

22 November 2016

## Gravity Survey Enhances Lake Lefroy Geological Model to Advance Exploration

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce the completion of an extensive detailed ground gravity survey over tenements at the Lefroy Gold Project, located approximately 50km to the south east of Kalgoorlie ( Figure1).

The gravity survey captured new data points on a regular 400m by 100m grid pattern on its tenements that cover the eastern half of Lake Lefroy (Figure 2). An Infill survey on a 200m by 100m grid pattern was completed over a priority area after recognition of emerging geological trends from interpretation of the wider spaced survey data. The Company is utilising the low cost geophysical data as the first stage tool to prioritise and conduct exploration on Lake Lefroy. This new data complements and merges with the Company’s existing detailed gravity dataset over the remainder of the Lefroy Project, a first for the Project, and giving the Company a unique advantage to advance the geological model in this area and generate new targets for future drill testing.

Preliminary processing ( Figure 2) of the newly captured dataset has revealed for the first time new geological trends beneath the eastern part of Lake Lefroy, and importantly the Zanex prospect lies on the margin of one of these trends.

The Company has commenced the processing of this new data with its existing detailed gravity database over the Lefroy Project and interrogating with previously acquired aeromagnetic data to develop a new geological interpretation beneath the transported cover within Lake Lefroy. Determination of targets considered prospective for gold mineralisation identified from this generative work program is due to be completed in December with targets prioritised for initial drill evaluation in early 2017.

### 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 540km<sup>2</sup>, 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 (Figure1).

**ENDS**

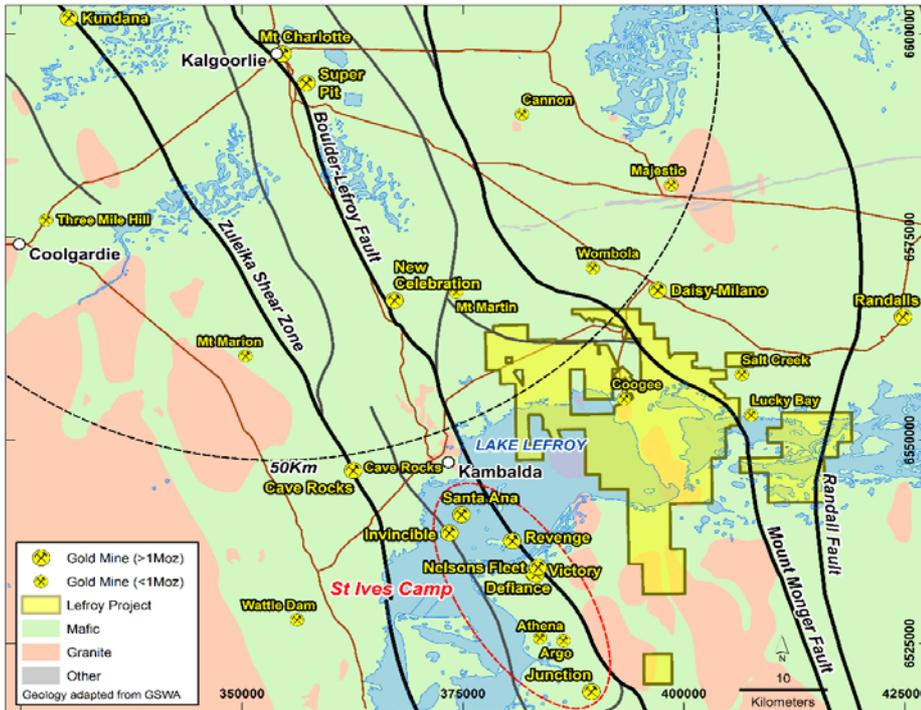
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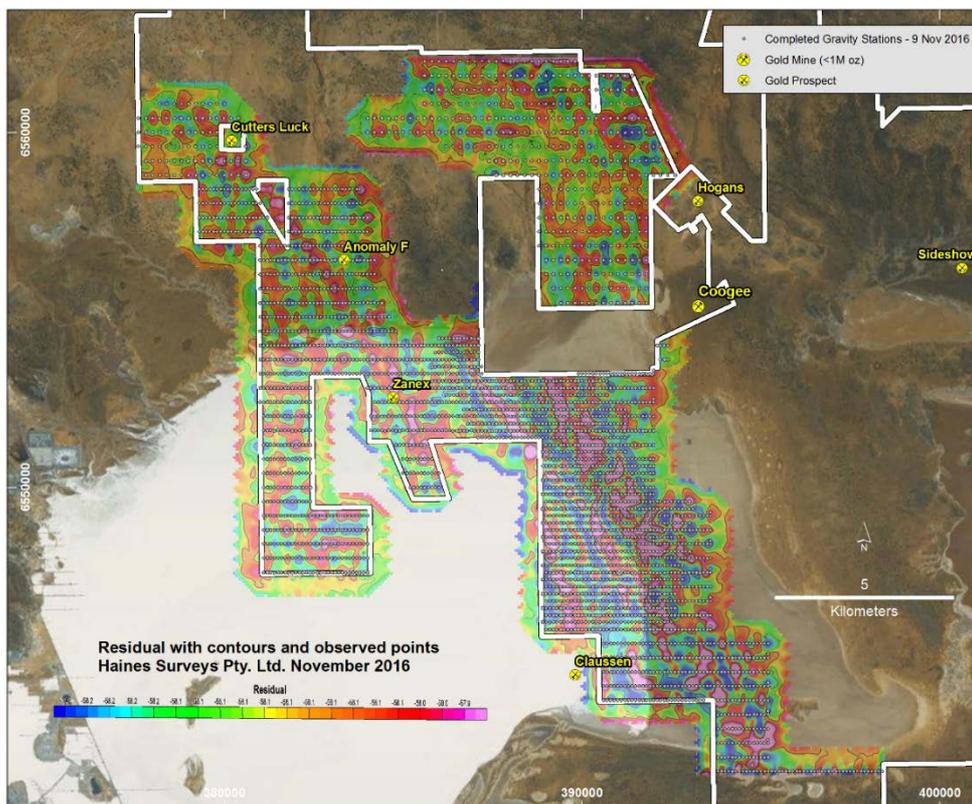
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**Figure 1** Location of the Lefroy Gold Project relative to Kalgoorlie, Gold Fields St Ives Gold Camp near Lake Lefroy, and major gold deposits.



**Figure 2** Inset map showing preliminary residual gravity image and completed gravity stations within and near Lake Lefroy

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*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.*

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**JORC CODE, 2012 Edition-Table 1 Report – LEFROY Project-Lake Lefroy Gravity Survey**  
**22 November 2016**

**SECTION 1: SAMPLING TECHNIQUES AND DATA**

<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>No drilling undertaken</p>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>

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Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> <li>Gravity survey stations observed using GDA94datum</li> <li>Grid set out using real time kinematic GPS accuracy with 5cm vertical and horizontal accuracy.</li> <li>Trig stations and heights of benchmarks in close proximity used to establish control.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	No drilling undertaken
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	N No drilling undertaken
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No drilling undertaken

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## Section 2: REPORTING OF EXPLORATION RESULTS – LEFROY PROJECT-Lake Lefroy Gravity Survey

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Lefroy Project is located approximately 50km in a south easterly direction from Kalgoorlie, Western Australia and consists of a contiguous package of tenements.</li> <li>The tenements are current and in good standing with the Department of Mines and Petroleum (DMP) of Western Australia.</li> <li>The gravity survey was completed in tenements held or beneficially held by Lefroy Exploration Limited. Tenement E15/1447 has been acquired by LEX from Montezuma Mining Company (MZM) and transfer of title to LEX is in process.</li> <li>Full tenement details are listed in the Independent Solicitors Report attached to the Lefroy Exploration Limited Prospectus dated September 2016</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No previous gravity surveys have been conducted in the tenements</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The geology of the Lefroy Project is well documented in the Independent Geologists report contained within the Lefroy Exploration Limited Prospectus dated 6 September 2016
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	No drill hole information presented
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling completed nor presented</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>No drilling completed nor presented</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should</li> </ul>	<ul style="list-style-type: none"> <li>Diagrams are included in the release and are also in the LEX prospectus within the Independent Geologist's Report</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	No drilling completed nor presented
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Supporting exploration data are included within the announcement and are detailed in the Lefroy Exploration Limited prospectus dated 6 September 2016 within the Independent Geologist's Report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further work has been noted in the body of the announcement. This will involve processing of the gravity data and subsequent geophysical interpretation.</li> </ul>

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