ASX RELEASE-20 September 2022

Lefroy Exploration

Burns Update: Significant Copper Mineralisation Intersected at Lovejoy

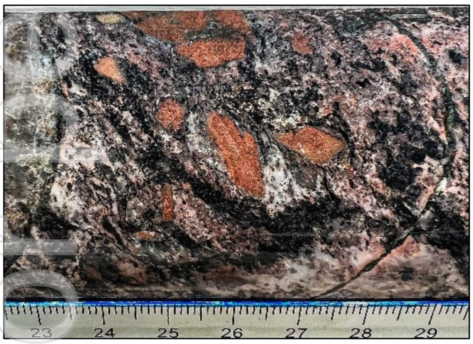
- **Diamond hole LEFD008, recently drilled at the Lovejoy prospect, which is 1.5km north of the Burns gold-copper discovery, has intersected significant copper mineralisation. LEFD008 was drilled to 364m down hole and has intersected:**
  - **A 145m long interval of copper mineralisation between 130m-275m, which contains;**
  - **A 42m length of hydrothermal breccia, which hosts extensive native copper and copper sulphides from 233m – 275m.**

- **The intensity of native copper mineralisation in the breccia zone is further demonstrated by copper coating the outside of several steel drill rods from the drill string (see below).**

- **The breccia and native copper visuals at Lovejoy provide additional evidence that Burns and the surrounding prospects are all part of a very large, copper-gold intrusion related, hydrothermal system.**

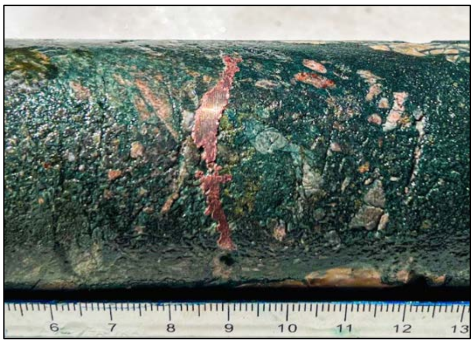
- **LEFD008 samples have been submitted to the lab for priority assay to fast-track results.**

- **The Company has acted immediately to advance this new discovery, with step-out hole LEFD009 underway.**



Copper replacing basalt clasts LEFD008

Copper coated drill rod from LEFD008



Copper nugget LEFD008

Lefroy Exploration Managing Director, Wade Johnson, said *"This is a remarkable new discovery of copper mineralisation 1.5km north of Burns, which is open. With every hole drilled we advance and grow the overall Burns project. We believe the copper-rich breccia is a component of a larger magmatic system, the limits of which we are yet to define. Lovejoy has always been a high priority target given its unique geophysical signature, as well as the significant results generated from LEFR297 in 2021 that ended in 1.5% copper at 258m. We have acted immediately on this new discovery and while we eagerly await the assays from LEFD008, we expect more encouraging visual results with follow-up diamond hole LEFD009."*

ASX Code: LEX
Shares on Issue: 147M
Market Capitalisation: $43.0m

Australian Registered Office
Level 3, 7 Rheola St
West Perth, 6005

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

www.lefroyex.com

Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to announce progress on the diamond drill program currently underway at the Burns Au-Cu intrusion-related mineral system, located in the Company's wholly owned Eastern Lefroy Gold Project, 70km southeast of Kalgoorlie.

Burns is a new and unique style of intrusion-related, gold (Au)-copper (Cu)-molybdenum (Mo)-silver (Ag) mineral system, hosted by Archean age rocks in the Eastern Goldfields Province (EGP) of Western Australia. The gold, copper, silver (and lesser molybdenum) mineralisation, which is hosted by multiple diorite-porphyry intrusives and high-magnesium basalt, is considered by the Company to be a new and unique style of gold-copper mineralisation.

LEX is aiming to advance the understanding of the scale and genesis of this system through its current, deep, diamond drilling program. Three holes, LEFD006-008, have now been completed, with a fourth hole, LEFD009, currently underway.

The original diamond program at Burns, comprised two holes, LEFD006-007 (one of which was EIS co-funded) with all assay results pending. The diamond rig then commenced LEFD008 at the priority Lovejoy prospect, located 1.5km north of Burns within the 'Burns Corridor'. Hole LEFD008 has been completed and step out hole LEFD009 is now underway.

Diamond Drill Hole LEFD008 at Lovejoy

The Lovejoy prospect is the northernmost magnetic anomaly of a linear trend of discrete magnetic features, extending 2000m northwest from Burns (Figure 1). Each of the magnetic anomalies was evaluated by RC drill holes in 2021 (LEX ASX release 3 November 2021). All the RC holes intersected altered diorite and basalt, similar to that observed at Burns.

The strongest alteration in dioritic porphyry was intersected in two RC holes completed at Lovejoy. These holes, LEFR296 and 297, are located on the western margin of the Lovejoy magnetic anomaly on the edge of Lake Randall (Figure 3).

Hole LEFR297 intersected significant intervals of hematite-silica altered breccia and associated Cu-Au-Ag mineralisation (refer LEX ASX release 3 November 2021). The breccia, with angular basalt clasts in an intense hematite-silica altered matrix including strong fine disseminated magnetite and sulphides, was intersected from 228m to 250m. Significant results from hole LEFR297 included:

- **10m @ 0.21g/t Au & 0.60% Cu & 2.5g/t Ag from 218m, including 2m @ 0.41g/t Au & 1.56% Cu & 5.5g/t Ag from 225m, and**
- **8m @ 0.22g/t Au & 0.51% Cu & 1.75g/t Ag from 250m to EOH, including 2m @ 0.67g/t Au & 1.53% Cu & 5.0g/t Ag from 256m to EOH**

Hole LEFR297, located on the edge of Lake Randall (Figure 1), was abandoned at 258m due to high flows of ground water. The last 2m of the hole ended in strong copper mineralisation hosted by altered diorite porphyry and basalt, with associated gold and silver credits. Importantly, the whole rock geochemistry from hole LEFR297 at Lovejoy shows a similar character to that observed at the Burns anomaly.

The end of hole (EOH) copper mineralisation and breccia host provided the framework to support and rank Lovejoy as a priority target for follow up drilling in the Burns Corridor.

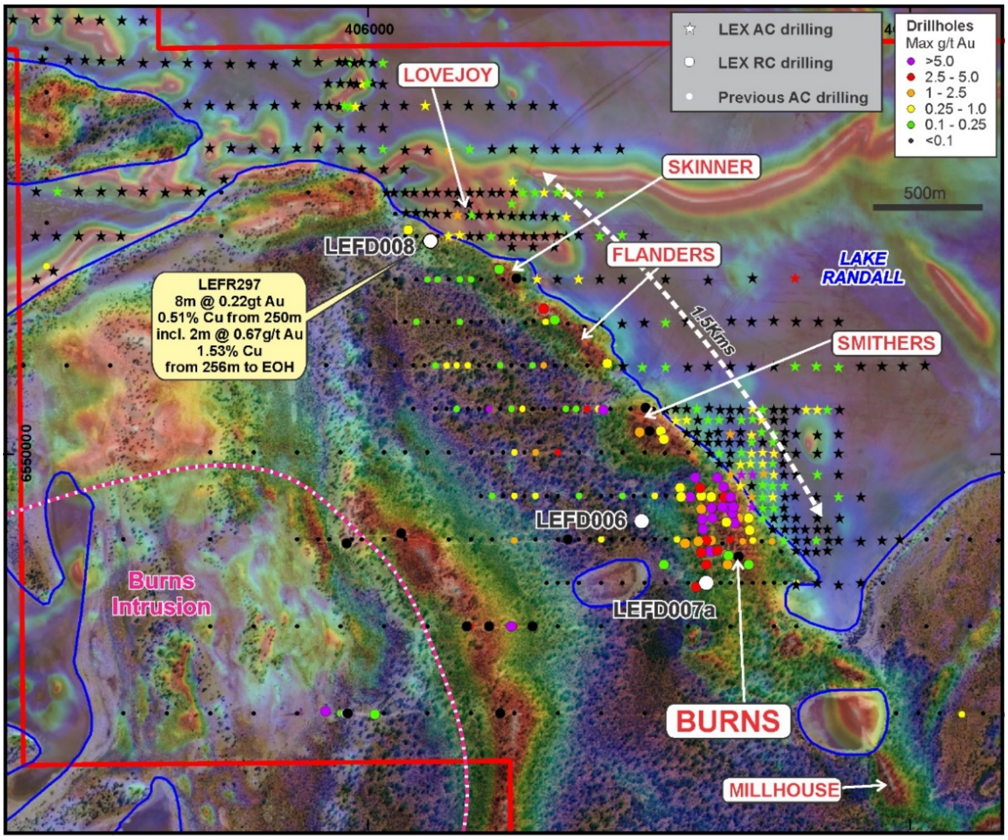


Figure 1 Combined satellite image with transparent TMI RTP aeromagnetic image highlighting the discrete magnetic anomalies along strike of Burns (warm colours represent rocks beneath the surface with higher magnetite content). Coloured and black dots represent historical AC drill holes. The recent diamond drill holes are highlighted. Refer to Figure 2 for the Lovejoy drill section.

Diamond drill hole LEFD008 was collared 5m west of LEFR297, with the aim of extending the mineralisation at depth, beyond 258m drilled in LEFR297, but also to gain a detailed understanding of the style and geometry of the breccia-hosted mineralisation. LEFD008 was completed at 363.8m downhole.

The hole intersected basalt intruded by a suite of diorite porphyries consistent with that observed in RC hole LEFR297. In addition, LEFD008 extended the mineral system a further 70m downhole beyond the depth that LEFR297 was abandoned. The extended interval intersected another altered porphyry which demonstrates the growth potential of the intrusive suite.

The basalt in the upper portion of the hole is highly fractured, with variable pyrite and copper sulphides including chalcocite, digenite (Figure 8), and chalcopyrite (Table 2). Additionally, occurrences of native copper (Figures 9 and 10) were noted.

The key purpose of LEFD008 was to evaluate the nature of the breccia identified in LEFR297. LEFD008 successfully intersected the breccia from 233-275m downhole. The breccia is characterised by angular basalt clasts within a hematite-silica-biotite-magnetite altered felsic to intermediate matrix. The matrix of the breccia has distinct banding, including orbicular textures and directional banding (Figure 7B). These textures indicate the breccia is hydrothermal in origin. The mineralisation within the breccia consists of pyrite, chalcopyrite, chalcocite, digenite, bornite, and strong native copper (Table 2).

The most spectacular characteristic of the breccia is the intensity of the native copper mineralisation. This occurs as partial to complete replacement of basalt clasts, as well as disseminations throughout the breccia matrix (Figure 7a to 7e). The intensity of the copper mineralisation was demonstrated by the residual copper coating on the outside of the drill rods when drilling. This was only evident once the rods had been extracted from the ground. The Company interprets this significant copper mineralisation to be a primary component of the breccia. This suggests the breccia may be an earlier phase of mineralisation of the larger Burns mineral system.

The discovery of the copper rich breccia at Lovejoy, 1.5km north of Burns, highlights the larger scale of the Burns magmatic system, which is open. This provides further confidence to test the other magnetic anomalies, such as Skinner and Smithers, along the Burns Corridor (Figure 1).

Multiple sample batches from the drillhole have been submitted to the laboratory for gold, copper, and multi-element analysis. Due to the sample processing delays at the laboratory in Perth, assay results are not expected until November.

Next Step: Diamond Hole LEFD009

The fourth diamond hole, LEFD009, is underway and is currently at 160m downhole (as of 19/09/2022). The hole has a planned depth of 450m and is designed to intersect the down-dip extent of the broad copper rich breccia zone intersected in hole LEFD008 (refer to cross section Figure 2).

The collar position of LEFD009 is located 10m west of LEFD008 (Figure 2). LEFD009 is expected to be completed in late September, with assay results anticipated in November, dependent on laboratory turnaround.

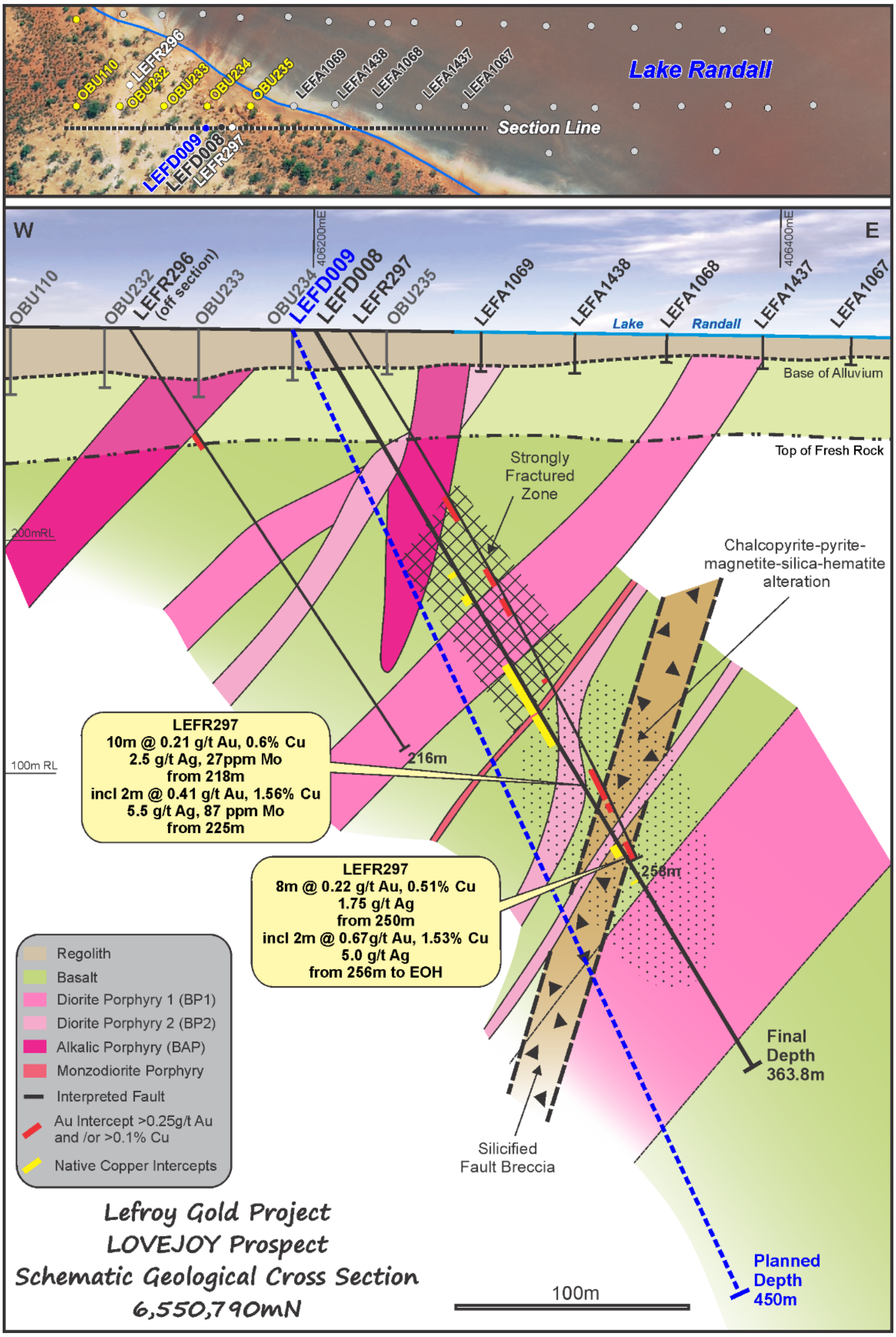


Figure 2 Lovejoy schematic drill section +/- 40m and plan view snapshot. Holes drilled by the Company on are prefixed LEF. Historical holes are prefixed OBU.

Figure 3 Location of Lovejoy drill hole LEFD008 on the edge of and looking northeast over Lake Randall.

This announcement has been authorised for release by the Board

Wade Johnson
Managing Director

Table 1 Burns Diamond Program Collar Details

Hole ID	Collar E (MGA)	Collar N (MGA)	Collar RL	Depth (m)	Azimuth	Dip	Area	Comments
LEFD006	407000	6549760	290	1245.8	90	-60	Burns	Mud rotary pre-collar to 60m
LEFD007a	407243	6549520	290	706.04	90	-60	Burns	Mud rotary pre-collar to 53.9m
LEFD008	406224	6550791	290	363.8	90	-60	Lovejoy	Mud rotary pre-collar to 19.5m
LEFD009	406210	6550790	290	In progress	90	-65	Lovejoy	Mud rotary pre-collar to 20m

Photographs of selected examples of core from LEFD008 within the broader geological intervals are shown below (Figures 4,5,6,7,8,9,10). These are not the only mineralised zones but are relevant examples to highlight the style of the copper mineralisation in the host altered diorite fault breccia.

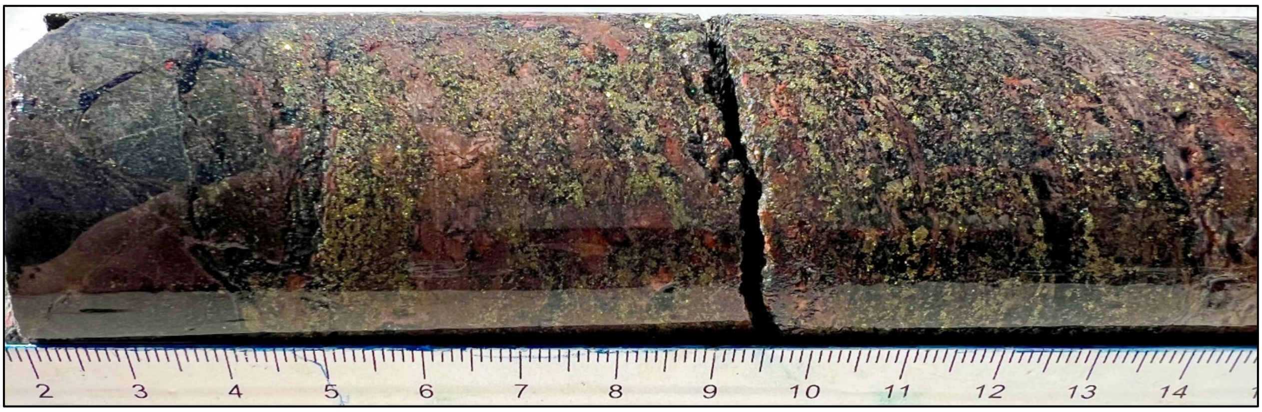


Figure 4 LEFD008 233m-233.15m Shear zone with chalcopyrite, pyrite, chalcocite, magnetite, and red hematite dust alteration.

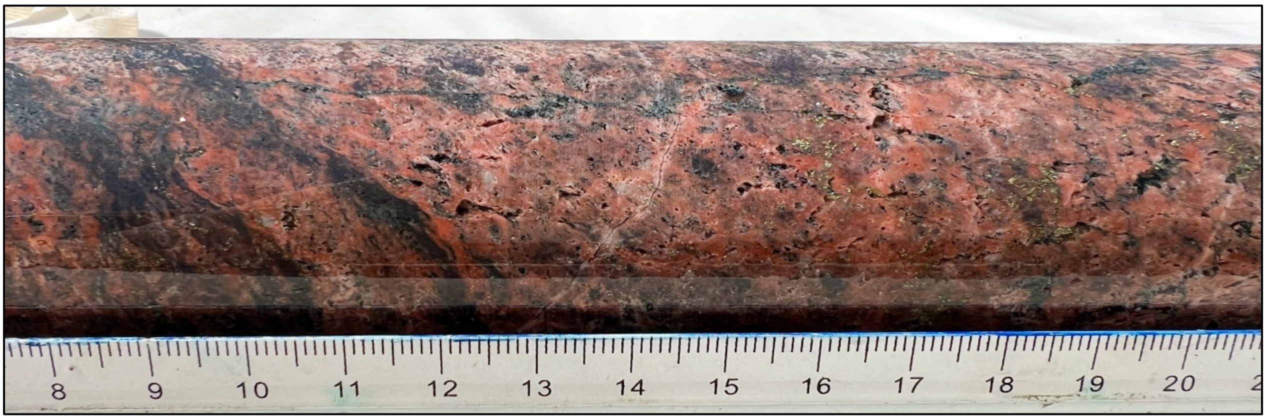


Figure 5 LEFD008 237.7m-237.83m Breccia with intense red hematite dust/silica alteration. Magnetite veins (black) on the left. Stringer/blebby chalcopyrite mineralisation.

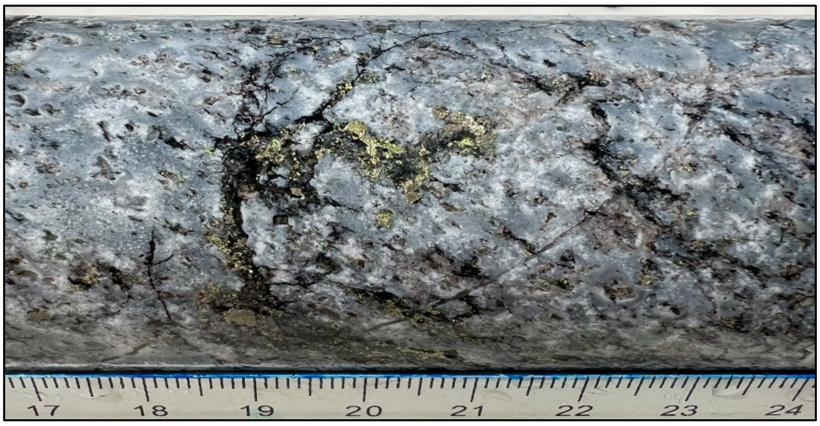


Figure 6 LEFD008 244.67m-244.8m Silica altered breccia with chalcopyrite, pyrite, and biotite veins (black).

Selected photos of the diorite fault breccia zone 252.8m-258m with intense red hematite, silica, magnetite, and biotite alteration. Clasts of basalt have been replaced by native copper. Native copper also features as crystals within (rare) quartz veins or disseminated within the matrix. Occasional cross-cutting actinolite veins are associated with bornite and/or chalcopyrite and pyrite.

Figure 7a Breccia with native copper replacing basalt clasts. Quartz vein to the left contains crystalline native copper. Strong biotite (black), silica (clear) and hematite dust (pink) alteration.

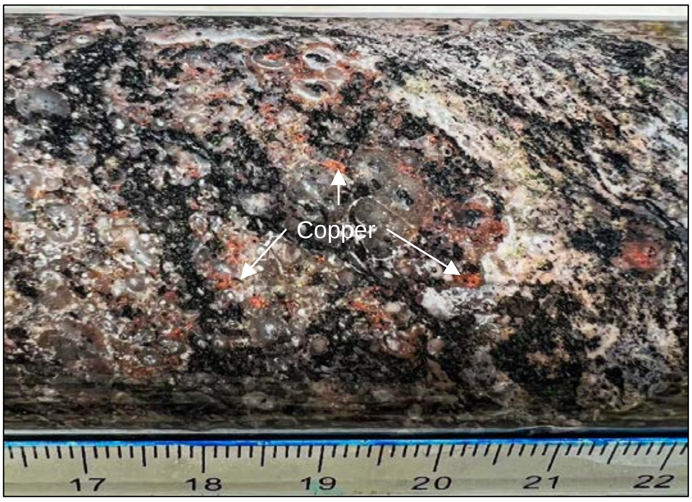


Figure 7b Breccia with disseminated native copper (orange) through the matrix. Strong biotite (black), silica (clear) and magnesite (white) alteration.

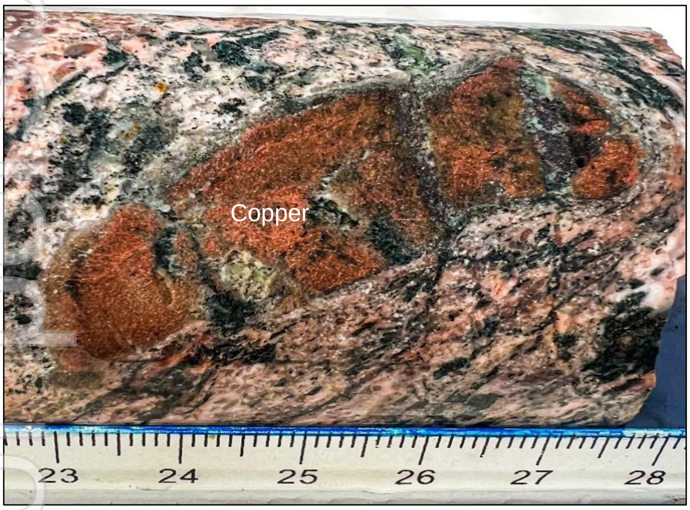


Figure 7c Breccia with native copper replacing basalt clasts. Strong biotite (black), silica (clear/pink), magnesite (white) and hematite dust (pink) alteration.

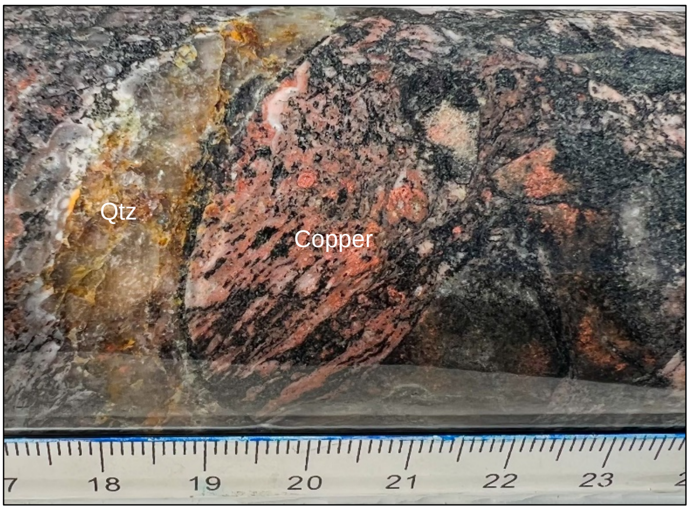


Figure 7d Breccia with native copper (orange), quartz vein to the left with crystalline native copper inside, strong biotite (black) and silica alteration.

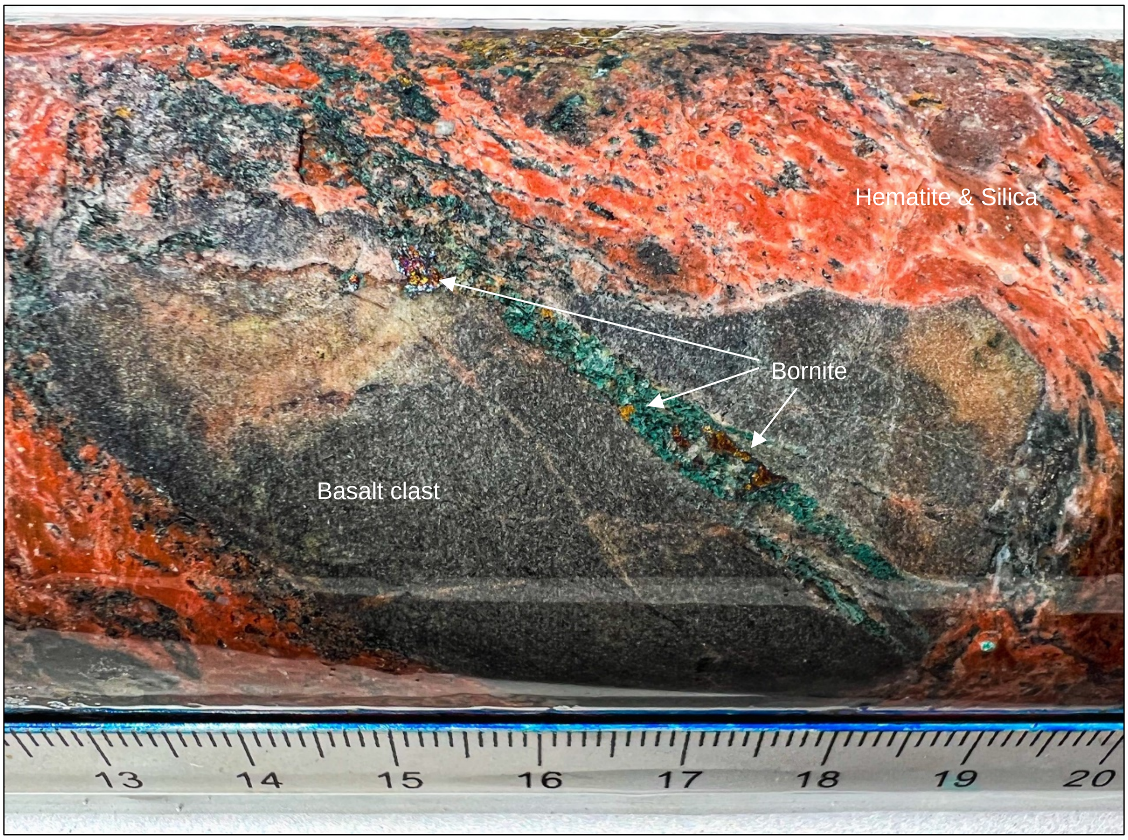


Figure 7e Breccia with intense red silica/hematite dust alteration. Basalt clasts are cross-cut by (green) actinolite veins with associated bornite.

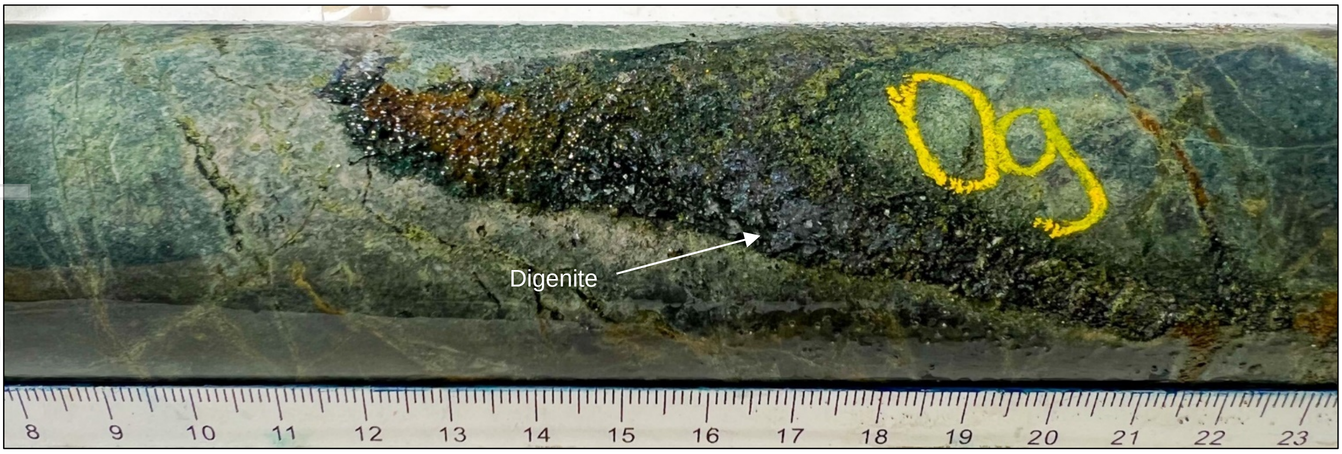


Figure 8 LEFD008 261.39m-261.53m Digenite (copper sulphide containing 80% copper) vein cross-cutting basalt.

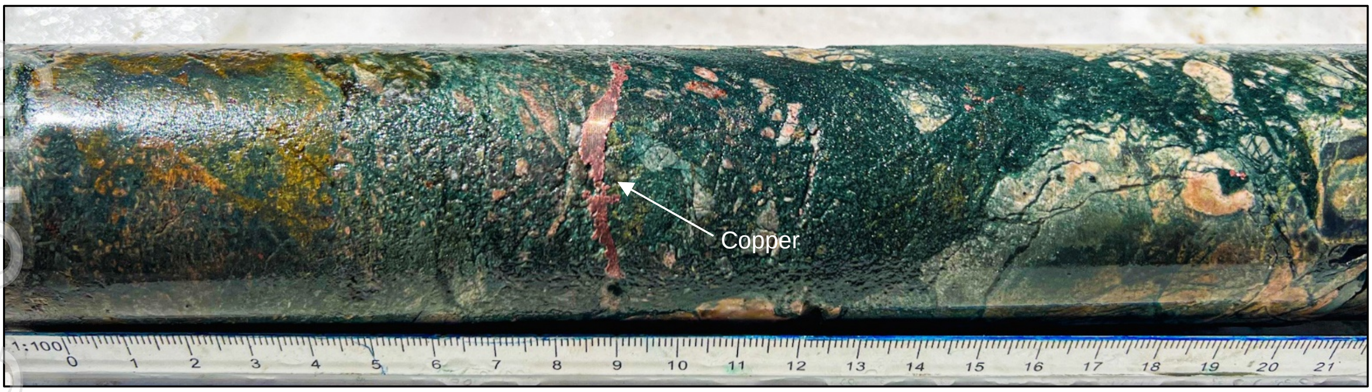


Figure 9 LEFD008 270.2m-270.43m Brecciated basalt with actinolite (dark green) matrix and native copper nuggets (orange).

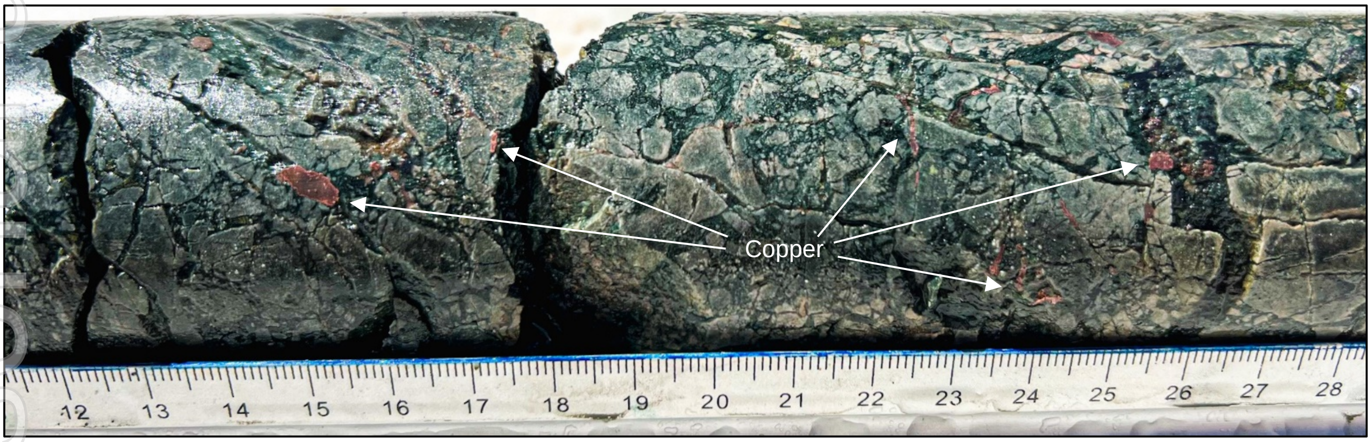


Figure 10 LEFD008 270.8m-271m Brecciated basalt with actinolite (dark green) matrix and native copper (orange).

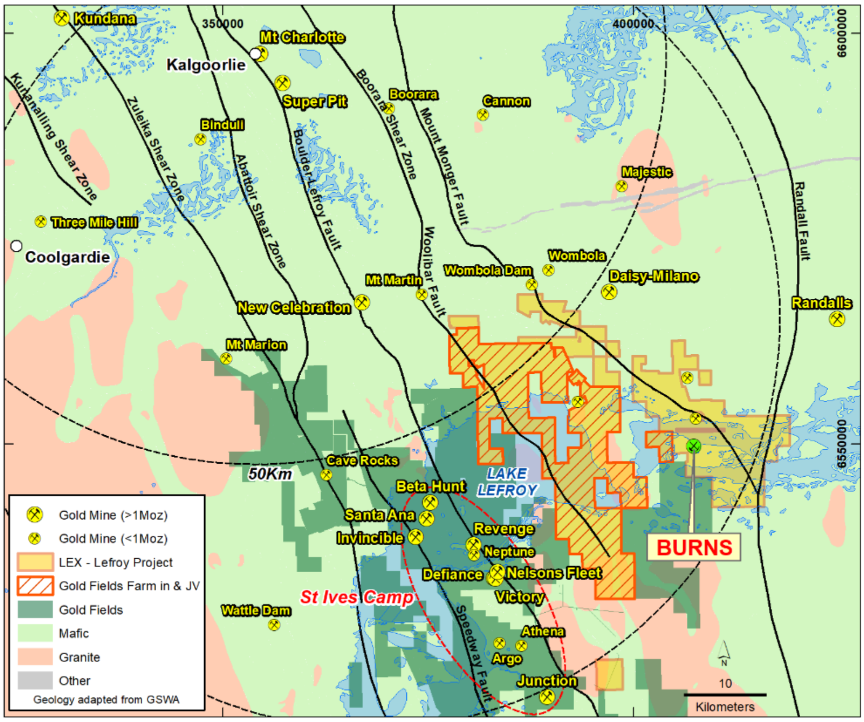
TABLE 2 Visual Estimate of Sulphide Mineralisation by Type from Alteration Zones in LEFD008

DEPTH FROM	DEPTH TO	INTERVAL	DESCRIPTION	MINERALISATION	STYLE	%
0	19.5	19.5	Pre-collar. No sample.			
19.5	56.07	36.57	Slightly oxidised, brecciated basalt. Moderate epidote alteration within fractures and some magnetite veining.			
56.07	78.9	22.83	BP2 diorite porphyry/fault zone. Highly fractured core with pervasive red hematite dusting and chalcocite on fractures.	Chalcocite	Fracture fill	1
78.9	105.71	26.81	BAP diorite porphyry with moderate pervasive magnetite alteration and weak red hematite dusting. 1% disseminated pyrite. Massive, flow banded. Pretty competent sticks of core.	Pyrite	Disseminated	1
105.71	108.68	2.97	Brecciated basalt with pervasive epidote and magnetite alteration. Trace blebby digenite.	Digenite	Blebby	0.5
108.68	112.29	3.61	BAP diorite porphyry. Massive, flow banded. Weak red hematite dusting.			
112.29	113.99	1.7	Vuggy pillow basalt with epidote-hematite-magnetite alteration			
113.99	113.34	-0.65	BAP diorite porphyry. Massive, flow banded, weak red hematite dusting.			
113.34	116.82	3.48	Basalt/brittle fault. Very broken core with moderate pervasive magnetite alteration			
116.82	118.78	1.96	BAP diorite porphyry with weak hematite dusting and weak pervasive magnetite			
118.78	120.9	2.12	Basalt/fault zone. Very broken core with pervasive magnetite alteration. Actinolite-magnesite-chlorite veins with oxidised blebs of Copper.	Copper	Blebby	0.5
120.9	123.86	2.96	BAP diorite porphyry with weak chlorite & leucoxene. Moderate pervasive magnetite.			
123.86	129.8	5.94	Massive basalt with epidote-calcite veins, pyrite-digenite-gypsum-magnesite-epidote veins, magnetite veins, oxidised blebby Copper, chalcocite on fractures, as well as trace blebby pyrite, chalcopyrite and pyrrhotite through the groundmass.	Pyrite	Vein	1
				Digenite	Blebby	0.5
				Chalcocite	Fracture fill	0.5
				Chalcopyrite	Blebby	0.5
				Pyrrhotite	Blebby	0.5
129.8	134	4.2	Fault breccia. Highly broken, brecciated basalt and diorite with strong magnetite and actinolite veining,as well as segments of bleached hematite/feldspar alteration. Chalcocite on fracture planes, blebby digenite + pyrite (veins/breccia) and oxidised native copper.	Chalcocite	Fracture fill	1
				Digenite	Blebby	0.5
				Copper	Blebby	0.5
				Pyrite	Blebby	0.5
134	163.9	29.9	BP1 diorite/fault zone. Very very broken diorite with slickenlines on fracture planes. Pervasive red hematite dusting, moderate green epidote coating feldspars, weak perv. magnetite. Decent amount of chalcocite on fracture planes.	Chalcocite	Fracture fill	1
163.9	187.64	23.74	Pretty broken pillow basalt with epidote veins and magnetite veins. Magnesite, gypsum, actinolite and some native copper in fractures. Chalcocite on fracture planes. Blebby/vein chalcopyrite and pyrite.	Chalcocite	Fracture fill	1
				Chalcopyrite	Blebby	0.5
				Pyrite	Blebby	0.5
				Copper	Fracture fill	0.5
187.64	188.69	1.05	Burns Intrusion. Monzodiorite with feldspar megacrysts. Intense pervasive red hematite dust alteration			
188.69	203.47	14.78	Pretty broken pillow basalt with epidote veins and strong magnetite veining. Magnesite, gypsum, actinolite and some native copper in fractures. Chalcocite on fracture planes. Blebby/vein chalcopyrite and pyrite.	Chalcocite	Fracture fill	1
				Chalcopyrite	Blebby	0.5
				Pyrite	Blebby	0.5
				Copper	Fracture fill	0.5
203.47	206.38	2.91	BP2 diorite poprhyry with pervasive red hematite dust/epidote alteration, actinolite-chalcocite veins and quartz-chalcocite (or biotite??) veins	Chalcocite	Fracture fill	1
206.38	209.13	2.75	Slightly brecciated basalt with strong magnetite veining, moderate epidote veining and chalcocite on fractures	Chalcocite	Fracture fill	1
209.13	229.5	20.37	BP2 diorite porphyry with moderate hematite -epdiote alteration, weak pervasive magnetite and moderate quartz-epdiote veining.			
229.5	233	3.5	Vuggy slightly brecciated basalt with strong magnetite veining and chalcocite on fracture planes	Chalcocite	Fracture fill	1
233	233.6	0.6	Shear zone. Foliated biotite and hematite + pyrite, chalcopyrite, chalcocite, digenite or moly, and chalcocite.	Pyrite	Foliated	15
				Chalcocite	Foliated	5
				Chalcopyrite	Foliated	2
				Digenite? Or Moly?	Blebby	0.5
233.6	237.1	3.5	Fault breccia. Pink/grey silica flooded fault breccia with strong pervasive vein/brecciated biotite. Possibly some chalcocite but not much visible sulphide. Relict qtz/fsp, pretty broken core.			
237.1	238	0.9	Strongly foliated, massive magnetite, + foliated pyrite/chalcopyrite + chalcopyrite in fractures. Pretty broken area.	Chalcocite	Fracture fill	5
				Chalcopyrite	Foliated	3
				Pyrite	Foliated	3
238	248.5	10.5	Fault breccia. Grey/red with hematite, silica flooded, brecciated. Disseminated pyrite, chalcopyrite, and strong magnetite. Pervasive biotite alt.	Chalcopyrite	Disseminated	2
				Pyrite	Disseminated	4
248.5	252.8	4.3	Slightly brecciated BP2 diorite. Hematite magnetite altered.			
252.8	258	5.2	Fault breccia. Intense pervasive red hematite, proper clasts, strong biotite and actinolite alteration, brecciated/disseminated native copper. Also 1x quartz vein with crystals of native copper inside. A lot of the matrix is red hematite dust but some of the red is due to copper (metallic, orange).	Copper	Brecciated	4
258	259	1	Magnetite breccia. Massive magnetite with chalcopyrite and pyrite	Chalcopyrite	Stringer	1
				Pyrite	Stringer	3
259	270	11	brecciated basalt with magnetite actinolite alteration. 1% blebby digenite.	Digenite	Blebby	1
270	271	1	Brecciated basalt with slugs/nuggets/veins of native copper.	Copper	Vein	1.5
271	275	4	Magnetite breccia. Massive magnetite with chalcopyrite and pyrite	Chalcopyrite	stringer	1
				Pyrite	stringer	3
275	337	62	BP1 diorite porphyry. Pervasive red hematite dust alteration and localised zones of hematite-magnetite breccias. 1% disseminated pyrite	Pyrite	Disseminated	1
337	338	1	BP1 diorite porphyry with intense red hematite dusting + stringer pyrite and chalcopyrite	Chalcopyrite	Stringer	1
				Pyrite	Stringer	3
338	352.5	14.5	BP1 diorite porphyry with moderate pervasive hematite dusting, some quartz-epidote veins, and 0.5-1% disseminated pyrite	Pyrite	Disseminated	1
352.5	363.8	11.3	Basalt with strong epidote veining + moderate white/slightly pink calcite veins.			

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 is also highlighted.

For Further Information please contact:
Wade Johnson
Managing Director
Telephone: +61 8 93210984

Email: wjohnson@lefroyex.com

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 2021
- 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 Recommenced 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
- 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

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

END

JORC CODE, 2012 Edition-Table 1 Report –Lefroy Project –Burns Cu-Au Prospect LEFD008 Diamond Hole

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The sampling noted in this release has been carried out using Diamond drilling (DD) at the Burns Copper (Cu) – Gold (Au) prospect. The drill program is attached this ASX release and reports on holes LEFD007a, LEFD008 and LEFD009. Hole depths and collar details are detailed in Table 1 of the report. • Sampling and QAQC protocols as per industry best practice with further details below. DD was conducted utilising HQ and NQ sized core as the pre-collar drilled into fresh competent rock. This was left to drillers' discretion. Core was collected in core trays where it was marked up and logged by the supervising geologist. It was noted that there was excellent core recovery and only minor zones of core loss which were recorded by the geologist. Cutting and sampling is completed by first cutting the core in half using an Almonte core saw and collected in calico bags with a minimum sample width of 0.2m and a maximum 1.2m to produce a 2-4kg sample through the interpreted mineralised zone. Once at the lab samples will be dried, crushed and prepared to produce a 40g charge for fire assay analysis for gold (Au) by Atomic Absorption Spectrometry (AAS). Additional elements, will derived using a mixed acid digest with ICP finish for Cu, Ag, As, Mo, Co, Fe, Pb, S, Te, W and Zn.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• The diamond drilling (DD) is completed by Raglan Drilling (Kalgoorlie). The diamond holes were commenced using mud rotary to approximately 60m, then HQ sized core. NQ sized core was primarily used as core was generally competent. Accurate bottom of hole orientation marks were captured using an Ace tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Diamond core was measured and compared to drilled interval indicated by the drillers. From this, a percentage of recovery can be calculated. Where core loss occurred, this has been diligently noted by the drill crew and geologist. • The use of professional and competent core drilling contractors minimised the issues with sample recoveries. An honest and open line of communication between the drill crew and the geologist allowed for a comprehensive understanding of where core loss may have occurred.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Detailed logging of, regolith, lithology, structure, veining, alteration, mineralisation and recoveries recorded in each hole by qualified geologist. • Hole LEFD007A and LEFD008 were logged for the entire length. Logging of LEFD009 is underway. • Diamond core underwent detailed logging through the entire hole with data to be transferred to the Lefroy drilling database after capture • Analysis of rock type, colour, structure, alteration, veining and geotechnical data were all routinely collected. • Geological logging is qualitative in nature and relies on the geologist logging the hole to make assumptions of the core character based on their experience and knowledge. • Recovery, RQD (rock quality designation) and magnetic susceptibility measurements were recorded and are considered to be quantitative in nature. • Core within the core trays for each hole was photographed using a purpose made camera stand and a quality digital SLR camera and stored in the database. • All drill holes are logged in their entirety (100%).

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Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**DD** • Half drill core has been sampled and placed in numbered calico bags. • Sample intervals are determined by the logging geologist on nominal 1m intervals. Care is taken to ensure samples are representative of lithological and mineralised boundaries. • Sampling is checked by both field staff and geologist. • Field duplicates are not taken for half diamond core. • The remaining half core is retained in core trays for future reference.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The DD Samples will be analysed for gold using the 40gram Fire Assay digest method with an AAS finish at Bureau Veritas's Perth Laboratory. Additional elements, will derived using a mixed acid digest with ICP finish for Cu, Ag, As, Mo, Fe, Pb, S, Te, W and Zn. • Selected samples were analysed for an additional 61 elements using a mixed acid digest with ICP-MS finish. • Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy. • Certified standards and blanks are inserted into sample batches by LEX staff at regular intervals. At the laboratory regular assay repeats, lab standards, duplicate checks and blanks are analysed. • Results of the sample analysis have not yet been received.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Capture of field logging is electronic using Toughbook hardware and Logchief software. Logged data is then exported as an excel spreadsheet to the Company's external database managers which is then loaded to the Company's DATASHED database and validation checks completed to ensure data accuracy. Assay files are received electronically from the laboratory and filed to the Company's server and provided to the external database manager. • No assay data to report
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole position was surveyed using a GPS operated by the rig geologist/field assistant. Post drilling, hole collars are surveyed using a DGPS by a third-party contractor. Down holes surveys are completed by Raglan drill crew using a multi-shot gyro which records a survey every 30m down the hole during the drilling. • Grid System – MGA94 Zone 51. Topographic elevation captured by using the differential GPS.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Data spacing for first pass exploration is conducted at roughly 80m x 160m hole spacing. • Data spacing is not sufficient to establish the degree of continuity required for Mineral Resource estimates. • No sample compositing has been applied.

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Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The east-west orientated drill traverses are considered effective to evaluate the roughly north-west/south-east trending stratigraphy and structures that dip steeply to the West. • The drill orientation is a more effective test of "true" width of the host rock due to the fact the host rock unit is striking roughly North-West/South-East. • At this stage the primary controls on the hypogene copper-gold (Cu-Au) system are not completely understood, however analysis of previous drilling in conjunction with this drilling have determined the drill hole orientation is optimum to determine the approximate true width of mineralisation and improve geological knowledge of the system.
Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged in labelled and numbered calico bags, collected and delivered to the Bureau Veritas Laboratory (Kalgoorlie) by Company field personnel. Samples were then on sent to the BV lab in Perth. Samples were then sorted and checked for inconsistencies against lodged submission sheet by Bureau Veritas staff. • Bureau Veritas checked the samples received against the Lefroy Exploration Limited (LEX) submission sheet to notify of any missing or extra samples. Following analysis, the sample pulps and residues are retained by the laboratory in a secure storage yard.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• 1m intervals of core have been sampled from 60m to 1100m • The Managing Director and Senior Geologist reviewed and verified the logging of LEFD007A and LEFD008.

Section 2: REPORTING OF EXPLORATION RESULTS – LEFROY PROJECT- Burns Cu-Au Prospect LEFD008 Diamond Drilling program

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Lefroy Project is located approximately 50 km in south-east from Kalgoorlie, Western Australia and consists of a contiguous package of wholly owned tenements held under title by LEX or its wholly owned subsidiary Monger Exploration Pty Ltd. The work described in this report was completed on Exploration lease E 15/1715. • E 15/1715 is held 100% by Monger Exploration Pty Ltd a wholly owned subsidiary of Lefroy Exploration Limited • The tenements are current and in good standing with the Department of Mines and Petroleum (DMP) of Western Australia.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 1968-1973 BHP: The earliest recognition of the magnetic anomaly was by BHP. The area fell within TR 3697, which had been taken up for nickel. The anomaly stood out on the BMR aeromagnetic contoured plans and BHP was testing aeromagnetic anomalies that could have an ultramafic source. The anomaly was confirmed by ground magnetics but an attempt to drill test with two percussion holes failed to identify any bedrock and no further work was attempted. • 1984 Coopers Resources/Enterprise Gold Mines: The ground encompassing Burns was taken up as three Els, E15/19-21. • 1985 BHP: BHP farmed into E15/21 having re-interpreted the magnetic feature as a potential carbonatite. BHP's E15/57 covered the western one third of the anomaly. Following ground magnetic traverses, BHP drilled two diamond core holes, LR 1 and 2. LR 1 falls within Goldfields E15/1638 and LR 2 falls within P15/6397. The results, which are covered in the next section, did not indicate a carbonatite and so BHP withdrew their interest in the area. • 1985-1989 CRAE: Meanwhile CRAE was conducting exploration for gold on adjacent tenements and had engaged Jack Hallberg to carry out geological mapping. He mapped suites of intermediate dykes (plagioclase-quartz-hornblende porphyry) intruding basalt in outcrops to the north west of Burns. • 1992: M. Della Costa took up E15/304 over aeromagnetic anomalies including Burns. The EL was vended into Kanowna Consolidated Gold Mines as part of the St Alvano project. • 1996-2001 WMC: WMC joint-ventured into the St Alvano project, which comprised a total of 12 ELs. They flew 50m line-spaced aeromagnetics and engaged EHW to interpret. Burns was not highlighted as such but the magnetic anomalies forming portions of the annular ring were tested with air core, leading to the discovery of the Neon prospect. Subsequent to the EHW study a gravity survey was conducted which did identify the Burns intrusive as a gravity low. • 2001-2003 Goldfields: Goldfields took over exploration and conducted further air core drilling at Neon. They identified S11 as a target to the south of Burns. The target was secondary gold dispersion in weathered bedrock associated with magnetite enrichment. A series of north-south air core traverses were drilled on 640 X 160m. Results were regarded as disappointing and the project was dropped. • 2005-2008 Gladiator Resources: The area was taken up by Sovereign following their assessment of previous work. They identified Homer's Inlet and the S11 area as priority targets. In 2007 a JV was established with Newmont/Sipa covering the gold rights. In 2008 the southern and eastern sectors of W15/774 was surrendered and taken up as E15/1030. The northern sector including Burns was surrendered. • 2008 Gold Attire: The ground surrendered by Sovereign over Burns was taken up as E15/1097. • 2008-2010 Newmont: Newmont joint ventured into the Sovereign and Gold Attire ELs. It conducted an 800 X 400m gravity survey to trace a north-south "Salt Creek-Lucky Bay" corridor through the tenements. This was tested by four lines of

Criteria	JORC Code Explanation	Commentary
		aircore on 640 X 160m spacing. Two aircore traverses on a 1200 X 320m spacing were also and conducted across the interpreted intrusion and the surrounding magnetic halo. Infill drilling was conducted following up on the 2.0m @ 5.0 g/t Au intercept in a Goldfields hole, SAL 1089. The hole was re-entered and a diamond core tail drilled. This hole falls just inside E15/1638 close to the boundary with P15/6397. • 2010-2019 Octagonal Resources: Three phases of AC to define a gold in regolith anomaly east of the main intrusive body. Two phases of RC identified Ag-Cu-Au mineralisation on four sections spaced approx. 40m apart. The drilling recognised Cu mineralisation which due to the host rock association, Octagonal believed there was potential for a much larger intrusion related system so the emphasis was switched from orogenic gold style exploration to predominately copper focussed intrusion related hosted mineralisation. In 2013 surface geophysical techniques were applied looking for conductors that might represent massive sulphides. Ground EM failed to identify any bedrock conductors, but the magnetic surveys did identify anomalies. In 2014, a diamond core hole, OBUDD001, was drilled at -60 degrees to 090 east to 401.5m in order to test the source of the magnetic anomalism, which occurred within the area tested by the RC drilling. It intersected a 3.6m wide zone of mafic-dominant breccia including 0.9m of massive magnetite-chalcopyrite which returned 4.5 g/t Au, 2.6% Cu from 256.4m, within a low-grade zone of 55.95m @ 0.5 g/t Au and 0.2% Cu from 229.85m It was interpreted to be a west-dipping structure and the feeder conduit for the mineralization. A second zone of low-grade mineralization of 38.5m @ 0.5 g/t Au and 0.2% Cu was intersected from 184.5m. An EIS grant in 2015 and a loan from a third-party company allowed for two more DD holes to be completed, however by 2016 the Company was acquired by the third-party loan company and subsequently delisted from the ASX.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Lefroy Project is located in the southern part of the Norseman Wiluna Greenstone Belt and straddles the triple junction of three crustal units, the Parker, Boorara and Bulong Domain. The Lefroy project tenements are mostly covered by alluvial, colluvial and lacustrine material with very little outcrop. Burns is proximal to the Lake margin and is subsequently under >20-25m of lake sediment and surface sand dune cover. A stripped profile below this cover means that there is no significant dispersion or oxide component to the Burns prospect. Mineralisation is hosted with a High Mg Basalt and in intermediate composition porphyries which intrudes the basalt. Mineralisation is primarily gold associated with magnetite alteration and copper occurring as native copper and chalcopyrite in veins and veinlets throughout the basalt and porphyry.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  • *dip and azimuth of the hole*
	  • *down hole length and interception depth*
	  • *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the*
		• Table containing drill hole collar details are included in the Table in the body of the announcement.
		• No Information has been excluded.
		• Table 1 of drill hole collars completed by Lefroy is noted in this announcement.

Criteria	JORC Code Explanation	Commentary
	Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No assay data to report for holes LEFD00A and LEFD008. • LEFD009 drilling is in progress.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• All assay results are based on down-hole metres. • Previous drill coverage has provided guidance for the presence of steeply dipping geology comprising a package of rocks containing basalt intruded by diorite porphyry. The data from this and modelling of prior ground magnetic data provides support for orientation of the drilling. Results from this drill program do not represent 'true widths' however holes are designed to intercept the host sequence perpendicular to its strike.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate summary diagrams (plan and section) are included in the accompanying announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No assay data to report from holes LEFD007A and LEFD008. • Geological observations and visual estimates of mineralisation have been recorded by qualified and competent geologists and verified by the Senior Geologist and Managing Director. • Visual estimates are indicative of the presence of identified minerals only and should not be taken as a substitute for laboratory assays.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All relevant data and geological observations have been included within this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The appropriate next stage of exploration planning is currently underway and noted in the body of the report. • The diamond drill program is ongoing.