Lefroy Exploration

Drilling Update-Native Copper Intersected at Burns Au-Cu Prospect

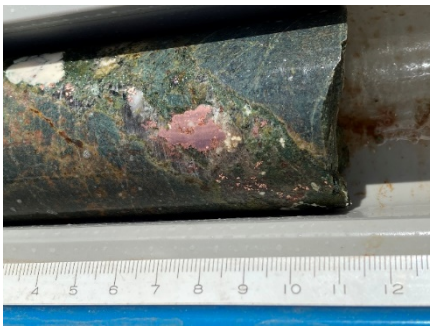
- **The Burns gold-copper prospect is located in the Eastern Lefroy project 60km south east of Kalgoorlie.**

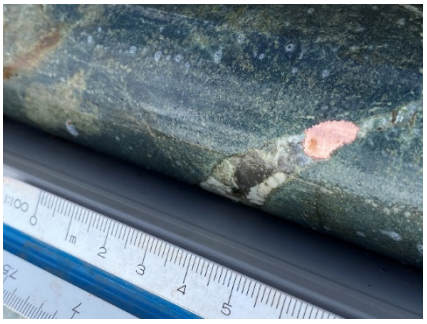
- **Burns was discovered in 2011, with subsequent RC and diamond drilling by a previous explorer intersecting broad zones of gold and copper mineralisation in magnetite biotite altered basalt and felsic intrusive rocks. Results include:**

  - **50m @ 0.9g/t Au & 0.5% Cu from 24m in OBURC16**
  - **32m @1.7g/ Au & 0.6%Cu from 76m in OBURC011**
  - **12m @1.5g/t Au & 0.5% Cu from 27m in OBURC021**
  - **38.5m @ 0.5g/t Au & 0.2% Cu from 184.5m in and**
    55m @ 0.5g/t Au & 0.2% Cu from 229.85m in OBUDD001

- **A 25-hole combined RC and diamond drilling program commenced on 12 January 2021 to test both strike and depth extensions to the Burns system and the adjacent main monzonite intrusion to assist in advancing the geological model.**

- **Native copper has been intersected in five drill holes on multiple consecutive sections over a 140m strike length hosted in quartz-chlorite-calcite vein fracture fill within fresh basalt as deep as 190m downhole. The system is open. Intersections of copper sulphides in hole LEFR273 provide support for a deeper primary sulphide system.**





- **The Burns prospect is coincident with a discrete magnetic high related to magnetite alteration within basalt and diorite porphyry. A similar magnetic anomaly, known as Smithers, has been located 300m to the north of the current drilling. This anomaly remains untested.**

- **Three RC pre-collared diamond holes have been completed at Burns and drilling is ongoing. Results from the program are expected in March**

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Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to provide an update on the 6000m combined reverse circulation (RC) and diamond drilling program which is underway at the Burns Prospect. Burns is within the Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 60km south east of Kalgoorlie (Figure 1).

The Non-JV Eastern Lefroy tenement package covers 249km^2. It now spans 40 strike kilometres from the Hang Glider Hill prospect in the north west to Lake Randall in the south east as one contiguous wholly owned land package. The Lefroy Gold Project in its entirety covers 621km^2.

The Burns Prospect lies within the Lake Randall Exploration Hub that is immediately south east of the Lucky Strike-Havelock-Erinmore BIF trends. The hub contains tenement E15/1715 that covers an area of approximately 20km^2 containing the Burns gold-copper prospect which was originally discovered by Octagonal Resources Limited ("Octagonal") in 2011.

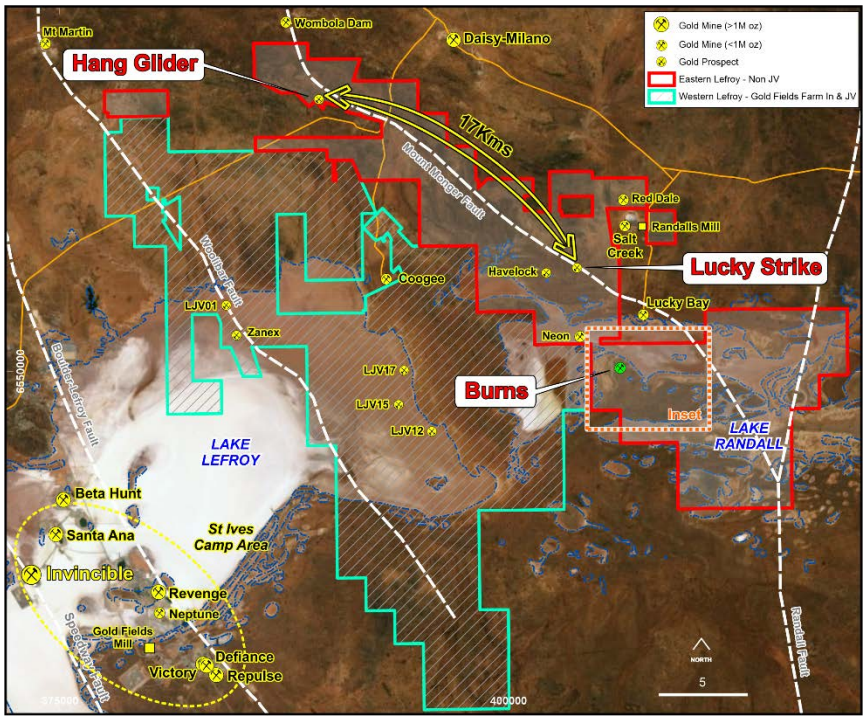

Figure 1 Lefroy Gold Project tenement plan highlighting the Burns prospect and proximity to Lucky Strike. Refer to Figure 2 for the inset map.

The Burns gold (Au) copper (Cu) 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 (Figure 2) (refer LEX ASX release 16 September 2020). The tenement (E15/1715) covering the Burns system was granted to LEX on 31 August 2020.

Drill Program

A 25-hole combined RC and diamond drill program totalling approximately 6000m, which was designed to evaluate the depth and strike extensions to the Burns gold copper system, commenced on 12 January 2020 (LEX ASX release 12 January 2021). Hole depths of up to 350m are planned to evaluate the previously defined system at depth on four, 40m spaced sections, with two 40m spaced step-out sections testing the northern strike extent.

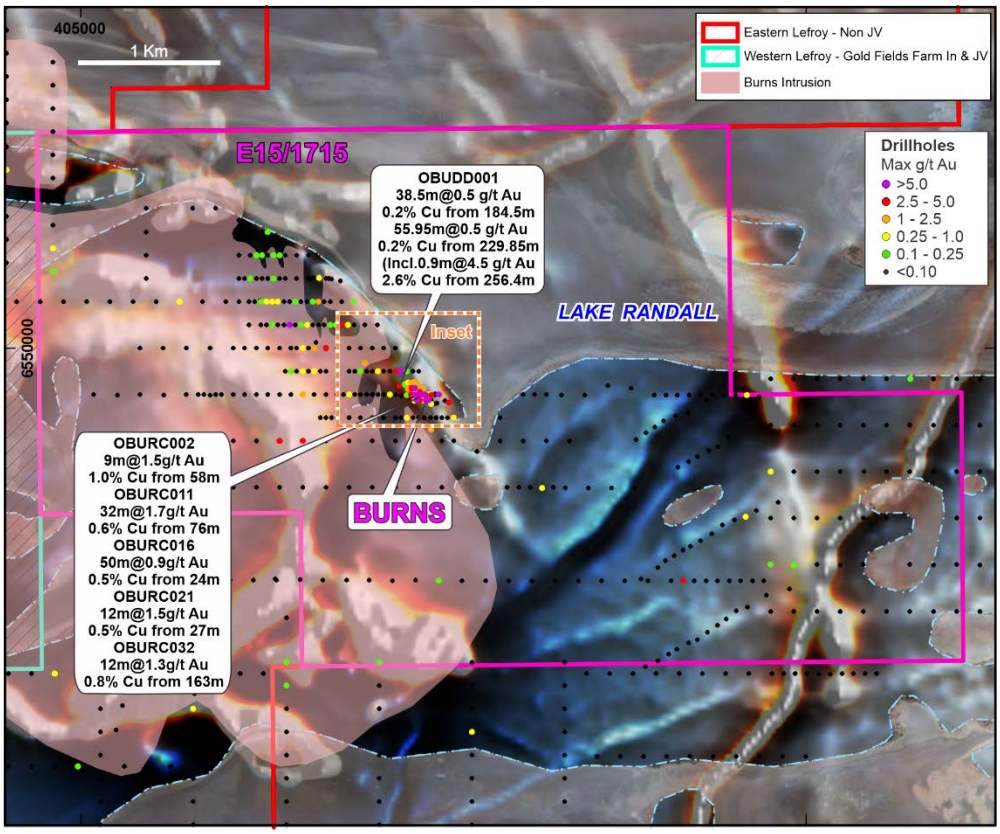

Figure 2 Inset plan highlighting tenement E15/1715, the Burns prospect, extent of the Burns Intrusion and the strike extension of the Lucky Strike BIF with compiled previous drill holes. Refer to inset for completed drill hole plan.

As of 31 January 2021, twenty-two holes for 3810m had been completed at Burns (Table 1). These holes are either RC or RC pre-collared diamond holes that have evaluated a 240m strike section of the Burns magnetic anomaly (Figure 3). This includes three RC pre-collared diamond holes (LEFR266, 268 and 273) that targeted the depth and strike extensions to previous drill hole OBUDD001 which intersected two broad zones of gold and copper mineralisation (refer background to Burns below).

The RC and diamond drilling has intersected epidote altered basalt and variably hematite altered diorite porphyry. The altered basalt and porphyry are variably magnetite-altered in places represented either by massive magnetite veins, veinlets, or disseminations. This magnetite alteration results in a strong discrete magnetic feature at Burns (Figure 3).

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Importantly, multiple holes on 40m spaced consecutive drill sections have intersected intervals of fresh basalt containing native copper. The copper is present as either fine disseminations or up to 1cm sized pieces usually in fracture or vein fill associated with gypsum and calcite (Figure 4). RC pre-collared diamond hole LEFR273 had two zones of native copper, the deepest being at 190m down hole.

The observation of native copper at Burns was not previously noted in the historical RC or diamond drilling and is considered by the Company to be an important development. Holes LEFR 266, 268, 271, 273 and 275 have intersected native copper. These holes are essentially step out (west) aimed at evaluating the Burns system at depth and define a northerly trending corridor of native copper hosted by fresh basalt that is open to the south (Figure 3).

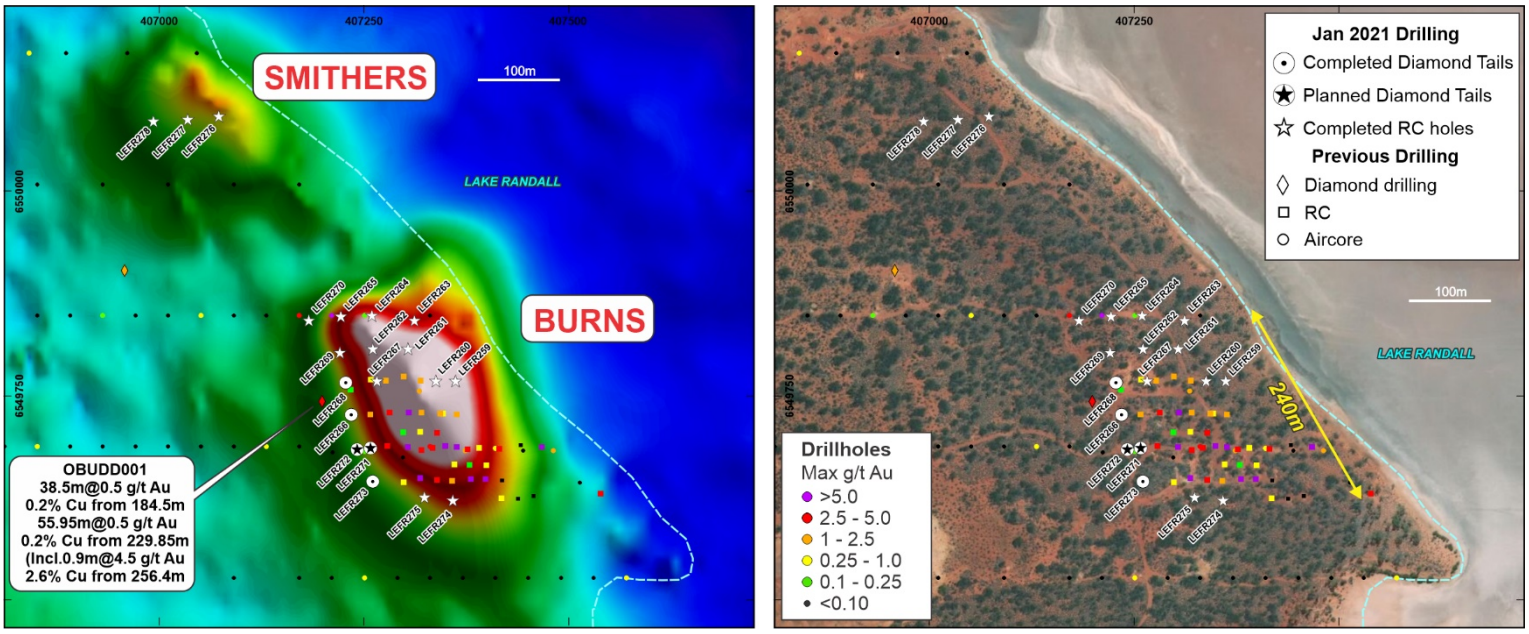

Figure 3 Inset plan highlighting drill hole plan at the Burns prospect over satellite imagery (left) and a magnetic image (TMI RTP) prepared from merged ground and aeromagnetic data.

The native copper is likely to represent a secondary enrichment from a deeper primary (sulphide) source. Initial indicators to support a deeper primary copper sulphide system were observed in the deeper parts of hole LEFR273, where semi-massive, veinlet and disseminated chalcopyrite was intersected from 258m to 273m. The chalcopyrite is hosted in basalt, a quartz vein and within a hematite altered diorite porphyry.

A single traverse of three RC pre-collar holes was completed to evaluate a magnetic anomaly approximately 300m to the north (Figure 3) of the Burns prospect. The anomaly, formally titled as Smithers, has a similar character to the anomaly found at Burns, but has a weaker magnetic feature due to up to 50m of palaeochannel cover. The magnetic feature is yet to be evaluated and could represent another magnetite altered basalt-porphyry system like that at Burns.

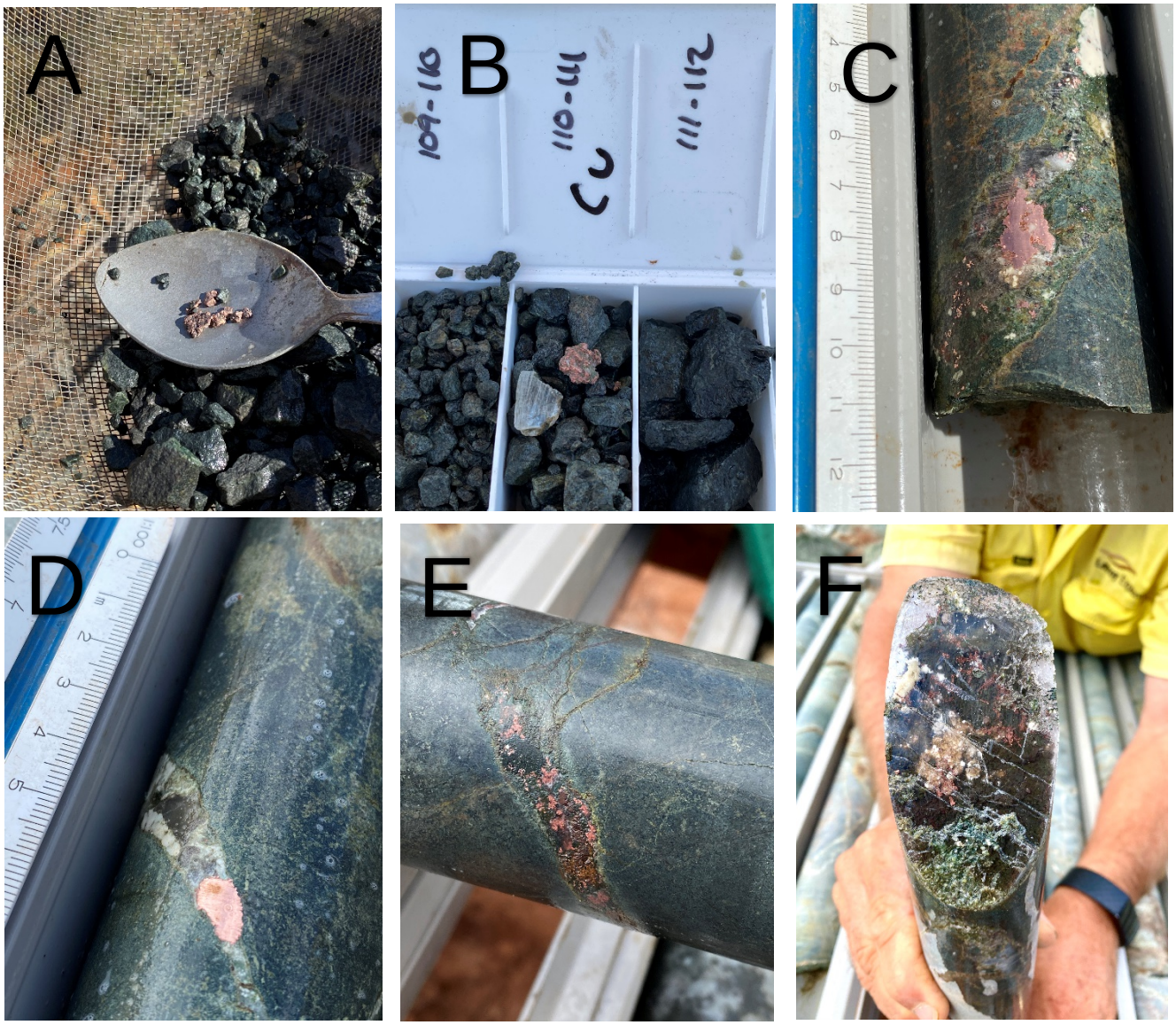

Figure 4 Images of native copper from Hole LEFR275 (A & B --RC drill chips 110-111m) and LEFR273 (NQ sized drill core) images C, D, E and F. Image F shows native copper embedded within a calcite vein

Two additional RC pre collars were completed for planned diamond tails designed to evaluate the main monzonite intrusion to assist in developing the geological model.

Diamond drilling is ongoing and is expected to be completed in mid-February. Final assay results are expected in March.

Burns Background

In 1985 BHP recognised an annular negative magnetic feature at the Burns Prospect (Figure 2), at the time interpreted to represent a carbonatite intrusion. Two diamond drill holes were completed near the margin of the intrusion, one of which intersected abundant magnetite and porphyry intrusions.

The area was then identified as a priority exploration target area for greenstone hosted orogenic gold mineralisation based on targeting parameters developed by Western Mining Corporation (WMC) in the 1990's. Aircore drilling by WMC targeted the northwest and southeast margins of the Burns Intrusion with wide spaced aircore drilling, including drilling in Lake Randall. This drilling returned anomalous gold results that included 2m @2.67g/t Au in hole SAL746 at the Neon prospect on the north west margin of the intrusion (Figure 1).

During 2007 to 2010 Newmont Australia (Newmont) recognised the geophysical character and gold prospectivity of the area from regional targeting and completed wide spaced aircore drilling.

In May 2011 Octagonal Resources Limited (Octagonal) discovered significant gold and copper anomalism in the regolith (weathered rock) from aircore (AC) drilling. This defined a one square kilometre area of gold anomalism and a two-kilometre-long copper anomaly on the north eastern margin of the Burns Intrusion. This initiated subsequent multiple programs of reverse circulation (RC), diamond drilling (3 Holes) and geophysical surveys during the period 2012-2016. The drilling intersected broad zones of gold (Au) and copper (Cu) associated with magnetite-biotite alteration and hosted in high-magnesian basalt and intermediate intrusive rocks.

Significant results from that program include:

- **9 metres @ 1.5 g/t Au & 1.0 % Cu from 58 metres in OBURC002**
- **12 metres @ 0.8 g/t Au & 1.7 % Cu from 48 metres in OBURC004**
- **4 metres @ 0.7 g/t Au & 2.0 % Cu from 40 metres in OBURC005**
- **1 metre @ 8.5 g/t Au & 6.7 % Cu from 123 metres in OBURC007**
- **32 metres @ 1.7 g/t Au & 0.6 % Cu from 76 metres in OBURC011**
- **6 metres @ 4.9 g/t Au & 0.9 % Cu from 24 metres in OBURC012**
- **50 metre @ 0.9 g/t Au & 0.5 % Cu from 24 metres in OBURC016**
- **12 metres @ 1.5 g/t Au & 0.5 % Cu from 27 metres in OBURC021**
- **19 metres @ 0.5 g/t Au & 1.0 % Cu from 44 metres in OBURC022**
- **3 metres @ 16.1 g/t Au & 0.5 % Cu from 35 metres in OBURC028**
- **9 metres @ 1.0 g/t Au & 1.5 % Cu from 115 metres in OBURC031**
- **12 metres @ 1.3 g/t Au & 0.8 % Cu from 163 metres in OBURC032**

In June 2014 Octagonal completed one diamond hole (OBUDD001), for 401.5m at Burns to test for the source of a strong magnetic anomaly defined by 3D inversion modelling of ground magnetic data. The drill hole (Figure 3) was orientated away from the main intrusion and intersected strongly fractured high-magnesian basalt intruded by multiple feldspar porphyritic rocks.

Intersections from that hole include: -

- **38.5m @ 0.5g/t Au & 0.2% Cu from 184.5m**
- **55m @ 0.5g/t Au & 0.2% Cu from 229.85m in OBUDD001, including 0.9m @4.5g/t Au & 2.6% Cu from 256.4m**

In April 2016 Octagonal drilled two further diamond drill holes (OBUDD002 & 003) at Burns, supported by the Western Australian Governments Exploration Incentive Scheme (EIS) co-funding scheme. Both holes were drilled to the east and orientated away from the intrusion. They intersected variably magnetite altered high magnesian basalt intruded by feldspar porphyritic intermediate intrusive rocks. The assays from this drilling returned a best intersection of 1.65m at 2.02% Cu from 362.5m in OBUDD003, including 0.4m at 0.26 g/t Au & 7.96% Cu from 362.5m (WAMEX report item 110434).

Subsequent work by Octagonal involved a detailed geological and geochemical review of the drill data to better understand the system and develop an exploration model. That work concluded from litho-geochemical evidence that the Burns prospect represents a porphyry-related exploration model (refer page 34 Final Report Government Co-Funded Drilling Grant DAG2015/0055929-October 2016). The main intrusion has not had any systematic RC and or diamond drilling into the central position (core) to better define the geological model.

The gold and copper mineralisation within magnetite altered basalts at Burns and within the Neon prospect on the immediate margin of the Burns intrusion is a unique style in the Archaean rocks of the Eastern Goldfields. Distal to the intrusion is the gold only mineralisation in magnetite bearing banded iron formations (BIF) along strike and to the north at Lucky Strike, Havelock and Erinmore and may suggest a genetic link between the styles of mineralisation. The interpreted position of the south-east extension of the Lucky Strike BIF lies approximately 2km east of the Burns prospect and represents an additional target for gold mineralisation.

Initial litho-geochemical investigations by Octagonal reported that the Au-Cu mineralisation at the Burns prospect and adjacent monzonite intrusion may have an affinity with a porphyry copper model (refer page 31 Final Report Government Co-Funded Drilling Grant DAG2015/0055929-October 2016). The intrusion has not had any systematic RC and or diamond drilling into the central position (core) to better define the geological model.

This announcement has been authorised for release by the Board

Wade Johnson
Managing Director

END

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Table 1

Burns drill hole collar details

Hole ID	Collar E (MGA)	Collar N (MGA)	Collar RL	Depth (m)	Dip	Azimuth	Drill type	Target
LEFR259	407361	6549770	291	154	-60	90	RC	Burns
LEFR260	407337	6549770	291	172	-60	90	RC	Burns
LEFR261	407303	6549809	291	154	-60	90	RC	Burns
LEFR262	407260	6549809	291	202	-60	90	RC	Burns
LEFR263	407311	6549844	291	166	-60	90	RC	Burns
LEFR264	407259	6549850	291	154	-60	90	RC	Burns
LEFR265	407221	6549849	291	202	-60	90	RC	Burns
LEFR266	407234	6549729	291	306.6	-60	90	RC/DD	Burns
LEFR267	407265	6549770	291	244	-60	90	RC	Burns
LEFR268	407227	6549768	291	330.85	-60	90	RC/DD	Burns
LEFR269	407220	6549805	291	250.3	-60	90	RC	Burns
LEFR270	407182	6549844	291	280.3	-60	90	RC	Burns
LEFR271	407257	6549688	291	130.3	-60	90	RC Precollar	Burns
LEFR272	407241	6549686	291	88	-60	90	RC Precollar	Burns
LEFR273	407260	6549647	291	336.4	-60	90	RC/DD	Burns
LEFR274	407358	6549624	291	154	-60	90	RC	Burns
LEFR275	407323	6549628	291	112	-60	90	RC Precollar	Burns
LEFR276	407072	6550093	291	112	-60	90	RC Precollar	Smithers
LEFR277	407034	6550089	291	52	-60	90	RC Precollar	Smithers
LEFR278	406992	6550087	291	52	-60	90	RC Precollar	Smithers
LEFR279	406116	6549714	291	58	-60	130	RC Precollar	Intrusion
LEFR280	405917	6549675	291	100	-80	90	RC Precollar	Intrusion

Drill Type

RC-reverse circulation

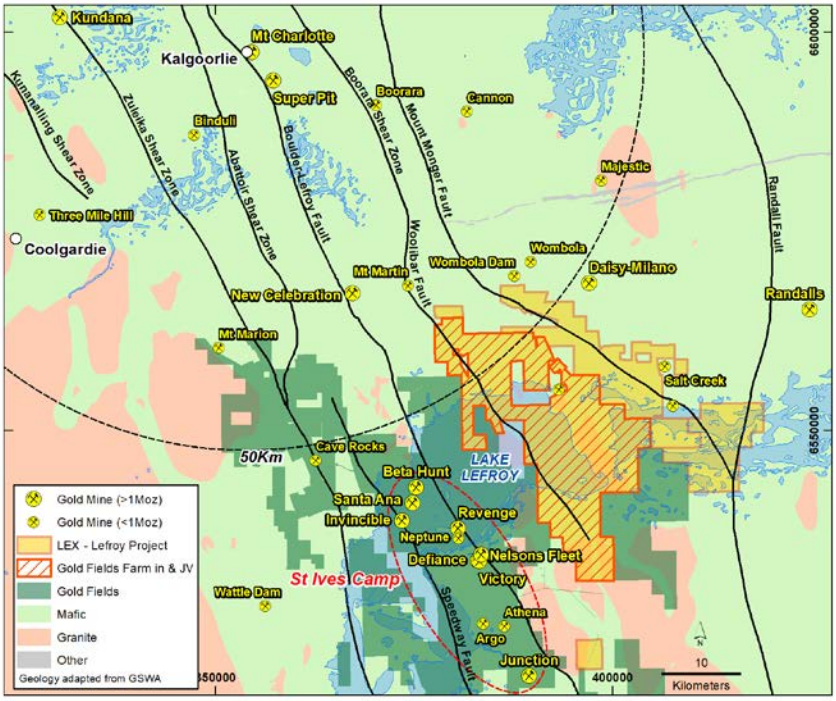
DD-diamond drill

RC pre-collar-initial part of hole drilled with RC and then completed with a diamond tail

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 south east 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 621km^2 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.

- 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

Further information regarding the Burns Prospect has been sourced from the following documents

Independent Geologists Report within the Octagonal Resources Limited Scheme Booklet that was lodged with the ASX on 21 December 2015.

2km Long Copper Anomaly at the Burns Prospect, Western Australia Octagonal Resources Limited, ASX release dated 8 March 2013.

WAMEX report item 110434 Final Report -Government Co-Funded Drilling Grant DAG2015/00559291-Burns Prospect-Exploration Licence E15/1097

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

Definitions

WAMEX- Western Australian Mineral Exploration (Western Australian Government publicly available mineral exploration reporting and enquiry system)

JORC CODE, 2012 Edition-Table 1 Report –Lefroy Project –Burns Cu-Au Prospect January 2021 RC DD

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 Reverse Circulation (RC) and Diamond drilling (DD) at the Burns Copper (Cu) – Gold (Au) prospect. The drill program was planned to comprise 25 RC holes of which 4 of these holes would have a DD tail, the program is still in progress so final drill metres are tentative. Holes varying in depth from 150m to 330.85m with an average depth of 200m. All holes were drilled at 60^0 toward 090^0 (East). • Sampling and QAQC protocols as per industry best practice with further details below. • RC bulk samples were collected from the cyclone at 1m intervals in plastic buckets and arranged in rows of 20 samples. 1m split samples were collected from 0m to end of hole (EOH). 1m split samples were collected directly off the drill rig cone splitter into calico bags attached to the cyclone. The sample collected generally weighed 2-3kg. 4m composite samples were collected using a scoop to produce a 2-3kg sample from 0m to end of hole collected from the bulk samples except where the geologist log significant sulphides and as such the 1m split sample direct off the cyclone was sent to the laboratory for analysis. Upon receival of the 4m composite results, 1m split samples were then collected from anomalous gold intervals (>0.1g/t Au) and/or >500ppm (0.05%) Cu. The 1m samples were sent to the Laboratory in Kalgoorlie for analysis. The samples were dried, pulverised, split to produce a 40g charge for analysis by fire assay with Au determination by Atomic Absorption Spectrometry (AAS). Additional elements, will derived using a mixed acid digest with ICP finish for Cu, Ag, As, Mo, Fe, Pb, S, Te, W and Zn. • DD was conducted utilising NQ sized core as the RC 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 the there was excellent core recovery and only minor zones of core loss which were recorded by the geologist. Samples are awaiting cutting and sampling but will be first cut 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 were 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, 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 Reverse Circulation (RC) drilling was completed by a KWL350 RC rig from Challenge Drilling (Kalgoorlie). Low air face sampling hammer drilling proved satisfactory to penetrate the regolith and reduce contamination risk. • The diamond drilling (DD) was completed by Raglan Drilling (Kalgoorlie). 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.

Criteria	JORC Code Explanation	Commentary
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. • Logging carried out by sieving individual 1m sample cuttings, washing in water and the entire hole collected in plastic chip trays for future reference for RC drilling. • Every hole was logged for the entire length. • Diamond core underwent detailed logging through the entire hole with data being 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 were logged in their entirety (100%).
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** • Drill core is yet to be sampled **RC** • Sampling of 1m intervals directly off a rig-mounted cone splitter into separate calico bags. Sample weight 2 - 3 kg. A 4m composite sample was collected, from 0m to EOH for each hole. The composite samples were collected by using a scoop to collect a representative "split" from each bulk sample that made up a 4m composite interval, this was placed into a pre-numbered calico bag. Pre-numbered calico bags containing the samples were despatched to the laboratory for assay. Upon receival of results for 4m composite samples, selected 1m resplit samples (collected at cyclone) were collected in the field for submission by the same fire assay and mixed acid technique. • The sample preparation of the RC samples follows industry best practice, involving oven drying, pulverising, to produce a homogenous sub sample for analysis. • Along with submitted samples, standards and blanks were inserted on a regular basis where the pre-numbered calico bag ended with the numbers 20, 40, 60, 80 and 100. Standards were certified reference material prepared by Geostats Pty Ltd.
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.*	• RC Samples routinely analysed for gold using the 40gram Fire Assay digest method with an AAS finish at Bureau Veritas's Kalgoorlie 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. • Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy. At the laboratory regular assay repeats, lab standards, checks and blanks were analysed. • This release is purely a progress update and no results have been received, the techniques described are for samples currently at the laboratory or yet to be collected.

Criteria	JORC Code Explanation	Commentary
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.*	• No results have been received yet • No holes were planned to twin prior drill holes, however new holes are proximal (<40m) to historic drill holes which contained high grade Cu-Au to confirm and validate historic work. • 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. • There has been no adjustment to the assay data. The primary gold (Au) plus additional elements field reported by the laboratory is the priority value used for plotting, interrogating and reporting.
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 positions were surveyed using a GPS operated by the rig geologist/field assistant. In the future post drilling, drill hole collars will be surveyed using a DGPS by a third-party contractor. Down holes surveys were completed by Raglan and Challenge drill crew using a multi-shot gyro which records a survey every <5m down the hole. • Grid System – MGA94 Zone 51. Topographic elevation captured by using the differential GPS.
Data spacing and distribution ***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.*	• Hole spacing at approximately 40m spaced intervals • Mineralisation at the Burns prospect is primarily hosted by a magnetite-biotite altered High Mg basalt which has been intruded by a later felsic to intermediate porphyry intrusion. The contacts of which are not uniform however the intrusion appears to be roughly vertical. Mineralisation is predominantly Cu plus Au. There is an association between Cu and Au mineralisation but they can occur independently of one another. There is a strong upgrade of Cu and Au in the supergene environment approximately 50-100m down-hole and this is typically flat in its orientation. A primary system (hypogene) occurs in the fresh rock below 100m depth and at this stage the orientation and main controls on mineralisation is not known. It is thought that the mineralisation may dip toward the west-south-west and plunge toward the south-east, hence the drill orientation toward the east. • Initial 4m composite samples will be used as a guide to re-sample parts of the drill hole which are likely to contain the best Cu and Au grades.
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 roughly east-west orientated drill traverses considered effective to evaluate the roughly north-south to north-west south-east trending stratigraphy. • 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 true width of mineralisation and improve geological knowledge of the system.

Criteria	JORC Code Explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged in labelled and numbered polyweave or plastic bags, collected and personally delivered to the Bureau Veritas Laboratory (Kalgoorlie) by Company field personnel. 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.*	• All sampling and analytical results of the drill program were reviewed by the Senior Exploration Geologist and Managing Director. Anomalous gold and copper intersections were checked against library core photos and logging to correlate with geology. QAQC reports are auto generated by the database managers and reviewed by staff.

Section 2: REPORTING OF EXPLORATION RESULTS – LEFROY PROJECT- Burns Cu-Au Prospect January 2021 RC DD

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 a 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

Criteria	JORC Code Explanation	Commentary
		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 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 a intermediate composition porphyry 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:*	• No Information has been excluded. • Table of drill hole collars completed by Lefroy is noted in this announcement.

Criteria	JORC Code Explanation	Commentary
	• *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 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.*	• Nil results to report from the current program
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 historical results are based on down-hole metres.
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) 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.*	• Nil results to report for the current drill program
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 has 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.