Lefroy Exploration

23 December 2016

Drilling at Lucky Strike Supports and Extends Gold Trend

Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to announce the results from its inaugural exploration drilling program at the Lucky Strike Prospect in the Lefroy Gold Project, located approximately 50km to the south east of Kalgoorlie (Figure1).

The Lucky Strike Prospect, is located 2km to the north west of the Lucky Bay open pit gold mine operated by Silver Lake Resources Limited (Figure 2). The geological setting at Lucky Strike is that of an aeromagnetic high that is associated with a northwest-southeast trending sequence of carbonaceous shale, quartz porphyries and dolerite overlain by transported cover. No bedrock had been identified in the previous drilling that could account for the magnetic anomaly. The setting is considered not dissimilar to that which is host to the Lucky Bay deposit. (Gold production commenced at Lucky Bay in August 2015 based on a resource of 125,600t @ 5.4 g/t Au, for 21,600 oz).

Previous (2010) wide spaced reconnaissance geochemical drilling by Integra Mining Limited at Lucky Strike intersected a highly anomalous intersection of 22m at 2.97g/t Au in air core hole SCA 794* within a subtle 100ppb Au gold trend defined from four drill traverses.

The Company completed an early stage air core drill program at Lucky Strike in November to investigate and validate the intersection in SCA 794 (Figure 2). A program of 41 angled air core holes for 2777m were completed on eight traverses evaluating approximately 1100m of strike, that lies proximal to the interpreted position of the regional scale Mt Monger Fault The program was designed as first pass assessment with traverses at 80m or 160m apart, and holes on 40m or 80m centres.

The drilling intersected a sequence of deeply weathered (up to 110m) siltstones, shales and carbonaceous sediments, beneath approximately 14m of recent cover that masks the geology in the area, and making surficial exploration ineffective. A strongly oxidised ferruginous clay unit was intersected in multiple traverses and is interpreted to represent a banded iron rich sediment.

The results of the drilling (Table1) have successfully defined a core northwest trending zone of bedrock gold mineralisation over a 220m strike length (Figure 3), that is associated with the ferruginous unit noted above and includes the intersection in SCA794. Approximately 300m along strike to the northwest a new zone of gold mineralisation is emerging based on wide spaced drilling and centered on hole LEFA 027 which intersected **5m at 0.76g/t** Au to end of hole.

Drill holes LEFA 001 and 002 designed to validate SCA 794 were partly successful, with LEFA 001 being 40m to the east intersecting **8m at 0.60g/t** Au to end of hole, but hole LEFA 002 aimed to twin the original hole was terminated early due to hard ground (Figure 4).

The Company is very encouraged from the results of the first pass air core campaign and planning for additional air core and deeper reverse circulation (RC) drilling is underway.

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Lefroy Exploration

ARBN 052 123 930

Phone +612 8314 5580
Fax +612 8314 5555
Email info@lefroyexploration.com

www.lefroyexploration.com

Australian Registered Office:
Suite 4101, Level 41, Gateway
1 Macquarie Place
Sydney NSW 2000 Australia

Head Office:
Palm Grove House
Roadtown Tortola British Virgin Islands

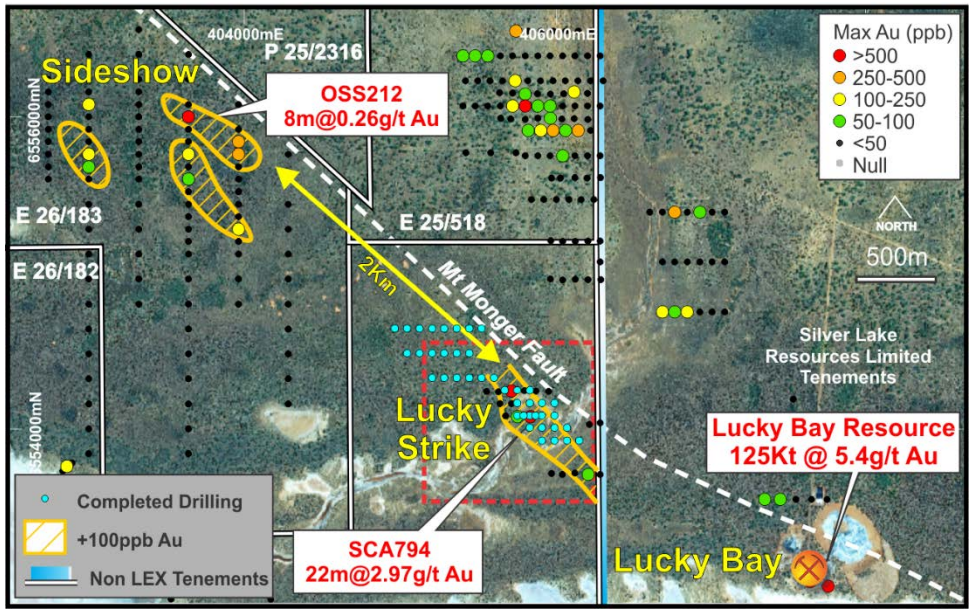

Figure 2 Location of Lucky Strike Prospect and completed air core drill holes (refer to inset map below for detail)

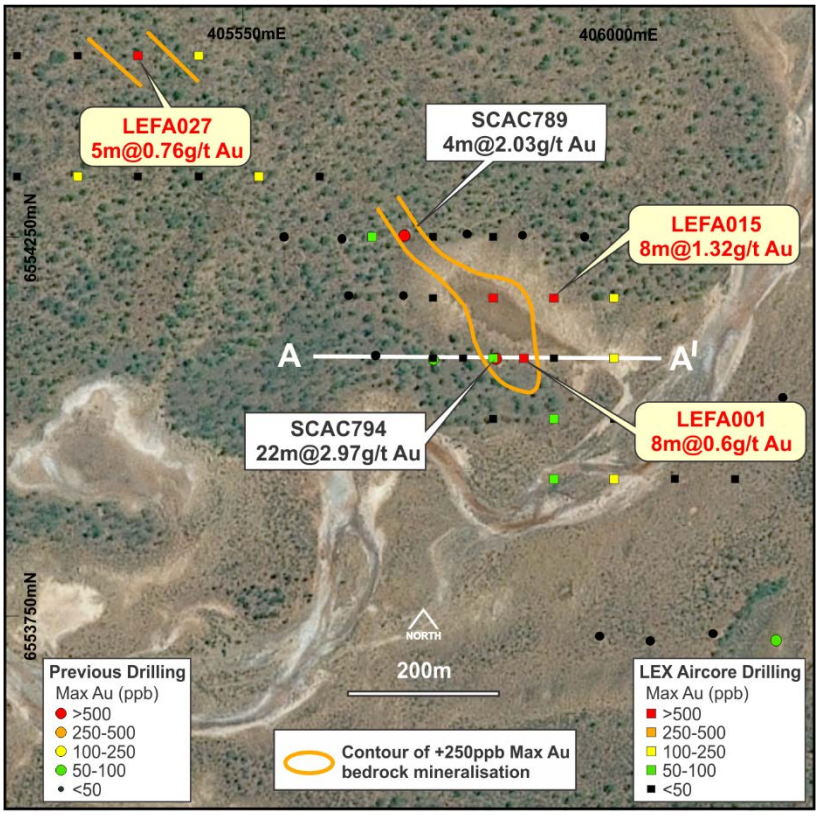

Figure 3 Inset plan of drill holes, bedrock gold anomaly and location of key drill section A-A'

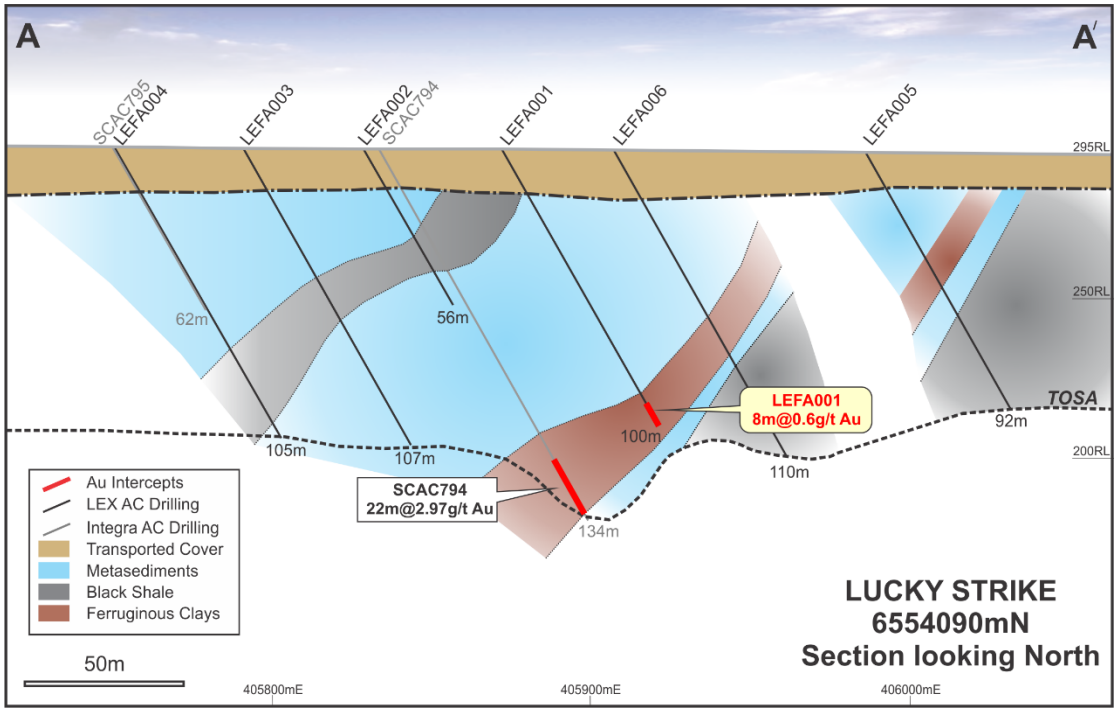

Figure 4 Lucky Strike Drill section 6554090N

Table 1: 2016 AirCore Drilling-Lefroy Project-Lucky Strike Prospect

Drill hole intersections are calculated with a 0.3gpt Au lower cut including 4m of internal dilution and minimum sample width of 4m. Samples are routinely collected as 4m composite intervals, with the last sample of each hole varying between 1-5m dependent on final hole depth. Only significant (>0.30ppmAu) intersections are shown.

Hole Id	Collar N (MGA)	Collar E (MGA)	Collar RL	Dip °	Azimuth °	Hole Depth (m)	Depth From (m)	Depth To (m)	Gold Intersection (downhole width)
LEFA001	6554087	405872	293	-60	90	102	92	100	8m @ 0.60 ppm
LEFA015	6554163	405909	293	-60	90	39	4	12	8m @ 1.32 ppm
LEFA015	6554163	405909	293	-60	90	39	20	28	8m @ 0.41 ppm
LEFA016	6554168	405826	293	-60	90	89	40	44	4m @ 0.84 ppm
LEFA027	6554490	405362	293	-60	90	117	112	117	5m @ 0.76 ppm

About Lefroy Exploration and the Lefroy Project

Lefroy Exploration is a new WA based and focused explorer. Key Projects include the Lefroy Project to the south east of Kalgoorlie and the Lake Johnston Project 110km to the west of Norseman.

The 100% owned Lefroy Project contains mainly granted tenure covering 546km^2, located 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 newly discovered Invincible gold mine located in Lake Lefroy, and is also immediately south of Silver Lake Resources' (ASX: SLR) Daisy Milano gold mining operation.

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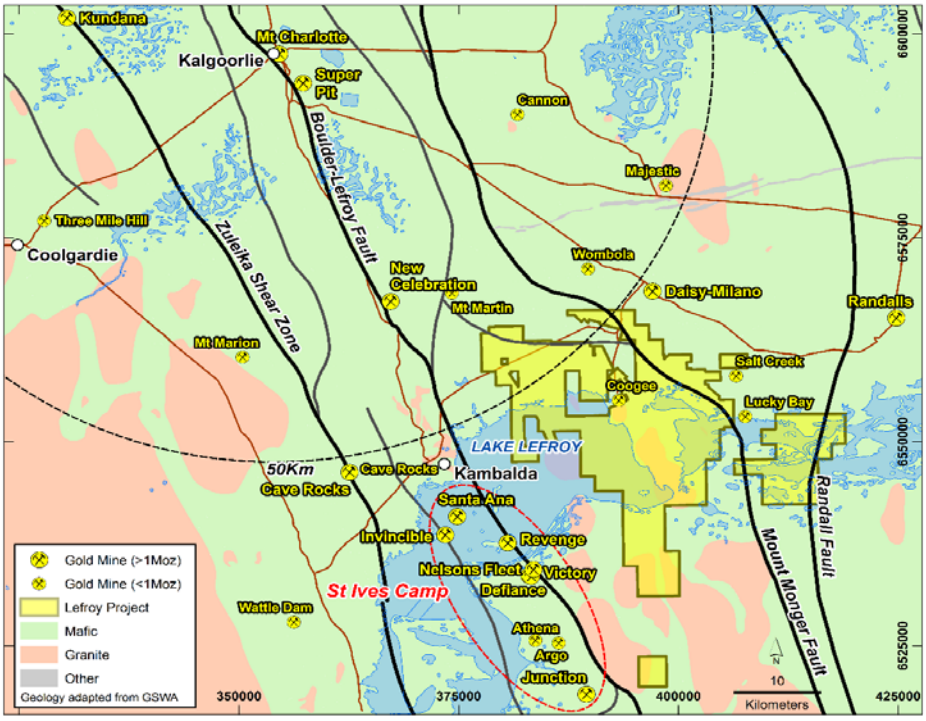

Location of the Lefroy Gold Project relative to Kalgoorlie, Gold Fields St Ives Gold Camp near Lake Lefroy, and major gold deposits

Managing Director
Wade Johnson

For Further Information please contact:
Wade Johnson
Telephone: +61 8 93205504
Email: wjohnson@lefroyex.com

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson and Geoff Pigott, both competent persons who are members of the Australasian 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. Geoff Pigott is a Non-Executive Director of Lefroy Exploration and 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. Geoff Pigott consents to the inclusion in this report of the matters based on his work in the form and context in which it appears.

*Drill hole intersection in SCA 794 reported in Lefroy Exploration Limited's Prospectus (pages 37 & 121) dated 8 September 2016

JORC CODE, 2012 Edition-Table 1 Report –Lefroy Project –Lucky Strike Prospect-as at 23 December 2016

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 AirCore (AC) drilling at the Lucky Strike Prospect. The AC program comprised 41 angled holes for 2777m, holes varying in depth from 16-120m with and average depth of 68m. All holes were drilled -60^0 to 090^0 at 80m centres on new lines, and some 40m spacing on existing drill lines. • Sampling and QAQC protocols as per industry best practice with further details below. • AC samples were collected from the cyclone at 1m intervals and laid out in rows of 10 or 20m (10-20 samples) on the ground. Composite 4m samples were then collected by scoop sampling the 1m piles with a flour scoop to produce a bulk 2-3kg sample which was sent to the Laboratory in Kalgoorlie for analysis. Samples were dried, pulverised, split to produce a 40g sample for analysis by fire assay with Au determination by Atomic Absorption Spectrometry.
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 AirCore (AC) drilling was completed by Raglan Drilling (Kalgoorlie). The AC drill bit has a diameter of 78mm and collects samples through an inner tube to reduce contamination, but also allows better penetration through any palaeochannel puggy clays and fine sands. Aircore drilling is blade refusal and hence terminates in fresh or hard material such as quartz
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 majority of the samples collected from the AC drill program were dry. Minor AC samples were wet at the base of the holes. • Sample recovery size and sample condition (dry, wet, moist) recorded. Recovery of samples estimated to be 80-100%, with some variability to 10% particularly drilling through puggy moist transported clays. • Drilling with care (eg. clearing hole at start of rod, regular cyclone cleaning) if water encountered to reduce incidence of wet – sticky sample and cross contamination. • Insufficient sample population to determine whether relationship exists between sample recovery and grade. The quality of the sample (wet, dry, low recovery) was recorded during logging.
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, mineralisation and recoveries recorded in each hole by qualified geologist. • Logging carried out by sieving 2m composite sample cuttings, washing in water and the entire hole collected in plastic chip trays for future reference. • Every hole was logged for the entire length.
Sub-sampling	• *If core, whether cut or sawn and whether quarter, half*	• No core drilling completed

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techniques and sample preparation	*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.*	• Composite samples of 4m were collected by scoop sampling 1m intervals into pre-numbered calico bags. Sample weight 2 - 3 kg. The last interval of each hole can vary between 2-5m. Collected 4m Samples placed in plastic and/or polyweave bags for despatch to assay laboratory. • The sample preparation of the AC follows industry best practice, involving oven drying, pulverising, to produce a homogenous sub sample for analysis. • Along with composite samples, standards and blanks were randomly inserted (approximately every 40 samples) and were included in the laboratory analysis. Standards were certified reference material prepared by Geostats Pty Ltd. Duplicate samples were collected at zones of interest and at irregular intervals of about 1 in every three holes.
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.*	• Samples routinely analysed for gold using the 40gram Fire Assay digest method with an AAS finish at Bureau Veritas's Perth Laboratory. A Bottom of Hole (BOH) sample was also collected but is yet to be analysed • No geophysical tools, spectrometers or hand held XRF instruments used. • Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy. At the laboratory regular assay repeats, lab standards, checks and blanks are 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.*	• The results have been reviewed by alternative company personnel and minor sampling errors identified were field checked and corrected. • LEFA 002 was planned as twin hole to validate SCA794 but was terminated early due to blade refusal in a quartz vein. • Capture of field logging is electronic using Toughbook hardware and Logchief software. Logged data is then exported as an excel spreadsheet to the Companys external database managers which will be loaded to the Company's DATASHED database and validation checks completed to ensure data accuracy. Assay files are received electronically from the laboratory by the Managing Director and filed to the companys server. • There has been no adjustment to the assay data. The primary Au field reported by the laboratory is the 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 hand held Garmin GPS with a horizontal (Easting Northing) accuracy of +-5m. Drill azimuth is set up by the supervising geologist. No downhole surveys completed. • Grid System – MGA94 Zone 51. • Topographic elevation captured by using reading from Garmin hand held GPS with an accuracy of+-10m and considered

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		suitable for the flat terrain.
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 nominal 80m centres on new in fill east west orientated drill lines with line spacing's varying from 80m to 160m. Infill drilling to 40m centres on selected locations on existing sections. • AC samples composite range 2-5m but generally 4m. No assay compositing has been applied.
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 considered effective to evaluate the northerly trending geology and regional Mt Monger Fault which has been interpreted from aeromagnetic and gravity data. Drill holes are reconnaissance and are orientated appropriately to ensure unbiased sampling of the geological trends • The AC drilling is reconnaissance in nature, being relatively wide spaced and the orientation of the gold mineralised structures intersected is yet to be confirmed.
Sample security	• *The measures taken to ensure sample security.*	• Individual composite samples were bagged in plastic bags, collected and personally delivered to the Bureau Veritas Laboratory in Kalgoorlie by the Field Supervisor. Samples were sorted and despatched to Bureau Veritas Perth laboratory. • Bureau Veritas check the samples received against the LEX submission form 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 results of this drill program were reviewed by the Senior Exploration Geologist and Managing Director, and anomalous gold intersections inspected in the field to correlate with geology. No specific site audits or reviews have been conducted.

Section 2: REPORTING OF EXPLORATION RESULTS – LEFROY PROJECT-Lucky Strike Prospects

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's Hogans Resources Pty Ltd. The work described in this report was undertaken on Exploration Licence E26/182 held 100% by 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	• *Acknowledgment and appraisal of exploration by*	• At the Lucky Strike Prospect the key

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other parties	*other parties.*	exploration in the area was by Integra Mines limited in 2010 and this drill program is well reported in a report to the Department of Mines and Petroleum WAMEX report A104013. This report clearly documents the air core drill program that resulted in the intersection in hole SCA794.
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. The project is underlain by a folded and fault bounded sequence of Archaean rocks , and in the Lucky Strike area being predominantly metasediments, and basalt. The key structural element at Lucky Strike is the north west trending Mt Monger Fault separating the mafic lithologies to the north in the Bulong domain to the metasediments to the south.
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 Competent Person should clearly explain why this is the case.*	• Table containing drill hole collar, survey, and intersection data for material (gold intersections >0.30gpt Au) drill holes are included in the Table in the body of the announcement. • No Information has been excluded. • There are historical drill holes within the Lucky Strike Prospect and these are depicted on the drill hole plan and section in the announcement.
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 report grades have been length weighted. High grades have not been cut. A lower cut off of 0.3gpt Au has been used to identify significant results. These are considered significant given the first pass reconnaissance nature of the drilling. • 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 AC results have been calculated using a minimum intercept width of 4m. Anomalous composite samples have been resampled as individual 1m intervals but results not yet received. • No metal equivalent values or formulas used.
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 results are based on down-hole metres. • Given the wide spaced reconnaissance nature of the drilling the geometry of the mineralisation reported is not sufficiently known and the true width is not known
Diagrams	• *Appropriate maps and sections (with scales) and*	• Appropriate summary diagrams (section &

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	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.	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.*	• Significant assay results are provided in Table 1 for the recent LEX drill program. • Drill holes with no significant results are not reported. • 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.*	• Follow up Reverse Circulation drilling is being considered for the Lucky Strike Prospect to allow a deeper testing of the mineralisation defined by the air core drilling. Additional air core drilling is also considered to further evaluate the new anomaly along strike to the north west.