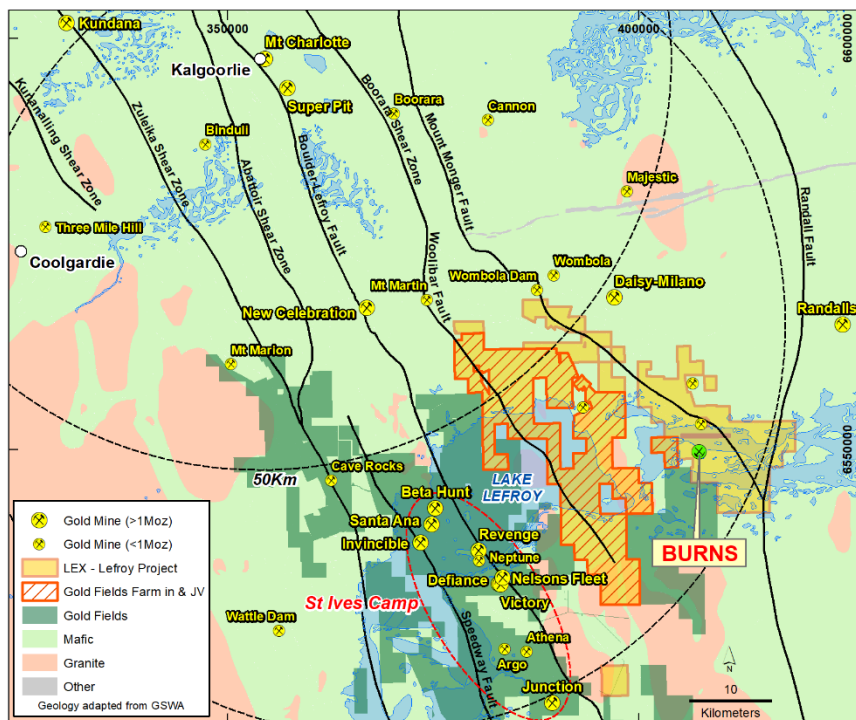


Figure 5 Burns drill hole plan showing RC & Diamond drill hole traces, extent of copper and gold grade contours, AC drill holes in Lake Randall and the position of the long section (slice) depicted in Figure 4

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 534km² 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:

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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.

- Outstanding High-Grade Gold and Copper Mineralisation Intersected at Burns: 23 February 2020
- Exploration Update-Drilling Extends Porphyry at Burns: 26 March 2021
- Drill Results Extend Copper Gold Zones at Burns: 29 April 2021
- Multiple Intervals of Altered Porphyry Intersected at Burns: 3 May 2021
- Burns Drilling Update-first hole on 40N section confirms significant mineralisation extends to the north: 18 June 2021
- Exploration Update-RC drilling commences at the Burns Cu Au prospect: 20 July 2021
- Burns Update-Cu-Au mineralisation confirmed on 0N section, step out drilling extends system: 2 August 2021
- June 2021 Quarterly Activities Report: 28 July 2021
- Exploration Update-Advancing the Burns and Coogee South Prospects: 18 August 2021
- Results from 40N section Further Enhance Burns Cu-Au System: 21 September 2021
- Multiple magnetic anomalies highlight 3000m trend at Burns: 28 September 2021
- Drill testing of multiple magnetic targets underway at Burns: 5 October 2021
- Massive drilling planned for the Western Lefroy JV:13 October 2021
- Burns Update-Drill Results continue to support larger Cu-Au-Ag system: 3 November 2021
- Burns Update Drilling underway at Lovejoy anomaly: 22 November 2021
- Major Drilling Programs Resumed at Lefroy: 19 January 2022
- RC Drill Results Outline New Gold Zone at Burns: 25 January 2022
- High-Grade results expand the Burns Cu Au System: 21 February 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

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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