Lefroy Resources Limited

ACN 107 118 673

QUARTERLY ACTIVITY REPORT
FOR THE PERIOD ENDED 31 DECEMBER 2006

Highlights

- **Ore evaluation drilling was completed at the 274,000oz Pinafore Reef during the December Quarter, with a 2,200 kilogram bulk sample submitted for metallurgical testing.**
- **Orientation RC and diamond drilling completed during the Quarter has returned anomalous results at several prospects within the 100% owned Lefroy Goldfield, north east Tasmania.**
- **Appointment of Corporate & Resource Consultants Pty Ltd (CRC) as technical consultants for new project evaluation to identify assets for acquisition.**
- **A placement to CRC to raise $600,000 to be used for project evaluation.**
- **In addition to the placement the Company offered its shareholders a non-renounceable entitlement issue of one option for every two shares held.**
- **At the end of the December Quarter the Company had a cash balance of $7.58 million.**

Exploration Completed

Since the Company commenced the 2006/2007 Exploration Field Season in September 2006, 43 RC drill holes for 4,436 metres and 5 diamond holes for 833 metres have been completed at selected reef targets within the Lefroy Goldfield.

A bulk sample of ore material derived from close spaced drilling at the Pinafore Reef was collected. In addition newly discovered mineralisation at the Pinafore South Reef was tested and the largely untested Chum Reef was drilled. These three parallel mineralised structures are located approximately 140 metres apart and form the Pinafore Project Area (below), part of which falls into the 274,000oz Au Pinafore Inferred Resource (ASX Announcement 10 October 2006).

Interpretation of previous drilling undertaken at the Native Youth Prospect, located near the centre of the Lefroy Goldfield, produced a number of high priority targets at the nearby historic Morning Star, Nugget and Hit or Miss Reefs. Drilling targeted potential mineralised "splays" propagating from the main reef systems.

Orientation drilling was also conducted along Land O' Cakes lines of Reef targeting the primary mineralised structures indicated by historic mining activity.

Metallurgical Bulk Sampling

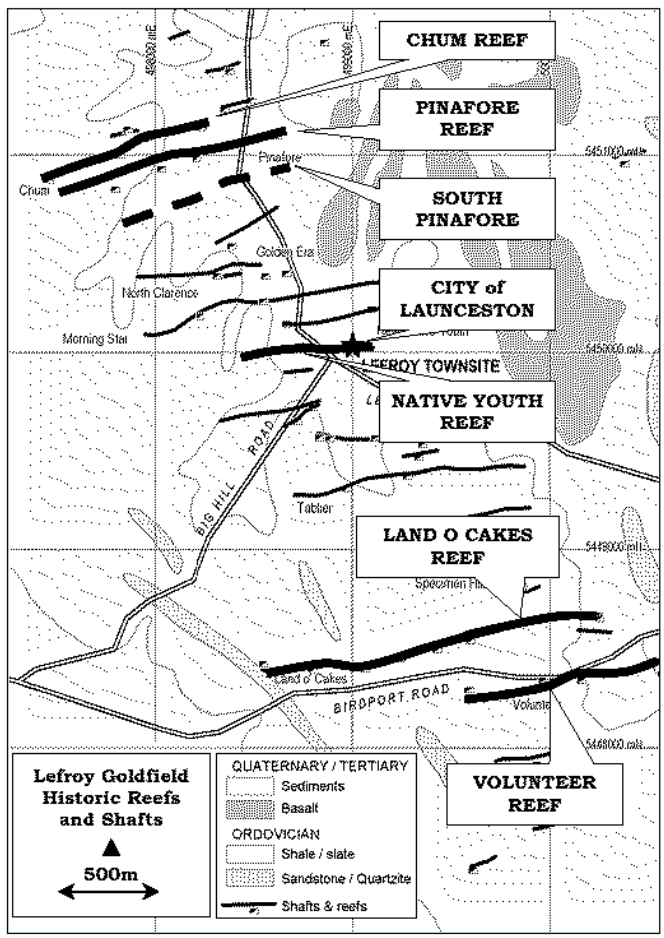
Preliminary metallurgical testing conducted in 2005 indicated that easily recoverable gravity gold may account for 85% of total gold at the Pinafore Reef; at the Beaconsfield Mine located 20 kilometres away, gravity gold accounts for around 53%, with bac-ox and leach gold forming the remainder.

Ore evaluation drilling was completed during the Quarter, designed to allow bulk metallurgical testing to be done. Holes were drilled "down-dip" of the "lode" to collect long intercepts into mineralised rock at the Pinafore Inferred Resource. A series of closely spaced RC drill holes were completed up and down dip of LFC087 (27m @ 4.27 including 2m @ 28.21 g/t Au) to provide information in respect to lode geometry, tenure and to gain a better understanding of the gold deportment at Lefroy. Data will hopefully be used to quantify the "nugget" effect that may be contributing to an underestimation of grade.

Approximately 2,200 kilograms of material has been submitted to Gekko Systems in Victoria for gravity gold characterisation. Results are pending.

Pinafore Prospect Area

The Pinafore Reef is one the largest historically mined reefs in the Lefroy Goldfield. It was mined prior to 1900 for approximately 60,000oz of gold at grades averaging approximately 25g/t. Resource estimation work completed by the Company reported a JORC Inferred Resource of 274,000oz Au (ASX Announcement 10 October 2006) at the Reef.



At Chum, 7 RC holes for 1,007 metres have been completed. These holes were designed to test for continuity of mineralisation below the Chum workings. The Chum lode is located approximately 130 metres north of the Pinafore Inferred Resource.

Drilling has confirmed that the mineralised structure is present below the historical mine. Knowledge of the mineralisation controls gained from drilling at the nearby Pinafore Lode suggests that there is good potential for high grade mineralisation remaining at the Chum Reef.

Interpretation of the results is in progress.

A small program of combined RC and Diamond drilling (5 holes for 832 metres) at the newly discovered South Pinafore Lode, located 130m south of Pinafore has been completed. This drilling targeted the possible extension of shallow mineralisation intersected in LFD101 (2m @ 14.5g/t Au) announced in 2006 (ASX Announcement 10 October 2006). No significant mineralisation has been received from this drilling substantially downgrade the South Pinafore target.

Land O' Cakes Prospect

The Land O' Cakes line of workings is one of the many historic mines at Lefroy, having produced approximately 11,982oz Au from 26,618 tonnes of ore. The recovered grade was approximately 14g/t Au, with mining progressing to a depth of approximately 46 metres. The line of reef can be traced for approximately one kilometre, and is located approximately 1.5 kilometres south of the Lefroy Township. The mined "lode" strikes east-west for approximately 400 metres.

A single drill hole completed in 2005 by the Company returned broad zones of anomalism (11m @ 0.54g/t Au from 30m and 49m @ 0.51g/t Au from 49m, 0.2g/t Au lower cut off) within well developed zones of alteration. At this time additional drilling was not possible due to access difficulties.

Track mounting of the rig in 2006 allowed orientation RC drilling to be completed during the Quarter. 6 RC drill holes for 870 metres were completed, intersecting significant broad zones of gold anomalism. Given the broad drill spacing and the width of mineralisation encountered it is likely that high-grade primary reef material may be present, warranting further exploration. Best assay results selected from these zones are as follows:

Hole ID	*Easting	*Northing	Dip/ Azimuth	From	To	Interval	**Au g/t
LFC122	499125	5448614	-60/000	15	20	**5**	**1.58**
LFC123	499118	5448605	-60/000	33	41	**8**	**1.88**
LFC123	499118	5448605	-60/000	48	53	**5**	**1.04**

*Coordinates in GDA 94, UTM Zone 55
**Cut off grade 1.00g/t, max 2m consecutive internal dilution
**Analysis by screen fire assay

Native Youth Prospect Area

Orientation and follow-up drilling was conducted at several historic reefs at and adjacent to the Native Youth Reef, within the central portion of the Lefroy Goldfield. A series of RC holes were drilled approximately 300 metres along strike (east) of the Morning Star workings, successfully intersecting highly favourable quartz sulphide veining at shallow depths, substantially increasing the potential of the Morning Star Reef. Targeted drilling at the Native Youth intersected the mineralised structure but unfortunately failed to intersect high grade mineralisation. Interpretation of the results is ongoing.

Assay results are pending.

Corporate

Appointment of Technical Consultant and Placement

In November the Company announced the appointment of Corporate & Resource Consultants Pty Ltd ("CRC") as Technical Consultants to the Company (ASX Announcement, 22 November 2006). CRC agreed to subscribe to a placement for 3,000,000 shares and 3,000,000 attaching options (25 cents June 2009) to raise $600,000. The funds raised will be used to carrying out specific project evaluation and due diligence.

The primary function of CRC will be to identify quality assets for acquisition by the Company. The relationship will be managed by Mr. Klaus Eckhof (MAusIMM), a senior exploration geologist who has global contacts and has been instrumental in sourcing successful projects in Australia, Africa, Russia, South America and the Philippines.

In addition to the placement above, the Company offered to its shareholders a non-renounceable entitlement issue of one (1) Option for every (2) Shares held by Shareholders at an issue price of 1 cent per option. The options are exercisable at 25 cents per option on or before 30 June 2009. The Prospectus was lodged with both the Australian Securities and Investments Commission and the Australian Stock Exchange on 19 December 2006 and sent to shareholders in Australia and New Zealand on 4 January 2007.

The closing date of the Offer was 18 January 2007.

Financial Position

At the end of the Quarter the Company had a cash balance of $7.58 million.

For further details contact

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by John Canaris who is a Member of the Australian Institute of Geoscientists. Mr. John Canaris is a full-time employee of the Company. Mr. Canaris has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Canaris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.