

RC Drill Results Outline New Gold Position at Burns

- Final assay results have been received for a 17-hole RC drill program that evaluated multiple targets at the Burns Cu Au prospect in October 2021. The results continue to enhance a growing Cu-Au-Ag-Mo Intrusion related mineral system
- One of the holes has outlined a new oxide gold opportunity. Hole LEFR307 tested the centre of the large Burns intrusion located 1600m to the west of the established Burns Cu Au system. This intersected an altered monzodiorite porphyry beneath palaeochannel sediments. The assay results have outlined:
 - A new palaeochannel hosted intercept of 17m @ 1.70g/t Au from 75m including 7m @ 3.68g/t Au from 80m that is open
 - The monzodiorite basement of 11m @ 0.42g/t Au from 100m, which supports this as a new host and is also open
- The palaeochannel intercept is within the broad east west trending Lefroy palaeodrainage network of which 2500m extends east over Burns and beneath Lake Randall. The channel hosted gold intersection in LEFR307 expands the opportunity to explore for further mineralisation along the entire length of the palaeochannel.
- At Burns, the results from six RC holes evaluating the western basalt position have further supported and strengthened this Cu-Au-Ag zone, with better results including; -
 - 13m @ 0.40% Cu, 0.31g/t Au, 0.85g/t Ag from 230m in LEFR305
 - 16m @ 0.60% Cu, 0.03g/t Au, 0.91g/t Ag from 24m in LEFR310
 - 11m @ 0.46% Cu, 0.14g/t Au, 0.50g/t Ag from 107m in LEFR310
 - 20m @ 0.51% Cu, 0.50g/t Au, 1.38g/t Ag from 123m in LEFR310
 - 30m @ 0.39% Cu, 0.50g/t Au, 0.64g/t Ag from161m in LEFR310
- Results from eight proof of concept RC holes evaluating aeromagnetic targets northwest of Burns intersected altered rock units and elevated Au-Cu-Ag-Mo geochemical signatures consistent with Burns and include the previously reported LEFR297 from Lovejoy that intersected 8m @ 0.22g/t Au & 0.51% Cu from 250m to EOH
- Planning for a broad first pass RC drill evaluation of the Burns palaeochannel to expand upon LEFR307 is underway. Assessment of geochemical data from 2021 RC and diamond drilling will be combined with pending assays from the lake drilling program to develop a broader appreciation of the Au-Cu-Ag-Mo footprint to plan the next phase of drilling at Burns.

Australian Registered Office Level 3, 7 Rheola Street Avenue 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 report results from the 17-hole RC drill program that evaluated multiple proof of concept targets at the Burns copper (Cu) gold (Au) prospect in October 2021. Burns is within the Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km southeast of Kalgoorlie (Figure 1).

The Burns prospect is situated on the eastern margin of a large interpreted felsic intrusion, termed the Burns Intrusion (Figure 2). The intrusion does not outcrop but features a distinctive annular aeromagnetic and gravity geophysical signature (Figure 2). The Company has not yet established the association between the larger Burns intrusion and the diorite porphyry intrusions intersected at Burns but consider there is a genetic relationship between them.

Broad high-grade gold mineralisation is hosted within a newly discovered hematite-pyritechalcopyrite-magnetite altered diorite porphyry (refer LEX ASX release 23 February 2021) that intrudes high Mg basalt at Burns. This porphyry, termed the Eastern Porphyry, is open to the north and south. The eastern extent of the Eastern Porphyry is now defined, on multiple drill sections, by foliated basalt (footwall basalt). The copper and gold mineralisation hosted by both the diorite porphyry, basalt and massive magnetite veins is considered to be a new and unique style of Au-Cu-Ag mineralisation in the area, a land position dominated by Lefroy (Figure 1).

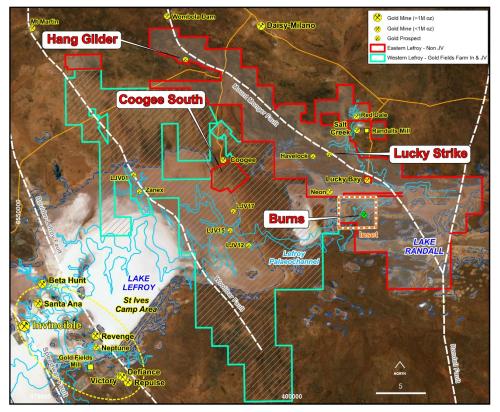


Figure 1 Lefroy Gold Project, highlighting Eastern and Western Lefroy, the location of the Burns prospect and extent of the Lefroy Palaeodrainage. Refer to Figure 2 for Burns drill hole plan.



RC Drill program-background

A detailed aeromagnetic survey completed over the broader Burns area in August 2021 defined multiple Burns look alike magnetic anomalies over a 3000m trend (Figure 2), known as the Burns Corridor. The Company interpreted the anomalies to represent magnetite alteration zones within and surrounding porphyry dioritic intrusions that are additional to and similar in style to Burns.

This triggered the Company to commence a staged drilling program to assess the broader limits of the Burns mineral system and surrounding geology. Stage 1 of the program involved drilling land-based targets using an RC rig, with stage 2 requiring a specialised lake aircore rig to evaluate targets (e.g., Lovejoy) in Lake Randall with an initial phase completed in December 2021. The stage 2 AC program is currently underway.

In October 2021 the stage 1 "onshore" RC drilling program was completed. A total of 16 angled holes (Table 1) for 3336m evaluated 6 magnetic anomalies, including six holes at Burns (Figure 2 &3). Hole depths ranged from 120m to 258m, with an average depth of 200m. This program included one vertical hole (LEFR307) located 1600m west of Burns (Figure 2) drilled to target the main Burns Intrusion.

The nine RC holes evaluating the Smithers, Flanders, Skinner and Lovejoy magnetic anomalies up to 2000m north of Burns (Figure 2) all intersected altered diorite and basalt similar to that observed at Burns. The strongest alteration in dioritic porphyry was intersected in holes at Lovejoy and Skinnner. Holes LEFR296 and 297 are on the western margin of Lovejoy magnetic anomaly (Figure 2) that was evaluated In December with aircore drilling on Lake Randall.

The RC samples were dispatched in 17 laboratory consignments (one for each drill hole) to Perth for analysis in October 2021. Two drill holes were prioritised for analysis and results for hole LEFR297 at Lovejoy were reported in early November 2021 (refer LEX ASX release 3 November 2021). The extended delay for the remaining 15 submissions was due to the significant sample backlog at the laboratory and inability to process the volume of samples.

Results

The results from the 17-hole RC program have defined new positions of gold and or gold copper mineralisation and expanded the footprint of the Burns Cu-Au style of mineralisation (Figure 2).

Importantly, and as previously reported hole LEFR297 (Figure 2) intersected significant intervals of hematite silica altered porphyry and associated Cu-Au-Ag-Mo mineralisation (Table 2). A fault zone with angular diorite clasts in an intense hematite altered silica matrix including strong fine disseminated magnetite and sulphides was intersected from 228m to 250m.

The hole, located on the edge of lake Randall (Figure 2) 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.



Significant results from hole LEFR297 include:

- 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
- 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

This hole is the most northerly RC hole drilled along the Burns corridor with results pending for the air core drill holes drilled north along strike within Lake Randall (Figure 2). The Cu Au mineralisation and altered dioritic host rocks within LEFR297 are consistent with that observed at Burns and demonstrates the extent of the system approximately 1600m northwest of Burns.

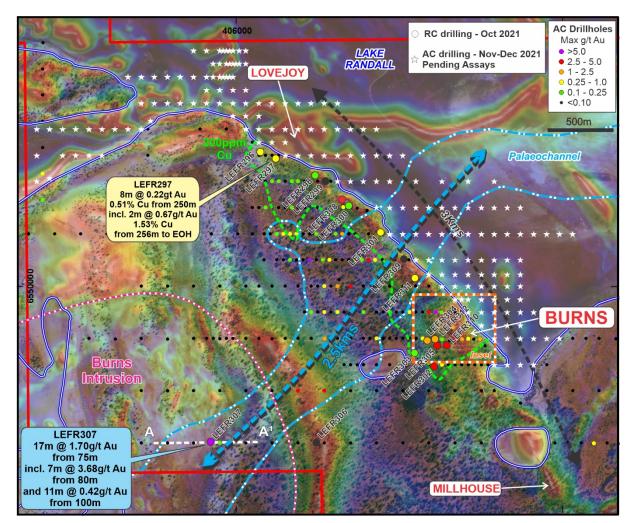


Figure 2 Combined satellite image with transparent TMI RTP aeromagnetic image highlighting the discrete magnetic anomalies along strike of Burns and a segment of the Lefroy Palaeodrainage. The inset area refers to the area of RC and diamond drilling at the Burns Au-Cu-Ag prospect (Figure 3). (Warm colours represent rocks beneath the surface with higher magnetite content). Coloured and black dots represent historical AC drill holes. The October RC drill holes are highlighted. Refer to Figure 3, the inset, for the October RC hole locations at Burns.



The results from the remaining 15 RC holes are tabulated on Table 2 and include the previously reported LEFR297.

A new gold zone and opportunity has been discovered approximately 1600m to the west of the established Burns system (Figure 2). Two holes (LEFR306 & 307) were drilled to evaluate the untested core and margin to the large Burns Intrusion. The target area had only been tested by historical (2007-2012 era) wide spaced (320m line 160m centres) aircore drilling, most of which was considered by the Company as ineffective.

Vertical hole LEFR307 was designed to evaluate the intrusion but also follow up a prior subtle gold anomaly hosted in transported cover in an historical aircore hole. The single RC hole intersected a broad gold interval at the base of the transported cover and established gold mineralisation in the monzodiorite basement (Figure 3). The results include: -

- A new palaeochannel hosted intercept of 17m @ 1.70g/t Au from 75m including 7m @ 3.68g/t Au from 80m that is open
- The first intersection within the monzodiorite basement of 11m @ 0.42g/t Au from 100m, that supports this as a new host rock and is also open

This single hole has now established that the basal sediments in the palaeochannel at Burns can host gold significant mineralisation and that the monzodiorite basement beneath is also a host to primary gold mineralisation. The intersections are open in all directions.

The Burns palaeochannel (channel) is part of the larger Lefroy drainage that extends east from St Ives (Figure 1). At Burns the Company has established the extent of the channel based on interpretation of the historical AC drilling (Figure 2). The broad channel extends from LEFR307 in the southwest and trends to the northeast and beneath Lake Randall for approximately 2500m. The channel and basal gravels were intersected in the December 2021 aircore drilling in Lake Randall, with results pending. The channel is open to the east.

The broad gold intercept in LEFR307 demonstrates that the basal gravels in the channel can host Significant gold mineralisation and is considered by the Company to be a priority target to follow up in addition to pursuing the Cu Au mineralisation at Burns. Previous drilling along the channel is by wide spaced aircore which has assisted to map out the extent of the channel but much of which is considered ineffective and not penetrating the basal gravels in the deeper parts of the channel.

Planning for a vertical RC drilling program to expand the basal gold mineralisation and to better define the channel is underway.



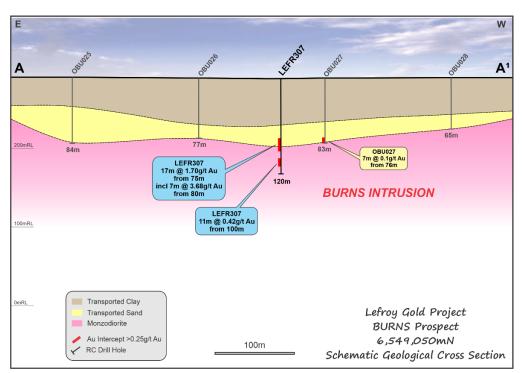


Figure 3 RC drill section AA' displaying LEFR303 and palaeochannel profile. Historical aircore drill holes prefixed with OBU are considered ineffective in adequality evaluating the channel sediments and basement.

A component of the October 2021 drill program also involved completion of 6 angled RC holes at Burns to follow up the broad Cu intersections (LEFR289) hosted within the western basalt. The location of the 6 holes is shown on figures 2 and 4. Four (LEFR304,305,310,312) of the 6 holes were drilled on existing drill sections (Figure 5) to assist in constraining the dimensions and orientation to the basalt hosted Cu mineralisation. The remaining two (LEFR302 & 303) of the 6 holes were broad step out holes to the southwest of the two drill sections noted above.

Significant results from these 6 holes include: -

- 19m @ 0.24% Cu, 0.03g/t Au, 0.47g/t Ag from 24m in LEFR305
- 13m @ 0.40% Cu, 0.31g/t Au, 0.85g/t Ag from 230m in LEFR305
- 16m @ 0.60% Cu, 0.03g/t Au, 0.91g/t Ag from 24m in LEFR310
- 11m @ 0.46% Cu, 0.14g/t Au, 0.50g/t Ag from 107m in LEFR310
- 20m @ 0.51% Cu, 0.50g/t Au, 1.38g/t Ag from 123m in LEFR310
- 30m @ 0.39% Cu, 0.50g/t Au, 0.64g/t Ag from161m in LEFR310



Holes LEFR305 and LEFR310 were targeted to drill through the western basalt Cu mineralised zone and test for continuity of the high-grade intersection in LEFR273 (29.1m @ 2.64g/t Au and 0.18% Cu from 277.4m). The LEFR273 intersection is expressed as a broad zone of fracture fill carbonate-hematite-gypsum-magnesite-chalcopyrite veining within basalt at the contact of the eastern porphyry (refer LEX ASX release 29 April 2021).

This intersection is interpreted to represent a possible southern plunge of the high-grade zone in discovery hole LEFR260, located 140m to the North. LEFR305 and LEFR310 successfully intersecting broad Cu-Au intervals in the western basalt, which significantly expands the mineralised zone discovered in LEFR273. Both LEFR305 and LEFR310 were terminated before reaching targeted depth due to excessive ground water inflows and the key target position remains untested and open at depth and along strike. These holes will be used as a precollar for later diamond drilling to target the Interpreted fault zone (Figure 5)

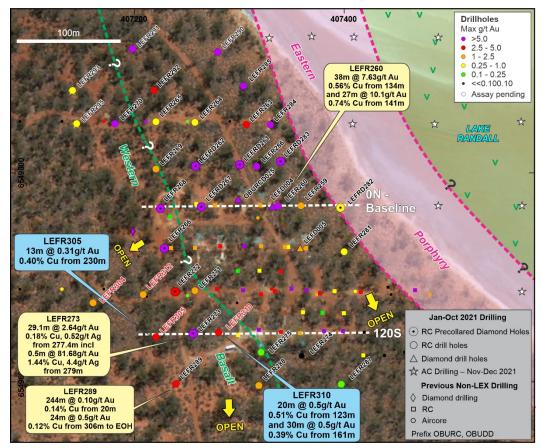


Figure 4 Drill hole plan at the Burns prospect highlighting four of the RC holes in October 2021 drill program at Burns relative to LEFR260 and the interpreted extent of the Eastern Porphyry. Holes with recent results that evaluated the western basalt are highlighted in red font. Refer to Figure 5 for drill section 120S.



A total of 9 holes (including LEFR297) were completed as a proof-of-concept program to evaluate multiple magnetic anomalies along a 3000m interpreted structural corridor highlighted from the recent aeromagnetic survey that includes the Burns Cu-Au prospect. The anomalies coincide with a +200ppm bottom of hole copper anomaly from previous shallow aircore drilling.

The five targeted magnetic anomalies have signatures similar to Burns and are interpreted to represent magnetite alteration zones around diorite porphyry intrusions, each of which is considered prospective for Cu-Au mineralisation.

Significant results from these holes include: -

- 3m @ 0.11% Cu, 0.08g/t Au from 68m in LEFR296
- 4m @ 1.22g/t Au & 0.16% Cu & 0.5g/t Ag from 109m in LEFR308 Including 1m @ 3.95g/t Au & 0.35% Cu & 1.5g/t Ag from 111m
- 4m @ 0.16% Cu, 0.08g/t Au, 1g/t Ag from 152m in LEFR308
- 7m @ 0.19% Cu, 0.09g/t Au, 0.86g/t Ag from 171m in LEFR308
- 6m @ 0.24% Cu, 0.04g/t Au, 0.58g/t Ag from 54m in LEFR300
- 2m @ 0.22% Cu, 0.11g/t Au, 0.25g/t Ag from 178m in LEFR301
- 6m @ 0.15% Cu, 0.75g/t Ag from 87m in LEFR309
- 4m @ 0.17% Cu, 0.15g/t Au from 68m in LEFR311
- 3m @ 0.13% Cu, 0.19g/t Au from 99m in LEFR311
- 2m @ 0.19% Cu, 0.14g/t Au, 0.075g/t Ag from121m in LEFR311

Mineralisation is hosted within magnetite and hematite altered basalt and diorite porphyries of similar composition to those observed at Burns. A discrete mineralised fault zone was also intersected over a strike length of 600m in holes LEFR297, LEFR298, LEFR299, LEFR300 and LEFR308. This fault is characterised by angular diorite clasts in an intense hematite altered silica matrix including strong fine disseminated magnetite and sulphides. This fault structure remains untested along strike north under Lake Randall and at depth.

These results are encouraging as they confirm that the discrete magnetic anomalies are coincident with magnetite alteration and Cu-Au mineralisation. This confirms continuity of mineralisation with the same geochemical signature as the Burns system for 1600m along strike of the initial Burns discovery. The results also validate the targeting criteria used by the Company for this initial step-out RC program and will aid in refining and validating targets for follow-up drilling, including the new targets currently being tested by the lake aircore drilling program on Lake Randall.



The completion of this stage 1 RC drilling program is in an important development for the greater Burns area. It has demonstrated that the altered and mineralised dioritic host rocks (porphyry) are far more extensive than initially interpreted and that the Burns Cu Anomaly (Figure 2) is a component of a larger Burns Intrusive Complex (BIC) located over a 3000m corridor. In addition, the results have outlined a new gold zone within the extensive palaeodrainage network at Burns with indications of primary gold mineralisation in the larger Burns Intrusion.

Ongoing Burns Program

A large aircore drilling program is currently underway in Lake Randall evaluating geophysical targets external to the Burns Intrusive complex. Results are pending for the AC drilling completed in December immediately adjacent to Burns in Lake Randall.

Compilation of the gold and multielement data and from this large program with the RC and diamond drill data along will provide the baseline geochemical framework to provide vectors to higher priority targets. This will include positioning for a deep (+1km) EIS funded diamond drill hole at Burns.

In addition, and whilst results are pending, planning for a program of wide spaced RC drilling to evaluate and expand the dimensions of the palaeochannel mineralisation is underway. This drilling is scheduled to be commenced In the March quarter, but dependent on rig availability.



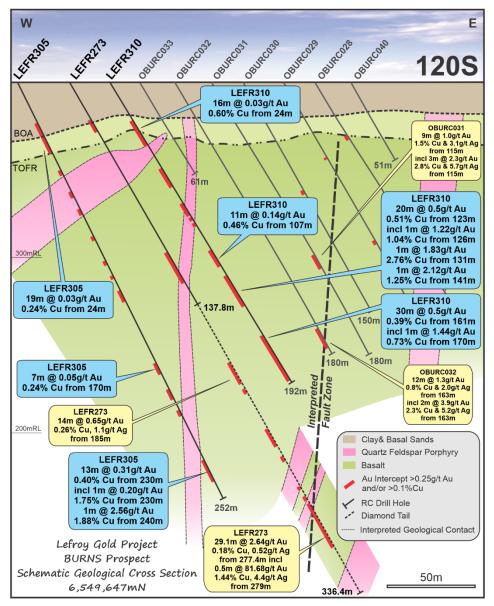


Figure 5 120S drill section highlighting holes LEFR305 & 310 that valuated the western basalt Cu zone

This announcement has been authorised for release by the Board

Wade Johnson.

Wade Johnson Managing Director

END

10 | Page



Table 1

Burns Corridor drill hole collar details- October 2021 RC Drill Program

Hole ID	Collar E (MGA)	Collar N (MGA)	Collar RL	Depth (m)	Azimuth	Dip	Target
LEFR296	406139.2	6550829.5	291.5	258	90	-60	Lovejoy
LEFR297	406215.0	6550795	284	258	90	-60	Lovejoy
LEFR298	406474	6550690	286	162	90	-60	Skinner
LEFR299	406535	6550652	290	198	90	-60	Skinner
LEFR300	406680	6550499	290	210	90	-60	Flanders
LEFR301	406873	6550336	295	186	90	-60	Flanders
LEFR302	407207	6549524	290	246	90	-60	Burns
LEFR303	407079	6549600	291	222	90	-60	Burns
LEFR304	407162	6549679	290	186	90	-60	Burns
LEFR305	407221	6549645	290	252	90	-60	Burns
LEFR306	406479	6549054	294	138	90	-60	Burns Intrusion
LEFR307	405836	6549059	285	120	90	-60	Burns Intrusion
LEFR308	406646	6550536	293	216	90	-60	Flanders
LEFR309	407020	6550180	293	162	90	-60	Smithers
LEFR310	407284	6549649	293	192	90	-60	Burns
LEFR311	407082	6550060	289	156	90	-60	Smithers
LEFR312	407208	6549687	291	216	90	-60	Burns



Table 2

Significant Assay Results- October 2021 12 Hole RC drill program

	From	То	Interval			Ag		
Hole Id	(m)	(m)	(m)*	Au (g/t)	Cu (%)	(g/t)	Mo (ppm)	Geology
LEFR296	68	71	3.00	0.08	0.11	0.00	3.2	Basalt with magnetite alteration
LEFR297	84	92	8.00	0.06	0.24	0.75	4.0	Basalt
LEFR297	120	126	6.00	0.01	0.20	0.42	6.0	Basalt
LEFR297	133	145	12.00	0.04	0.14	0.29	8.0	Porphyry
LEFR297	172	174	2.00	0.34	0.65	1.25	5.0	Basalt
LEFR297	218	228	10.00	0.21	0.60	2.50	27.0	Basalt & Porphyry
Incl	225	227	2.00	0.41	1.56	5.50	87.0	Basalt & Porphyry
LEFR297	231	237	6.00	0.12	0.25	0.50	17.4	Fault zone
LEFR297	250	258	8.00	0.22	0.51	1.75	5.2	Fault zone
Incl	256	258	2.00	0.67	1.53	5.00	1.8	Faulted Basalt
LEFR300	54	60	6.00	0.04	0.24	0.58	1.7	Basalt saprolite
LEFR301	178 34	180 51	2.00	0.11	0.22	0.25	1.5 2.2	Porphyry
LEFR302	93	95	17.00	0.05	0.17	0.00	1.3	Upper saprolite basalt
LEFR302 LEFR302	93 99	95 109	2.00 10.00	0.29 0.26	0.12	0.00	1.3	Basalt Basalt
LEFR302	115	109	4.00	0.20	0.07	0.00	1.5	Basalt
LEFR302	113	146	2.00	0.23	0.03	0.00	2.3	Basalt
LEFR302	156	164	8.00	0.04	0.27	0.00	8.9	Basalt
LEFR302	210	211	1.00	1.79	0.62	1.50	3.0	Basalt
LEFR302	243	246	3.00	1.16	0.10	0.83	3.0	Basalt at EOH
Incl	243	244	2.00	2.63	0.09	0.00	4.0	Basalt
LEFR304	35	42	7.00	0.03	0.12	0.00	1.5	Basalt saprolite
LEFR304	124	125	1.00	1.12	0.03	0.00	1.5	Basalt
LEFR305	24	43	19.00	0.03	0.24	0.47	2.5	BOA @ 30m. Green clay altered basalt
LEFR305	53	56	3.00	0.17	0.11	0.00	1.2	Green clay altered basalt
LEFR305	65	69	4.00	0.05	0.18	0.00	1.8	Porphyry
LEFR305	76	80	4.00	0.06	0.12	0.00	1.3	Basalt
LEFR305	93	95	2.00	0.05	0.11	0.00	1.3	Basalt
LEFR305	108	110	2.00	0.41	0.22	0.00	4.8	Basalt
LEFR305	117	119	2.00	0.17	0.19	0.00	1.8	Basalt
LEFR305	126	133	7.00	0.10	0.15	0.00	3.3	Basalt
LEFR305	170	177	7.00	0.05	0.24	0.71	49.0	Basalt
LEFR305	199	202	3.00	0.25	0.19	2.00	6.5	Basalt
LEFR305	211	218	7.00	0.09	0.12	0.36	2.6	Porphyry
LEFR305	230	243	13.00	0.31	0.40	0.85	14.9	Porphyry
Incl	230	231	1.00	0.20	1.75	15.00	7.0	Porphyry
Incl	240	241	1.00	2.56	1.88	6.00	155.0	Porphyry
LEFR307	75	92	17.00	1.70	0.00	0.00	2.0	BOA @ 85m Then monzodiorite
Incl	80	87	7.00	3.68	0.00	0.00	1.7	Monzodiarita
LEFR307	100	111	11.00	0.42	0.00	0.00	2.3	Monzodiorite
LEFR308 Incl	109	113 112	4.00	1.22	0.16	0.50	7.5 × 5	Fault breccia - Basalt
LEFR308	111 152	112	1.00 4.00	3.95 0.08	0.35 0.16	1.50 1.00	8.5 1.9	Basalt
LEFR308	152	178	7.00	0.08	0.18	0.86	3.7	Basalt
LEFR309	87	93	6.00	0.09	0.19	0.86	0.5	Diorite
LEFK309	0/	22	0.00	0.00	0.15	0.75	0.5	Diofile

12 | Page

ASX Announcement

25 January 2022



Table 2 Cont.

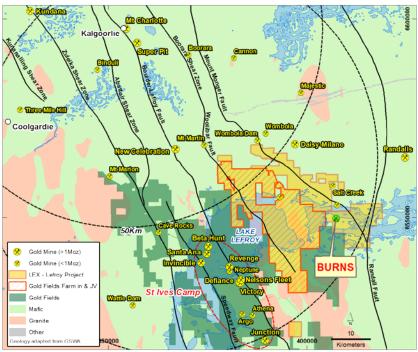
	From	То	Interval			Ag		
Hole Id	(m)	(m)	(m)*	Au (g/t)	Cu (%)	(g/t)	Mo (ppm)	Geology
LEFR310	24	40	16.00	0.03	0.60	0.91	2.2	Saprolite basalt
LEFR310	54	66	12.00	0.15	0.13	0.58	4.8	Basalt
Incl	63	65	2.00	0.75	0.15	0.25	21.0	
LEFR310	77	85	8.00	0.05	0.13	0.38	1.8	Basalt
LEFR310	86	88	2.00	0.64	0.07	1.50	4.3	Diorite
LEFR310	90	92	2.00	0.10	0.11	0.25	1.3	Basalt
LEFR310	107	118	11.00	0.14	0.46	0.50	3.3	Basalt
LEFR310	123	143	20.00	0.50	0.51	1.38	42.3	Basalt magnetite altered
Incl	126	127	1.00	1.22	1.04	7.00	6.5	
Incl	131	132	1.00	1.83	2.76	8.00	245.0	
Incl	141	142	1.00	2.12	1.25	2.50	12.0	
LEFR310	161	191	30.00	0.50	0.39	0.64	18.7	Basalt magnetite altered
Incl	170	171	1.00	1.44	0.73	2.50	16.0	
Incl	178	180	2.00	2.98	2.12	3.75	93.5	Magnetite breccia vein
LEFR311	68	72	4.00	0.15	0.17	0.00	2.3	BOA @ 70m. Saprolite clays
LEFR311	99	102	3.00	0.19	0.13	0.00	3.3	Basalt
LEFR311	121	123	2.00	0.14	0.19	0.75	34.5	Basalt magnetite altered
LEFR312	25	27	2.00	0.04	0.12	0.50	4.0	Saprolite clays
LEFR312	30	38	8.00	0.00	0.33	0.81	1.1	Basalt saprolite
LEFR312	45	48	3.00	0.25	0.16	0.00	2.4	Basalt
LEFR312	52	57	5.00	0.54	0.35	0.00	2.4	Basalt
Incl	53	54	1.00	1.54	0.56	1.00	6.5	
LEFR312	63	67	4.00	0.11	0.11	0.25	2.1	Diorite
LEFR312	78	81	3.00	0.82	0.08	0.00	2.0	Basalt
Incl	80	81	1.00	1.78	0.08	0.00	4.0	Fault breccia
LEFR312	99	102	3.00	0.23	0.10	0.00	6.7	Basalt
LEFR312	174	176	2.00	0.10	0.30	0.00	3.5	Basalt
LEFR312	182	198	16.00	0.13	0.19	0.38	7.4	Basalt



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 637.6km² in the heart of the world class gold production area between Kalgoorlie and Norseman. The Project is near 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 Farm In and Joint Venture, and Gold Fields tenure are 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. Exploration results by the previous explorer that refers to the Burns prospect are prepared and disclosed by the Company in accordance with the JORC 2004 code. The Company confirms that is it not aware of any new information or data that materially affects the information included in this market announcement.

- Drilling Underway at Burns Au-Cu Prospect: 12 January 2021
- Drilling Update-Native copper Intersected at Burns Prospect: 2 February 2021
- Outstanding High-Grade Gold and Copper Mineralisation Intersected at Burns: 23 February 2020
- New Basalt Hosted Gold-Copper Zone Supports Large Burns Mineral System: 9 March 2021
- Exploration Update-Drilling Extends Porphyry at Burns: 26 March 2021
- Diamond Drilling Underway at the Burns Cu-Au Prospect: 21 April 2021
- Resampling of RC holes at Burns confirms and better defines recent Copper Gold intersections: 27 April 2021
- Drill Results Extend Copper Gold Zones at Burns: 29 April 2021
- Multiple Intervals of Altered Porphyry Intersected at Burns: 3 May 2021
- Burns Success Continues-55m vertical depth extension and more strong mineralisation established: 13 May 2021
- Burns Continues to Grow-deeper-wider and a new zone: 25 May 2021
- Burns 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
- Burns Update-Drill results Support Larger Cu-Au System3 November 2021
- Burns Update-Drilling Underway at Lovejoy Anomaly : 22 November 2021

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson a competent person who is a member of the Australian Institute of Geoscientists (AIG). Wade Johnson is employed by Lefroy Exploration Limited. Wade has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Wade Johnson consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears

JORC CODE, 2012 Edition-Table 1 Report – Lefroy Project – Burns Cu-Au Prospect October 2021 RC drilling program

SECTION 1: SAMPLING TECHNIQUES AND DATA

	LODC Code Employetion	C
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. 	samples. Four metre composite samples were collected from 0m to the base of transported regolith using a scoop to produce a 2-3kg sample. 1m split samples were collected from the base of transported regolith to end of hole (EOH). 1m split samples were collected directly off the drill rig cone collecter base base attached to the cyclene. The sample
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) was completed by an RC rig from Raglan Drilling (Kalgoorlie). Low air face sampling hammer drilling proved satisfactory to penetrate the regolith and reduce contamination risk.
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. 	 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. Sample recovery visually inspected and recorded by the rig geologist and sampler. Some poor sample return in the overlying transported material (0-10m) and where high-water flows were encountered in some holes intersecting deep paleochannel sands during RC drilling.
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 drill chips for regolith, lithology, structure, veining, alteration, mineralisation and recoveries recorded in each hole by qualified geologist. Analysis of rock type, colour, structure, alteration, mineralisation, 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. Magnetic susceptibility measurements were recorded and are considered to be quantitative in nature. Chip trays for each hole were 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%).

Criteria	JORC Code Explanation	Commentary
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. 	 A 4m composite sample was collected from 0m to the base of transported regolith for each hole. Sample weight 2 - 3 kg. 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. The remainder of each hole was sampled at 1m intervals directly off a rig-mounted cone splitter into separate prenumbered calico bags. Pre-numbered calico bags containing the samples were despatched to the laboratory for assay. 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 of 1 in 20 for standards and 1 in 100 for blanks. 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. 	 Veritas's Canning Vale Laboratory. Additional elements were determined 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 and sodium peroxide fusion with ICP finish. Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy and precision. At the laboratory regular assay repeats, lab standards, checks and blanks were analysed.
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 xml document 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 handheld GPS operated by the rig geologist/field assistant. The final RC collar was later surveyed by a DGPS by a third-party contractor. Down holes surveys were completed by Raglan 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 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. 	magnetite-biotite altered High Mg basalt which has been

Criteria	JORC Code Explanation	Commentary
Data spacing and distribution	• Whether sample compositing has been applied.	 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. Drill data spacing is not yet sufficient for mineral resource estimation. No compositing has been applied to assay results.
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 to South-East trending stratigraphy and sub-vertical mineralised structures. The drill orientation is an effective test of "true" width of the host rock due to the fact the host rock unit is striking roughly North-South and dipping 70° to the West. At this stage the primary controls on the hypogene coppergold (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.
Sample security	• The measures taken to ensure sample security.	 Samples were bagged in labelled and numbered calico bags, collected and personally 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. 	 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 October 2021 RC Drilling program

Drilling pro	Ť.	
Criteria Mineral tenement	JORC Code Explanation Type, reference name/number, location 	Commentary
and land tenure status	 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 southeast 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 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 dlamond 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, which comprised a total of 12 ELs. They flew S0m 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 explorat

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 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 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 an 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: 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 	 Tables containing drill hole collar, survey and intersection data for material drill holes (gold intersections >0.25gpt Au with a max of 2m internal dilution) are included in the Table in the body of the announcement. Table 1 of drill hole collars completed by Lefroy is noted in this announcement. No Information has been excluded.

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. 	 All grades have been length weighted and reported as downhole metres. High grades have not been cut. Significant Au intersections are reported if greater than 2m using a lower cut-off of 0.25gpt Au and a maximum of 2m internal dilution to identify significant results. Significant Cu intersections are reported if greater than 2m using a lower cut-off of 0.1% Cu and a maximum of 2m internal dilution to identify significant results. Where present, higher grade values are included in the intercepts table and assay values equal to or > 1.0 g/t Au have been stated on a separate line below the intercept assigned with the text 'includes'. Reported results have been calculated using 1m and 4m samples and is noted in the body of the report. No metal equivalent values or formulas are used.
Relationship	These relationships are particularly	 No metal equivalent values or formulas are used. All material results are based on down-hole metres.
between mineralisation widths and intercept lengths	 Intest 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 material results are based on down-hole metres. Previous drill coverage and structural measurements from oriented core has provided guidance for the presence of steeply dipping geology comprising a package of rocks containing basalt intruded by diorite porphyry. This data 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 cross sections 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.	 Significant assay results are provided in Table 1 for the recent LEX RC drill program. Assay results for drill holes with no significant results (<2m and <0.25g/t Au) are not reported. Reference to significant assay results from historical drilling are noted in the body of the report.
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.