
**QUARTERLY ACTIVITY REPORT
FOR THE PERIOD ENDED 30 SEPTEMBER 2006**

Highlights

- **The Company commenced its third exploration field season at the 100% owned Lefroy Goldfield in north east Tasmania.**
- **Deep drilling operations at the Pinafore Reef were undertaken, and the rig modified (track mounted) to allow the 2006/07 drilling field season to commence without delay.**
- **Resource estimation work was successfully completed on near-surface remnant mineralisation encountered at the Pinafore Reef in the 2005/06 field season.**
- **At the end of the September Quarter the Company had a cash balance of \$7.514 million.**

2006/07 Exploration Program Commenced

The conversion of the combined drilling-rig from wheel to track-base has allowed the Company to commence the 2006/07 exploration season early; the winter months are traditionally a time of restricted exploration in Tasmania.

Drilling recommenced on the 4th of September firstly targeting potential “companion” lodes to the Pinafore Resource. To this end, drilling is in progress at the Chum Reef (historical production 46,000oz Au to 110 metres depth) and the newly discovered South Pinafore Lode (ASX Announcement, 10 October 2006). The South Pinafore and Chum Reefs are spatially located approximately 135m north and south of the Pinafore Reef respectively.

The untested Chum and South Pinafore “companion” reef structures demonstrate the potential for material to be brought into a resource through limited drilling at the Goldfield.

A series of close spaced bulk sample holes have also been drilled at the Pinafore Reef. These holes have been drilled up and down dip of LFC087 (27m @ 4.27 including 2m @ 28.21 g/t Au) to providing information in respect to lode geometry, tenure and metallurgical characteristics of the Pinafore mineralisation.

Interpretation of previous drilling undertaken at the Native Youth prospect, located in the centre of the Lefroy Goldfield, has produced a number of high priority targets scheduled to be tested. A number of companion reefs (Morning Star, Nugget, Hit or Miss) will also be drilled whilst the rig is in the area. A series of additional holes have been planned at the Volunteer Reef. Drilling conducted earlier this year encountered drilling difficulties and failed to adequately assess the potential of the lode.

A regional exploration program aimed at diversifying exploration risk is incorporated, which will see activity at the Denison Goldfield to the east of the Company’s land package.

Exploration Strategy

Geological modeling completed in the previous Quarter was incorporated into a risk-based exploration strategy for the Company. The geological model empirically defines likely mineralised targets by integrating drill hole logging, geochemistry and alteration to produce a coherent and repeatable picture for the entire Lefroy Goldfield.

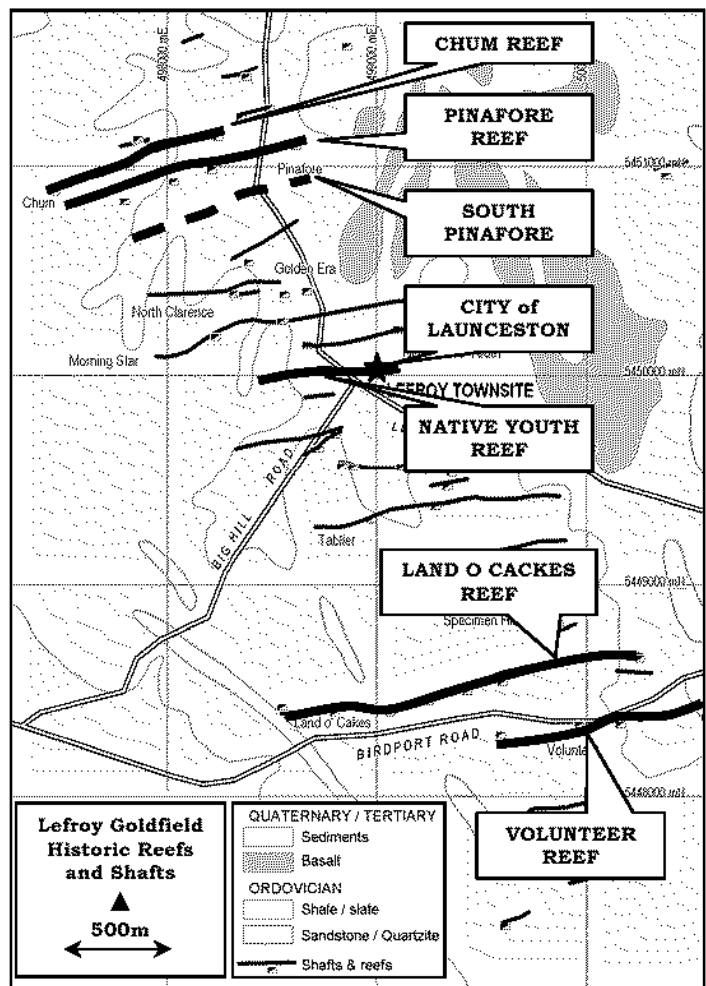
The main criteria used for determining targets are the orientation of the historical drives, the presence of sedimentary contacts between units of substantial thickness (>3m), and characteristic alteration patterns. Risk ranking of the developed exploration strategy generated a number of key bench marks that aim at reducing the risk profile of the exploration strategy and hence minimise expenditure and maximise return.

The primary goal of the current exploration strategy is to realize the full potential of the Goldfield, by reclassifying as much of the 1.3Moz Exploration Potential (ASX Announcement, November 2005) into JORC-compliant resource categories as possible.

2005/06 Drilling Completed

Since the Company commenced its 2005/06 exploration field season in November 2005, approximately 5,200 metres of RC and 3,700 metres of diamond drilling have been completed at the Pinafore, Chum, Native Youth and Volunteer Reefs. Much of this drilling targeted near surface remnant mineralisation proximal to the historical mine workings at Pinafore. In addition RC drilling designed to produce a bulk sample ore material suitable for metallurgical test work was completed at the Pinafore Project Area. Orientation drilling was also conducted at the Native Youth and Chum lines of Reef, and a single hole was drilled (and abandoned) at the Volunteer Reef.

In addition, deep targeted drilling was completed at the Pinafore Reef, successfully intersecting the Pinafore Lode at depth (ASX Announcement 10 October 2006) supporting the Company's predictive model for mineralisation - that mineralisation extends to depth well below the base of historic activity (details to be included in the December Quarterly Operations Report).



The track mounted G&K 850 rig was mobilised on site on the 4th of September to commence the 2006/07 targeted drill program.

Resource Estimation Work

Pinafore Reef Resource Upgrade

Drilling completed in the previous Quarter successfully targeted near-surface high-grade remnant mineralisation, and encountered visible gold proximal to the historical mine workings at Pinafore Reef. These new zones were outside the Company's initial 225,000 ounce Inferred Resource for the Prospect, and included resource estimation work successfully completed during the Quarter (ASX Announcement 10 October 2006).

The Pinafore Reef is one of 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 last year reported an Inferred Resource of 225,000 ounces of gold at the Reef (ASX Announcement, November 2005).

Tailings Stockpile Resource Estimation

In addition a tailings stockpile, located on the Company's mining lease (16M/1991) approximately 3.5 kilometres north of the Pinafore Reef was sampled and measured for a resource estimate. The stockpile is comprised of old battery sands and tailings trucked to the site from the Lefroy Goldfield in the mid 1980's. Processing trials failed to recover the gold due to the sulphidic nature of the bulk ore.

A total of 41 test pits were excavated and sampled at selected locations on the stockpile. Survey data was collected at various points over the stockpile and used to complete a volumetric calculation for inclusion in a resource estimate (ASX Announcement 10 October 2006).

Corporate

Issued Capital and Financial Position

Lefroy Resources Limited has 59,112,501 ordinary shares on issue.

At the end of the Quarter the Company had a cash balance of \$7.514 million.

For further details contact

John Canaris
Chief Executive Officer
Lefroy Resources Limited
ACN 107 118 678
278 Barker Road
Subiaco WA 6008
Ph: (08) 9382 8711
Fax: (08) 9382 8722
john@leeroyresources.com.au

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.