
ANNOUNCEMENT
10 October, 2006

**New Gold Reef Discovered During Deep Drilling,
Mineralised Structures Confirmed at Depth,
Lefroy Goldfield, NE Tasmania****HIGHLIGHTS**

Lefroy Resources Limited (the Company) is pleased to announce the discovery of a potential new "gold lode" within its 100% owned Lefroy Goldfield Project Area, NE Tasmania.

- Despite being less than 150 metres south from the historic Pinafore Reef, the new lode is obscured by basalt and was therefore never found by early prospectors.
- The new reef, intersected in an RC pre-collar for deep diamond drilling, reported a two metre zone of high-grade quartz-sulphide veining and gold mineralisation (results below).
- This new discovery further highlights the potential for adjacent mineralised structures to be brought into the Pinafore Inferred Resource (274,345oz Au) through further drilling.
- Deep drilling has also re-confirmed that fluid-flow associated with mineralisation is undiminished at depth, and shows many of characteristics of the shallower mineralisation at the Pinafore Reef.

New Lode – South Pinafore							
Hole ID	*Easting	*Northing	Dip/ Azimuth	From	To	Interval	Au g/t**
LFD101	498693	5451016	-67/350	101	103	2	14.5

*Coordinates in GDA 94, UTM Zone 55 grid system

**Cut off grade 1.00g/t, max 2m consecutive internal dilution

**Analysis by repeat fire assay

SUMMARY OF DRILL RESULTS

Diamond holes LFD100 & 101 targeted the interpreted depth extensions of the Pinafore Reef. Both of these holes successfully intersected the depth continuity of the shear structures hosting high-grade mineralisation in the upper levels.

The new lode was intersected in an RC pre-collar for one of the deep diamond holes (LFD101). The new lode is characterised by a 2 metre zone of high-grade quartz-sulphide veining surrounded by a broader alteration zone of anomalous gold (results above).

Both drill holes (and associated wedges) have been interpreted to have intersected gold hosting shear structures at the projected pierce points on the Pinafore Reef, reconfirming that the mineralised structure(s) at the Pinafore persist below the 300 metre level. Anomalous gold assay grades have been reported from both holes, with best results as follows:

DEEP DRILLING HIGHLIGHTS

Hole ID	*Easting	*Northing	Dip/ Azimuth	From	To	Interval	Au g/t**
LFD100	498445	5450820	-67/350	393.2	395.6	2.4	1.02
LFD100a	498445	5450820	-67/350	392	394	2	2.53***
LFD101	498693	5451016	-67/350	261	262	1	0.64
LFD101	498693	5451016	-67/350	101	103	1	0.42
LFD101a	498693	5451016	-67/350	353	354	1	0.68***

*Coordinates in GDA 94, UTM Zone 55 grid system

**Cut off grade 1.00g/t, max 2m consecutive internal dilution

**Analysis by repeat fire assay

*** Wedge samples (NQ core) located approx. 1m off hole from parent sample (HQ core)

LFD100 intersected 2.6 metres of mineralisation between 393.2 and 395.8 metres, comprised of quartz stock-work veined sandstone within a zone of strong faulting. Bleaching and veining occurs well into the footwall and is present within sandstones in the hanging. The wedge sample LFD100a is located approximately 1m off-hole from the intersection in LFD100.

LFD101 intersected 7 metres of disseminated arsenopyrite and pyrite associated with a zone of intense shearing between 255.5 and 262.6 metres, and seven metres of mineralisation between 347 and 354 metres, comprised mainly of strongly bleached sandstone with disseminated arsenopyrite and pyrite.

The mineralised intercepts were very similar in character from near surface mineralisation at the Pinafore and the wide zones of alteration indicate fluid flow associated with mineralisation is undiminished at depth.

Testing has shown that high-grade gold mineralisation at Lefroy is “nuggetty” and therefore quantification of gold grades by drilling is often difficult. It has been demonstrated that “drilled grades” typically under-represent actual or “bulk grades” in this type of nuggetty gold system. This statistical effect is further exasperated with diamond drilling, due to the smaller sample recovery than RC drilling.

This under-reporting of grade is not unique to Lefroy, and shared by other lode-style gold deposits such as Beaconsfield and the Victorian (Bendigo, Ballarat, Castlemaine) lode-style deposits. **In this context, deeper diamond drilling is generally used to prove structural continuity rather than an estimation of grade.**

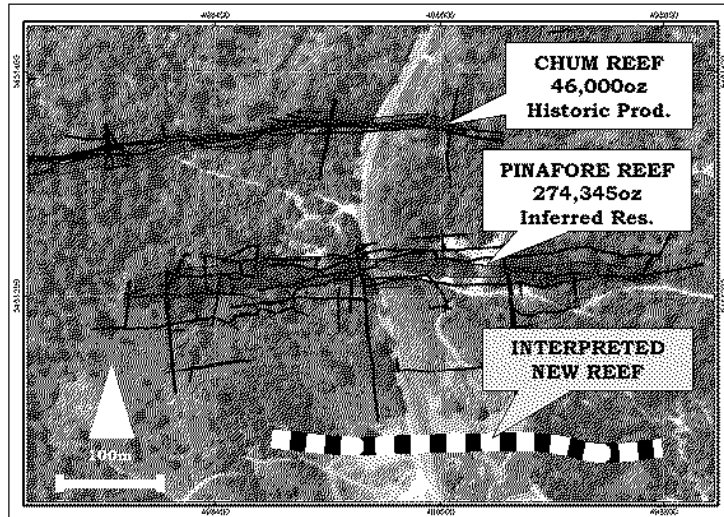
SUMMARY

Historic prospecting at the Lefroy Goldfield was limited to rudimentary surface testing prior to 1900, thereby only identifying gold reefs expressed at surface. Basaltic lava flows are common in the area and often obscure surface geology. The new "gold lode" intersected in RC pre-collar LFD101 was obscured by basalt and therefore never discovered by early prospecting.

The discovery significantly raises the overall prospectivity of the Pinafore Project Area. The short distance (150 metres) of the new reef from the Company's existing 274,345oz gold Inferred Resource (ASX Announcement 4 October) demonstrates the potential for the Pinafore Inferred Resource to be substantially built on through additional drilling.

In addition, deep diamond drilling has reconfirmed that the gold-forming processes that emplaced high-grade material near surface persist at depth, and the gold-bearing fluid-flow associated with mineralisation is undiminished.

2006 EXPLORATION PROGRAM



These results highlight the undiscovered potential that exists at Lefroy, and the Company is confident that its 274,345oz Inferred Resource will be quickly built on through targeted drilling. To this end, an aggressive risk-based Exploration Strategy has been implemented for the 2007 exploration year. The primary goal of the program is to reclassify as much as possible of the 1.3Moz Exploration Potential assigned to the Lefroy Goldfield into a JORC-Compliant resource category.

John Canaris
Chief Executive Officer
Lefroy Resources Limited
278 Barker Road
Subiaco WA 6008
Ph: (08) 9382 8711

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. John Canaris is a full-time employee of the Company. John 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". John Canaris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.